

4ESS / APS
OM-4A001-01

TITLE: 4ESS™ / APS Output Manual Quarterly Update Package
User's Instructions

This package contains the output message changes for Issue 9.4 (Complement to Generic 4E27 Release 2). These messages should be incorporated in the main 4ESS™ / APS Output Message Manual (OM-4A001-01).

The table below lists output messages and other manual items that have changed since the last issue of this manual. Each volume of the manual is listed with the accompanying changed messages for that volume.

Both feature specific as well as other changed messages are included in this update. Check for a "Yes" in the Feature Specific column in the table to determine if the message is feature related. If you need to see how to use these messages, please refer to the User Guidelines section in the main Output Message Manual.

If you notice any errors in this manual, please contact us by using the Error Reporting Form included in this package.

Thank you.

The following messages should be added, deleted, or replaced in the OM-4A001-01 Output Manual:

Description or Message ID	Add, Delete, Replace	Feature Specific
Volume 2		
TAB REPT (a)		
REPT:AMA-CONFIG	Replace	Yes

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Lucent Technologies
Bell Labs Innovations



4ESSTM/APS Switch

Output Messages

Volume 1

ABORT - DUMP

OM-4A001-01
Issue 9.4
July 2002

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4ESS™/APS OUTPUT MESSAGES

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SECTION 1

INTRODUCTION

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4ESS / APS
OM-4A001-01

INTRODUCTION

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Issue 9.4
July 2002

SECTION 1

INTRODUCTION

1.1 PURPOSE

The 4ESS™ / APS Output Message Document describes the messages that are printed through the Attached Processor System (APS) output channels when the APS is used with the 4ESS™ Switch. It is designed, together with the 4ESS™ / APS Input Message Document (IM-4A001-01), as a reference for work center personnel and support groups whose applications communicate with the APS.

The APS consists of two Attached Processor Interfaces (APIs) and a 3B20D computer. The APIs provide a communication path between the 1B processor and the 3B computer. The 3B computer is maintained by its UNIX® RTR Operating System.

The messages in Issue 9.4 of this document represent complete documentation for the generic releases 4AP12 and later.

1.2 LUCENT TECHNOLOGIES

As a result of the AT&T divestiture, the AT&T Network Systems division becomes Lucent Technologies, a separate and independent corporation. The 4ESS™ / APS switch, and many other network and transmission products become products of Lucent Technologies. The marketing, sales, engineering, delivery, installation, support, and future development of these products will be provided by Lucent Technologies.

Therefore, the corporate name and logo on this document are being changed from the AT&T brand to the new Lucent Technologies brand. The AT&T name is being removed from the cover, spine, title page, content (where appropriate) as well as the 9-digit document order number.

All modules of this document are not being reissued to make these changes. Instead, the pages will be reissued over a period of time as technical and other changes are required. Customers on standing order for this document, as of this publication, will see references to the AT&T name on previous-issue pages. Customers receiving new orders for this document will see the references changed to the Lucent Technologies name throughout the document as appropriate. Exceptions may exist in software-driven elements such as Input/Output messages, recent change screens, Master Control Complex (MCC) screens, etc.. These elements will not be changed in this document until such time as they are changed in the software code.

Document updates will not be made specifically to remove historical references to AT&T, especially in cases where the Network Systems division of AT&T, now Lucent Technologies, provided the product or service in question.

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1.3 ORGANIZATION

The 4ESS™ / APS Output Message document describes the messages available on the Attached Processor System Output channels.

- The **INTRODUCTION** section explains the purpose of the document and the organization of material presented. It also contains a brief overview of output message functions and discusses the documentation management system used in producing this document.
- The **USER GUIDELINES** section contains instructional information to guide the user in interpreting message formats and descriptions. It deals with the structure of output messages, variety of formats they use and the organization and content of the message descriptions.
- The **INDEX** section is an alphabetical output message index, by action verb and identification field. It may be used as a guide for selecting specific messages described in the OUTPUT MESSAGES section.
- The **OUTPUT MESSAGES** section contains the message documentation, presented in alphabetical order by message name. Individual descriptions are grouped according to the action verb in the message name.

1.4 OUTPUT MESSAGE FUNCTIONS

The 4ESS™ / APS output messages documented here are generated in response to an input message or to conditions in the system that require user notification.

Because of the variety of formats found in output messages (they may contain from one to hundreds of lines of output), it is important to know the different forms these messages can take and the kinds of data they contain. The user should be thoroughly familiar with the rules of structure (message fields) discussed in the **USER GUIDELINES** section. Particular attention should be given to the priority-of-action field; this field gives the importance of the message and, thus, the urgency of action to be taken.

1.5 DOCUMENTATION MANAGEMENT

This document and its related input message document represent the first phase of a computer-aided system for managing the documentation of input and output messages. The system consists of a database containing the message documentation, and software to help maintain and update the information in the database. Four categories of key data (see the **USER GUIDELINES** section) are used to link each message to the processing software for selective retrieval.

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Several interrelated goals have been established for the documentation management system:

- Increase the accuracy of user documentation.
- Speed the availability of updates.
- Improve the readability of the message-format presentation.
- Simplify output of complete or selected message documents (e.g., by application or generic).

Initially, the message database will be accessed only by documentation specialists responsible for the output, correction, and update of the message documentation. A later goal is to provide direct user access to the database for retrieving selected message parts or fully formatted printouts of completed message text.

1.6 ERROR REPORTING PROCEDURES

User reporting of documentation errors is an important element in the effectiveness of the documentation management system. Users are encouraged to report any errors encountered, and to suggest changes or additions that would make the documentation more usable or more complete.

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OUTPUT MESSAGE USER GUIDELINES
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OM-4A001-01

USER GUIDELINES

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SECTION 2

OUTPUT MESSAGE USER GUIDELINES

2.1 INTRODUCTION

When interpreting 4ESS™ / APS output messages, certain rules of structure and format are important to remember. All messages displayed by the system contain certain fields that are printed in a prescribed order. This arrangement of output message information creates the message structure. Within the message structure is the body of the message, which can be presented in various ways for documentation purposes. The way in which it is presented is referred to as the message format.

This section contains a description of the output message structure fields and guidelines for using the individual message format interpretations presented in the OUTPUT MESSAGES section.

2.2 OUTPUT MESSAGE STRUCTURE

The messages output from the 4ESS™ / APS switch follow a defined structure. This structure is summarized here.

2.2.1 Message Fields

When an output message is printed by the system, it is displayed within a prescribed structure consisting of several *fields* of information. The following example shows how an output message might look when displayed.

```
A 59 RMV CU 0 ABORTED 1  
01/01/00 10:59:30 #46
```

The preceding message contains five fields, which are interpreted as follows:

A	= Priority of action
59	= Abbreviated time
RMV CU 0 ABORTED 1	= Body of message
01/01/00 10:59:30	= Optional date and full time
#46	= Optional sequence number

Except for the optional data, these fields are present in most output messages. They will always be printed in the order shown.

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2.2.2 Explanation of Message Fields

Each of the five message fields conveys a specific type of information.

- *Priority of Action Field* - Indicates the urgency of action required in response to the message and whether it is generated with an audible alarm. The characters or blanks printed by the system are interpreted as follows:

Printed Characters	Priority	Alarm/Nonalarm Action
*C	Critical	Accompanied by a critical alarm. Immediate action required.
* *	Major	Accompanied by a major alarm. Immediate action required.
* *	Power Failure	Accompanied by a major alarm. Immediate action required.
*	Minor	Accompanied by a continuous minor alarm. Action required.
*	Spurt Minor	Accompanied by a spurt minor alarm. Action required.
M	Manual	Response to a manual request.
A	Action	Automatically generated. Action may be required.
	Information	Gives information about a specific event or problem. Automatically generated.

- *Abbreviated Time Field* - Contains the minutes after the hour at which the message started to print.
- *Body of Message* - Contains message data, including message identification, a termination report, and, if necessary, detailed results. Additional information relating to the body of the message is explained in Section 2.3.
- *Full Date and Time Field* - Optional. Consists of the month, day, and year, separated by slashes along with the hour, minutes, and seconds, separated by colons. The time is referenced to a 24-hour clock. The full time, which refers to the time the message was translated (made ready for output) by the system, will agree with the abbreviated time.

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- *Sequence Number* - Optional. Represents the order in which the message was prepared for printing. This may differ from the order in which the messages were printed.

The sequence in which messages are printed depends on two factors, the priority of action code associated with a message and whether the receiving device has a prioritized queue.

2.3 OUTPUT MESSAGE FORMAT

Most messages can be printed out in more than one form. For example, different forms of the DGN-CU message are displayed to specify the overall diagnostic results and the termination mode, and to specify the diagnostic results for an individual phase.

The multiple forms that an output message may take, combined with the fact that an output message may display from one to hundreds of lines of output, necessitates a flexible format. Although individual message descriptions presented in the OUTPUT MESSAGES section should be relied on for message interpretation, a few general comments about message format are made here.

Throughout the message documentation, constant width capital letters are used to denote information that is printed out exactly as is. Constant width lower case letters are used to denote variables. For example, the RMV-DFC message takes the form,

RMV DFC a b

with the letters a and b representing the member number of the DFC and the termination report of the message. The output seen by the user might be:

RMV DFC 1 COMPLETED

and would include the other message structure fields previously described.

Message formats occasionally include string notation (brackets [], braces {}, and OR bars |). This happens particularly when an output message contains a number of possible responses and one or more may be printed. The notation is for documentation purposes only; it is not output. A detailed explanation of string notation can be found in the *4ESS™/APS Input Message Document (IM-4A001-01)*.

2.4 ORGANIZATION AND CONTENT

Each message description begins with a block of key data (*key block*) identifying the message, followed by descriptive material explaining the message format and its specific use.

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2.4.1 Key Block Data

The entries in the key block are used as index keys to access the computerized message data base developed for this documentation.

Five index keys are given for each output message:

- **ID** - This is a unique identifier for the message and is used to access the data base. It may or may not be the same as the message name. The message name and ID will be different if the message name, including punctuation, exceeds 12 characters, or if several messages share the same message name, or if versions of the messages are limited to particular releases.

The message name, not the ID, appears as part of the message. It also appears at the upper right corner of each message page. The ID is used for accessing message documentation from the data base, and as a page-number prefix.

- **WORK CENTER** - Specifies the work center at which the message is entered or output. At present, all 4ESS™ / APS messages are entered or output at the Maintenance Operations Center (MOC).
- **GENERIC** - Gives the earliest active generic to which this version of the message applies. Generics 4AP12, 4AP13, 4AP14, 4AP15, 4AP16, 4AP17, and 4AP18 are considered active. The generic key block entry may also indicate the generics to which the message does not apply. For example:
 - 4AP12 only — The message applies to generic 4AP12, but is not applicable to 4AP13.
- **APPLICATION** - Distinguishes the usage of the message. The classifications are:
 - 4E — The message applies to nonprocessor programs of the APS.
 - 4E,3B — The message applies to the 3B computer of the APS.
 - 4E,3B-APS — The message applies to the Attached Processor Interface (API) of the APS.
 - 4E,CNI — The message applies to the Common Network Interface (CNI) of the APS.
 - 4E,IMS — The message applies to the Interprocess Message Switch (IMS) of the APS.
- **TYPE** - Specifies that this is an output message.

2.4.2 Descriptive Material

In general, the descriptive material following the key block data is presented under five headings.

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1. *Format* - Presents the message format. Output messages may have more than one format and the variations are generally presented under this heading. In some instances, the number of formats is so large that the individual format types are presented under the Variable Field Definitions heading.
2. *Reason for Output* - Explains why the message is generated.
3. *Variable Field Definitions* - Defines the variables used in the message. It may also define multiple formats for the message where a large number of them are used. This heading may also include additional explanatory text, notes, or tables needed for message interpretation. It includes additional notes or tables needed to clarify message use.
4. *Action To Be Taken* - Describes any actions that should be taken in response to the information presented in the output message.
5. *References* - Gives references to other input and / or output messages, Practices, and other related documents.

2.4.3 Acronyms and Mnemonics

Acronyms and mnemonics are used throughout the input and output manuals. Some commonly used acronyms and mnemonics are defined in Table 2-1.

Table 2-1
Acronyms and Mnemonics

AB	- Accounting Block
ABD	- Alternate Boot Disk
ABDN	- Abandon
ABM	- Accounting Block Matcher
ABR	- Auxiliary Buffer Register
ABS	- Alarm Battery Supply
ACD	- Automatic Call Distributor
ACI	- AT&T Communications Interface
ACI	- AT&T Customer Interface
ACNR	- Application Critical Node Recovery
ACP	- Action Control Point
ACR	- Auxiliary Call Register
ACT	- Active
ACT	- Automatic Test Control
ACUERR	- Automatic Call Unit Failure
AD	- Additional Data
ADB	- Advanced Debugger
ADB	- Analog Data Block
ADB	- Automatic Database Backup
ADC	- Acceptable Digit Count
ADP	- Automatic Diagnostic Process
ADR	- (Virtual) Address
ADS	- Auxiliary Data System
AG	- Alarm Grouping
AIM	- Application Integrity Monitor
AINI	- Autonomous Interrupt
ALEV	- A-Level
ALS	- Alternate Linkset
AM	- Administrative Module
AMA	- Automatic Message Accounting
ANI	- Automatic Number Identification
ANN	- Announcement
ANNUM	- Announcement Number
ANS	- Answer
AOOC	- Automatic Out of Chain
APDRV	- Attached Processor Driver

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Table 2-6
Acronyms and Mnemonics (continued)

API	- Attached Processor Interface
APLUPD	- Attached Processor Lamp Update Process
APMH	- Attached Processor Message Handler
APPDB	- Application Database
APPDB	- ATP Database
APPDL	- Application Data Link
APS	- Accunet® Packet Service
APS	- Attached Processor System
APUF	- Autonomous Peripheral Failure
APUT	- Autonomous Peripheral Trouble
AR	- Audible Ringing
ARR	- Automatic Re-Routing
ARR	- Automatic Ring Recovery
ASCII	- American Standard Code For Information Interchange
ASW	- All Seems Well
ASWF	- All Seems Well Failure
AT	- Alarm Transfer
ATA	- Activate Trunk Audit
ATC	- All Tests Completed
ATP	- All Tests Pass
ATP	- AT&T Trigger Platform
ATSGHC	- Adjunct Trunk Subgroup Head Cell
ATV	- AT&T Trigger Validation
AU	- Auxiliary Unit
AUB	- Auxiliary Unit Bus
AUDS	- Audit System Program
AUDST	- Audit State
AVD	- Application Variable Data
AVL	- Availability
BAL	- Blocked Address List
BB	- Billing Block
BBDIG	- Blue Box Digits
BCD	- Binary Coded Decimal
BDU	- Bus Display Unit
BEC	- Basic Error Correction
BES	- Bursty Errored Seconds
BFTIS	- Backward Failure Treatment Integrated Services Digital Network User Part
BFTNI	- Backward Failure Treatment Not Integrated Services Digital Network User Part
BIC	- Bus Interface Controller
BIMM	- Busy-Idle Memory Map
BIN	- Binary Format

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Table 2-6
Acronyms and Mnemonics (continued)

BKPRT	- Backup Partition
BLEV	- B-Level
BLK	- Block
BLM	- Base Level Maintenance
BMAM	- Buffer Memory Address Map
BN	- Billing Number
BPH	- Beginning Phase
BPS	- Bits Per Second
BRKREC	- Break Received
BRL	- Billing Record Length
BSDIR	- Base Directory
BSTN	- Base Traffic Number
BTFN	- Base Traffic Number
BV	- Bipolar Violation
BVR	- Bipolar Violation Rate
BWM	- Broadcast Warning Message
CAD	- Circuit Administration
CALM	- Common Alarm
CAMA	- Centralized Automatic Message Accounting
CAMA-ONI	- Centralized Automatic Message Accounting - Operation Number Identification
CANI	- Customer Automatic Number Identification
CAPPN	- Cut-Through Application Number
CAR	- Current Address Register
CAREA	- Control Area
CAROT	- Centralized Automatic Reporting On Trunks
CARRF	- Carrier Failure
CATLAS	- Centralized Automatic Trouble Locating and Analysis System
CATP	- Conditional All Tests Passed
CBC	- Call By Call Service Selection
CBNPR	- Calling Party Number / Billing Default Presentation Restriction Indicator
CC	- Call Codes
CC	- Central Control
CC	- Country Code
CCB	- Cache Control Block
CCD	- Country Code
CCFR	- Central Control Fault Recognition
CCIO	- Central Control Input/ Output
CCIS	- Common Channel Interoffice Signaling
CCIS2WRE	- Common Channel Interoffice Signaling 2Wire
CCISCR	- Common Channel Interoffice Signaling Critical Register
CCITT	- Consultative Committee on International Telephone & Telegraph

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Table 2-6
Acronyms and Mnemonics (continued)

CCITT6	- Consultative Committee on International Telephone & Telegraph Common Channel Signaling System Number 6
CCK	- Continuity Check
CCS	- Common Channel Signaling
CCS	- Hundred Call Seconds
CCS7	- Common Channel Signaling System 7
CCU	- Central Control Unit
CDB	- Customer Data Block
CDBI	- Customer Data Block Index
CDR	- Call Detail Recording
CDR	- Channel Data Register
CDR	- Customer Data Response
CDRP	- Call Detail Recording Platform
CESR	- Control Error Source Register
CFA	- Carrier Failure Alarm
CFC	- Carrier Failure Condition
CGA	- Carrier Group Alarm
CH	- Channel
CHNEG	- Channel Negotiation
CHOVRN	- Character Overrun
CI	- Carrier Interconnect
CIA	- Critical Indicator Administrator
CID	- Carrier Identification
CIN	- Circuit Identification Number
CIN	- Change In Network
CLEV	- C-Level
CLF	- Clear Forward
CLS	- Combined Linkset
CMS	- Change Management
CMS	- Change Management System
CMS	- Circuit Maintenance
CMS	- Circuit Maintenance System
CMS	- Circuit Multiplication System
CNC	- Central Node Control
CNCE	- Common Channel Signaling Network Critical Events
CNI	- Common Network Interface
CNIBLM	- Common Network Interface Base Level Error Word
CNIEWD	- Common Network Interface Error Information Word
CNR	- Interprocess Message Switch Critical Node Recovery
COMB	- Combined
COMGR	- Command Group

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Table 2-6
Acronyms and Mnemonics (continued)

CONF	- Conference
CONFIG	- Configuration Control
CONT	- Controller
CONV	- Conversant
CONV	- Conversion
CORR	- Correcting
CPD	- Control Pulse Distributor
CPDIG	- Calling Party Digits
CPF	- Character Parity Failure
CPOS	- Control Position
CR	- Call Register
CR	- Cluster Region
CR	- Critical
CRB	- Customer Routing Block
CRBI	- Customer Routing Block Index
CRC	- Cyclic Redundancy Check
CREG	- Critical Register
CRTSI	- Cost-Reduced Time Slot Interchange
CS	- Call Store
CSB	- Call Store Bus
CSB	- Clock Select and Buffer
CSDC	- Circuit Switched Digital Capability
CSFRID	- Call Store Identification Data
CSOP	- Coordinator of Spooler Output Processes
CSS	- Call Store Semi-Conductor
CSU	- Cache Store Unit
CSU	- Channel Service Unit
CT	- Center Tape
CT	- Cluster Type
CTRA	- Connected To Recorded Announcement
CTS	- Common Tone Supply
CTX2	- Centrex 2
CU	- Control Unit
DADC	- Direct Access Data Channel
DANI	- Direct Access Data Channel Automatic Number Identification
DAP	- Display Administration Process
DAT	- Demand Analysis
DATS	- Demand Analysis State
DBOV	- Digital Buffer Overflow Pest
DBS	- Duplex Bus Selector
DC	- Direct Connect

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Table 2-6
Acronyms and Mnemonics (continued)

DCC	- Data Consistency Check
DCHN	- D-Channel
DCHN	- D-Channel Node
DCHN	- D-Channel Q.931 Signaling Trunk
DCI	- Dual Serial Channel/Computer Interconnect
DCIS	- Destination Common Channel Signaling System
DCNT	- Digit Count
DDB	- Disk Descriptor Block
DDI	- Direct Data Insert
DDI	- Direct Dial-In
DDT	- Digital Data Trunk
DEC	- Decimal Format
DESEP	- Destination Separation
DEX	- Demand Exercise
DF	- Disk File
DF	- Duplex Fail
DF	- Deferred Formatting
DFC	- Disk File Controller
DFSA	- Disk File Storage Access
DFSA	- Data File System Access
DG	- Digroup
DGALM	- Digroup Alarm
DGN	- Diagnose or Diagnostic
DGO	- Digroup Out Of Service
DGRF	- Digroup Report Function Data
DGSTAT	- Digroup Status
DIAGC	- Diagnostic Control Program
DIF	- Digital Interface Frame
DIF-E1	- Digital Interface Frame-Export 1
DIOP	- Disk Independent Operation
DISK	- Disconnect
DIU	- Digital Interface Unit
DKAD	- Disk Address
DKDRV	- Disk Driver
DLC	- Data Link Controller
DLEV	- D-Level
DLN	- Data Link Node
DLN	- Data Link Number
DLN	- Direct Link Node
DLTA	- Data Link Translator Address
DM	- Disk Mode

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Table 2-6
Acronyms and Mnemonics (continued)

DMA	- Direct Memory Access
DMABUF	- Direct Memory Access Buffer
DMAC	- Direct Memory Controller
DMI	- Discard Message Indicator
DMQ	- Diagnostic Maintenance Queue
DMQ	- Deferred Maintenance Queue
DMS	- Data Management System
DN	- Dialed Number
DNHR	- Dynamic Non-Hierarchical Routing
DNHRICM	- Dynamic Non-Hierarchical Routing Incoming Class Mark
DNHROCM	- Dynamic Non-Hierarchical Routing Outgoing Class Mark
DNP	- Dialed Number Preferred
DNST	- Dialed Number Service Type
DOC	- Dynamic Overload Control
DOCRN	- Dynamic Overload Control Receive Number
DOFP	- Disable Outgoing Fraud Prevention
DOM	- Domain
DOMI	- Domain Incoming
DOWNC	- Down Chain
DP	- Dial Pulse
DPC	- Destination Point Code
DPSTOP	- Dial Pulse Stop
DPT	- Diagnostic Phase Table
DRB	- Disk Request Block
DSCH	- Dual Serial Channel
SDSC	- Direct Services Dialing Capability
DS0	- Digital Signal Zero
DST	- Diagnostic Strategy
DSTT	- Direct Signaling Translation Test
DT	- Digroup Terminal
DTAT	- Digital Test Access Trunk
DTCR	- Dedicated Time-Slot Interchange Connection Register
DTMF	- Dual Tone Multifrequency
DTTU	- Digital Trunk Test Unit
DTU	- Digroup Terminal Unit
DUC	- Data Unit Controller
DUI	- Direct User Interface
DUIC	- Direct User Interface Controller
DUPT	- Dial-Up Port
DUS	- Data Unit Selector
E1	- Export 1

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Table 2-6
Acronyms and Mnemonics (continued)

EAC	- Error Analysis Control
EAC	- Expanded Authorization Code
EAI	- Emergency Action Interface
EAR	- Error Analysis And Recovery
EAS	- Equal Access Signaling
ECD	- Equipment Configuration Database
EIH	- Error Interrupt Handler
EIN	- Ethernet® Interface Node
EIR	- Enhanced Information Report
ELEV	- E-Level
ELS	- Electronic Loop Segregation
EMM	- Expanded Main Memory
EMM	- Extended Main Memory
EOF	- End Of File
EPAV	- Enhanced Pre-Assign Values
EPH	- Ending Phase
EPLX	- ESS Programming Language Extended
EQL	- Equipment Location
ER	- Emergency Restart
ERAP	- Error Analysis Program
ERRC	- Error Counter
ERRESF	- Errored Extended Super Frame
ERSP	- Error Stop
ES	- Echo Suppressor
ES	- Errored Seconds
ESF	- Extended Super Frame
ESF-DL	- Extended Super Frame-Data Loopback
ESN	- E-store Number
ESN	- Echo Suppressor Number
ESR	- Error Source Register
ESS	- Electronic Switching System
EST	- Echo Suppressor Terminal
ESU	- Echo Suppressor Unit
EXCRAM	- Executive Buffer Random Access Memory
FD	- Forced Data
FDPLX	- Full Duplex
FE	- Far End
FEHIGH	- Frame Error High Count
FEIT	- Far-End Intrusive Test
FELATA	- Far End Local Access Transport Area
FELLOW	- Frame Error Low Count

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Table 2-6
Acronyms and Mnemonics (continued)

FEN	- Far End Network
FENCLASS	- Far End Network Class
FENID	- Far End Network Identification
FENPA	- Far End Numbering Plan Area
FEOFC	- Far End Office
FERA	- Fault Error Analysis
FESC6	- Far End 6-Digit Screening
FETL	- Far End Test Line
FHC	- Final Handling Code
FIFO	- First-In First-Out
FLEV	- F-Level
FLN	- Frame Location Number
FMGR	- File Manager
FMI	- File Manager Interface
FMIBUF	- File Manager Interface Buffer
FPWRF	- Force Power Failure
FRZ	- Frozen State
FS	- Failed Seconds
FS	- File Store
FS	- Functional Schematic
FSECD	- File Store Error Correction Data
FSID	- File Store Identification
FSP	- Four-State Pass
FSSTAT	- File Store Status Failure Report Data
FTA	- File Transfer and Activation
FTF	- File Transfer Files
FTFN	- First Traffic Number
FTS	- Field Test Set
GBT	- General Buffer Table
GCP	- Gate Control Pulse
GCP	- Generated Control Pulse
GEN	- Generic
GEOSEP	- Geographical Traffic Separation Class
GI	- Group Interrogate
GLEV	- G-Level
GNS	- Go / No Go Screening
GNSC	- Go / No-Go Screening Class
GOOS	- Go-Out-Of-Service
GRASP	- General Access Package
GRASP	- Generic Access Package
GSDN	- Global Software Defined Network

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Table 2-6
Acronyms and Mnemonics (continued)

GSDNPHSE	- Global Software Defined Network Phase
GSF	- Generic Specification File
GTH	- Growth
GTT	- Global Title Translation
GULP	- General Utility Program
HA	- Host Adapter
HA	- Host Adaptor
HAW	- High And Wet
HBDG	- Head Block Diode Group
HIST	- Trouble History
HLD	- Hold
HSD	- High Speed Synchronous Data Link
HSDC	- High Speed Synchronous Data Link Controller
HSR	- Hardware Status Register
HTR	- Hard To Reach
HV	- Hardware Version
HWL	- High And Wet List
HWT	- High And Wet Timing
I/O	- Input/Output
IA	- Ineffective Attempt
IADC	- Integrated Access Direct Connect
IAID	- Internal (4ESS™) Announcement Identity
IBGTT	- Inbound Global Translation
IBO	- Input Buffer Overflow
IC	- Instruction Control
IC	- Inter Local Access Transport Area Carrier
ICB	- Input Control Block
ICD	- International Call Data
ICDR	- International Call Detailed Recording
ICMP	- Internet Control Message Protocol
ICT	- Incoming Trunk
ID	- Identification
IDB	- Inward Area Telephone Service Database
IDDD	- International Direct Distance Dialing
IDENT	- Identity
IDMM	- Identification Tag Mismatch
IDS	- Information Delivery System
IDS	- Information Development Services
IDS	- Interconnection Design System
IDS	- Interprocessor Data Synchronization
IDTS	- Incoming Dial Tone Start

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Table 2-6
Acronyms and Mnemonics (continued)

IGFET	- Insulated Gate Field Effect Transistor
IMR	- Inhibit Maintenance Request
IMS	- Interprocess Message Switch
IMSDRV	- Interprocess Message Switch Driver
IN	- Interface Node
INI	- Inhibit Normal Interrupt
INIT	- Initialization
INS	- In-Service
INSEP	- Incoming Traffic Separation Class
INTL	- International
INVCCD	- Invalid Channel Command
INVINT	- Invalid Interrupt Internal Register
INWATS	- Inward Area Telephone Service
IODRV	- Input/ Output Driver
IODRV	- Input/ Output Drivers
IOF	- Input/ Output Frame
IOMP	- Input/ Output Unit Microprocessor Communities
IOP	- Input/ Output Processor
IOUC	- Input/ Output Unit Controller
IOUS	- Input/ Output Unit Selector
IP	- In Progress
IP	- Initialization Processor
IP	- Internal Protocol
IP	- Internet Protocol
IPUB	- Interface Peripheral Unit Bus
IS	- In Service
IRN2	- Integrated Ring Node 2
ISC	- Incoming Signaling Characteristics
ISL	- Intermediate Switch List
ISTP	- International Traffic Point
ISUP	- Integrated Services Digital Network User Part
ITC	- Incoming Trunk Class
ITC	- Incoming Trunk Subgroup Class
IU	- Interface Unit
IUN	- Interprocess Message Switch User Node
IWZ1	- International World Zone 1
JCB	- Job Control Buffer
JLEV	- J-Level
KBPS	- Kilobits Per Second
KLEV	- K-Level
KOP	- Kernel Overwrite Process

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Table 2-6
Acronyms and Mnemonics (continued)

KW	- Keyword
LACID	- Link Access Circuit Identifier
LATA	- Local Access Transport Area
LCA	- Local Carrier Alarm
LCI	- Local Call Intercept
LDIN	- Logical Device Identification Number
LDFT	- Load Disk From Tape
LEC	- Local Exchange Carrier
LFCN	- Low Frequency Exerciser Controller
LFS	- Link Fault Sectionalization
LFVR	- Line Format Violation Rate
LI	- Length Indicator
LI	- Link Interface
LIB	- Library
LIB	- Library Program
LIER	- Link Interface Encryption Removal
LIM	- Link Integrity Monitor
LIU	- Line Interface Unit
LKO	- Lockout
LLB	- Line Loopback
LLHC	- Link List Head Cell
LLSADR	- Last Look Store Address
LN	- Link Node
LODBUF	- Load Buffer
LOF	- Loss Of Frame
LOFC	- Loss Of Frame Count
LOM	- Listen Only Mode
LOS	- Loss Of Signal
LP	- Link Processor
LPA	- Low Paper Alarm
LSA	- Local Subframing Alarm
LSC	- Loopback Select Code
LSP	- Load-Set Period
LSST	- Local Access Transport Area / State Screening State
LTS	- Long Term Storage
LVS	- Local Variable Stack
LVS	- Local Variable Stock
MAC	- Machine Administration Center
MACCM	- Machine Administration Center Control Memory
MACP	- Maintenance Control Program
MAEC	- Media Access Error Counter

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Table 2-6
Acronyms and Mnemonics (continued)

MAN	- Manual
MAPN	- Master Application Number
MAPRT	- Map Rate Table
MAR	- Mass Announcement System Register
MARP	- Maintenance Restart Program
MAS	- Mass Announcement Service Frame
MAS	- Mass Announcement Service
MASA	- Main Store Array
MASC	- Main Store Controller
MAU	- Mass Announcement Unit
MB	- Maintenance Busy
MC	- Maintenance Center
MC	- Microcode
MCC	- Master Control Center
MCH	- Maintenance Channel
MCRT	- Maintenance Cathode Ray Terminal
MCT	- Multiple Carrier Treatments
MDCT	- Minor Device Chain Table
MDN	- Miscellaneous Distribution Number
MDR	- Message Detail Recording
MEGC	- MEGACOM® Service
MEMN	- Member Number
MF	- Multifrequency
MFC	- Multifrequency Compelled
MFGR	- Manufacturer
MFN	- Maintenance File Number
MFNUM	- Maintenance File Number
MHD	- Moving Head Disk
MHD	- Moving Head Disks
MI	- Maintenance Interject
MI	- Member Interrogate
MI	- Modular Interface
MICON	- Maintenance Control
MICON	- Maintenance Interrupt Control
MIRA	- Maintenance Input Request Administrator
MJ	- Major
MJC	- Major Capabilities
MLTS	- Micro Level Test Set
MML	- Matrix Maintenance Limit
MN	- Minor
MNC	- Magic Number Control

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Table 2-6
Acronyms and Mnemonics (continued)

MOC	- Master Operations Center
MOCC	- Master Operations Center Control
MOCT	- Measurement Output Control Tables
MOP	- Mount Off-Line Partition
MORR	- Multiple Or Redundant Request
MP	- Main Program
MP	- Maintenance Processor
MP	- Monitor
MPF	- Memory Parity Failure
MPI	- Miscellaneous Program Index
MR	- Maintenance Request
MRA	- Modify Recovery Action
MRF	- Maintenance Reset Function
MROP	- Maintenance Read-Only Printer
MRT	- Multiple Routing
MRTI	- Multiple Routing Treatment Index
MRVA	- Message Transport Part Routing Verification Acknowledgement Message
MRVR	- Message Transport Part Routing Verification Result Message
MRVT	- Message Transport Part Routing Verification Test
MS	- Main Store
MSK	- Mask
MSN	- M-Store Number
MSN	- Miscellaneous Scan Point Number
MSN	- Miscellaneous Scanner Number
MSTAT	- Mass Announcement System Status Table
MSW	- Message Switch
MSU	- Message Signal Unit
MT	- Magnetic Tape
MTC	- Magnetic Tape Controller
MTC	- Maintenance
MTCE	- Maintenance
MTP	- Message Transport Part
MTS	- Multiple Treatment Screening
MTSC	- Multiple Treatment Screening Class
MTSCI	- Multiple Treatment Screening Class Index
MTTY	- Maintenance Teletypewriter
MTTYC	- Maintenance Teletypewriter Controller
MULTACT	- Multiple Activate
MV	- Model Version
NAC	- Non-Call Associated Temporary Signaling Connection Anomaly Code
NACC	- Non-Call Associated Temporary Signaling Connection Anomaly Code Category

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Table 2-6
Acronyms and Mnemonics (continued)

NAUD	- Node Audit
NBS	- Near Building Subdivision
NCA	- No Circuit Available
NCAT	- Non-Call Associated Temporary Signaling Connection
NCATSC	- Non-Call Associated Temporary Signaling Connection
NCD	- Network Call Denial
NCG	- Noncorrecting
NCLK	- Network Clock
NCOE	- Network Channel Office Equipment
NCP	- Network Control Point
NCSU	- Network Clock Synchronization Unit
NE	- Near End
NEI	- Network Element Interface
NEIT	- Near-End Intrusive Test
NENI	- Near-End Non-Intrusive
NEOTR	- Near Operational Test
NESAC	- National Electronic Switching Assistance Center
NETCLK	- Network Clock
NID	- Network Identification
NID	- Network Inward Dialing
NIU	- Network Interface Unit
NMOC	- Network Management Center
NNR	- Node-to-Node Registers
NOCTS	- No Clear To Send
NPA	- Numbering Plan Area
NPARINH	- Numbering Plan Area Reconstruction Inhibit
NSC	- Network Services Complex
NSN	- Network Switch Number
NTC	- National Trunk Congestion
NTPI	- Non-Trunk Program Index
NTR	- No Tests Run
NTWK	- Network
NWM	- Network Management
NWM	- Network Management Display Data
NWT	- Network Time
O/S	- Out-of-Service
OBGTT	- Outbound Global Title Translation
OBO	- Output Buffer Overflow
OC	- On Condition
OCU	- Office Channel Unit
ODA	- Office Data

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Table 2-6
Acronyms and Mnemonics (continued)

ODA	- Office Data Assembler
ODIL	- Office Dependent Initial List
OFC	- Office
OFL	- Off-Line
OFLBOOT	- Off Line Boot
OFLDISK	- Off-Line Disk
OGT	- Outgoing Trunk
OLCIGI	- Originating Local Call Intercept Group Index
OLI	- Originating Line Information
OLIN	- Off-Line Status
OMDB	- Output Message Database
OMEG	- MEGACOM® / Wide Area Telecommunications Service
OMR	- Output Message Register
ONAC	- Operational Network Administration Center
ONI	- Operation Number Identification
ONI	- Operator Number Identification
OOF	- Out Of Frame
OOFC	- Originating Office Code
OOS	- Out Of Service
OOSI	- Out Of Service Ignore
OPC	- Originating Point Code
ORNU	- Order Number
OSC	- Outgoing Signaling Characteristics
OSDATA	- On-Site Data
OSDNK	- Global Software Defined Network Key Customer
OSM	- Operator Services Manager
OSM	- Originating Switch Module
OSOR	- On-Site Operations Report
OSS	- Operating Support System
OST	- Operating System Trap
OTMTN	- Operational Terminating Test Number
OTMTT	- Operational Terminating Test Type
OTSTN	- Operational Through Switch Test Number
OTSTT	- Operational Through Switch Test Type
OVL	- Overload
OVRD	- Override
PA	- Program Address
PALL	- Print All
PAS	- Protected Application Segment
PAS	- Protective Application Segment
PAS	- Public Announcement

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Table 2-6
Acronyms and Mnemonics (continued)

PBC	- Peripheral Bus Computer
PBFR	- Peripheral Bus Fault Recognition
PBX	- Private Branch Exchange
PBXAW	- Private Branch Exchange Answer Withheld
PBXESGD	- Private Branch Exchange Expect Station Group
PC	- Peripheral Controller
PC	- Processor Configuration
PCB	- Process Control Block
PCCD	- Pseudo-Country Code
PCD	- Power Control Distribution
PCD	- Power Conversion and Distributing
PCF	- Point Code Format
PCGRP	- Person Command Group
PCM	- Pulse Code Modulation
PCP	- Positive Call Processing
PCPAUD	- Processor Control Process Audit
PCPGTT	- Positive Call Processing Global Title Translation
PCPMD	- Processor Control Process Maintenance Driver
PCR	- Preventative Cyclic Redundancy
PCRV	- Processor Configuration Recovery
PCS	- Power Control Switch
PCSD	- Peripheral Controller Subdevices
PDA	- Parameter Data
PDS	- Page Descriptor Shell
PDS	- Program Documentation Standard
PDT	- Page Descriptor Table
PECC	- Program Engineering Control Center
PGM	- Program
PIC	- Peripheral Interface Controller
PIC	- Priority Interrupt Controller
PID	- Process Identification
PIIT	- Periodic Indication Of Intrusive Test
PIO	- Peripheral Input / Output
PKG	- Package
PLB	- Payload Loopback
PLS	- Primary Linkset
PLS	- Pulsed Line Signaling
PMCR	- Plant Measurements Common Report
PMD	- Point Of Maximum Definition
PMJ	- Power Major
PMN	- Power Minor

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Table 2-6
Acronyms and Mnemonics (continued)

PMOS	- Peripheral Maintenance Operating System
PMS	- Plant Measurement System
PNT	- Print
PNT	- Print No Test
POTS	- Plain Old Telephone Service
PP	- Processor Peripheral
PPI	- Processor-Peripheral Interface
PPM	- Periodic Pulse Metering
PRL	- P-Register - Lower
PRM	- Process Recovery Message
PROFL	- Profile
PRT	- Proportional Routing
PS	- Program Store
PSB	- Program Store Bus
PSBN	- Prohibit Sending Billing Number
PSBR	- Primary Segment Base Register
PSCPN	- Prohibit Sending Calling Party Number
PSES	- Prohibit Service Evaluation
PSFRID	- Program Store Identification
PSFRTR	- Program Store Test Results
PSLT	- Periodic Signaling Link Test
PSM	- Power Switch Monitor
PSN	- Protection Switch
PSOLI	- Prohibit Sending Originating Line Information
PSS	- Program Store Semi-Conductor
PSS	- Program Support System
PSSWDPFX	- Password Prefix
PSSWDSFX	- Password Suffix
PSUUI	- Prohibit Sending User-To-User Information
PSW	- Processor Status Word
PSW	- Program Status Word
PSW	- Protection Switch
PTSRPS	- P-bit Trunk Status Rate Pointer Store
PTSS	- P-bit Trunk Status Store
PU	- Peripheral Unit
PUB	- Peripheral Unit Bus
PUC	- Peripheral Unit Controller
PUCF	- Peripheral Unit Controller Frame
PUEX	- Peripheral Unit Exercise
PULP	- Peripheral Utility Program
QTFN	- Quantity Of Traffic Numbers

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Table 2-6
Acronyms and Mnemonics (continued)

QTFN	- Quantity Traffic Numbers
RA	- Recorded Announcement
RAC	- Ring Access Circuit
RACF	- Recorded Announcement Channel Frame
RACHAN	- Record Announcement Channel
RAM	- Random Access Memory
RAC	- Ring Access Circuit
RBA	- Recent Change Rollback
RC	- Recent Change
RCMA	- Recent Change Memory Administration
RCNHIST	- Recent History
RCRB	- Recent Change Rollback
RCS	- Routine Class Schedule
RCUERR	- Automatic Call Unit Failure
RCV	- Recent Change And Verify
RDB	- Routing Data Block
RDBI	- Routing Data Block Index
RDC	- Red-Special Circuit
REG	- Register
RENI	- Remote Non-Intrusive
REV	- Reverse
REX	- Routine Exercise
RFA	- Ring Forward Allowed
RFE	- Removed Far End
RFMP	- Ring Forward Miscellaneous
RID	- Record Identification
RID	- Record Identifier
RLS	- Release
RMA	- Remote
RMA	- Remote Alarm
RMSD	- Remote Measurement System Digital
RMT	- Remote Terminal Output
RN	- Ring Node
RNA	- Ring Node Address
RNE	- Removed Near End
RO	- Read Only
ROM	- Read only Message
ROP	- Read Only Printer
ROP	- Receive-Only Printer
ROS	- Request Out of Service
ROTL	- Remote Office Test Lines

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Table 2-6
Acronyms and Mnemonics (continued)

RPC	- Ring Peripheral Controller
RPCN	- Ring Peripheral Controller Node
RPI	- Routing Pattern Identity
RR	- Recording Register
RRM	- Routing Request Message
RSA	- Remote Subframe Alarm
RSF	- Ring Service Failure
RST	- Restore
RSW	- Receiver-Seems-Well
RT	- Ringing And Tone Plant
RTC	- Real Time Clock
RTM	- Real Time Monitor
RTNR	- Real Time Network Routing
RTR	- Real Time Reliable
RTS	- Real Time Status
RTS	- Real Time Status Report
RTSM	- Receive Time Slot Memory
RW	- Read / Write
SADC	- Special Access Data Channel
SADC	- System Audit Of Disks
SADK	- System Audit Disk
SAPN	- Slave Application Number
SAR	- Start Address Register
SAS	- Stop And Switch
SAST	- System Audit Of Stores From Tape System Audit Of Stores Using Tape
SAT	- Satellite
SAT	- Store Address Translation
SAT	- Store Address Translator
SAWS	- System Audit Of Writable Stores
SBUS	- Small Computer System Interface Bus
SBY	- Stand-By
SC	- Structure Codes
SCA	- Save Current Address Register
SCAR	- Stable Call Accumulation Register
SCC	- Switching Control Center
SCCP	- Signaling Connection Control Part
SCCS	- Switching Control Center System
SCGA	- Software Carrier Group Alarm
SCHD	- Schedule
SCLK	- System Clock
SCMG	- Signaling Connection Control Part Management Message

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Table 2-6
Acronyms and Mnemonics (continued)

SCP	- Scan Matrix Pack
SCP	- Software Change Package
SCSD	- Scanner and Signal Distributor
SCSDC	- Scanner and Signal Distributor Controller
SCSI	- Small Computer System Interface
SCUFS	- Scanner Control Unit Failure Summary
SD	- Scan and Signal Distributor
SD	- Schematic Drawing
SD	- Segmentation Directory
SD	- Signal Distributor
SDC	- Service Degrading Condition
SDC	- Store Data Control
SDL	- Synchronous Data Link
SDLC	- Synchronous Data Link Controller
SDM	- Signal Distributor Matrix
SDN	- Software Defined Network
SDN	- Switched Digital Network
SDNK	- Software Defined Network Key Customer
SDP	- Signal Distributor Applique Pack
SDS	- Shared Data Segment
SDT	- Segment Descriptor Table
SEGINIT	- Segment Initialization
SERPF	- Serial Parity Failure
SES	- Severely Errored Seconds
SG	- System Generation
SIC	- Service Indicator Code
SICO	- Software Integrity Control Program
SID	- Service Identification
SIGLK	- Signaling Link
SII	- Service Identity Index
SIM	- System Integrity Monitor
SIN	- Small Computer System Interface Interface Node
SINDEX	- Sampling Rate Index
SINT	- Supplementary Interrupt
SIOF	- System Integrity Output Formatter
SJB	- Small Computer System Interface Job Block
SKPBY	- Skip Busy
SLC	- Signaling Link Code
SLIPS	- Slip Seconds
SLK	- Signaling Link
SLMK	- Signaling Link Monitor Kernel

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Table 2-6
Acronyms and Mnemonics (continued)

SMCC	- Switching Maintenance Control Center
SMD	- Storage Module Drive
SMM	- Standard Main Memory
SO	- Switching Office
SOI	- Start Of Input
SP	- Scan Point
SP	- Signaling Point
SP	- Signaling Processor
SPC	- Signaling and Permuting Circuit
SPC	- Switching and Permuting Controller
SPF	- Signal Processor Failure
SPSTS	- Signal Processor State Translator Store
SR	- Software Release
SR	- System Recovery
SR	- System Reinitialization
SREC1	- Secondary Record Channel
SRES	- Search Results Number
SRST	- Signaling Route Set Test
SRVT	- Signaling Connection Control Part Routing Verification Test
SSBR	- Secondary Source Base Register
SSN	- Subsystem Network
SSR	- System Status Register
STBY	- Standby
STF	- Some Tests Failed
STF-BOF	- Some Test Failed and Buffer Overflowed
STP	- Signaling Transfer Point
STP	- Some Tests Passed
SU	- Signal Unit
SU	- Switch Unit
SUERM	- Signal Unit Error Rate Monitor
SVC	- Service Circuit
SVCT	- Service Circuit Test
SVR	- Select / Verify
SW	- Switch
SXS	- Step-by-Step
SYN	- Synchronous
SYNC	- Synchronous
SYUP	- System Update
TAC	- Terminal Access Circuit
TAN	- Trunk Appearance Number
TANTOTAN	- Trunk Appearance Number-to-Trunk Appearance Number

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Table 2-6
Acronyms and Mnemonics (continued)

TAS	- Tape Administration System
TAT	- Test Access Trunk
TAUTH	- Terminal Authority
TB	- Transaction Block
TBMN	- Trunk Block Member Number
TBS	- Trunk Block Status
TCA	- Trunk Control Area
TCAP	- Transaction Capability Application Part
TCB	- Task Control Block
TCGRP	- Terminal Command Group
TCP	- Transmission Control Protocol
TDA	- Translation Data
TDAS	- Traffic Data Administration System
TDASMC	- Traffic Data Administration System Measurement Class
TDCU	- Traffic Data Concentrator Unit
TDEST	- Type Of Destination
TDN	- Time Division Network
TEC	- Terminal Equipment Center
TEC	- Test Equipment Control Terminal Process
TER	- Terminal
TERA	- Trunk Error Analysis
TESTNO	- Test Number
TFG	- Type Of Feature Group
TFN	- Traffic Number
TFNB	- Traffic Number Blocks
TFP	- Transfer Prohibited
TG	- Trunk Group Location Data Base
TGR	- Terminal Grouping
TGRF	- Terminal Grouping Frame
TIC	- Translation Integrity Check
TKMTC	- Trunk Maintenance
TL	- Terminate and Leave
TLDB	- Trouble
TLP	- Trouble Locating Procedure
TLP	- Trouble Location Procedure
TM	- Timer
TMR	- Timer Register
TMR	- Trunk Maintenance Register
TMS	- Time Multiplexed Switch
TMSCR	- Time Multiplexed Switch Register
TMSP	- Time Multiplexed Switch Pair

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Table 2-6
Acronyms and Mnemonics (continued)

TN	- Terminating Number
TNUP	- Trunk Used For Large-Scale Nailup
TOC	- Trunk Operations Center
TOD	- Time Of Day
TOP	- Tape-Only Program
TOPS	- Task Oriented Procedures
TORIG	- Type Of Origin
TOSL	- Trunk Out Of Service List
TOSS	- Teleconferencing Operator Support System
TOT	- Type of Trunk
TPC	- Translation Point Code
TPI	- Trunk Program Index
TPM	- Traffic and Plant Measurement
TPM	- Traffic Plant Measurement
TPT	- Test Progress Tone
TQU	- Trunk Query
TR	- Trunk Register
TRANS	- File Store Transient Data
TRANSP	- Transparent
TRAPN	- Trap Number
TRC	- Timed routine Coordinator
TRF	- Traffic
TRIDX	- Trunk Reservation Index
TRK	- Trunk
TRNUM	- Trouble Report Number
TRPF	- Transmit Parity Failure
TSC	- Technical Service Capability
TSF	- Total Signal Failure
TSG	- Trunk Subgroup
TSGBBC	- Trunk Subgroup Broadband Capability
TSGHC	- Trunk Subgroup Head Cell
TSGHS	- Trunk Subgroup Headcell-Trunk Status
TSGN	- Trunk Subgroup Number
TSI	- Time Slot Interchange
TSIF	- Time Slot Interchange Frame
TSMEM	- Trunk Status Memory
TSN	- Trunk Scanner Number
TSP	- Translation Signaling Point
TSS	- Trunk Status Store
TST	- Test (verb)
TST	- Timed Strategy

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Table 2-6
Acronyms and Mnemonics (continued)

TST	- Trunk Scanner Tag
TSTADR	- Test Address
TSTPAT	- Test Pattern
TSVC	- Type Of service
TSW	- Transmitter Seems Well
TSW	- Trunk Scanner Word
TSW	- Trunk Status Word
TTF	- Toll Termination Frame
TTS	- Toll Terminating Switch
TTS	- Toll Terminating Switches
TTSI	- Toll Terminating Switch Index
TTSM	- Transmit Time-Slot Memory
TTY	- Teletypewriter
TTYC	- Teletypewriter Controller
TU	- Tape Unit
TU	- Trunk Unit
TUC	- Tape Unit Controller
TURNUPC	- Turn-Up For Control Office Trunk
TURNUPN	- Turn-Up For Noncontrol Office Trunk
TUT	- Trunk Under Test
TVMASR	- Televote Master
TWRP	- Tape Writing Program
UAS	- Unavailable Seconds
UAV	- Unavailable
UC	- Utility Circuit
UCB	- Unit Control Block
UCL	- Unconditional
UDPC	- Unknown Destination Point Code
ULN	- Universal Link Node
UMEM	- Utility Memory
UNAS	- Unassigned
UNEQ	- Unequipped
UNEQIP	- Unequipped
UNITNO	- Unit Number
UNLBUF	- Unload Buffer
UPA	- Upper Protect Address
UPD	- Update
USN	- U-Store Number
USN	- Universal Scanner Number
USTATUS	- Unit Status
UTILDS	- Utility Data Sets

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Table 2-6
Acronyms and Mnemonics (continued)

UTL	- Utilities
UTMN	- Unit Type and Member Number
UVDT	- User View Descriptor Table
VCNT	- Vacant Code Analysis
VDCAP	- Voice/Data Capability
VF	- Voice Frequency
VFL	- Voice Frequency Link
VIC	- Voice Interface Controller
VIF	- Voiceband Interface Frame
VIFCR	- Voiceband Interface Frame Critical
VIU	- Voiceband Interface Unit
VLMM	- Very Large Main Memory
VPA	- Voice Path Assurance
VSN	- Volume Serial Number
VSS	- Voice Storage System
VSSID	- Voice Storage System Identification
VTOC	- Volume Table of Contents
WATS	- Wide Area Telecommunications Service
WATSBN	- Wide Area Telecommunications Service Billing Number
WER	- Write Enable Ring
XC	- Transceiver
XCPA	- Transceiver Pad Adjustment
XTMTN	- Transmission Terminating Test Number
XTMTT	- Transmission Terminating Test Type
XTSI	- Expanded Time Slot Interchange
XTSTN	- Transmission Through Switch Test Number
XTSTT	- Transmission Through Switch Test Type

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SECTION 3

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3.1 INTRODUCTION

This section contains the indexes for output messages in volumes one through four. The messages are listed in alphabetical order by message ID with the associated message name and generic.

3.2 VOLUME 1 ALPHABETICAL INDEX

MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
ABORT LFS	ABORT:LFS	4AP12	9.0
ACTV DCC	ACTV:DCC	4AP12	9.0
ACTV OMDB	ACTV:OMDB	4AP12	9.0
ALW ADB	ALW:ADB	4AP12	9.0
ALW AMA SSPUNAS COMPLETED	ALW:AMA-SSPUNAS	4AP12	9.0
ALW AUD	ALW:AUD	4AP12	9.0
ALW CONFLOG	ALW:CONFLOG	4AP12	9.0
ALW DCC	ALW:DCC	4AP12	9.0
ALW DCNAUD	ALW:DCNAUD	4AP14	9.0
ALW DLNAUD	ALW:DLNAUD	4AP13	9.0
ALW DMQ	ALW:DMQ	4AP12	9.0
ALW EAIINT	ALW:EAIINT	4AP12	9.0
ALW ERRCHK	ALW:ERRCHK	4AP12	9.0
ALW ERRINT	ALW:ERRINT	4AP12	9.0
ALW ERRSRC	ALW:ERRSRC	4AP12	9.0
ALW FILESYS ACCESS	ALW:F-ACCESS	4AP12	9.0
ALW FILESYS MOUNT	ALW:F-MOUNT	4AP12	9.0
ALW FILESYS OWNER	ALW:F-OWNER	4AP12	9.0
ALW FTA	ALW:FTA	4AP12	9.0
ALW HDWCHK	ALW:HDWCHK	4AP12	9.0
ALW RCV APPDB	ALW:RCV-APPDB	4AP12	9.0
ALW REX	ALW:REX	4AP12	9.0
ALW RUTIL	ALW:RUTIL	4AP12	9.1
ALW SCSD	ALW:SCSD	4AP12	9.0
ALW SFTCHK	ALW:SFTCHK	4AP12	9.0
ALW TRACE	ALW:TRACE	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
ALW TRAP	ALW:TRAP	4AP12	9.1
ALW UMEM	ALW:UMEM	4AP12	9.0
ALW UTIL	ALW:UTIL	4AP12	9.0
ALW UTILFLAG	ALW:UTILFLAG	4AP12	9.0
ANALY TLPFILE	ANALY:TLPFILE-A	4AP12	9.1
ANALY TLPFILE	ANALY:TLPFILE-B	4AP19	9.3
ANALY TLPFILE RPCN	ANALY:TLPFILE-RPCN	4AP12	9.0
APPLY OMDB	APPLY:OMDB	4AP13	9.0
ATR T1M	ATR:T1M	4AP15	9.0
AUD AMARR 1	AUD:AMARR-1	4AP12	9.0
AUD APDRV 1	AUD:APDRV1	4AP12	9.0
AUD APDRV 2	AUD:APDRV2	4AP12	9.0
AUD APDRV 3	AUD:APDRV3	4AP12	9.0
AUD APDRV 4	AUD:APDRV4	4AP12	9.0
AUD APDRV 5 COMPLETED	AUD:APDRV5-ERR	4AP12	9.0
AUD APDRV 6 COMPLETED	AUD:APDRV6-ERR	4AP12	9.0
AUD ATP	AUD:ATP	4AP13	9.1
AUD CNC 1	AUD:CNC-1	4AP12	9.0
AUD CUMEM	AUD:CUMEM	4AP12	9.0
AUD CUSTAT	AUD:CUSTAT	4AP12	9.0
AUD DADC	AUD:DADC	4AP12	9.0
AUD DCNAUD	AUD:DCNAUD	4AP14	9.0
AUD DLN	AUD:DLN	4AP12	9.0
AUD DLNCM	AUD:DLNCM	4AP12	9.0
AUD ECD	AUD:ECD	4AP12	9.3
AUD ECDOWN	AUD:ECDOWN	4AP12	9.1
AUD FMGR 1	AUD:FMGR1	4AP12	9.0
AUD FMGR 2	AUD:FMGR2	4AP12	9.0
AUD FMGR 3	AUD:FMGR3	4AP12	9.0
AUD FMGR 4	AUD:FMGR4	4AP12	9.0
AUD FMGR 5	AUD:FMGR5	4AP12	9.0
AUD FMGR 6	AUD:FMGR6	4AP13	9.1
AUD FMGR 7	AUD:FMGR7	4AP12	9.0
AUD FMGR 8	AUD:FMGR8	4AP12	9.0
AUD FMGR 9	AUD:FMGR9	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
AUD FSBLK	AUD:FSBLK	4AP12	9.0
AUD FSCMPT	AUD:FSCMPT	4AP12	9.0
AUD FSLINK	AUD:FSLINK	4AP12	9.0
AUD LKBDST 1	AUD:LKBDST-1	4AP14	9.0
AUD MMGR	AUD:MMGR	4AP12	9.0
AUD MSGBUF	AUD:MSGBUF	4AP12	9.0
AUD NIDATA 1	AUD:NIDATA-1	4AP12	9.0
AUD NIDATA 2	AUD:NIDATA-2	4AP14	9.0
AUD NIDATA 3	AUD:NIDATA-3	4AP12	9.0
AUD NIDATA 4	AUD:NIDATA-4	4AP12	9.0
AUD NIDATA 5	AUD:NIDATA-5	4AP12	9.0
AUD NIDATA 6	AUD:NIDATA-6	4AP12	9.0
AUD NIDATA 7	AUD:NIDATA-7	4AP12	9.0
AUD NIDATA 8	AUD:NIDATA-8	4AP12	9.1
AUD NIDATA 9	AUD:NIDATA-9	4AP12	9.1
AUD NIDATA 10	AUD:NIDATA-10	4AP14	9.1
AUD NMDATA 1	AUD:NMDATA-1	4AP12	9.0
AUD NMDATA 2	AUD:NMDATA-2	4AP12	9.0
AUD NMDATA 3	AUD:NMDATA-3	4AP12	9.0
AUD NODEST	AUD:NODEST	4AP12	9.0
AUD PDKEY	AUD:PDKEY	4AP12	9.1
AUD PMS	AUD:PMS	4AP12	9.0
AUD PROAD	AUD:PROAD	4AP12	9.0
AUD REMACS	AUD:REMACS	4AP14	9.0
AUD TDAS	AUD:TDAS	4AP12	9.0
CFR DADC	CFR:DADC	4AP12	9.0
CFR DUPLEXDISKS	CFR:DUPLEXDISKS	4AP17	9.1
CFR RING	CFR:RING	4AP12	9.0
CHG GEN	CHG:GEN	4AP12	9.0
CHG MRVT	CHG:MRVT	4AP12	9.1
CHG SLK	CHG:SLK	4AP12	9.1
CHG:SRVT	CHG:SRVT	4AP12	9.1
CLR DLNESC	CLR:DLNESC	4AP12	9.0
CLR EMERDMP	CLR:EMERDMP	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
CLR FILESYS DIR	CLR:F-DIR	4AP12	9.0
CLR FILESYS FILE	CLR:F-FILE	4AP12	9.0
CLR FANALM	CLR:FANALM	4AP12	9.0
CLR IMCAT	CLR:IMCAT	4AP12	9.0
CLR IODRV	CLR:IODRV	4AP12	9.0
CLR IOMEM	CLR:IOMEM	4AP12	9.1
CLR MHD MAEC	CLR:MHD-MAEC	4AP12	9.0
CLR PTN	CLR:PTN	4AP12	9.0
CLR RUTIL	CLR:RUTIL	4AP12	9.0
CLR SRST	CLR:SRST	4AP12	9.0
CLR T1M	CLR:T1M	4AP15	9.0
CLR TDAS	CLR:TDAS	4AP12	9.0
CLR UMEM	CLR:UMEM	4AP12	9.0
CLR UTIL	CLR:UTIL	4AP12	9.0
CLR UTILFLAG	CLR:UTILFLAG	4AP12	9.0
CMPR DISK CORE	CMPR:D-CORE	4AP12	9.0
CMPR MHD	CMPR:MHD	4AP12	9.0
CMPR ODA	CMPR:ODA	4AP16	9.0
COAMS INDIR	COAMS:0	4AP12	9.0
COPY 0	COPY:0	4AP12	9.0
COPY ACTDISK	COPY:ACTDISK	4AP12	9.0
COPY ADDR	COPY:ADDR	4AP12	9.0
COPY APPDB	COPY:APPDB	4AP12	9.0
COPY APPFILE	COPY:APPFILE	4AP15	9.0
COPY:APPTAPE	COPY:APPTAPE	4AP12	9.0
COPY BKDISK	COPY:BKDISK	4AP13	9.1
COPY BKTAPE	COPY:BKTAPE	4AP13	9.0
COPY DIFF SRC	COPY:DIFF-SRC	4AP12	9.0
COPY FILESYS CFILE	COPY:F-CFILE	4AP12	9.0
COPY FILESYS FILE	COPY:F-FILE	4AP12	9.0
COPY OOSDISK	COPY:OOSDISK	4AP12	9.0
COPY PTN ALL	COPY:P-ALL	4AP12	9.0
COPY PID	COPY:PID	4AP12	9.0
COPY REG	COPY:REG	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
COPY SPDISK	COPY:SPDISK	4AP17	9.1
COPY TAPE EMERDMP	COPY:T-EMERDMP	4AP12	9.0
COPY TAPE IN	COPY:T-IN	4AP12	9.0
COPY TAPE OUT	COPY:T-OUT	4AP12	9.0
COPY TAPE TEST	COPY:T-TEST	4AP12	9.0
COPY TAPE TOP	COPY:T-TOP	4AP14	9.2
COPY UID	COPY:UID	4AP12	9.0
COPY UPDATE	COPY:UPDATE	4AP16	9.0
COPY UVAR	COPY:UVAR	4AP12	9.0
DEACTV DCC	DEACTV:DCC	4AP12	9.0
DEL LOG	DEL:LOG	4AP12	9.0
DGN API	DGN:API	4AP12	9.0
DGN AUDIT	DGN:AUDIT	4AP12	9.0
DGN AUDIT RING	DGN:AUDIT-RING	4AP12	9.0
DGN CU	DGN:CU	4AP12	9.0
DGN CU MASC	DGN:CU-MASC	4AP12	9.0
DGN DCI	DGN:DCI	4AP12	9.0
DGN DFC	DGN:DFC	4AP17	9.1
DGN DUIC	DGN:DUIC	4AP12	9.0
DGN HSDC	DGN:HSDC	4AP12	9.0
DGN IOP	DGN:IOP	4AP12	9.0
DGN LN	DGN:LN	4AP12	9.0
DGN MHD	DGN:MHD	4AP12	9.0
DGN MT	DGN:MT	4AP12	9.0
DGN MTC	DGN:MTC	4AP12	9.0
DGN MTTYC	DGN:MTTYC	4AP17	9.1
DGN RPCN	DGN:RPCN	4AP12	9.0
DGN SCSDC	DGN:SCSDC	4AP12	9.0
DGN SDLC	DGN:SDLC	4AP12	9.0
DGN TTYC	DGN:TTYC	4AP12	9.0
DUMP ADDR	DUMP:ADDR-A	4AP12	9.0
DUMP ADDR	DUMP:ADDR-B	4AP12	9.0
DUMP AIM PRM	DUMP:AIM-PRM	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
DUMP BKTape	DUMP:BKTape	4AP13	9.0
DUMP BWM	DUMP:BWM	4AP12	9.0
DUMP CACHE	DUMP:Cache	4AP12	9.0
DUMP FILE ALL	DUMP:F-ALL	4AP12	9.0
DUMP FILE FORMAT	DUMP:F-FORMAT	4AP12	9.0
DUMP FILE PARTL	DUMP:F-PARTL	4AP12	9.0
DUMP FSA	DUMP:FSA	4AP13	9.0
DUMP KERN	DUMP:KERN	4AP12	9.0
DUMP MHD BLOCK	DUMP:MHD-BLK	4AP12	9.0
DUMP MHD DEFECT	DUMP:MHD-DEF	4AP12	9.0
DUMP MHD VTOC	DUMP:MHD-VTO	4AP12	9.0
DUMP MMA	DUMP:MMA	4AP13	9.0
DUMP PID	DUMP:PID	4AP12	9.0
DUMP PMEM	DUMP:PMEM	4AP12	9.0
DUMP REG	DUMP:REG-A	4AP12	9.0
DUMP REG	DUMP:REG-B	4AP12	9.0
DUMP RNA	DUMP:RNA	4AP12	9.0
DUMP RUTIL	DUMP:RUTIL	4AP12	9.1
DUMP SCP	DUMP:SCP	4AP12	9.0
DUMP SMEAS	DUMP:SMEAS	4AP12	9.0
DUMP TAPE	DUMP:TAPE	4AP12	9.0
DUMP TDAS	DUMP:TDAS	4AP12	9.0
DUMP UID	DUMP:UID	4AP12	9.0
DUMP UVAR	DUMP:UVAR-A	4AP12	9.0
DUMP UVAR	DUMP:UVAR-B	4AP12	9.0

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3.3 VOLUME 2 ALPHABETICAL INDEX

MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
EX CU	EX:CU	4AP12	9.0
EX DCI	EX:DCI	4AP12	9.0
EX DFC	EX:DFC	4AP12	9.0
EX DUIC	EX:DUIC	4AP12	9.0
EX HSDC	EX:HSDC	4AP12	9.0
EX IOP	EX:IOP	4AP12	9.0
EX LDPARM	EX:LDPARM	4AP12	9.0
EX LN	EX:LN	4AP12	9.0
EX LOOP	EX:LOOP	4AP12	9.0
EX MHD	EX:MHD	4AP12	9.0
EX MT	EX:MT	4AP12	9.0
EX MTC	EX:MTC	4AP12	9.0
EX MTTYC	EX:MTTYC	4AP12	9.0
EX PAUSE	EX:PAUSE	4AP12	9.0
EX RPCN	EX:RPCN	4AP12	9.0
EX SCSDC	EX:SCSDC	4AP12	9.0
EX SDLC	EX:SDLC	4AP12	9.0
EX STARTED	EX:STARTED	4AP12	9.0
EX STEP	EX:STEP	4AP12	9.0
EX STOP	EX:STOP	4AP12	9.0
EX TTYC	EX:TTYC	4AP12	9.0
EXC ENVIR PROC	EXC:E-PROC	4AP12	9.0
EXC ENVIR UPROC	EXC:E-UPROC	4AP12	9.0
EXC LFS	EXC:LFS	4AP12	9.0
EXC LID0	EXC:LID0	4AP12	9.0
EXC MRVT	EXC:MRVT	4AP12	9.0
EXC OFLBOOT	EXC:OFLBOOT	4AP12	9.0
EXC:SRVT	EXC:SRVT	4AP12	9.0
EXC T1M	EXC:T1M	4AP15	9.0
FLUSH NVTSESS	FLUSH:NVTSESS	4AP12	9.0
FRMV LN	FRMV:LN	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
FROM	FROM:0	4AP12	9.0
IN ACTOW	IN:ACTOW	4AP15	9.0
IN FILE APND	IN:F-APND	4AP12	9.0
IN FILE DEL	IN:F-DEL	4AP12	9.0
IN FILE REPL	IN:F-REPL	4AP12	9.0
IN FILESYS DIR	IN:FI-DIR	4AP12	9.0
IN OSOW	IN:OSOW	4AP15	9.0
IN REMOTE	IN:REM	4AP12	9.0
IN REMOTE ERROR	IN:REM-ERROR	4AP12	9.0
IN REMOTE INITIALIZED	IN:REM-INIT	4AP12	9.0
IN REMOTE STARTED	IN:REM-START	4AP12	9.0
IN REMOTE STOPPED	IN:REM-STOP	4AP12	9.0
IN TDAS	IN:TDAS	4AP12	9.0
IN XFER	IN:XFER	4AP13	9.0
INH ADB	INH:ADB	4AP12	9.0
INH AMA SSPUNAS COMPLETED	INH:AMA-SSPUNAS	4AP12	9.0
INH AUD	INH:AUD	4AP12	9.0
INH CONFLOG	INH:CONFLOG	4AP12	9.0
INH DCC	INH:DCC	4AP12	9.0
INH DCNAUD	INH:DCNAUD	4AP14	9.0
INH DLNAUD	INH:DLNAUD	4AP13	9.0
INH DMQ	INH:DMQ	4AP12	9.0
INH EAIINT	INH:EAIINT	4AP12	9.0
INH ERRCHK	INH:ERRCHK	4AP12	9.0
INH ERRINT	INH:ERRINT	4AP12	9.0
INH ERRSRC	INH:ERRSRC	4AP12	9.0
INH FILESYS UMOUNT	INH:F-UMOUNT	4AP12	9.0
INH FTA	INH:FTA	4AP12R4	9.1
INH HDWCHK	INH:HDWCHK	4AP12	9.0
INH IMSMEAS COMPL	INH:IMSMEAS	4AP12	9.0
INH PSLT	INH:PSLT	4AP12	9.0
INH RCV	INH:RCV	4AP15	9.0
INH RCV APPDB	INH:RCV-APPDB	4AP12	9.0
INH REPORT	INH:REPORT	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
INH REX	INH:REX	4AP12	9.0
INH RMV	INH:RMV	4AP12	9.0
INH RUTIL	INH:RUTIL	4AP12	9.1
INH SCSD	INH:SCSD	4AP12	9.0
INH SFTCHK	INH:SFTCHK	4AP12	9.0
INH SLK	INH:SLK	4AP12	9.0
INH TRACE	INH:TRACE	4AP12	9.0
INH TRAP	INH:TRAP	4AP12	9.0
INH UMEM	INH:UMEM	4AP12	9.0
INH UTIL	INH:UTIL	4AP12	9.0
INH UTILFLAG	INH:UTILFLAG	4AP12	9.0
INIT APPDB	INIT:APPDB	4AP12	9.0
INIT ATPCM	INIT:ATPCM	4AP13	9.0
INIT DLNCM STREAM	INIT:DLNCM	4AP12	9.0
INIT GTT	INIT:GTT	4AP12	9.0
INIT LN	INIT:LN	4AP12	9.0
INIT MHD	INIT:MHD	4AP12	9.0
INIT TDAS	INIT:TDAS	4AP12	9.0
INIT ULARP	INIT:ULARP	4AP12	9.0
INIT UMEM	INIT:UMEM	4AP12	9.0
LOAD	LOAD:0	4AP12	9.0
LOAD ADDR	LOAD:ADDR	4AP12	9.0
LOAD:APPTAPE	LOAD:APPTAPE	4AP12	9.0
LOAD BYTE	LOAD:BYTE	4AP12	9.0
LOAD DFC PUMP	LOAD:DFC-PUMP	4AP14	9.1
LOAD DFC RAM	LOAD:DFC-RAM	4AP12	9.0
LOAD GULP	LOAD:GULP	4AP16	9.1
LOAD MHD	LOAD:MHD	4AP12	9.0
LOAD MHD DEFECT	LOAD:MHD-DEF	4AP12	9.0
LOAD MHD FIRMWARE	LOAD:MHD-FIRM	4AP12	9.0
LOAD PMEM	LOAD:PMEM	4AP12	9.0
LOAD REG	LOAD:REG-A	4AP12	9.0
LOAD REG	LOAD:REG-B	4AP12	9.0
LOAD RNA	LOAD:RNA	4AP12	9.0
LOAD RUTIL	LOAD:RUTIL	4AP12	9.1

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
LOAD SHORT	LOAD:SHORT	4AP12	9.0
LOAD:TLP	LOAD:TLP	4AP18	9.2
LOAD:UPDATE	LOAD:UPDATE	4AP16	9.2
LOAD:UPDATE:ABORT	LOAD:UPDATE-ABORT	4AP12	9.0
LOAD:UPDATE:CONT	LOAD:UPDATE-CONT	4AP16	9.0
LOAD:UPDATE:DIFF	LOAD:UPDATE-DIFF	4AP12	9.0
LOAD:UPDATE:GEN	LOAD:UPDATE-GEN	4AP16	9.0
LOAD:UPDATE:MAP	LOAD:UPDATE-MAP	4AP12	9.0
LOAD:UPDATE:NWM	LOAD:UPDATE-NWM	4AP16	9.0
LOAD:UPDATE:ODA	LOAD:UPDATE-ODA	4AP16	9.0
LOAD:UPDATE:SKIP	LOAD:UPDATE-SKIP	4AP12	9.0
LOAD:UPDATE:SR	LOAD:UPDATE-SR	4AP16	9.2
LOAD UPNM	LOAD:UPNM	4AP12	9.0
LOAD UVAR	LOAD:UVAR-A	4AP12	9.0
LOAD UVAR	LOAD:UVAR-B	4AP12	9.0
LOAD WORD	LOAD:WORD	4AP12	9.0
MON SLK	MON:SLK	4AP12	9.0
NPMEM NPMEM	NPMEM:NPMEM	4AP12	9.0
OP ABD	OP:ABD	4AP17	9.1
OP ACT	OP:ACT	4AP12	9.0
OP ADB LOG	OP:ADB-LOG	4AP12	9.0
OP ADB PERM	OP:ADB-PERM	4AP12	9.0
OP AMA RECSRCH	OP:AMA-RECSRCH	4AP12	9.0
OP AMA SRCH	OP:AMA-SRCH	4AP12	9.0
OP APPFILE	OP:APPFILE	4AP12	9.0
OP APPLOAD	OP:APPLOAD	4AP16	9.0
OP ATPCM IMSCHAN COMPLETED	OP:ATPCM-IMSCHN	4AP13	9.0
OP ATPCM PROCS COMPLETED	OP:ATPCM-PROCS	4AP13	9.0
OP ATPCM TASKS COMPLETED	OP:ATPCM-TASKS	4AP13	9.0
OP AUD	OP:AUD	4AP12	9.0
OP AUDERR	OP:AUDERR	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
OP C7NET	OP:C7NET-A	4AP12	9.0
OP C7NET	OP:C7NET-B	4AP14	9.0
OP CFGSTAT	OP:CFGSTAT	4AP12	9.0
OP CLK	OP:CLK	4AP12	9.0
OP DCC	OP:DCC	4AP12R4	9.1
OP DCNAUD	OP:DCNAUD	4AP14	9.0
OP DCNAUDERR	OP:DCNAUDERR	4AP14	9.0
OP DFC INFO	OP:DFC-INFO	4AP17	9.1
OP DFCELOG	OP:DFCELOG	4AP12	9.0
OP DLNAUD	OP:DLNAUD	4AP13	9.0
OP DLNCM BINKMAP COMPLETED	OP:DLNCM-BINKMP	4AP12	9.0
OP DLNCM DLNMAP COMPLETED	OP:DLNCM-DLNMAP	4AP12	9.0
OP DLNCM IMSCHAN COMPLETED	OP:DLNCM-IMSCHN	4AP12	9.0
OP DLNCM STREAM COMPLETED	OP:DLNCM-STREAM	4AP12	9.0
OP DLNCM TASKS COMPLETED	OP:DLNCM-TASKS	4AP12	9.0
OP DLNESC	OP:DLNESC	4AP12	9.0
OP DMQ	OP:DMQ	4AP12	9.0
OP DMSORDERS	OP:DMSORDERS	4AP12	9.0
OP EMERSTAT	OP:EMERSTAT	4AP12	9.0
OP ERRCHK	OP:ERRCHK	4AP12	9.0
OP FNAME	OP:FNAME	4AP12	9.0
OP FTA	OP:FTA	4AP12	9.0
OP FTF	OP:FTF	4AP12	9.0
OP GEN READLOG	OP:G-READLOG	4AP15	9.2
OP GROW	OP:GROW	4AP12	9.0
OP INH APPDB	OP:INH-APPDB	4AP13	9.0
OP INIT	OP:INIT	4AP12	9.0
OP IODRV	OP:IODRV	4AP12	9.0
OP IOP INFO	OP:IOP-INFO	4AP17	9.1
OP LFS	OP:LFS	4AP12	9.0
OP LIBUF	OP:LIBUF	4AP12	9.0
OP LNSTAT	OP:LNSTAT	4AP14	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
OP LOG	OP:LOG	4AP12	9.0
OP MEMERRS	OP:MEMERRS	4AP12	9.0
OP MHD INFO	OP:MHD-INFO	4AP17	9.1
OP MT INFO	OP:MT-INFO	4AP12	9.0
OP NODES	OP:NODES	4AP16	9.1
OP NPMEM	OP:NPMEM	4AP12	9.0
OP OFL	OP:OFL	4AP12	9.0
OP OMDB	OP:OMDB	4AP12	9.0
OP OOS	OP:OOS	4AP12	9.0
OP:OUTCLS	OP:OUTCLS	4AP12	9.0
OP PMCR ERROR	OP:PMCR	4AP13	9.0
OP RCAS FILES COMPLETED	OP:RCAS-FILES	4AP13	9.0
OP RCAS MEAS COMPLETED	OP:RCAS-MEAS	4AP13	9.0
OP RCAS TASKS COMPLETED	OP:RCAS-TASKS	4AP13	9.0
OP REXINH	OP:REXINH	4AP12	9.0
OP RING	OP:RING	4AP12	9.0
OP RUTIL	OP:RUTIL	4AP12	9.0
OP SCHD	OP:SCHD	4AP12	9.0
OP SCSD	OP:SCSD	4AP14	9.3
OP SDC	OP:SDC	4AP13	9.0
OP SLK	OP:SLK	4AP14	9.0
OP SMR	OP:SMR	4AP15	9.0
OP SNAT	OP:SNAT	4AP12	9.0
OP STATUS DISKUSE	OP:ST-DISKUSE	4AP12	9.0
OP STATUS FILESYS	OP:ST-FILESYS	4AP12	9.0
OP STATUS FREEDISK	OP:ST-FRDISK	4AP12	9.0
OP STATUS LISTDIR	OP:ST-LSTDIR	4AP12	9.0
OP STATUS NSC	OP:ST-NSC	4AP12	9.0
OP STATUS PORTS	OP:ST-PORTS	4AP12	9.0
OP STATUS PROCESS	OP:ST-PROC	4AP12	9.0
OP STATUS SUM	OP:ST-SUM	4AP12	9.0
OP STBY	OP:STBY	4AP12	9.0
OP T1M	OP:T1M	4AP15	9.0
OP:TDAS	OP:TDAS	4AP12	9.0
OP:TPC	OP:TPC	4AP12	9.0
OP TRACE	OP:TRACE	4AP12	9.0
OP TRAP	OP:TRAP	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
OP TSC	OP:TSC	4AP12	9.0
OP ULARP COMMAND	OP:ULARP-COM	4AP12	9.0
OP ULARP EXECSEQ	OP:ULARP-EXEC	4AP12	9.0
OP ULARP PROCESS	OP:ULARP-PROC	4AP12	9.0
OP UMEM	OP:UMEM	4AP12	9.0
OP UNAV	OP:UNAV	4AP12	9.0
OP UNEQIP	OP:UNEQIP	4AP12	9.0
OP UPD	OP:UPD	4AP13	9.0
OP UTIL	OP:UTIL	4AP12	9.0
OP VERSION	OP:VERSION	4AP13	9.0
OP VTOP	OP:VTOP	4AP12	9.0
ORD SCSD	ORD:SCSD	4AP12	9.0
PRM	PRM:0	4AP12	9.0
PUMP:ATP	PUMP:ATP	4AP13	9.0
RC:GTT	RC:GTT	4AP12	9.0
RC MISC FHT FTA	RC:MISC-FHT-FTA	4AP12	9.0
RC ORNU	RC:ORNU	4AP12	9.0
RCV DMTECD VFY	RCV:DMTECD-VFY	4AP12	9.0
RCV DMTSG VFY	RCV:DMTSG-VFY	4AP12	9.0
RCV MENU	RCV:MENU	4AP12	9.0
RCVRY CU	RCVRY:CU	4AP12	9.0
RCVRY DUI	RCVRY:DUI	4AP12	9.0
RCVRY DUIC	RCVRY:DUIC	4AP12	9.0
RCVRY EAI	RCVRY:EAI	4AP12	9.0
RCVRY IOP	RCVRY:IOP	4AP12	9.0
RCVRY MT	RCVRY:MT	4AP12	9.0
RCVRY MTC	RCVRY:MTC	4AP12	9.0
RCVRY MTTY	RCVRY:MTTY	4AP12	9.0
RCVRY MTTYC	RCVRY:MTTYC	4AP12	9.0
RCVRY ROP	RCVRY:ROP	4AP12	9.0
RCVRY SCC	RCVRY:SCC	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
RCVRY SCSDC	RCVRY:SCSDC	4AP12	9.0
RCVRY SDL	RCVRY:SDL	4AP12	9.0
RCVRY SDLC	RCVRY:SDLC	4AP12	9.0
RCVRY TTY	RCVRY:TTY	4AP12	9.0
RCVRY TTYC	RCVRY:TTYC	4AP12	9.0
REKEY SLK	REKEY:SLK	4AP12	9.0
REMACS AUD	REMACS:AUD	4AP12	9.0
REPT 3BN DMA RSTRT	REPT:3BN-DMA	4AP12	9.0
REPT ADB	REPT:ADB	4AP12	9.0
REPT ADP	REPT:ADP-AUTFAIL	4AP12	9.0
REPT ADP AUTORST	REPT:ADP-AUTHRESH	4AP12	9.0
REPT ADP INHIBIT ACTIVE	REPT:ADP-INHIBIT	4AP12	9.0
REPT ADP INTERFACE ERROR	REPT:ADP-INT	4AP12	9.0
REPT ADPAB	REPT:ADPAB	4AP12	9.0
REPT AIM KERNEL STACK	REPT:AIM	4AP12	9.0
REPT AIM ACTION TASK	REPT:AIM-ACTION	4AP12	9.0
REPT AIM AMA	REPT:AIM-AMA	4AP12	9.0
REPT AIM CNI INIT	REPT:AIM-CNI	4AP12	9.0
REPT AIM EVENT	REPT:AIM-EVENT	4AP12	9.0
REPT AIM FAULT CODE	REPT:AIM-FAULT	4AP12	9.0
REPT AIM KERNEL LOCKOUT	REPT:AIM-KERNEL	4AP12	9.0
REPT AIM PROC TASK	REPT:AIM-PROC	4AP12	9.0
REPT AIM PROCESS TASK	REPT:AIM-PROCESS	4AP12	9.0
REPT AIM RTR INIT	REPT:AIM-RTR	4AP12	9.0
REPT AIMCHK ERR	REPT:AIMCHK-ERR	4AP12	9.0
REPT AIMCHK-FILE SYSTEM	REPT:AIMCHK-FS	4AP12	9.0
REPT AIMCHK NON- HANDLED OVERLOAD	REPT:AIMCHK-NOFAU	4AP12	9.0
REPT AIMCHK STATUS	REPT:AIMCHK-ST	4AP12	9.0
REPT AIMCHK TASK	REPT:AIMCHK-TASK	4AP12	9.0
REPT AIMSTUB	REPT:AIMSTUB	4AP12	9.0
REPT AMA CRITICAL	REPT:AMA-C-ALM	4AP12	9.0

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REPT AMA CDR FIFO	REPT:AMA-CDR-FIFO	4AP12	9.0
REPT AMA CDR SESSION	REPT:AMA-CDR-SESS	4AP12	9.0
REPT AMA CONFIG	REPT:AMA-CONFIG	4AP21	9.4
REPT AMA CONTROL	REPT:AMA-CONT	4AP12	9.0
REPT AMA CONTROL	REPT:AMA-CONTL	4AP12	9.0
REPT AMA CRIT ALARM	REPT:AMA-CRIT	4AP12	9.0
REPT AMA DISK ALARM	REPT:AMA-D-ALM	4AP12	9.0
REPT AMA DISK MAPS	REPT:AMA-D-MAPS	4AP12	9.0
REPT AMA DISK READER	REPT:AMA-D-READ	4AP12	9.0
REPT AMA DISK STORAGE	REPT:AMA-D-STO	4AP12	9.0
REPT AMA DISK SUMMARY	REPT:AMA-D-SUM	4AP12	9.0
REPT AMA DISK WRITER	REPT:AMA-D-WRIT	4AP12	9.0
REPT AMA FORMATTER	REPT:AMA-FORM	4AP13	9.0
REPT AMA /ICDR TRANSFER	REPT:AMA-ICDR-TRN	4AP12	9.0
REPT AMA MAJOR ALARM	REPT:AMA-MAJOR	4AP12	9.0
REPT AMA MINOR ALARM	REPT:AMA-MINOR	4AP12	9.0
REPT AMA MONITOR	REPT:AMA-MON	4AP12	9.0
REPT AMA SESSION	REPT:AMA-S-CON	4AP12	9.0
REPT AMA SESSION	REPT:AMA-S-EST	4AP12	9.0
REPT AMA SESSION	REPT:AMA-S-TER	4AP12	9.0
REPT AMA SESSIONS	REPT:AMA-SESS	4AP12	9.0
REPT AMA SSPUNAS IS	REPT:AMA-SSPUNAS	4AP12	9.0
REPT AMA STREAM	REPT:AMA-STR-FILE	4AP12	9.0
REPT AMA STREAM	REPT:AMA-STREAM	4AP12	9.0
REPT AMA TAPE SESSION	REPT:AMA-TA-SE	4AP12	9.0
REPT AMA TAPE SUMMARY	REPT:AMA-TA-SU	4AP12	9.0
REPT AMA TELEPROCESSING	REPT:AMA-TELE	4AP12	9.0
REPT AMA TELEPROCESSING	REPT:AMA-TELE-SE	4AP12	9.0
REPT AMA TELEPROCESSING	REPT:AMA-TELE-SU	4AP12	9.0
REPT AMA TAPE WRITING	REPT:AMA-TP-WR	4AP12	9.0
REPT AMA TRANSFER	REPT:AMA-TRANS	4AP12	9.0
REPT AMATAPE COMPLETE	REPT:AMATAP-CO	4AP12	9.0
REPT AMATAPE ERROR	REPT:AMATAP-ER	4AP12	9.0
REPT AMATAPE VERIFY	REPT:AMATAP-VF	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT AMcniopen: cHioctl	REPT:AMCNI-CHI	4AP12	9.0
REPT AMcniopen: cHkopen	REPT:AMCNI-CHK	4AP12	9.0
REPT ANALY TLP	REPT:ANL-TLP	4AP12	9.0
REPT:APDRV ERR X'436	REPT:APDRV-ER-436	4AP12	9.0
REPT:APDRV ERR X'437	REPT:APDRV-ER-437	4AP12	9.0
REPT:APDRV ERR 4aa	REPT:APDRV-ER-4aa	4AP12	9.0
REPT:APDRV ERR 5aa	REPT:APDRV-ER-5aa	4AP12	9.0
REPT:APDRV ERR 5cc	REPT:APDRV-ER-5cc	4AP12	9.0
REPT:APDRV ERR 5dd	REPT:APDRV-ER-5dd	4AP12	9.0
REPT:APDRV ERR	REPT:APDRV-ERR	4AP12	9.0
REPT:APDRV FAULT	REPT:APDRV-FAU	4AP12	9.0
REPT:APDRV INIT	REPT:APDRV-INIT	4AP12	9.0
REPT:APDRV IPC	REPT:APDRV-IPC	4AP12	9.0
REPT:APDRV MEMORY DUMP	REPT:APDRV-MEM	4AP12	9.0
REPT:API DGN AUDIT	REPT:API-DGN	4AP12	9.0
REPT:API DUMP	REPT:API-DUMP	4AP12	9.0
REPT:API ERR	REPT:API-ERR	4AP12	9.0
REPT:APLUPD	REPT:APLUPD	4AP12	9.0
REPT APPDB	REPT:APPDB-DA	4AP12	9.0
REPT APPDB	REPT:APPDB-FR	4AP12	9.0
REPT APPDB	REPT:APPDB-IR	4AP12	9.0
REPT:APRMVRST	REPT:APRMVRST	4AP12	9.0
REPT:APS DELAY	REPT:APS-DELAY	4AP12	9.0
REPT:APSMEAS COUNTS	REPT:APSM-CNTS	4AP12	9.0
REPT:APSMEAS FAILED	REPT:APSM-FAIL	4AP12	9.0
REPT:APSMMSG ERR	REPT:APSMMSG-ERR	4AP12	9.0
REPT:APSMMSG FAULT	REPT:APSMMSG-FAU	4AP12	9.0
REPT ARR AUTORST	REPT:ARR-AUTORST	4AP12	9.0
REPT ARTS	REPT:ARTS	4AP12	9.0
REPT ATPCM	REPT:ATPCM	4AP13	9.0
REPT ATPN	REPT:ATPN	4AP13	9.1
REPT AUDSTAT	REPT:AUDSTAT	4AP12	9.0
REPT AUTORST FAILURE	REPT:AUTORST	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT BAD OST	REPT:BAD-OST	4AP12	9.0
REPT BDG	REPT:BDG	4AP12	9.0
REPT BOOTAUD	REPT:BOOTAUD	4AP12	9.0
REPT BWMINT	REPT:BWMINT	4AP12	9.0
REPT CALL AMA	REPT:CALL-AMA	4AP12	9.0
REPT CD CIA	REPT:CD-CIA	4AP12	9.0
REPT C / D DLGGETTY	REPT:CD-DLGGETTY	4AP12	9.0
REPT C / D ERROR	REPT:CD-ERROR	4AP12	9.0
REPT C / D GETTY	REPT:CD-GETTY	4AP12	9.0
REPT C / D POKER	REPT:CD-POKER	4AP12	9.0
REPT C / D POKER	REPT:CD-POKER-ERR	4AP12	9.0
REPT C / D STARTER	REPT:CD-STARTER	4AP12	9.0
REPT CEHDLR	REPT:CEHDLR	4AP12	9.0
REPT CFT LIB	REPT:CFT-LIB	4AP12	9.0
REPT CFTSHL	REPT:CFTSHL	4AP12	9.0
REPT CLUCREAT	REPT:CLUCREAT	4AP12	9.0
REPT CMMSADM	REPT:CMMSADM	4AP12	9.0
REPT CMMSDP	REPT:CMMSDP	4AP12	9.1
REPT CMRCV	REPT:CMRCV	4AP12	9.0
REPT CMRCVK	REPT:CMRCVK	4AP12	9.0
REPT COAMS CAU			
ABORTING CORE DUMP	REPT:CMS-C-ABORT	4AP12	9.0
REPT COAMS CAU PT_CAU			
BUSY	REPT:CMS-C-BUSY	4AP12	9.0
REPT COAMS [cau debug]			
DLCAURST ENTERED	REPT:CMS-C-DBGEN	4AP12	9.0
REPT COAMS [cau debug]			
OPEN SUCCESS	REPT:CMS-C-DBGOS	4AP12	9.0
REPT COAMS [cau debug]			
SENT TO CAU	REPT:CMS-C-DBGSC	4AP12	9.0
REPT COAMS [cau debug]			
SENT	REPT:CMS-C-DBGSN	4AP12	9.0
REPT COAMS [cau debug]			
DLCAURST TTY 19	REPT:CMS-C-DBGTTY	4AP12	9.0
REPT COAMS [cau debug]			
WRITE FAILED	REPT:CMS-C-DBGW	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT COAMS CAU FAILED TO SEND TTY 19	REPT:CMS-C-FAIL	4AP12	9.0
REPT COAMS CAU IO READ BUF OUT	REPT:CMS-C-IORD	4AP12	9.0
REPT COAMS CAU IO WRITE BUF LOST	REPT:CMS-C-IOWR	4AP12	9.1
REPT COAMS CAU OUTPUT LEN ERR	REPT:CMS-C-LNERR	4AP12	9.0
REPT COAMS CAU OUTPUT MSG TOO LONG	REPT:CMS-C-MSGTL	4AP12	9.0
REPT COAMS CAU OPEN FAILED	REPT:CMS-C-OPEN	4AP12	9.0
REPT COAMS CAU RESTORING LINK	REPT:CMS-C-RSTLK	4AP12	9.0
REPT COAMS CAU RTR RECV FAIL	REPT:CMS-C-RTRRC	4AP12	9.0
REPT COAMS CAU SESSION COMPLETE	REPT:CMS-C-SCOMP	4AP12	9.0
REPT COAMS CAU SESSION IN PROGRESS	REPT:CMS-C-SINPR	4AP12	9.0
REPT COAMS CAU SESSION STARTING	REPT:CMS-C-SSTA	4AP12	9.0
REPT COAMS CAU UNRECOGNIZE MTYPE	REPT:CMS-C-UNREC	4AP12	9.0
REPT COAMS INDIR ACK	REPT:CMS-IND-ACK	4AP12	9.0
REPT COAMS INDIR FAILED	REPT:CMS-IND-FAIL	4AP12	9.0
REPT COAMS INDIR LOGDEV	REPT:CMS-IND-LOGD	4AP12	9.0
REPT COAMS INDIR LOST	REPT:CMS-IND-LOST	4AP12	9.0
REPT COAMS INDIR MDCT	REPT:CMS-IND-MDCT	4AP12	9.0
REPT COAMS INDIR MEMORY	REPT:CMS-IND-MEM	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT COAMS INDIR OPEN	REPT:CMS-IND-OPEN	4AP12	9.0
REPT COAMS INDIR TERMINATED	REPT:CMS-IND-TERM	4AP12	9.0
REPT COAMS INDIR UCB	REPT:CMS-IND-UCB	4AP12	9.0
REPT COAMS OUTDIR ACK	REPT:CMS-O-ACK	4AP12	9.0
REPT COAMS OUTDIR CANNOT LINK FILE	REPT:CMS-O-CANT	4AP12	9.0
REPT COAMS OUTDIR CHAN TWO PIDS	REPT:CMS-O-CHNPD	4AP12	9.0
REPT COAMS OUTDIR CANNOT ATTACH ECD	REPT:CMS-O-CNTAT	4AP12	9.0
REPT COAMS OUTDIR CANNOT STAT STDIN	REPT:CMS-O-CNTST	4AP12	9.0
REPT COAMS OUTDIR PID DCT	REPT:CMS-O-DCT	4AP12	9.0
REPT COAMS OUTDIR FAULT	REPT:CMS-O-FLT	4AP12	9.0
REPT COAMS OUTDIR NSC DIES NO LCHAN	REPT:CMS-O-NSCDI	4AP12	9.0
REPT COAMS OUTDIR NSC ERR UCB	REPT:CMS-O-NSCER	4AP12	9.0
REPT COAMS OUTDIR NSC DIES LINK OPEN ERR	REPT:CMS-O-NSCLK	4AP12	9.0
REPT COAMS OUTDIR NSC OUTPUT BLOCKED	REPT:CMS-O-OTBLK	4AP12	9.0
REPT COAMS OUTDIR SIG UCB	REPT:CMS-O-SIG	4AP12	9.0
REPT COAMS OUTDIR STDIN UCB FETCH	REPT:CMS-O-STFCH	4AP12	9.0
REPT COAMS OUTDIR STDIN STAT WRONG	REPT:CMS-O-STWRG	4AP12	9.0
REPT COAMS OUTDIR TOSS FAILURES	REPT:CMS-O-TSFL	4AP12	9.0

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REPT COAMS OUTDIR TTY CONNECTED	REPT:CMS-O-TTYCN	4AP12	9.0
REPT COAMS OUTDIR NO UCB	REPT:CMS-OUT-NUC	4AP12	9.0
REPT RING CNCE	REPT:CNCE	4AP15	9.0
REPT CNIDBA	REPT:CNIDBA	4AP12	9.0
REPT CNIDBAK	REPT:CNIDBAK	4AP12	9.0
REPT CNIER	REPT:CNIER	4AP12	9.0
REPT CNIINIT	REPT:CNIINIT	4AP12	9.1
REPT COM100	REPT:COM100	4AP12	9.0
REPT COM101	REPT:COM101	4AP12	9.0
REPT CONFIG FAULT	REPT:CONFIG	4AP12	9.0
REPT CONFIG RECONFIGURATION	REPT:CONFIG-REC	4AP12	9.0
REPT COPY PBUF	REPT:COPY-PBUF	4AP12	9.0
REPT CSOP	REPT:CSOP	4AP13	9.0
REPT CSOP FORMATTING	REPT:CSOP-FORM	4AP12	9.0
REPT CSOP IN	REPT:CSOP-IN	4AP12	9.0
REPT CSOP PRIM	REPT:CSOP-PRIM	4AP12	9.0
REPT CU	REPT:CU	4AP16	9.2
REPT CURSTRMV FAULT	REPT:CURSTRMV	4AP12	9.0
REPT DADC SDL	REPT:DADC-SDL	4AP12	9.0
REPT DB INIT	REPT:DB-INIT	4AP12	9.0
REPT DCHAN	REPT:DCHAN	4AP14	9.0
REPT DCI	REPT:DCI	4AP18	9.3
REPT DCIDIP	REPT:DCIDIP	4AP16	9.0
REPT DCNAP	REPT:DCNAP	4AP14	9.0
REPT DCNAUDSTAT	REPT:DCNAUDSTAT	4AP14	9.0
REPT DEGROWTH	REPT:DEGROWTH	4AP12	9.0
REPT DFC	REPT:DFC	4AP13	9.0
REPT DFC PUMP	REPT:DFC-PUMP	4AP12	9.0
REPT DFCE	REPT:DFCE	4AP12	9.0
REPT DFCI	REPT:DFCI	4AP12	9.0
REPT DFRMVRST ERROR	REPT:DFRMVRST	4AP12	9.0
REPT DGN	REPT:DGN	4AP12	9.0
REPT DGN AUDIT	REPT:DGN-AUDIT	4AP12	9.0
REPT DIAMON	REPT:DIAMON-A	4AP12	9.0

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REPT DIAMON	REPT:DIAMON-B	4AP12	9.0
REPT DIOP	REPT:DIOP-A	4AP12	9.0
REPT DIOP	REPT:DIOP-B	4AP12	9.0
REPT DKDIP	REPT:DKDIP	4AP12	9.0
REPT DKDRV	REPT:DKDRV	4AP12	9.0
REPT DLGGETTY	REPT:DLGGETTY	4AP12	9.0
REPT DLGSHL	REPT:DLGSHL	4AP12	9.0
REPT DLN AP	REPT:DLN-AP	4AP12	9.0
REPT DLN CNGST	REPT:DLN-CNGST	4AP12	9.0
REPT DLNCM PROC (Api_ermmsg)	REPT:DLNCM-APIERR	4AP12	9.0
REPT DLNCM PROC (Attstim)	REPT:DLNCM-ATSTIM	4AP12	9.0
REPT DLNCM PROC (Aud1all)	REPT:DLNCM-AUD1AL	4AP12	9.3
REPT DLNCM PROC (_audit1)	REPT:DLNCM-AUDIT1	4AP12	9.0
REPT DLNCM PROC (_audit2)	REPT:DLNCM-AUDIT2	4AP12	9.0
REPT DLNCM PROC (_audit3)	REPT:DLNCM-AUDIT3	4AP12	9.0
REPT DLNCM PROC (audrpt)	REPT:DLNCM-AUDRPT	4AP12	9.3
REPT DLNCM PROC (chkdma)	REPT:DLNCM-CHKDMA	4AP12	9.0
REPT DLNCM PROC (Checkdlnmap)	REPT:DLNCM-CHKMAP	4AP12	9.0
REPT DLNCM PROC (Cniopen)	REPT:DLNCM-CNIOP	4AP12	9.0
REPT DLNCM	REPT:DLNCM-DBTYPE	4AP12	9.0
REPT DLNCM DLN MAP	REPT:DLNCM-DLN-MP	4AP12	9.0
REPT DLNCM PROC (Dlnchnng)	REPT:DLNCM-DLNCHG	4AP12	9.0
REPT DLNCM PROC (Dln_ermmsg)	REPT:DLNCM-DLNER	4AP12	9.0

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REPT DLNCM PROC (Dlnevent)	REPT:DLNCM-DLNEVT	4AP12	9.0
REPT DLNCM PROC (Dlnrst)	REPT:DLNCM-DLNRST	4AP12	9.0
REPT DLNCM PROC (F_devid)	REPT:DLNCM-FDEVID	4AP12	9.0
REPT DLNCM PROC (Getpta)	REPT:DLNCM-GETPTA	4AP12	9.0
REPT DLNCM PROC (Grow_strm)	REPT:DLNCM-GRSTRM	4AP12	9.0
REPT DLNCM PROC (Imsend)	REPT:DLNCM-IMSEND	4AP12	9.0
REPT DLNCM PROC (Imsmg)	REPT:DLNCM-IMSMG	4AP12	9.0
REPT DLNCM PROC (Init2)	REPT:DLNCM-INIT2	4AP12	9.0
REPT DLNCM PROC (Init_traps)	REPT:DLNCM-INTRAP	4AP12	9.0
REPT DLNCM PROC (kfault)	REPT:DLNCM-KFAULT	4AP12	9.0
REPT DLNCM PROC (Kill_traps)	REPT:DLNCM-KILTRP	4AP12	9.0
REPT DLNCM LN ON-LINE	REPT:DLNCM-ONLINE	4AP12	9.0
REPT DLNCM	REPT:DLNCM-PAPPCU	4AP12	9.0
REPT DLNCM	REPT:DLNCM-PAPPDB	4AP12	9.0
REPT DLNCM	REPT:DLNCM-PMPAPD	4AP12	9.0
REPT DLNCM	REPT:DLNCM-PMPAPP	4AP12	9.0
REPT DLNCM PROC (Pumpdata)	REPT:DLNCM-PMPDTA	4AP12	9.0
REPT DLNCM	REPT:DLNCM-PMPGTT	4AP12	9.0
REPT DLNCM PROC (Pump)	REPT:DLNCM-PUMP	4AP12	9.0
REPT DLNCM PROC (Rcmg)	REPT:DLNCM-RCMSG	4AP12	9.0

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REPT DLNCM PROC (Rcupdate)	REPT:DLNCM-RCUPD	4AP12	9.0
REPT DLNCM PROC (Reqcniinit)	REPT:DLNCM-REQCNI	4AP12	9.0
REPT DLNCM PROC (Ringstrt)	REPT:DLNCM-RINGST	4AP12	9.0
REPT DLNCM PROC (Ringend)	REPT:DLNCM-RNGEND	4AP12	9.0
REPT DLNCM PROC (Rsperror)	REPT:DLNCM-RSPERR	4AP12	9.0
REPT DLNCM PROC (Rtrmsg)	REPT:DLNCM-RTRMSG	4AP12	9.0
REPT DLNCM PROC (Senddlmap)	REPT:DLNCM-SNDMP	4AP12	9.0
REPT DLNCM PROC (Startdlm)	REPT:DLNCM-STDNL	4AP12	9.0
REPT DLNCM PROC (Strmfault)	REPT:DLNCM-STMFLT	4AP12	9.0
REPT DLNCM PROC (Stopdlm)	REPT:DLNCM-STPDLN	4AP12	9.0
REPT DLNCM PROC (Startprc)	REPT:DLNCM-STPRC	4AP12	9.0
REPT DLNCM PROC (Stopstrm)	REPT:DLNCM-STPSTM	4AP12	9.0
REPT DLNCM PROC (Strmaction)	REPT:DLNCM-STRACT	4AP12	9.0
REPT DLNCM PROC (Startstrm)	REPT:DLNCM-STSTRM	4AP12	9.0
REPT DLNCM PROC (Switch_1A)	REPT:DLNCM-SWT1A	4AP12	9.0
REPT DLNCM PROC (Trafstrt)	REPT:DLNCM-TRAFST	4AP12	9.0
REPT DLNCM PROC (teardown)	REPT:DLNCM-TRDWN	4AP12	9.0
REPT DLNCM PROC (Update)	REPT:DLNCM-UPD	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT DLNCM PROC (update)	REPT:DLNCM-UPDERR	4AP12	9.0
REPT DMQ	REPT:DMQ	4AP12	9.0
REPT DNHRMEAS	REPT:DNHRMEAS	4AP12	9.0
REPT DUI	REPT:DUI	4AP12	9.0
REPT DUIC	REPT:DUIC	4AP12	9.0
REPT DUMP PBUF	REPT:DUMP-PBUF	4AP12	9.0
REPT EAI	REPT:EAI	4AP17	9.3
REPT ECD	REPT:ECD	4AP17	9.2
REPT ECDMAN	REPT:ECDMAN	4AP12	9.0
REPT EMERGENCY DUMP	REPT:EMER-DUMP	4AP12	9.0
REPT ERROR	REPT:ERROR	4AP12	9.0
REPT ERRPORT	REPT:ERRPORT	4AP12	9.0
REPT ERSLOT	REPT:ERSLOT	4AP12	9.0
REPT FAN	REPT:FAN	4AP12	9.0
REPT FAULT	REPT:FAULT	4AP12	9.0
REPT FAN MULTI	REPT:FF-MULTI	4AP12	9.0
REPT FAN SINGLE	REPT:FF-SING	4AP12	9.0
REPT FIELD MAINT	REPT:FIELD-MAINT	4AP12	9.0
REPT FILESYS	REPT:FILESYS	4AP12	9.0
REPT FMGR	REPT:FMGR	4AP12	9.0
REPT FMGR DSW	REPT:FMGR-DSW	4AP12	9.0
REPT FMGR ECD	REPT:FMGR-ECD	4AP12	9.0
REPT FMGR FILSYS	REPT:FMGR-FILSYS	4AP12	9.0
REPT FMGR	REPT:FMGR-GRW	4AP12	9.0
REPT FMGR MOUNT	REPT:FMGR-MOUNT	4AP12	9.0
REPT FMGR NONTASK FAULT	REPT:FMGR-NF	4AP12	9.0
REPT FMGR TABLE OVERLOAD	REPT:FMGR-OVLD	4AP12	9.0
REPT FMGR PROCESS	REPT:FMGR-PROC	4AP12	9.0
REPT FMGR TASK STATUS	REPT:FMGR-TS	4AP12	9.0
REPT FMGR UMNTFLD	REPT:FMGR-UMNTFLD	4AP12	9.0
REPT FMGR UNMOUNTED	REPT:FMGR-UNMNT	4AP12	9.0
REPT FMGR ACCESS WINDOW	REPT:FMGR-WNDW	4AP12	9.0
REPT FUSE ALARM	REPT:FUSE-ALM	4AP12	9.0
REPT GRASP	REPT:GRASP	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT GROWTH	REPT:GROWTH	4AP12	9.0
REPT HSD	REPT:HSD	4AP12	9.0
REPT HSDC	REPT:HSDC	4AP12	9.0
REPT HUSTAT	REPT:HUST-CNT-SND	4AP12	9.0
REPT HUSTAT COUNTS FAILED	REPT:HUST-CTS-FL	4AP12	9.0
REPT HUSTAT NSC	REPT:HUST-NSC	4AP12	9.0
REPT HUSTAT	REPT:HUST-NSC-LST	4AP12	9.0
REPT HUSTAT	REPT:HUST-REC-INC	4AP12	9.0
REPT HUSTAT	REPT:HUST-UNREC	4AP12	9.0
REPT ICDR CONFIG FILE	REPT:ICDR-CONFIG	4AP12	9.0
REPT ICDR CONTROL FILE	REPT:ICDR-CONT	4AP12	9.0
REPT ICDR CONTROL FILE AUDIT	REPT:ICDR-CONTAUD	4AP12	9.0
REPT ICDR CRIT ALARM	REPT:ICDR-CRIT	4AP12	9.0
REPT ICDR DISK WRITER	REPT:ICDR-D-WRIT	4AP12	9.0
REPT ICDR DISK MAPS	REPT:ICDR-DISK	4AP12	9.0
REPT ICDR DISK STORAGE	REPT:ICDR-DISK-ST	4AP12	9.0
REPT ICDR DISK SUMMARY	REPT:ICDR-DISK-SU	4AP12	9.0
REPT ICDR MAJOR ALARM	REPT:ICDR-MAJOR	4AP12	9.0
REPT ICDR MINOR ALARM	REPT:ICDR-MINOR	4AP12	9.0
REPT ICDR MONITOR	REPT:ICDR-MON	4AP12	9.0
REPT ICDR RECORDING	REPT:ICDR-RECORD	4AP12	9.0
REPT ICDR SESSION CONNECT	REPT:ICDR-S-CON	4AP12	9.0
REPT ICDR SESSION ESTABLISHED	REPT:ICDR-S-EST	4AP12	9.0
REPT ICDR SESSION TERMINATED	REPT:ICDR-S-TER	4AP12	9.0
REPT ICDR SESSIONS	REPT:ICDR-SESS	4AP12	9.0
REPT ICDR TELEPROCESSING	REPT:ICDR-TELE	4AP12	9.0
REPT ICDR TELEPROCESSING SESSION	REPT:ICDR-TELE-SE	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT ICDR			
TELEPROCESSING			
SUMMARY	REPT:ICDR-TELE-SU	4AP12	9.0
REPT IMS GENERIC	REPT:IMS-GENERIC	4AP12	9.0
REPT IMSDRV AUD	REPT:IMSDRV-AUD	4AP12	9.0
REPT IMSDRV FLT	REPT:IMSDRV-FLT	4AP12	9.0
REPT IMSDRV INIT	REPT:IMSDRV-INIT	4AP12	9.0
REPT IMSRMVRST ERROR	REPT:IMSRMVRST-ER	4AP12	9.0
REPT IN	REPT:IN	4AP14	9.0
REPT IN PBUF	REPT:IN-PBUF	4AP12	9.0
REPT INH RCV APPDB	REPT:INH-RCV-APPD	4AP12	9.0
REPT INHADM	REPT:INHADM	4AP12	9.0
REPT INHIBIT	REPT:INHIBIT	4AP12	9.0
REPT INIT	REPT:INIT	4AP12	9.0
REPT INIT 3BN	REPT:INIT-3BN	4AP12	9.0
REPT IODRV ATTRIBUTE	REPT:IODRV-AT	4AP12	9.0
REPT IODRV ERR	REPT:IODRV-ERR	4AP12	9.0
REPT IODRV ERROR	REPT:IODRV-ERROR	4AP12	9.0
REPT IODRV FAULT	REPT:IODRV-FAULT	4AP12	9.0
REPT IOP	REPT:IOP	4AP12	9.0
REPT IORMVRST ERROR	REPT:IORMVRST	4AP12	9.0
REPT IUN INIT	REPT:IUN-INIT	4AP12	9.0
REPT IUN PUMP	REPT:IUN-PUMP	4AP12	9.0
REPT IUN RESTRT	REPT:IUN-RESTRT	4AP12	9.0
REPT IUN RST	REPT:IUN-RST	4AP12	9.0
REPT KAUDPRC	REPT:KAUDPRC	4AP12	9.0
REPT KLLA	REPT:KLLA	4AP12	9.0
REPT LACID ERROR	REPT:LACID-ERROR	4AP12	9.0
REPT LFS	REPT:LFS	4AP12	9.0
REPT LIBC ARGU	REPT:LIBC-ARGU	4AP12	9.0
REPT LIBC EXEC	REPT:LIBC-EX	4AP12	9.0
REPT LIBC FAULT	REPT:LIBC-FAULT	4AP12	9.0
REPT LIBC FORK	REPT:LIBC-FO	4AP12	9.0
REPT LIBC PROGRAM	REPT:LIBC-PROGRAM	4AP12	9.0
REPT LIBC SAVE	REPT:LIBC-SAVE	4AP12	9.0
REPT LIBC ERROR START	REPT:LIBC-ST	4AP12	9.0
REPT LIBC START	REPT:LIBC-START	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT LKC SLK	REPT:LKC-SLK	4AP12	9.0
REPT LN	REPT:LN	4AP12	9.0
REPT LOG	REPT:LOG	4AP12	9.0
REPT LSNC	REPT:LSNC	4AP12	9.0
REPT MAINTENANCE REQUESTS	REPT:MAINT-REQ	4AP12	9.0
REPT MANUAL RING MODE	REPT:MAN-RING-MOD	4AP12	9.0
REPT MAPFILE	REPT:MAPFILE	4AP12	9.0
REPT MAXINTVL	REPT:MAXINTVL	4AP12	9.0
REPT MBD	REPT:MBD	4AP12	9.0
REPT MEAS DUMP MSG	REPT:MEAS-DUMP	4AP12	9.0
REPT MEMORY	REPT:MEMORY	4AP12	9.0
REPT MHD	REPT:MHD	4AP12	9.0
REPT MIN-MODE	REPT:MIN-MODE	4AP12	9.0
REPT MIRA	REPT:MIRA	4AP12	9.0
REPT MKDSK	REPT:MKDSK	4AP12	9.0
REPT MMGR001	REPT:MMGR001	4AP12	9.0
REPT MMGR002	REPT:MMGR002	4AP12	9.0
REPT MMGR003	REPT:MMGR003	4AP12	9.0
REPT MMGR004	REPT:MMGR004	4AP12	9.0
REPT MMGR005	REPT:MMGR005	4AP12	9.0
REPT MMGR005	REPT:MMGR005	4AP12	9.0
REPT MON SLK	REPT:MON-SLK	4AP12	9.0
REPT MON TRAP	REPT:MON-TRAP	4AP12	9.0
REPT MOP	REPT:MOP	4AP12	9.0
REPT MRVR	REPT:MRVR	4AP12R3	9.1
REPT MSDC FLT	REPT:MSDC-FLT	4AP12	9.0
REPT MT	REPT:MT	4AP12	9.0
REPT MTC	REPT:MTC	4AP12	9.0
REPT MTTY	REPT:MTTY	4AP12	9.0
REPT MTTYC	REPT:MTTYC	4AP12	9.0
REPT MY STORE	REPT:MY-STORE	4AP12	9.0
REPT NM	REPT:NM	4AP12	9.0
REPT NONCORRECTABLE	REPT:NONCORTABLE	4AP12	9.0
REPT OFFLINE	REPT:OFFLINE	4AP19	9.3
REPT OFLBOOT	REPT:OFLBOOT	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT OLBCONFIG FAULT	REPT:OLBCONFIG	4AP12	9.0
REPT:OP-AMA-STATUS	REPT:OP-AMA-STAT	4AP12	9.0
REPT OP PMCR	REPT:OP-PMCR	4AP12	9.0
REPT OP PMCR ERROR	REPT:OP-PMER	4AP12	9.0
REPT OP_RTM FLT	REPT:OP-RTM-FLT	4AP12	9.0
REPT OTHER	REPT:OTHER	4AP12	9.0
REPT OTHER STORE			
HARDWARE	REPT:OTHR-SHE	4AP12	9.0
REPT OTHER STORE			
READ	REPT:OTHR-SRDPE	4AP12	9.0
REPT OTHER STORE			
REFRESH	REPT:OTHR-SRFPE	4AP12	9.0
REPT OUTDIR CANNOT			
LINK FILE	REPT:OUT-CANT-LK	4AP12	9.0
REPT OUTPUT	REPT:OUTPUT	4AP12	9.0
REPT OVLD	REPT:OVLD-CNTL	4AP12	9.0
REPT OVLD	REPT:OVLD-COLL	4AP12	9.0
REPT OVLD	REPT:OVLD-REPT	4AP12	9.0
REPT PASSWORD	REPT:PASSWD	4AP12	9.0
REPT PCPAUD	REPT:PCPAUD	4AP17	9.2
REPT PCPMD FAULT	REPT:PCPMD	4AP12	9.0
REPT PHASE	REPT:PHASE	4AP12	9.0
REPT PLDMON	REPT:PLDMON	4AP12	9.0
REPT PLDMON ERROR	REPT:PLDMON-ERR	4AP12	9.0
REPT PM	REPT:PM-CNTL	4AP12	9.0
REPT PM	REPT:PM-REPT	4AP12	9.0
REPT PMDBCOPY	REPT:PMDBCOPY	4AP12	9.0
REPT PMGR ERROR	REPT:PMGR	4AP12	9.0
REPT PMSLOT	REPT:PMSLOT	4AP12	9.0
REPT POWER	REPT:POWER	4AP12	9.0
REPT POWER DIST FRAME	REPT:POWER-DF	4AP12	9.0
REPT POWERFAULT	REPT:POWERFAULT	4AP12	9.0
REPT ERRPORT PREPHASE	REPT:PREPHASE	4AP12	9.0
REPT PROC DEATH / CREATE	REPT:PROC-DEATH	4AP12	9.0
REPT PSDIO1A	REPT:PSDIO1A	4AP12	9.0
REPT PSDIO3B	REPT:PSDIO3B	4AP12	9.0
REPT PSDO_UMS.P FLT	REPT:PSDO-FLT	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT PSM	REPT:PSM	4AP12	9.0
REPT POWER FAULT CLEARED	REPT:PWRFLTC	4AP12	9.0
REPT QCOPY	REPT:QCOPY	4AP12	9.0
REPT RC	REPT:RC	4AP12	9.0
REPT RCAS	REPT:RCAS	4AP13	9.0
REPT RCVRY CU	REPT:RCVRY-CU	4AP12	9.0
REPT RCVRY DUI	REPT:RCVRY-DUI	4AP12	9.0
REPT RCVRY DUIC	REPT:RCVRY-DUIC	4AP12	9.0
REPT RCVRY HSD	REPT:RCVRY-HSD	4AP12	9.0
REPT RCVRY HSDC	REPT:RCVRY-HSDC	4AP12	9.0
REPT RCVRY IOP	REPT:RCVRY-IOP	4AP12	9.0
REPT RCVRY MT	REPT:RCVRY-MT	4AP12	9.0
REPT RCVRY MTC	REPT:RCVRY-MTC	4AP12	9.0
REPT RCVRY MTTY	REPT:RCVRY-MTTY	4AP12	9.0
REPT RCVRY MTTYC	REPT:RCVRY-MTTYC	4AP12	9.0
REPT RCVRY ROP	REPT:RCVRY-ROP	4AP12	9.0
REPT RCVRY SCC	REPT:RCVRY-SCC	4AP12	9.0
REPT RCVRY SCSDC	REPT:RCVRY-SCSDC	4AP12	9.0
REPT RCVRY SDL	REPT:RCVRY-SDL	4AP12	9.0
REPT RCVRY SDLC	REPT:RCVRY-SDLC	4AP12	9.0
REPT RCVRY TTY	REPT:RCVRY-TTY	4AP12	9.0
REPT RCVRY TTYC	REPT:RCVRY-TTYC	4AP12	9.0
REPT RECENT CHANGEABLE PARAMETERS	REPT:RECENT-CHANG	4AP14	9.0
REPT RETRO	REPT:RETRO	4AP12	9.0
REPT RETRY RPC DMA	REPT:RETRY-RPC	4AP12	9.0
REPT REX UNABLE	REPT:REX	4AP12	9.0
REPT REX SUMMARY	REPT:REX-SUM	4AP12	9.0
REPT RING CFR	REPT:RING-CFR	4AP12	9.0
REPT RING GROWTH	REPT:RING-GROWTH	4AP12	9.0
REPT RING INIT	REPT:RING-INIT	4AP12	9.0
REPT RING TRANSPORT ERR	REPT:RING-TRST-ER	4AP15R2	9.1
REPT RINGINIT	REPT:RINGINIT	4AP12	9.0
REPT RMF	REPT:RMF	4AP12	9.0
REPT RMTGETTY	REPT:RMTGETTY	4AP12	9.0
REPT ROP	REPT:ROP	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT RPC ERINT	REPT:RPC-ERINT	4AP12	9.0
REPT RPC INIT	REPT:RPC-INIT	4AP12	9.0
REPT RPC STAT	REPT:RPC-STAT	4AP12	9.0
REPT RPCN	REPT:RPCN	4AP12	9.0
REPT RST RPC ERR	REPT:RST-RPC-ERR	4AP12	9.0
REPT RSTRT RPC ERR	REPT:RSTRT-RPC	4AP12	9.0
REPT RTM STATUS	REPT:RTM-STATUS	4AP12	9.3
REPT RTS	REPT:RTS	4AP14	9.2
REPT RUSDG	REPT:RUSDG	4AP12	9.0
REPT RUSDKERN	REPT:RUSDKERN	4AP12	9.0
REPT RUTIL	REPT:RUTIL	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT SCC	REPT:SCC	4AP12	9.0
REPT SCMG	REPT:SCMG	4AP12	9.1
REPT SCS-SU	REPT:SCS-SU	4AP15	9.0
REPT SCSD	REPT:SCSD	4AP12	9.0
REPT SCSDA	REPT:SCSDA	4AP12	9.0
REPT SCSDC	REPT:SCSDC	4AP12	9.0
REPT SDL	REPT:SDL	4AP12	9.0
REPT SDL24MON	REPT:SDL24MON	4AP12	9.0
REPT SDLC	REPT:SDLC	4AP12	9.0
REPT SDLRTC	REPT:SDLRTC	4AP12	9.0
REPT SDLRTN	REPT:SDLRTN	4AP12	9.0
REPT SHLGETTY	REPT:SHLGETTY	4AP12	9.0
REPT SIM	REPT:SIM	4AP12	9.0
REPT SIMCHK	REPT:SIMCHK	4AP12	9.0
REPT SIN	REPT:SIN	4AP12 through 4AP14	9.0
REPT SIOF ERROR	REPT:SIOF-ERROR	4AP12	9.0
REPT SLK INHALM	REPT:SLK-INHALM	4AP12	9.0
REPT SLM DUMP MSG	REPT:SLM-DUMP-MSG	4AP12	9.0
REPT SLM NDERR	REPT:SLM-NDERR	4AP12	9.0
REPT SLMK	REPT:SLMK	4AP12	9.0
REPT SLMSHR	REPT:SLMSHR	4AP12	9.0
REPT SLT	REPT:SLT	4AP12	9.0
REPT SMR	REPT:SMR	4AP14	9.0
REPT SMR A15MPR15	REPT:SMR-A15MPR15	4AP12	9.0
REPT SNAT	REPT:SNAT	4AP12	9.0
REPT SNM	REPT:SNM	4AP12	9.0
REPT SOP	REPT:SOP	4AP12	9.0
REPT SPGT INIT DUMP	REPT:SPGT-INIT	4AP12	9.0
REPT SPGTT	REPT:SPGTT	4AP12	9.0
REPT SPL SYNTAX ERROR	REPT:SPL-SYN	4AP12	9.0
REPT SSTBLCREAT	REPT:SSTBLCREAT	4AP12	9.0
REPT START EVENTSESS	REPT:START-EVENT	4AP12	9.0
REPT START PING	REPT:START-PING	4AP14	9.0
REPT STOP EVENTSESS	REPT:STOP-EVENT	4AP12	9.0
REPT SUA STATUS			
CHECK ERROR	REPT:SUA-STATUS	4AP13	9.0
REPT SYS	REPT:SYS	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT SYSTEM	REPT:SYSTEM	4AP12	9.0
REPT TDAS	REPT:TDAS	4AP12	9.1
REPT TDTP </PRC/CDZ> FLT	REPT:TDTP	4AP12	9.0
REPT TIME	REPT:TIME	4AP12	9.0
REPT TLP ERROR	REPT:TLP	4AP12	9.0
REPT TIMECHECK	REPT:TMCHK-LTACK	4AP12	9.0
REPT TIMECHECK	REPT:TMCHK-MISACK	4AP12	9.0
REPT TIMECHECK	REPT:TMCHK-NSCACK	4AP12	9.0
REPT TIMECHECK	REPT:TMCHK-NSCCLK	4AP12	9.0
REPT TIMECHECK	REPT:TMCHK-NSCFL	4AP12	9.0
REPT TIMECHECK	REPT:TMCHK-NSCOUT	4AP12	9.0
REPT TOKEN TRACK	REPT:TOKEN-TRACK	4AP12	9.0
REPT TOSS [lnkmon]	REPT:TOS-LKMN-CDL	4AP12	9.0
REPT TOSS [lnkmon]	REPT:TOS-LKMN-DLK	4AP12	9.0
REPT TOSS [lnkmon]	REPT:TOS-LKMN-FPN	4AP12	9.0
REPT TOSS [lnkmon]	REPT:TOS-LKMN-FSD	4AP12	9.0
REPT TOSS [lnkmon]	REPT:TOS-LKMN-MSG	4AP12	9.0
REPT TOSS [lnkmon]	REPT:TOS-LKMN-RFL	4AP12	9.0
REPT TOSS [nsc_to_osm]	REPT:TOS-NSC-DTLK	4AP12	9.0
REPT TOSS [nsc_to_osm]	REPT:TOS-NSC-FLRC	4AP12	9.0
REPT TOSS [nsc_to_osm]	REPT:TOS-NSC-FPN	4AP12	9.0
REPT TOSS [nsc_to_osm]	REPT:TOS-NSC-IVMT	4AP12	9.0
REPT TOSS [nsc_to_osm]	REPT:TOS-NSC-IVVB	4AP12	9.0
REPT TOSS [nsc_to_osm]	REPT:TOS-NSC-WRFL	4AP12	9.0
REPT TOSS [nsc_to_osm]	REPT:TOS-NSC-WRMO	4AP12	9.0
REPT TRACE	REPT:TRACE	4AP12	9.0
REPT TTY	REPT:TTY	4AP12	9.0
REPT TTYC	REPT:TTYC	4AP12	9.0
REPT UDPC	REPT:UDPC	4AP12	9.0
REPT ULARP	REPT:ULARP	4AP12	9.0
REPT UNIX INIT	REPT:UNIX-INIT	4AP12	9.0
REPT UPD DCHN	REPT:UPD-DCHN	4AP13	9.1
REPT UPDATE	REPT:UPDATE	4AP12	9.0
REPT XTSI-SU	REPT:XTSI-SU	4AP15	9.0
RFT FDUMP	RFT:FDUMP	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
RGP PRT	RGP:PRT	4AP12	9.0
RMV CU	RMV:CU	4AP12	9.0
RMV DCI	RMV:DCI	4AP12	9.0
RMV DFC	RMV:DFC	4AP12	9.0
RMV DUI	RMV:DUI	4AP12	9.0
RMV DUIC	RMV:DUIC	4AP12	9.0
RMV EAI	RMV:EAI	4AP12	9.0
RMV HSD	RMV:HSD	4AP12	9.0
RMV HSDC	RMV:HSDC	4AP12	9.0
RMV IOP	RMV:IOP	4AP12	9.0
RMV LN	RMV:LN	4AP12	9.0
RMV MHD	RMV:MHD	4AP12	9.0
RMV MT	RMV:MT	4AP12	9.0
RMV MTC	RMV:MTC	4AP12	9.0
RMV MTTY	RMV:MTTY	4AP12	9.0
RMV MTTYC	RMV:MTTYC	4AP12	9.0
RMV ROP	RMV:ROP	4AP12	9.0
RMV RPCN	RMV:RPCN	4AP12	9.0
RMV SBUS	RMV:SBUS	4AP12	9.0
RMV SCC	RMV:SCC	4AP12	9.0
RMV SCSDC	RMV:SCSDC	4AP12	9.0
RMV SDL	RMV:SDL	4AP12	9.0
RMV SDLC	RMV:SDLC	4AP12	9.0
RMV TTY	RMV:TTY	4AP12	9.0
RMV TTYC	RMV:TTYC	4AP12	9.0
RST CU	RST:CU	4AP12	9.0
RST DCI	RST:DCI	4AP12	9.0
RST DFC	RST:DFC	4AP12	9.0
RST DUI	RST:DUI	4AP12	9.0
RST DUIC	RST:DUIC	4AP12	9.0
RST EAI	RST:EAI	4AP12	9.0
RST HSD	RST:HSD	4AP12	9.0
RST HSDC	RST:HSDC	4AP12	9.0
RST IOP	RST:IOP	4AP12	9.0
RST LN	RST:LN	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
RST MHD	RST:MHD	4AP12	9.0
RST MT	RST:MT	4AP12	9.0
RST MTC	RST:MTC	4AP12	9.0
RST MTTY	RST:MTTY	4AP12	9.0
RST MTTYC	RST:MTTYC	4AP12	9.0
RST ROP	RST:ROP	4AP12	9.0
RST RPCN	RST:RPCN	4AP12	9.0
RST SBUS	RST:SBUS	4AP12	9.0
RST SCC	RST:SCC	4AP12	9.0
RST SCSDC	RST:SCSDC	4AP12	9.0
RST SDL	RST:SDL	4AP12	9.0
RST SDLC	RST:SDLC	4AP12	9.0
RST TTY	RST:TTY	4AP12	9.0
RST TTYC	RST:TTYC	4AP12	9.0
RUTIL BREAKPOINT	RUTIL:BREAKPOINT	4AP12	9.0
SET CLK	SET:CLK	4AP12	9.0
SET IODRV	SET:IODRV	4AP12	9.0
SET LFS	SET:LFS	4AP12	9.0
SET T1M	SET:T1M	4AP15	9.0
SET TRACE	SET:TRACE	4AP12	9.0
SET TRAP	SET:TRAP	4AP12	9.0
SET TSC	SET:TSC	4AP12	9.0
START ADB	START:ADB	4AP12	9.0
START CRCUPD	START:CRCUPD	4AP13	9.0
START DADC	START:DADC	4AP12	9.0
START DCC	START:DCC	4AP12	9.0
START DLNCM STREAM	START:DLNCM	4AP12	9.0
START FTA	START:FTA	4AP12	9.0
START RCBUFGET	START:RCBUFGET	4AP13	9.0
START RCBUFPUT	START:RCBUFPUT	4AP13	9.0
STOP ADB	STOP:ADB	4AP12	9.0
STOP ATPAUD	STOP:ATPAUD	4AP13	9.0
STOP AUD	STOP:AUD	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
STOP BKDISK	STOP:BKDISK	4AP12	9.0
STOP DADC	STOP:DADC	4AP12	9.0
STOP DCC	STOP:DCC	4AP12	9.0
STOP DCI	STOP:DCI	4AP13	9.1
STOP DCNAUD	STOP:DCNAUD	4AP14	9.0
STOP DLNCM STREAM	STOP:DLNCM	4AP12	9.0
STOP DMQ	STOP:DMQ	4AP12	9.0
STOP EXC ANY	STOP:E-ANY	4AP12	9.0
STOP EXC USER	STOP:E-USER	4AP12	9.0
STOP FTA	STOP:FTA	4AP12	9.0
STOP GEN	STOP:GEN	4AP12	9.0
STOP LFS	STOP:LFS	4AP12	9.0
STOP OFLBOOT	STOP:OFLBOOT	4AP12	9.1
STOP RCBUFGET	STOP:RCBUFGET	4AP13	9.0
STOP RCBUFPUT	STOP:RCBUFPUT	4AP13	9.0
STOP TRAP	STOP:TRAP	4AP12	9.0
STOP UPD	STOP:UPD	4AP13	9.0
SW ATP	SW:ATP	4AP13	9.0
SW CLOCK	SW:CLOCK	4AP12	9.0
SW CU	SW:CU	4AP12	9.0
SW DLN STREAM	SW:DLN	4AP12	9.0
SW OFLBOOT	SW:OFLBOOT	4AP12	9.0
SW PORTSW	SW:PORTSW	4AP12	9.0
UPD APPDL	UPD:APPDL	4AP16R2	9.1
UPD APPLY	UPD:APPLY	4AP12	9.0
UPD APPLY FILER	UPD:APPLY-FILER	4AP12	9.0
UPD APPLY FUNCRCR	UPD:APPLY-FUNCRCR	4AP12	9.0
UPD AUTOCHK REPORT	UPD:AUTOCHK	4AP13	9.0
UPD AUTOMATION	UPD:AUTOMATION	4AP13	9.0
UPD BKOUT	UPD:BKOUT	4AP12	9.0
UPD BLDBOOT	UPD:BLDBOOT	4AP12	9.0
UPD:BWMNIO	UPD:BWMNIO	4AP12	9.0
UPD CLR	UPD:CLR	4AP12	9.0
UPD COMMAND	UPD:COMMAND	4AP13	9.0
UPD CSCANS	UPD:CSCANS	4AP13	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
UPD CSCANS REPORT	UPD:CSCANS-REPT	4AP13	9.0
UPD DCHN	UPD:DCHN	4AP13	9.0
UPD DISPLAY	UPD:DISPLAY	4AP13	9.0
UPD FLASH	UPD:FLASH	4AP14	9.0
UPD FLASH DFC	UPD:FLASH-DFC	4AP12	9.0
UPD FTRC	UPD:FTRC	4AP12	9.0
UPD GEN APPLICATION	UPD:G-APPL	4AP12	9.0
UPD GEN APPLPROC	UPD:G-APPLPROC	4AP12	9.0
UPD GEN BACKOUT	UPD:G-BKOUT	4AP12	9.0
UPD GEN COMMIT	UPD:G-COMMIT	4AP12	9.0
UPD GEN CONTINUE	UPD:G-CONT	4AP12	9.0
UPD GEN ENTER	UPD:G-ENTER	4AP12	9.0
UPD GEN PROCEED	UPD:G-PROCD	4AP12	9.0
UPD GEN RESTORE	UPD:G-RESTR	4AP12	9.0
UPD ISG	UPD:ISG	4AP12	9.0
UPD OMDB	UPD:OMDB	4AP13 only	9.0
UPD REPT	UPD:REPT	4AP13	9.0
UPD REPT	UPD:REPT-DISPLAY	4AP12	9.0
UPD REPT	UPD:REPT-FILER	4AP12	9.0
UPD REPT	UPD:REPT-FTRC	4AP12	9.0
UPD REPT	UPD:REPT-FUNCR	4AP12	9.0
UPD RESET	UPD:RESET	4AP12	9.0
UPD SCP	UPD:SCP	4AP12	9.0
UPD SYSERR	UPD:SYSERR	4AP12	9.1
UPD UPNM	UPD:UPNM	4AP12	9.0
UPD VERSION	UPD:VERSION	4AP13	9.0
UPD VFY	UPD:VFY	4AP12	9.0
UPD VFYCON	UPD:VFYCON	4AP13	9.0
VER APPFILE	VER:APPFILE	4AP12	9.0
VER:APPTAPE	VER:APPTAPE	4AP12	9.0
VER ATP ATV	VER:ATP-ATV	4AP13R4	9.2
VER ATP FEATURE	VER:ATP-FEATURE	4AP13	9.0
VER ATP RESTRICT	VER:ATP-RESTRICT	4AP16	9.1
VER ATP STOP	VER:ATP-STOP	4AP13	9.0
VER ATP TRIGGER	VER:ATP-TRIGGER	4AP13	9.0
VER COAMS	VER:COAMS	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
VER DCC	VER:DCC	4AP12	9.0
VER DGA	VER:DGA	4AP16	9.1
VER GT6TRAN	VER:GT6TRAN	4AP12	9.1
VER GTT	VER:GTT	4AP12	9.0
VER GTT CRCHK	VER:GTT-CRCHK	4AP12 only	9.0
VER:GTT FEXPN	VER:GTT-FEXPN	4AP12 only	9.0
VER:LVFILE	VER:LVFILE	4AP16	9.1
VER MEMORY	VER:MEMORY	4AP13	9.1
VER PCP	VER:PCP	4AP12	9.0
VER SD NID	VER:SD-NID	4AP15	9.0
VER SD NULLPARM	VER:SD-NULLPARM	4AP15	9.0
VER SD OLI	VER:SD-OLI	4AP16	9.0
VER UPDATE	VER:UPDATE	4AP16	9.0
VFY FILE	VFY:FILE	4AP12	9.0
VFY MHD	VFY:MHD	4AP12	9.0
VFY PAUTH	VFY:PAUTH	4AP12	9.0
VFY PCGRP	VFY:PCGRP	4AP12	9.0
VFY PROFL	VFY:PROFL	4AP12	9.0
VFY TAPE	VFY:TAPE	4AP12	9.0
VFY TAUTH	VFY:TAUTH	4AP12	9.0
VFY TCGRP	VFY:TCGRP	4AP12	9.0
WHEN COND	WHEN:COND	4AP12	9.0
WHEN PID	WHEN:PID	4AP12	9.0
WHEN RUTIL	WHEN:RUTIL	4AP12	9.0
WHEN UID	WHEN:UID	4AP12	9.0
APPENDIX ACKNOWLEDGMENT			
DATABASE	APP:ACK-DB	4AP12	9.0
APPENDIX 1	APP:APPENDIX-01	4AP12	9.0
APPENDIX 2	APP:APPENDIX-02	4AP12	9.0
APPENDIX 3	APP:APPENDIX-03	4AP12	9.0
APPENDIX 4	APP:APPENDIX-04	4AP12	9.0
APPENDIX 5	APP:APPENDIX-05	4AP12	9.0
APPENDIX 6	APP:APPENDIX-06	4AP12	9.0
APPENDIX 7	APP:APPENDIX-07	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
APPENDIX 8	APP:APPENDIX-08	4AP12	9.0
APPENDIX 9	APP:APPENDIX-09	4AP12	9.0
APPENDIX 10	APP:APPENDIX-10	4AP14	9.1
APPENDIX 11	APP:APPENDIX-11	4AP12	9.0
APPENDIX 12	APP:APPENDIX-12	4AP12	9.0
APP APPENDIX 13	APP:APPENDIX-13	4AP14	9.0
APPENDIX 14	APP:APPENDIX-14	4AP12	9.0
APPENDIX 15	APP:APPENDIX-15	4AP15	9.0
APPENDIX 16	APP:APPENDIX-16	4AP15	9.0
APPENDIX AUDIT A	APP:AUD-A	4AP12	9.0
APPENDIX AUDIT B	APP:AUD-B	4AP12	9.0
APPENDIX AUDIT C	APP:AUD-C	4AP12	9.0
APPENDIX AUDIT D	APP:AUD-D	4AP12	9.0
APPENDIX AUTHORITY CODE	APP:AUTH-CODE	4AP12	9.0
APPENDIX BOOTDISKCHK CODES	APP:BOOTDISKCHK	4AP17	9.1
APPENDIX DCI A	APP:DCI-A	4AP18	9.3
APPENDIX DCI B	APP:DCI-B	4AP12	9.0
APPENDIX DCI C	APP:DCI-C	4AP12	9.0
APPENDIX DCI D	APP:DCI-D	4AP12	9.0
APPENDIX DCI E	APP:DCI-E	4AP12	9.0
APPENDIX DCI F	APP:DCI-F	4AP12	9.0
APPENDIX DCI G	APP:DCI-G	4AP12	9.0
APPENDIX DCI H	APP:DCI-H	4AP12	9.0
APPENDIX DFC A	APP:DFC-A	4AP18	9.2
APPENDIX DFC B	APP:DFC-B	4AP12	9.0
APPENDIX DFC C	APP:DFC-C	4AP12	9.0
APPENDIX DFC D	APP:DFC-D	4AP12	9.0
APPENDIX DFC E	APP:DFC-E	4AP12	9.0
APPENDIX DFC F	APP:DFC-F	4AP12	9.0
APPENDIX DFC G	APP:DFC-G	4AP12	9.0
APPENDIX DFC H	APP:DFC-H	4AP12	9.0
APPENDIX DFC I	APP:DFC-I	4AP12	9.0
APPENDIX DFC J	APP:DFC-J	4AP12	9.0
APPENDIX DFC K	APP:DFC-K	4AP12	9.0
APPENDIX DFC L	APP:DFC-L	4AP12	9.1
APPENDIX DFC M	APP:DFC-M	4AP12	9.0
APPENDIX DFC N	APP:DFC-N	4AP12	9.1

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
APPENDIX DFC O	APP:DFC-O	4AP12	9.0
APPENDIX DFC P	APP:DFC-P	4AP12	9.0
DLNCM APPENDIX 1	APP:DLNCM-01	4AP12	9.0
DLNCM APPENDIX 2	APP:DLNCM-02	4AP12	9.0
DLNCM APPENDIX 3	APP:DLNCM-03	4AP12	9.0
DLNCM APPENDIX 4	APP:DLNCM-04	4AP12	9.0
DLNCM APPENDIX 5	APP:DLNCM-05	4AP12	9.0
DLNCM APPENDIX 6	APP:DLNCM-06	4AP12	9.0
DLNCM APPENDIX 7	APP:DLNCM-07	4AP12	9.0
DLNCM APPENDIX 8	APP:DLNCM-08	4AP12	9.0
DLNCM APPENDIX 9	APP:DLNCM-09	4AP12	9.0
DLNCM APPENDIX 10	APP:DLNCM-10	4AP12	9.0
DLNCM APPENDIX 11	APP:DLNCM-11	4AP12	9.0
DLNCM APPENDIX 12	APP:DLNCM-12	4AP12	9.0
DLNCM APPENDIX 13	APP:DLNCM-13	4AP12	9.0
DLNCM APPENDIX 14	APP:DLNCM-14	4AP12	9.0
DLNCM APPENDIX 15	APP:DLNCM-15	4AP12	9.0
DLNCM APPENDIX 16	APP:DLNCM-16	4AP12	9.0
DLNCM APPENDIX 17	APP:DLNCM-17	4AP12	9.0
DLNCM APPENDIX 18	APP:DLNCM-18	4AP12	9.0
DLNCM APPENDIX 19	APP:DLNCM-19	4AP12	9.0
DLNCM APPENDIX 20	APP:DLNCM-20	4AP12	9.0
DLNCM APPENDIX 21	APP:DLNCM-21	4AP12	9.0
DLNCM APPENDIX 22	APP:DLNCM-22	4AP12	9.0
DLNCM APPENDIX 23	APP:DLNCM-23	4AP12	9.0
APPENDIX FAULT CODE	APP:FAULT-CODE	4AP12	9.0
APPENDIX FIELD MAINT CODES	APP:FMC	4AP12	9.0
APPENDIX FIELD UPDATE ERROR CODES	APP:FUEC	4AP12	9.0
APPENDIX IOP A	APP:IOP-A	4AP12	9.0
APPENDIX IOP B	APP:IOP-B	4AP12	9.0
APPENDIX IOP C	APP:IOP-C	4AP12	9.0
APPENDIX IOP D	APP:IOP-D	4AP12	9.0
APPENDIX IOP E	APP:IOP-E	4AP12	9.0
APPENDIX IOP F	APP:IOP-F	4AP17	9.3
APPENDIX IOP G	APP:IOP-G	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
APPENDIX IOP H	APP:IOP-H	4AP12	9.0
APPENDIX IOP I	APP:IOP-I	4AP12	9.0
APPENDIX IOP J	APP:IOP-J	4AP12	9.0
APPENDIX LLA	APP:LLA	4AP12	9.0
APPENDIX MESSAGE CLASS	APP:MSGCLASS	4AP12	9.0
APPENDIX OMDB X REF	APP:OMDB-REF	4AP18	9.3
APPENDIX OP FNAME	APP:OP-FNAME	4AP12	9.0
APPENDIX OST	APP:OST	4AP12	9.0
PRM APPENDIX	APP:PRM	4AP12	9.0
APPENDIX SUPR	APP:SUPR	4AP12	9.0
APPENDIX SUPR MENU PAGE	APP:SUPR-MENU-PG	4AP12	9.0
APPENDIX SYSTEM			
ERROR CODES	APP:SYSERR	4AP12	9.0
APPENDIX TAPE			
LIBRARY ERRORS	APP:TAPE-LIB	4AP12	9.0
APPENDIX UTILITY ID	APP:UTIL-ID	4AP12	9.0

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ID ABORT:LFS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

ABORT LFS COMPL
LFS a b c {NEAR|FAR} AT d ABORTED
TERMINATED BY ABORT MESSAGE

2. REASON FOR OUTPUT

Prints in response to input message ABORT:LFS.

3. VARIABLE FIELD DEFINITIONS

- a Link group number (0-63).
- b Link member number (1-15).
- c Number of loopback components specified in the EXC:LFS command line.

TEST sequence progression specifier:

NEAR — Indicates link fault sectionalization (LFS) test started from the nearest specified loopback component to the farthest.

FAR — Indicates LFS test started from the farthest specified loopback component to the nearest.

- d Loopback point to which the test sequence has progressed:
 - CSUL — Channel service unit (CSU) latching loopback.
 - CSUN — Channel service unit (CSU) non-latching loopback.
 - DPuu — Indicates the uuu'th digital signal zero (DS0) data port relative to the near-end. The uu is a number in the range: (01-99).
 - DSUL — Data service unit (DSU) data port latching loopback.
 - DSUN — Data service unit (DSU) non-latching loopback.
 - LID0 — Indicates test sequence has not progressed beyond the local loopback test.
 - NEI — Far-end network element interface. (Loopback select code octet value = x1000001).
 - OCUL — Office channel unit latching loopback.
 - OCUN — Office channel unit non-latching loopback.

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REM — Manual remote loopback.

RPT1 — Represents non-latching loopback test for the first 56K bps local loop regenerative repeater.

RPT2 — Represents non-latching loopback test for the second 56K bps local loop regenerative repeater.

ABORTED Indicates the LFS test terminated abnormally at the loopback point corresponding to the loopback point listed in the message.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
ABORT : LFS
EXC : LFS

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ID ACTV:DCC
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 4 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] ACTV DCC APP a SID b COMPLETE
APPDB DCC IS BEING ACTIVATED -- PLEASE WAIT
- [2] ACTV DCC APP a SID b COMPLETE
APPDB DCC IS ACTIVATED FOR a
- [3] ACTV DCC APP a SID b COMPLETE
APPDB DCC IS ACTIVATED FOR a - MANUAL ACTION IS NECESSARY
- [4] ACTV DCC APP a SID b COMPLETE
APPDB DCC IS ALREADY ACTIVATED FOR a
- [5] ACTV DCC APP a SID b COMPLETE
APPDB DCC CANNOT BE ACTIVATED FOR a -- DCC IS INHIBITED
- [6] ACTV DCC APP a SID b COMPLETE
APPDB DCC CANNOT BE ACTIVATED FOR a -- COPY:APPDB IN PROGRESS
- [7] ACTV DCC APP a SID b COMPLETE
APPDB DCC CANNOT BE ACTIVATED FOR a -- APPDB AUDIT ERRORS
- [8] ACTV DCC APP a SID b COMPLETE
INPUT ERROR - c
- [9] ACTV DCC APP a SID b COMPLETE
ERROR d (LINE e) -- APPDB DCC FOR a CANNOT BE ACTIVATED

2. REASON FOR OUTPUT

Response to the ACTV:DCC input command. Format 1 prints if no errors were encountered when executing the activate command and the "copy to scratch" task has been started. Either format 2 or 3 will print when the "copy to scratch" task is completed. Formats 1 and 2 will normally print as a result of the same input command. Format 3 prints if the "copy to scratch" task is successful, however errors were detected in postprocessing work (re-allowing APPDB RCV and APPDB audits) and manual action is necessary to correct the situation. Formats 4 thru 7 print if system conditions do not allow DCC to be activated. Format 8 prints if a syntax error was found in the ACTV:DCC command that was input. Format 9 prints if internal errors are preventing the 4ESS Switch from activating DCC.

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3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | The name of the APPDB customer unit being activated. Currently, only IBGTT is supported by the DCC capability. |
| b | Snapshot ID specified with ACTV:DCC input command. |
| c | English description of the syntax error found in the command input. |
| d | Error number (TBD). |
| e | Source line number where error was found. (For NESAC trouble-shooting.) |

4. ACTION TO BE TAKEN

Format 3: In order to properly "copy to scratch" the APPDB active database, the ACTV:DCC software must first inhibit APPDB RCV and APPDB audits, if they are currently allowed. When the "copy to scratch" task is completed, APPDB RCV and audits must be returned to their allow/inhibit states prior to the ACTV:DCC command. If errors are detecting during this cleanup process, format 3 is output. Craft of the OSS may need to do either ALW:RCV,APP IBGTT:APPDB or ALW:DLNAUD,APP IBGTT;AUD ALL, whichever is appropriate.

Format 5: DCC cannot be activated if it is already active. If another activation (copy to scratch) is desired, DCC must first be deactivated (see DEACTV:DCC) for the particular APPDB customer unit.

Format 6: Retry later.

Format 7: DCC will not activate if APPDB audits are detecting errors in the master copy of the database. These audit errors will need to be resolved before DCC can be activated for the particular APPDB customer unit.

Format 7: Notify NESAC.

5. REFERENCES

Input Messages

ACTV:DCC
ALW:DCC
ALW:DLNAUD
ALW:RCV-APPDB
DEACTV:DCC
INH:DCC
OP:DCC
START:DCC
STOP:DCC
VER:DCC

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Output Messages
ALW:DLNAUD
ALW:RCV-APPDB
INH:DCC
OP:DCC

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ID ACTV:OMDB
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ACTV OMDB COMPLETED
OMDB SEGMENTS:
TOTAL ACTIVE
a b
- [2] ACTV OMDB FAILED
- [3] ACTV OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP

2. REASON FOR OUTPUT

To report the completion of processing an ACTV:OMDB input message to refresh the active (incore) Output Message Data Base.

3. VARIABLE FIELD DEFINITIONS

- a Total number of segments that the OMDB requires.
- b Number of segments that are active (incore).

4. ACTION TO BE TAKEN

For format 2, REPT:CSOP message(s) found in the ROP output preceding this message should give more information about the nature of the error. If they indicate that the file /cft/spl/omdb is not accessible, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the OP:ST-LSTDIR command for /cft/spl/omdb. If neither of these actions determines a probable cause, there may be insufficient memory available to bring a fresh copy of the OMDB incore.

For format 3, verify that the Craft Output Spooler (CSOP) is running.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 1.

Format 3 has an OMDB key of 118.

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System
System Maintenance Manual*

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Input Messages
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST-LSTDIR
UPD:OMDB

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ID ALW:ADB
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has two formats.

[1] ALW ADB COMPLETED, FOR b

[2] ALW ADB COULD NOT UNLOCK a COMPLETED, FOR b

2. REASON FOR OUTPUT

Response to the ALW:ADB input command.

3. VARIABLE FIELD DEFINITIONS

a Lock number.

b Customer name, only IBGTT is supported currently.

4. ACTION TO BE TAKEN

Format 2: Rerun the ALW:ADB command.

5. REFERENCES

Input Messages

ALW:ADB

OP:ADB

Output Messages

INH:ADB

OP:ADB-PERM

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ID ALW:AMA-SSPUNAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

ALW AMA SSPUNAS COMPLETED

2. REASON FOR OUTPUT

To print in response to an Automatic Message Accounting (AMA) input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages

ALW:AMA-SSPUNAS

INH:AMA-SSPUNAS

OP:AMA-SSPUNAS

Output Messages

INH:AMA-SSPUNAS

REPT:AMA-SSPUNAS

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ID ALW:AUD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW AUD COMPLETED
- [2] ALW AUD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS a | RETRY LATER b |
UNABLE TO IDENTIFY ERROR INPUT ERROR

2. REASON FOR OUTPUT

To report the termination status of the ALW:AUD input message.

3. VARIABLE FIELD DEFINITIONS

- a Explanation of error. See Output Audit Appendix C, APP:AUD-C.
- b Explanation of error. See Output Audit Appendix D, APP:AUD-D.

NOTE: See Output Audit Appendixes A and B, APP:AUD-A and APP:AUD-B,
for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

In case of failure, use the OP:AUD input message to determine the current system status.

5. REFERENCES

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Output Appendixes

APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D

Input Messages

ALW:AUD
OP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:CONFLOG
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW CONFLOG COMPLETED
- [2] ALW CONFLOG NOT STARTED
INVAILD ID FIELD
- [3] ALW CONFLOG NOT STARTED
RETRY LATER

2. REASON FOR OUTPUT

To report the termination status of the ALW:CONFLOG input message.

3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages
ALW:CONFLOG
INH:CONFLOG

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:DCC
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 4 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] ALW DCC APP a COMPLETE
APPDB DCC IS ALLOWED FOR a
- [2] ALW DCC APP a COMPLETE
REMOTE EXECUTION OF THIS COMMAND NOT ALLOWED
- [3] ALW DCC APP a COMPLETE
INPUT ERROR - d
- [4] ALW DCC APP a COMPLETE
ERROR b (LINE c) -- APPDB DCC CANNOT BE ALLOWED FOR a

2. REASON FOR OUTPUT

Response to the ALW:DCC input command. Format 1 prints if no errors were encountered when executing the allow (ALW:DCC) command. Format 2 prints if the ALW:DCC command is requested via a remote login connection (eg. via IRAS PINET session). Format 3 prints if a syntax error was found in the ALW:DCC command that was input. Format 4 prints if internal errors are preventing the 4ESS™ Switch from allowing DCC.

3. VARIABLE FIELD DEFINITIONS

- a The customer unit name specified in the ALW:DCC input message. Currently only IBGTT is supported.
- b Error number (TBD).
- c Source line number where error was found. (For NESAC troubleshooting.)
- d English description of the syntax error found in the command input.

4. ACTION TO BE TAKEN

Format 4: Notify NESAC.

5. REFERENCES

Input Messages
ALW:DCC
INH:DCC
OP:DCC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
INH:DCC
OP:DCC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:DCNAUD
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has seven formats.

- [1] ALW DCNAUD LNb c COMPLETED
AUDIT ALLOW
NUMBER STATUS
a d
- [2] ALW DCNAUD a LNb c FAILED
REASON: ACM AT INITIALIZATION
- [3] ALW DCNAUD a LNb c FAILED
REASON: INVALID AUDIT NUMBER
- [4] ALW DCNAUD a LNb c FAILED
REASON: NODE IS NOT DCHAN
- [5] ALW DCNAUD a LNb c FAILED
REASON: NODE IS NOT ACTIVE
- [6] ALW DCNAUD a {LNb c | ALL} FAILED
REASON: SEND MSG TO DCHAN FAILED
- [7] ALW DCNAUD a LNb c FAILED
REASON: RECEIVED _RTNMSG OR _SRCMATCH MSG

2. REASON FOR OUTPUT

To report the termination status of the ALW:DCNAUD input message.

3. VARIABLE FIELD DEFINITIONS

- a Audit member. One of the following:
 - 1 — Data Blocks audit.
 - 2 — User call reference value (CRV) Table audit.
 - 3 — Network CRV Table audit.
 - 4 — Channel ID Table audit.
 - 5 — Idle Data Blocks List audit.
 - ALL — All DCN audits.
- b DCN group number.
- c DCN member number.

SEE PROPRIETARY NOTICE ON COVER PAGE

ALL	All DCN nodes.
d	Audit allow status for all audits controlled by D-Channel Node (DCN). One of the following: ALLOWED ALREADY ALLOWED

4. ACTION TO BE TAKEN

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that the Audit Control Mechanism on the DCN is under initialization. Wait until the DCN finishes initialization and retry.

Format 3 indicates that the audit number is not valid. Retry with a correct audit number.

Format 4 indicates that the requested node is not a DCN. Retry with a correct group and member number for the DCN.

Format 5 indicates that the DCN is not active. Wait until DCN is active and retry.

Format 6 indicates that DCNAP can not send message to the DCN. Retry. If you get the same error multiple times, seek technical assistance.

Format 7 indicates that DCNAP received a returned or source matched message. Either the IMS channel is not open on the DCN or the DCN is not active.

5. REFERENCES

Input Messages

OP:DCNAUD

ALW:DCNAUD

Output Message

OP:DCNAUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:DLNAUD
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] ALW DLNAUD
REHCAL AUDIT IS ALLOWED FOR APP a
- [2] ALW DLNAUD
CANNOT CHANGE INHIBIT STATUS OF INVALID APP b
- [3] ALW DLNAUD
CANNOT CHANGE INHIBIT STATUS OF INVALID AUDIT TYPE c

2. REASON FOR OUTPUT

Print the results of an allow of application database audit.

3. VARIABLE FIELD DEFINITIONS

- a Application database that is affected. Valid values are:
 - IBGTT — Inbound global title translation
 - PCPGTT — Positive call processing global title translation
 - ATP — AT&T Trigger Platform (ATP) data tables
- b Invalid application database. Valid values are 0 (for IBGTT), 2 (for PCPGTT), or 3 (for ATP).
- c Audit type that the request was for. This message is printed whenever the value is not 128 or 129.

4. ACTION TO BE TAKEN

Allow or inhibit the audit when appropriate via the ALW:DLNAUD or INH:DLNAUD command.

5. REFERENCES

Input Messages
ALW:DLNAUD
INH:DLNAUD
OP:DLNAUD

Output Messages
INH:DLNAUD
OP:DLNAUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:DMQ
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW DMQ COMPLETED
- [2] ALW DMQ SOURCE a IS NOT INHIBITED
- [3] ALW DMQ SOURCE a IS INHIBITED BY SOURCE ALL
- [4] ALW DMQ ENABLED a

2. REASON FOR OUTPUT

Format 1 indicates that an ALW:DMQ input message has completed.

Format 2 indicates that an ALW:DMQ input message was entered for a non-inhibited source.

Format 3 indicates that an ALW:DMQ input message was entered for a source inhibited by ALL. A source cannot be allowed if the source ALL is inhibited.

Format 4 reports that a specific source of automatic maintenance requests is no longer inhibited. It is now allowed to send requests to the Maintenance Input Request Administrator (MIRA).

3. VARIABLE FIELD DEFINITIONS

- a Three-character name of the source currently allowed to make automatic maintenance requests:
 - ADP — Automatic diagnostic process.
 - ALL — Allows all automatic maintenance requests by clearing the inhibited sources that were inhibited by ALL.
 - REX — Routine exercises.

4. ACTION TO BE TAKEN

Use the OP:DMQ input message to determine which diagnostic sources are inhibited.

5. REFERENCES

OMDB Keys

Formats 2 and 3 have an OMDB key of 67.

Format 4 has an OMDB key of 66.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

SEE PROPRIETARY NOTICE ON COVER PAGE

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Input Messages

ALW:DMQ-A

INH:DMQ-A

OP:DMQ

Output Messages

OP:DMQ

REPT:DMQ

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:EAIINT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW EAIINT a COMPLETED
- [2] ALW EAIINT a COMPLETED WITH b
- [3] ALW EAIINT a ABORTED c

2. REASON FOR OUTPUT

To indicate the result of a request to allow Emergency Action Interface (EAI) error interrupts on a specified 3B21D computer Control Unit (CU), or on both 3B21D computer CUs.

NOTE: The 3B20D/3B21D computer CUs do not have EAI error interrupts.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

3. VARIABLE FIELD DEFINITIONS

- a CU 0, CU 1, or CU 0 and CU 1.
- b Port problems:
 - AN INVALID SYSTEM PORT SPECIFIED
 - AN INVALID SYSTEM PORT SPECIFIED FOR AIM— Application Integrity Monitor (AIM)
 - NO PROCESS ATTACHED TO THE SPECIFIED PORT
 - NO PROCESS ATTACHED TO THE AIM PORT
- c Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

For Format 1, no action is necessary.

For Format 2, seek technical assistance.

For Format 3, use the **OP:ERRCHK** input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. REFERENCES

OMDB Key(s)

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:EAIINT

ALW:ERRCHK

INH:EAIINT

INH:ERRCHK

OP:ERRCHK

Output Messages

ALW:ERRCHK

INH:EAIINT

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:ERRCHK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW ERRCHK COMPLETED
- [2] ALW ERRCHK COMPLETED WITH a
- [3] ALW ERRCHK ABORTED b
- [4] ALW ERRCHK NOT STARTED
INVALID ID FIELD

2. REASON FOR OUTPUT

To indicate the result of a request to allow all computer error sources.

3. VARIABLE FIELD DEFINITIONS

- a Port problems:
 - Invalid system port specified.
 - Invalid system port specified for Analog Interface Module (AIM).
 - No process attached to the specified port.
 - No process attached to the AIM port.
- b Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully
 - 52 — Error in message communication
 - 53 — Error internal to the inhibit administrator

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:ERRINT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW ERRINT COMPLETED
- [2] ALW ERRINT COMPLETED WITH a
- [3] ALW ERRINT ABORTED b
- [4] ALW ERRINT NOT STARTED
INVALID ID FIELD - INPUT ERROR
- [5] ALW ERRINT NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS - UNEQUIPPED UNIT

2. REASON FOR OUTPUT

To indicate the result of a request to allow error interrupts on a particular hardware unit or complex, or on all hardware units.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

Format 4 indicates an error in the identification field of the input. Possibly, the unit name and number specified cannot be found in the database.

Format 5 indicates unit name and number specified was found in the database, but is unequipped.

3. VARIABLE FIELD DEFINITIONS

- a Port problems:
 - AN INVALID SYSTEM PORT SPECIFIED
 - AN INVALID SYSTEM PORT SPECIFIED FOR AIM — Application Integrity Monitor (AIM)
 - NO PROCESS ATTACHED TO THE AIM PORT
 - NO PROCESS ATTACHED TO THE SPECIFIED PORT

SEE PROPRIETARY NOTICE ON COVER PAGE

- b Error codes:
- 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.

4. ACTION TO BE TAKEN

For Formats 1, 4, and 5, no action is necessary.

For Format 2, seek technical assistance.

For Format 3, use the **OP:ERRCHK** input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. REFERENCES

OMDB Key(s)

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:ERRSRC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW ERRSRC COMPLETED
- [2] ALW ERRSRC COMPLETED WITH a
- [3] ALW ERRSRC ABORTED b
- [4] ALW ERRSRC NOT STARTED
INVALID ID FIELD

2. REASON FOR OUTPUT

To indicate the result of a request to allow the processing of errors under a computer Control Unit (CU) pseudo-node.

3. VARIABLE FIELD DEFINITIONS

- a Port problems:
 - Invalid system port specified.
 - Invalid system port specified for Analog Interface Module (AIM).
 - No process attached to the specified port.
 - No process attached to the AIM port.
- b Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — An Error in message communication.
 - 53 — An Error internal to the inhibit administrator.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, the user should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:F-ACCESS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW FILESYS ACCESS COMPLETED
- [2] ALW FILESYS ACCESS STOPPED
a

2. REASON FOR OUTPUT

To report the result of an ALW:F-ACCESS input message to change the mode of a file.

3. VARIABLE FIELD DEFINITIONS

- a The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

Format 2 indicates the command has failed. The explanatory text will indicate the error encountered. Refer to the input message for the correct format and reenter the message, or check the status of the file using the OP:ST-LSTDIR input message.

Seek technical assistance if any other error message is printed.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 282.
- Format 2 has an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

- ALW:F-ACCESS
- ALW:F-OWNER
- OP:ST-LSTDIR

Output Messages

- OP:ST-FILESYS
- OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:F-MOUNT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW FILESYS MOUNT COMPLETED
- [2] ALW FILESYS MOUNT STOPPED
a

2. REASON FOR OUTPUT

To report the result of executing an ALW:F-MOUNT input message to mount a file system.

Format 1 is printed when the input message has been completed.

Format 2 is printed when the execution has been stopped.

3. VARIABLE FIELD DEFINITIONS

- a Description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

Format 2 indicates the command has failed, and explanatory text will indicate the error encountered.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 288.

CIC Select Code 303-007 *Lucent Technologies 3B20D/3B21D Computer UNIX®*

RTR Operating System Processor Recovery Messages User's Guide

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

ALW:F-MOUNT

INH:F-UMOUNT

OP:ST-FILESYS

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
OP:ST-FILESYS
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:F-OWNER
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW FILESYS OWNER COMPLETED
- [2] ALW FILESYS OWNER STOPPED
a

2. REASON FOR OUTPUT

To report the result of an ALW:F-OWNER input message to change the owner and group of a file.

3. VARIABLE FIELD DEFINITIONS

- a The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

Format 2 indicates the command failed. The explanatory text will indicate the error encountered. Refer to the input message for the correct format and reenter the message, or check the status of the file using the OP:ST-LSTDIR input message if the message indicates that the file or directory is missing.

Seek technical assistance if any other error message is printed.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 282.
- Format 2 has an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

- ALW:F-ACCESS
- ALW:F-OWNER
- OP:ST-LSTDIR

Output Message

- OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:FTA
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 4 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has four formats.

- [1] ALW FTA APP a COMPLETE
FTA IS ALLOWED FOR a
- [2] ALW FTA APP a COMPLETE
REMOTE EXECUTION OF THIS COMMAND NOT ALLOWED
- [3] ALW FTA APP a COMPLETE
INPUT ERROR - d
- [4] ALW FTA APP a COMPLETE
ERROR b (LINE c) -- FTA CANNOT BE ALLOWED FOR a

NOTE: If the APP keyword argument was not specified in the corresponding IM message, the preceding formats will be slightly different. An Output Message will print, with "IN PROGRESS" on the first line instead of "COMPLETE", for each application programmed for FTA. A final "COMPLETE" message will print concluding the Output Message sequence. For example, instead of format 1 preceding, the output will be:

ALW FTA IN PROGRESS
APPDB FTA IS ALLOWED FOR IBGTT

ALW FTA IN PROGRESS
APPDB FTA IS ALLOWED FOR OBGTT

ALW FTA IN PROGRESS
APPDB FTA IS ALLOWED FOR CORE

ALW FTA COMPLETE

Currently, the "Inbound GTT", "Outbound GTT", and "Core" (i.e., PCP and ATP) applications are programmed to use FTA.

2. REASON FOR OUTPUT

Response to the File Transfer and Activation (FTA) ALW:FTA input command. Format 1 prints if no errors were encountered when executing the allow (ALW:FTA) command. Format 2 prints if the ALW:FTA command is requested via a remote login connection (e.g., via IRAS PINET session). Format 3 prints if a syntax error was found in the ALW:FTA command that was input. Format 4 prints if internal errors are preventing the 4ESS™ Switch from allowing FTA.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

- a The customer application specified in the ALW:FTA input message.
Either:
- IBGTT
OBGTT (Refers to the PCP customer)
CORE
- b Error number (TBD).
- c Source line number where error was found. (For NESAC trouble-shooting.)
- d English description of the syntax error found in the command input.

4. ACTION TO BE TAKEN

Format 4: Notify NESAC.

5. REFERENCES

Input Messages

ALW:FTA
INH:FTA
OP:FTA

Output Messages

ALW:FTA
INH:FTA
OP:FTA

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:HDWCHK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW HDWCHK COMPLETED
- [2] ALW HDWCHK COMPLETED WITH a
- [3] ALW HDWCHK ABORTED b
- [4] ALW HDWCHK NOT STARTED
INVALID ID FIELD

2. REASON FOR OUTPUT

To indicate the result of a request to allow computer hardware checks.

3. VARIABLE FIELD DEFINITIONS

- a Port problems:
 - Invalid system port specified.
 - Invalid system port specified for Analog Interface Module (AIM).
 - No process attached to the specified port.
 - No process attached to the AIM port.
- b Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, the user should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:RCV-APPDB
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has four formats.

- [1] ALW RCV APPDB ACTIVE
- [2] ALW RCV APPDB CANNOT CLEAR LOCK - REASON a
- [3] ALW RCV APPDB RETRY LATER - CANNOT CONNECT TO DATABASE
- [4] ALW RCV APPDB CANNOT TALK TO DATABASE

2. REASON FOR OUTPUT

These output messages are printed as a direct result of the ALW:RCV-APPDB input message. Format 1 prints if the "DLN Inhibit" feature has been deactivated with no problems. GTT10D RCV is now allowed.

Format 2 prints if a system error is encountered while trying to deactivate the inhibit. The "DLN Inhibit" is STILL in effect.

3. VARIABLE FIELD DEFINITIONS

a System error code. See Output Appendix APP:SYSERR.

4. ACTION TO BE TAKEN

No action required for Format 1.

If Format 2 prints, determine if system conditions indicate that trouble with 3B disk access is expected. If such trouble is NOT expected, notify NESAC.

If Format 3 prints, the input message cannot establish a communication link with the RCV process. Probable cause: the RCV process does not exist or insufficient system resources are available for the operation. Wait and retry later.

If Format 4 prints, the input message has established a communication link with the RCV process, however, no data can be sent or received. Probable cause: the RCV process has a software problem or insufficient system resources are available for the operation. Wait and retry later. If the problem does not clear, notify NESAC.

5. REFERENCES

Output Appendix
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW:RCV-APPDB

INH:RCV-APPDB

OP:INH-APPDB

Output Messages

INH:RCV-APPDB

OP:INH-APPDB

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:REX
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW REX COMPLETED
- [2] ALW REX NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS | RETRY LATER}

2. REASON FOR OUTPUT

To report the termination status of the ALW:REX input message.

3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

4. ACTION TO BE TAKEN

For Format 1, no action is needed.

For Format 2, CONFLICT WITH CURRENT SYSTEM STATUS indicates that temporary Routine Exercise (REX) inhibits are not available for the unit specified, or all the units specified due to active permanent REX inhibit(s). Use the OP:REXINH input message with the PERM option to determine the current permanent REX inhibits.

For Format 2, RETRY LATER indicates that the database manager or a database record could not be opened; try again at a later time. If this persists, seek technical assistance.

5. REFERENCES

Input Messages
ALW:REX
OP:REXINH

Output Message
OP:REXINH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:RUTIL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has 14 formats.

- [1] ALW RUTIL COMPL
LNaa b
- [2] ALW RUTILFLAG COMPL
LNaa b BP = c
- [3] ALW RUTILFLAG COMPL
LNaa b INVALID BP = c
- [4] ALW RUTILFLAG COMPL
LNaa b BP = c NOT SETUP COMPL
- [5] ALW RUTILFLAG COMPL
LNaa b BP = c ILLEGAL BP STATUS = e
- [6] ALW RUTILFLAG COMPL
LNaa b BP = c MEMORY PROTECTION ERROR = f
- [7] ALW RUTIL ABT
SEND2KERN MKNODE() FAILED d
- [8] ALW RUTILFLAG ABT
SEND2KERN MKNODE() FAILED d
- [9] ALW RUTIL ABT
SEND2KERN OPEN() FAILED d
- [10] ALW RUTILFLAG ABT
SEND2KERN OPEN() FAILED d
- [11] ALW RUTIL ABT
SEND2KERN KERNEL RETURNED ERROR d
- [12] ALW RUTILFLAG ABT
SEND2KERN KERNEL RETURNED ERROR d
- [13] ALW RUTIL ABT
KERNEL RESPONSE TIMEOUT d

SEE PROPRIETARY NOTICE ON COVER PAGE

[14] ALW RUTILFLAG ABT
KERNEL RESPONSE TIMEOUT d

2. REASON FOR OUTPUT

Response to a ALW:RUTIL input command.

Formats [1] and [2] indicate a successful completion of the ALW:RUTIL and the ALW:RUTIL with the FLAG option input commands, respectively.

Format [3] indicates that the breakpoint specified is invalid.

Format [4] indicates that the specified breakpoint in not set up.

Format [5] indicates that the breakpoint has an illegal status.

Format [6] indicates that a memory protection error has occurred.

Formats [7] and [8] indicate that creating the special file for the kernel has failed.

Formats [9] and [10] indicate that attempting to open the file for the kernel processing has failed.

Formats [11] and [12] indicate that the kernel has returned a failing return code.

Formats [13] and [14] indicate that the kernel has not responded to the craft process.

3. VARIABLE FIELD DEFINITIONS

aa	The group number of the concerned node.
b	The member number of the concerned node.
c	The specified breakpoint number.
d	The value of the global variable errno.
e	Illegal breakpoint status value.
f	Memory protection error return.

4. ACTION TO BE TAKEN

For Formats [3] and [4], check the specified breakpoint number.

Otherwise seek technical assistance for Formats [5] through [14].

5. REFERENCES

CNI Maintenance Manual - 256-090-122
Ring and Ring Node Maintenance Procedures Section

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Input Messages
ALW:RUTIL
OP:RUTIL

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ID ALW:SCSD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW SCSD UNIT a PT b[bbbbbbb] c
- [2] ALW SCSD GRPN d DUPID e PT f[ffffff] c
- [3] ALW SCSD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS

2. REASON FOR OUTPUT

To indicate whether a scan point has been enabled as a result of executing an ALW:SCSD input message. This allows a scan point transition to be reported.

Format 1 is used when a scan point is identified by physical location.

Format 2 is used when a scan point is identified by logical address.

Format 3 is used when the Scanner and Signal Distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

- a Member number of SCSD unit.
- b Physical scan point number on an SCSD (0-47).
- c Termination status:
 - COMPLETED — Action completed.
 - FAILED — Action could not be completed by SCSD Administrator. Reasons for failure are:
 - SCSD unit number is invalid.
 - Point number is invalid for the logical group.
 - Logical group name is invalid and either the SCSD unit is Out Of Service (OOS) or is in an inactive state to the SCSD Administrator.
- d Name of the logical group.
- e Duplex group ID (0 or 1).
- f Number of a point within a logical group.

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4. ACTION TO BE TAKEN

Issue the OP:00S input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter Recent Change And Verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the results are negative, seek technical assistance.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 229.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description
3B20D/3B21D Processor*

Input Messages

ALW:SCSD

OP:00S

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ALW:SFTCHK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ALW SFTCHK COMPLETED
- [2] ALW SFTCHK COMPLETED WITH a
- [3] ALW SFTCHK ABORTED b
- [4] ALW SFTCHK NOT STARTED
INVALID ID FIELD

2. REASON FOR OUTPUT

To indicate the result of a request to allow computer software checks.

3. VARIABLE FIELD DEFINITIONS

- a Port problems:
 - Invalid system port specified.
 - Invalid system port specified for AIM.
 - No process attached to the specified port.
 - No process attached to the AIM port.
- b Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, the user should seek technical assistance.

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5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

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ID ALW:TRACE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

ALW TRACE a
b

2. REASON FOR OUTPUT

This message is in response to the ALW:TRACE input message.

3. VARIABLE FIELD DEFINITIONS

a Termination status of the input command.

{ COMPL | ABT | STOPPED }

b Reason command was ABT.

TIMEOUT SIGNAL RECEIVED
SOFTWARE TERMINATION SIGNAL RECEIVED
HANGUP SIGNAL RECEIVED
INTERRUPT SIGNAL RECEIVED
UNEXPECTED SIGNAL RECEIVED

or reason command was STOPPED.

IMS SUBSYSTEM DOWN
IMS MESSAGE SWITCH CHANNEL BUSY
IMS SUBSYSTEM OVERLOAD
PROGRAM MALFUNCTION

4. ACTION TO BE TAKEN

None, or if ABT or STOPPED, retry ALW:TRACE input message.

5. REFERENCES

Input Messages
ALW:TRACE
INH:TRACE
OP:TRACE
SET:TRACE

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Output Messages
INH: TRACE
OP: TRACE
REPT: TRACE
SET: TRACE

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ID ALW:TRAP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] ALW TRAP
MTRP: ALW TRAP ID ALL COMPL; NO INH OR PND TRAP
- [2] ALW TRAP
MTRP: ALW TRAP ID ALL COMPL; ID(S) = a a a
- [3] ALW TRAP
MTRP: ALW TRAP ID ALL FAILED; b
- [4] ALW TRAP
MTRP: ALW TRAP ID COMPL; ID = a
- [5] ALW TRAP
MTRP: ALW TRAP ID COMPL; ABT/CMP TRAP; OID = a NID = a
- [6] ALW TRAP
MTRP: ALW TRAP ID FAILED; [b | c]; ID = a

2. REASON FOR OUTPUT

This output message is in response to an ALW:TRAP input message.

Format 1: This format results when ID ALL is specified and there are no inhibited or pending traps in the Message Trap system.

Format 2: This format results when ID ALL is specified and there is one or more inhibited or pending traps to be allowed. A list of the trap IDs that have been allowed will be displayed.

Format 3: This format results when ID ALL is specified and there is one or more inhibited or pending traps to be allowed. However, the processing of the ALW:TRAP input message has failed due to the reason being printed.

Format 4: When one or a list of trap IDs is given, each trap specified will be allowed in the given order. This format will be printed for the traps that have been successfully allowed. One message per trap ID allowed will be printed.

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Format 5: When one or a list of trap IDs is given, each trap specified will be allowed in the given order. In this case, one of the trap IDs given belongs to a trap that has aborted or has completed. A new trap is started with the same trap information as the one specified and a new trap ID is assigned. OID denotes the old trap ID whereas NID denotes the new trap ID. One message per ID allowed will be printed. Note that the "old" trap will remain intact.

Format 6: When one or a list of trap IDs is given, each trap specified will be allowed in the given order. This format results when the processing of a trap has failed due to the reason being printed. One message per ID failed will be printed.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | Trap Identification Number. |
| b | Reason ALW:TRAP input message failed (internal error condition).

CAN'T GET INDEX

INVALID TRAP STATE

NO TRAP ALLOWED |
| c | Reason ALW:TRAP input message failed.

ACT TRAP — Cannot allow active traps.
INVALID ID — ID does not belong to any trap.
MAX_SIMTRP REACHED — Maximum number of simultaneous traps
that are allowed on the Message Trap
system is reached.

TRM TRAP — Cannot allow terminated traps. |

4. ACTION TO BE TAKEN

Formats 1, 2, 4, and 5: None.

Format 3: Seek technical assistance.

Format 6: If any of the reasons in category b are printed, seek technical assistance; otherwise, the reasons in category c are self-explanatory.

5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Message Trap Section

Practice 256-090-122 *CNI Maintenance Manual* - Message Trap Section

Input Message
ALW:TRAP

Output Message
REPT:MON-TRAP

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ID ALW:UMEM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

ALW UMEM a WAS b NOW c #d

2. REASON FOR OUTPUT

To report the disposition of an ALW:UMEM input message.

3. VARIABLE FIELD DEFINITIONS

- a Status of the operation:
- COMPLETED — The trace has begun monitoring the flow of execution.
- NOT STARTED — The operation was ignored because data loss might have resulted.
- STOPPED UCERR — The operation could not be completed because the utility circuit either does not respond or does not match the circuit present when the trace was defined.
- b The state of the trace before the operation was attempted:
- DUMPED — The trace was not running and its data had already been dumped.
- NEW — The trace was not running and did not have data.
- RUNNING — The trace was collecting data.
- STOPPED — The trace was not running and did have data.
- UNDEF — No trace was defined.
- c The state of the trace after the operation was attempted.
- RUNNING — The trace is collecting data.
- STOPPED — The trace is stopped and does contain data.
- UNDEF — No trace is defined.
- d Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the status of the operation is NOT STARTED, the trace must be in the NEW or DUMPED state in order to be started. Use the INH:UMEM and/or the OP:UMEM input messages before reissuing the ALW:UMEM input message.

If the status of the operation is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

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5. REFERENCES

OMDB Key

This message has an OMDB key of 496.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

ALW:UMEM

INH:UMEM

INIT:UC

OP:UMEM

OP:UTIL

Output Message

OP:UTIL

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ID ALW:UTIL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

ALW UTIL a #b

2. REASON FOR OUTPUT

To report the disposition of an ALW:UTIL input message.

3. VARIABLE FIELD DEFINITIONS

- a Termination status:
- COMPLETED — The actions associated with any breakpoint will be executed when the breakpoint conditions occur.
- STOPPED UCERR — The operation was completed successfully for all software breakpoints, but the utility circuit does not respond or does not match the circuit present when the hardware breakpoints were defined.
- b Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the termination status is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. REFERENCES

OMDB Key

This message has an OMDB key of 494.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

ALW:UTIL
INH:UTIL
INH:UTILFLAG
INIT:UC
OP:UTIL

Output Message

OP:UTIL

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ID ANALY:TLPFILE-A
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

[1] ANALY:TLPFILE:a SUMMARY DATA MSG STARTED
TLP: a PH=b K1=0Xc K2=0Xd FFK=e
.
.
.
.
TLPFILE COMPLETED

[2] ANALY TLPFILE a TLPSRCH MSG IP
TLPFILE # f
ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT MSG COMPL
CODE GRP MEM CONT POS WT NOTE
g h i j k l m

2. REASON FOR OUTPUT

To print trouble location information after a diagnostic has been run.

Format 1 is always printed after a failure has occurred during the execution of a diagnostic.

Format 2 is printed only when diagnostic failures have occurred and the Trouble Locating Procedure (TLP) option was specified in the input command.

3. VARIABLE FIELD DEFINITIONS

- a Name of unit that failed its diagnostic (for example, RPCN00 0, or LN63 15).
- b Failing diagnostic phase number.
- c An 8-byte hexadecimal field which represents the failing keys - word 1. One bit set for each of the failing TLP keys, 0-31.
- d An 8-byte hexadecimal field which represents the failing keys - word 2. One bit set for each of the failing TLP keys, 32-63.
- e First failing key number (0-63).
- f Unique decimal number identifying the TLP process.
- g Circuit pack code.
- h Group number of group-member identification of a ring node.
- i Member number of group-member identification of a ring node.

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j	A controller number that identifies a group of circuit packs at a ring node. The suspect board is within that controller group. If j contains a dash, the controller field does not apply to the particular circuit pack entry.
k	The position of a suspect board within a group of identical boards on the specified controller group (for Smart Node 1 applications), or the position of the suspect board within a group of identical boards within a node unit when there is no value specified for the CONT field (for applications that provide two link interface boards per node). If this variable contains a dash, the position field does not apply to the particular circuit pack entry.
l	A number (1-10) expressing the confidence level (weight) for the specified pack relative to the other suspect packs. Pack codes with larger weights are more suspect than those with smaller weights.
m	A note number, as defined in Table 1. A dash in this field specifies the absence of a note number for this pack entry.

TABLE 1

Note Number	Definition
NOTE 0	A null note.
NOTE 01	The power converter supplying any of the nodes identified in the TLP output may be faulty or powered down.
NOTE 02	The UN9 board at the DSCH may also be faulty.
NOTE 03	If a ring bus cable is associated with any of the listed nodes, that cable is also implicated as a possible cause of the diagnostic failure.
NOTE 04	CAUTION: This node is either the BISO or EISO node and so is in the active ring. The node must be removed from service, and if an IRN, it must be isolated before replacing this circuit pack.
NOTE 05	Any of the equipped memory controller packs (MASC) may be faulty.

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TABLE 1 (Cont.)

Note Number	Definition
NOTE 06	The ring related hardware in the other nodes in the isolated segment, especially the neighbor nodes, may also be suspect if replacement of the other boards on the suspect board list fails to correct the problem. Ring hardware includes IRN, RI0, RI1 and IFB circuit packs and cabling.
NOTE 07	The problem may be due to a backplane bus fault which can be caused by a bus driver or receiver on any of the packs in the node or by a short on the backplane pins. When the fault is not cleared by the items listed on the suspect pack list, replace, one at a time, the remaining packs in the node under test and check the backplane for shorted pins.
NOTE 08	The failure is due to corruption of the data in flash (non-volatile) memory. Run diagnostic phase 51 to reprogram the flash memory on the LID0 circuit pack.
NOTE 09	One or more of the following may also cause failure: • Faulty hardware associated with the composite clock input such as cabling, or the timing signal generator. • Faulty DS0 data cabling, or the associated dataport in the channel bank. • The transmission equipment may not be configured for the same timing source as the TN1669 (both must be externally timed by the composite clock). • The "equipage" field for this node in the Equipment Configuration Database (ECD) may not be set to match the actual link hardware configuration.
NOTE 10	One or more of the following may also cause failure: • Faulty V.35 applique on the backplane. • Bad cabling between the applique and the dataset. • The dataset may be faulty or have incorrect mode settings. • The "equipage" field for this node in the Equipment Configuration Database (ECD) may not be set to match the actual link hardware configuration.

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TABLE 1 (Cont.)

Note Number	Definition
NOTE 39	A null note.
NOTE 40	One or more of the following may be faulty: Interface between LI4 and Facility Interface, Applique board, Associated cabling, Data Set is faulty or is not in a correct mode.
NOTE 41	One or more of the following may be faulty: Interface between LI and Facility Interface, Facility Interface equipment, Associated cabling, Data set or VFLA if applicable.

4. ACTION TO BE TAKEN

Repair the faulty unit using the suspected pack list. The pack list is ordered with the most likely pack listed first.

Note: The TLP is valid for the first failing phase only.

5. REFERENCES

Input Messages

DGN:LN

DGN:RPCN

Output Messages

DGN:AUDIT-RING

DGN:LN

DGN:RPCN

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ID ANALY:TLPFILE-B
WORK CENTER.. MOC
GENERIC 4AP19 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] ANALY TLPFILE a SUMMARY DATA MSG STARTED
TLP: a PH=b K1=0Xc K2=0Xd FFK=e
.
.
.
TLPFILE COMPLETED
- [2] ANALY TLPFILE a MSG IP
TLPFILE # f
- [3] ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT MSG COMPL
UNIT MV VALUE = g
CODE EQL FS SYM SD UNIT WT NOTE
[h] [i] [j] [k] [l] [m] n [o]
- [4] ANALY TLPFILE a SUSPECTED FAULTY EQUIPMENT MSG COMPL
CODE EQL FS SYM SD UNIT WT NOTE
[h] [i] [j] [k] [l] [m] n [o]

2. REASON FOR OUTPUT

To print trouble location information for a failing diagnostic.

Format 1 is always printed after diagnostic failures have occurred. This message summarizes the failing Trouble Locating Procedure (TLP) key information for each failing phase.

Formats 2 and 4 are printed only when diagnostic failures have occurred and the TLP option was specified in the input command. The information in these messages is used to repair the failing unit.

Format 3 is to verify if TLP NOTE 4 is present. Before replacing the equipment associated with NOTE 4, contact 3B/RTR Global CTS immediately.

Text from TLP NOTE 4 follows:

If a forced switch of the CU is required, special precautions are required to insure the appropriate initialization level of the Out-Of-Service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down. Seek technical assistance (3B customer technical support) for diagnostic failure analysis and appropriate procedures for the force and boot of an Out-Of-Service CU.

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See Practices 254-301-100, 254-302-100, or 254-303-106.

3. VARIABLE FIELD DEFINITIONS

a	Unit and side that failed diagnostic (for example, CU 0).
b	Failing diagnostic phase number.
c	Failing TLP keys - word 1. One bit set for each failing TLP key, 0-31.
d	Failing TLP keys - word 2. One bit set for each failing TLP key, 32-63.
e	First failing TLP key number.
f	Unique decimal number identifying the TLP process.
g	Model Version (MV) of the unit being diagnosed.
h	Equipment code.
i	Equipment location.
j	Functional schematic number for the equipment.
k	Functional schematic symbol number for the equipment.
l	Schematic diagram number for the unit.
m	Units containing the equipment when not the same as the unit being diagnosed. DO NOT REMOVE POWER OR EQUIPMENT FROM AN ACTIVE OR IN-SERVICE UNIT. ONL in the unit column means on-line or active unit. PU in the unit column means peripheral unit such as Disk File Controller (DFC) or Input/ Output Processor (IOP).
n	Weight on a scale from 1 to 10 with the equipment most likely to be faulty having the highest number.
o	Note number. If note is nonzero, see the following list. Note 0 is not used.

NOTE NUMBER — DEFINITION

CC	NOTE 01 — Do not remove power or equipment from an active or in-service unit.
CC	NOTE 02 — Cable to the maintenance channel of the CU.
CC	NOTE 03 — CU could be held stopped by Micro Level Test Set (MLTS) or Bus Display Unit (BDU).
CC	NOTE 04 — If a “forced switch” of the CU is required, special precautions are required to ensure the appropriate initialization level of the Out-Of-Service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down.

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- Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an OOS CU.
- CC NOTE 05 — MLTS, TN16, or UN16 if equipped.
- CC NOTE 06 — CU could be powered down.
- CC NOTE 07 — Power switch board or one of the power converters may be bad. If ALARM is lighted on power switch board, power cycle CU. If light remains on in one of the power converters, that converter may be bad. If lights go out on all converters and CU fails to power up, power switch board may be bad. (Model 1 3B20 CU power switch circuitry includes EAI board, TN11.)
- CC NOTE 10 — Board is in Input/Output Processor (IOP) 0.
- CC NOTE 11 — Board is in IOP 1.
- CC NOTE 50 — Channel board in the channel 0 position.
- CC NOTE 51 — Channel board in the channel 1 position.
- CC NOTE 52 — Channel board in the channel 2 position.
- CC NOTE 53 — Channel board in the channel 3 position.
- CC NOTE 54 — Channel board in the channel 4 position.
- CC NOTE 55 — Channel board in the channel 5 position.
- CC NOTE 56 — Channel board in the channel 6 position.
- CC NOTE 57 — Board in the DMA 0 position (Model 1 UN36).
- CC NOTE 58 — Board in the DMA 1 position (Model 1 UN36).
- CC NOTE 59 — A channel address lead is being held active by CU, channel, or DMA.
- CC NOTE 60 — A channel or DMA bus may be responding and/or acknowledging falsely.
- CC NOTE 61 — A channel or DMA is holding channel error (ER bit 16) active (low).
- CH NOTE 01 — Suspect any Channel (CH) or Direct Memory Access (DMA).
- CH NOTE 02 — Unterminated or defective cable on port under test.
- CH NOTE 03 — Suspect Helper Unit circuit packs. IOP and DFC circuit packs may be at fault. For the SCSI DFC, these circuit packs include the Host Adapter (HA) and the DFC.
- CH NOTE 04 — The under-test CH is connected, via the DSCH cable, to another circuit pack. Suspect the DDSBS logic in that circuit pack or the DSCH cable.
- CSU NOTE 01 — Verify hardware for the kernel stack in interrupt stack cache memory feature corresponds with the Cache Store Unit (CSU's) Unit Control Block (UCB) Hardware Version (HV) field. A 1 in bit 0 of this field indicates the feature is present. The hardware for this feature is a UN45C Store Address Translation (SAT), with pins 149 and 047

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- wired together on the SAT backplane to enable the feature. Discrepancy between HV value and hardware should be corrected.
- CSU NOTE 04 — If a “forced switch” of the CU is required, special precautions are required to ensure the appropriate initialization level of the Out-Of-Service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down.
- Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an OOS CU.
- DCI NOTE 01 — The Dual Serial Channel/Computer Interconnect (DCI) could be powered down. This board is located in the attached processor.
- DCI NOTE 02 — The attached processor or its software may be the cause of this phase failing.
- DFC NOTE 01 — The disk file controller (or) Disk File Controller (DFC) frame could be powered down.
- DFC NOTE 02 — Do not remove power or equipment from an active or in-service unit.
- DMA NOTE 01 — Suspect any channel or DMA.
- DMA NOTE 04 — If a “forced switch” of the CU is required, special precautions are required to ensure the appropriate initialization level of the Out-Of-Service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down.
- Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an OOS CU.
- DUIC NOTE 01 — Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
- DUIC NOTE 02 — Replacement equipment must have same Microcode (MC) number.
- IOP NOTE 01 — The Input/Output Processor (IOP) could be powered down.
- IOP NOTE 02 — Do not remove power or equipment from an active or in-service unit.
- MASC NOTE 01 — Do not remove power or equipment from an active or in-service unit.
- MASC NOTE 04 — If a “forced switch” of the CU is required, special precautions are required to ensure the

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appropriate initialization level of the Out-Of-Service (OOS) CU being forced to the active state. An RTR level 4 boot is always required if the side to be forced active has been previously powered down.

Seek technical assistance (3B Customer Technical Support) for diagnostic failure analysis and appropriate procedures for the force and boot of an OOS CU.

- MASC NOTE 09 — Array identified by DGN CU_ MASC_ PH_ MEMORY FAILURE RESULTS output message.
- MASC NOTE 10 — Other units on the store bus: CC, other MASC in CU under test (in CUs with two UN39-UN40 MASCs), DMAs, CSU (if equipped), SAT.
- MASC NOTE 12 — Any array in Main Store Controller (MASC).
- MASC NOTE 13 — Other MASC (in CUs with 2 UN39-UN40 MASCs) may have errors active in CC ER.
- MHD NOTE 01 — Part of the DFC, the DFC must be removed from service and powered down before this equipment can be replaced.
- MHD NOTE 09 — Refer to the Maintenance Instruction Manual for KS-21995,L2 and KS-22707,L2 Memory available from Century Data System, part number 76261-3xx.
- MHD NOTE 10 — These circuit cards are located in the logic card cage of the KS-22707,L2 Memory unit. Also refer to MHD NOTE 09.
- MHD NOTE 11 — The Power Amplifier, VP58 is located behind the logic card cage. Also refer to MHD NOTE 09.
- MHD NOTE 12 — Codes for all circuit cards in the KS-22707,L1 Memory are a four-character string of alpha-numeric or alpha characters. The first character in the string determines the revision level and the last three characters determine the circuit card code. Identification of the circuit card, therefore, is based on the last three characters.
- MHD NOTE 13 — Read MHD NOTE 12 then proceed.
These circuit cards are located in the logic chassis. Refer to Practice 254-302-210, 300 Megabyte Moving Head Disk Drives, General Description, 3B20D/3B21D Model 2 Processor.
- MHD NOTE 14 — Read MHD NOTE 12 then proceed.
These circuit cards are located on the deck plate of the memory unit. Refer to Maintenance Instruction Manual for KS-22702,L1 memory.

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MHD	NOTE 16	— MHD could be spun down.
MHD	NOTE 17	— MHD could be powered down. Check power inverter for alarm or no power. Check MHD power cord, power switch, and power indicator. On KS-22875 340MB MHD, check the diagnostic mode switch behind the front panel to ensure it is not in the diagnostic mode and the diagnostic mode indicator light is extinguished.
MHD	NOTE 18	— Incorrect ID setting could be the cause of this failure.
MTC	NOTE 01	— Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
MTC	NOTE 02	— The indicated faulty equipment is in the transport.
MTTYC	NOTE 01	— Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
SCSDC	NOTE 01	— Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
SDLC	NOTE 01	— Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
TTYC	NOTE 01	— Part of the IOP controller; the IOP must be removed from service and powered down before this equipment can be replaced.
UC	NOTE 01	— Field Test Set (FTS) may have control of the Utility Circuit (UC).

4. ACTION TO BE TAKEN

Format 1 is failing TLP key summary information. If the failing diagnostic did not have the TLP option specified, request the diagnostic again with the TLP option. The failing TLP key summary information can be used to monitor changes in failing TLP keys. No actions based on the contents of this message are required.

Format 2 provides the ID of the TLP process which is running. No actions based on the contents of this message are required.

Formats 3 and 4 are used to repair the faulty unit using the suspected faulty equipment list. The most likely equipment is at the top of the list.

If the NOTE column 0 has non-zero entries, first read the identified TLP notes for the failing unit. TLP notes may contain information regarding the cause of the trouble. Check for any specific trouble identified by the TLP notes. In some cases, the trouble can be resolved without replacing equipment.

SEE PROPRIETARY NOTICE ON COVER PAGE

If the UNIT column *m* has non-blank entries, the suspected faulty equipment is not in the unit that failed diagnostics. Defer replacing equipment in other units until all suspected equipment in the failing unit has been tried. It may be necessary to reconfigure the system to allow the other units to be removed from service. It will be necessary to remove from service and power down the other units before replacing equipment in the other units.

Replace the equipment at the top of the list with a spare, and retest the unit with the diagnostics. If the unit still fails, restore the original equipment to the unit and replace the next equipment on the list with a spare. Continue until faulty equipment found or list exhausted.

When faulty equipment is found, verify it causes the diagnostic failure by restoring it to the unit and rerunning diagnostics. If the diagnostics DO NOT fail as before, suspect the faulty equipment is intermittent or temperature sensitive. Occasionally, removing and restoring power to the unit or reseating equipment clears the trouble. Note the equipment involved in clearing the trouble. If the diagnostic failure returns and the same equipment is involved in clearing the trouble, replace the equipment.

If asterisks (*) are printed in the equipment location field *i*, TLP cannot directly determine the location of the equipment from the failing diagnostic *a*. If the UNIT column *m* is blank, all equipment of the code identified in *h* are implicated in the failing unit. If the UNIT column *m* identifies another unit (or units), all equipment of the code identified in *h* are implicated in the unit (or units) identified by *m*. In some cases, further resolution is possible;

If *h* = UN09, TLP may not be able to directly determine the channel based on the unit under test. Channel diagnostics should be run to more accurately determine the faulty equipment. For example, if the DMA 0 diagnostic failed and TLP implicated the UN09, run DMA 0 channel diagnostics (CH 11-14).

If *h* = UN19, this indicates that TLP cannot directly determine the channel based on the unit under test. Channel diagnostics (CH 0-9) should be run to more accurately determine the faulty equipment.

If *h* = TN69 or TN70, the TN69 or TN70 equipment in the peripheral device being used as a helper unit is being implicated. See the diagnostic listing for further information on the peripheral device involved with the phase which failed. The following translates some of the channel diagnostic phases to the subchannel being tested.

SEE PROPRIETARY NOTICE ON COVER PAGE

Failing CH Phase	Subchannel Under Test
8 or 24	0
9 or 25	1
10 or 26	2
11 or 27	3
12 or 28	4
13 or 29	5
14 or 30	6
15 or 31	7
16 or 32	8
17 or 33	9
18 or 34	10
19 or 35	11
20 or 36	12
21 or 37	13
22 or 38	14
23 or 39	15

If h = TN14, TN28 or TN56, or TN2012, this indicates TLP may not be able to determine the failing Main Store Array (MASA) based on the unit under test. Some MASC diagnostic phases have a histogram output message that identifies the failing MASA. If the MASC diagnostic was not run, the MASC diagnostic should be run to more accurately determine the faulty equipment.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 16.

Format 2 has OMDB keys of 17 and 18.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual, Volume 6*

Practice 254-301-100 *Input-Output Interfaces Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Practice 254-302-100 *Input-Output Interfaces Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 2 Computer*

Practice 254-302-210 *300 Megabyte Moving Head Disk Drives General Description 3B20D/3B21D Model 2 Processor*

Practice 254-303-106 *Lucent Technologies 3B20D/3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

DGN:CU
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
RST:CU
RST:DCI
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

DGN:AUDIT
DGN:CU
DGN:CU-MASC
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:IOP
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:TTYC
RST:CU
RST:DCI
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC

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RST:TTY
RST:TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ANALY:TLPFILE-RPCN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

```
ANALY:TLPFILE:RPCNa 0 SUMMARY DATA MSG STARTED
TLP: RPCNa 0 PH=b K1=0Xc K2=0Xd FFK=e
.      .      .      .      .
.      .      .      .      .
.      .      .      .      .
.      .      .      .      .
TLPFILE COMPLETED
```

2. REASON FOR OUTPUT

To print trouble location information after a diagnostic has been run.

This message is printed after a failure has occurred during the execution of certain RPC diagnostic phases.

Note: The Trouble Locating Process is not implemented in this release. Although this message may be printed it adds nothing to fault resolution.

3. VARIABLE FIELD DEFINITIONS

- a A Ring Node (RN) group number (00-63).
- b Failing diagnostic phase number.
- c An 8-byte hexadecimal field which represents the failing keys - word 1.
One bit set for each of the failing TLP keys, 0-31.
- d An 8-byte hexadecimal field which represents the failing keys - word 2.
One bit set for each of the failing TLP keys, 32-63.
- e First failing key number (0-63).

4. ACTION TO BE TAKEN

In the current state of implementation, this message adds nothing to fault resolution. Refer to output message DGN:RPCN.

5. REFERENCES

UNIX® RTR Operating System System Maintenance User's Guide

Input Message
DGN:RPCN

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
DGN:AUDIT-RING
DGN:RPCN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID APPLY:OMDB
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] APPLY OMDB COMPLETED
- [2] APPLY OMDB COMPLETED
NO OMDB LOG FILE FOUND
- [3] APPLY OMDB NO DATABASE ENTRY FOUND FOR THE
FOLLOWING KEYS:
a
- [4] APPLY OMDB FAILED
UNABLE TO ACCESS /cft/spl/omdb
- [5] APPLY OMDB LOGFILE ERROR
ENTRY SKIPPED
b
- [6] APPLY OMDB CANNOT OPEN OR CREATE LOGFILE
UPDATE NOT LOGGED
- [7] APPLY OMDB ABORTED
UNABLE TO CREATE TEMP FILE
- [8] APPLY OMDB ABORTED
UNABLE TO SEND REQUEST TO CSOP
- [9] APPLY OMDB ABORTED
CANNOT ALLOCATE DISK SPACE FOR OMDB
- [10] APPLY OMDB ABORTED
CANNOT CREATE TEMPORARY OMDB
- [11] APPLY OMDB ABORTED
OMDB COPY FAILURE
- [12] APPLY OMDB ABORTED
CANNOT SWITCH COPIES OF OMDB

2. REASON FOR OUTPUT

To report the result of executing an APPLY:OMDB input message. Format 1 indicates successful execution of the command. Formats 2, 3, 5, and 6 are warning messages. In some cases, updates may have taken place. All other formats indicate complete failure.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

- a List of message keys for which the APPLY:OMDB failed, that is, these keys no longer exist in the OMDB disk file.
- b Logfile entry containing the syntax error.

4. ACTION TO BE TAKEN

Format 1 indicates success; no action is required. However, the list of successful updates can be found in the file /cft/cpl/OMDB_LOG.

Format 2 indicates that no record of previous updates could be found. If no updates have been made to the OMDB previously, this message can be ignored. If previous updates have been made to the OMDB, seek technical assistance.

Format 3 indicates that some of the updates failed. This generally indicates that keys have been removed from the OMDB. Verify that the keys listed no longer exist using the OP:OMDB input message to examine the DISK copy of the OMDB. If the keys do not exist, the message can be ignored. If the keys do exist, seek technical assistance.

Format 4 indicates that the OMDB disk file could not be accessed. Seek technical assistance.

Format 5 most likely results from direct manipulation of the logfile. The entry in error should be examined for the cause of the error, and if appropriate, the UPD:OMDB input message can be used to reapply that update with the corrected data. The format of each logfile entry is: a keyword indicating the type of update (either ALARM or MSGCLS), the new value for either the alarm level or the message class, and a list of keys for which the update had been performed.

Formats 6 and 7 indicate a possible file system problem. Use the OP:ST-FREEDISK input message to check if the root file system is out of place. If the file system is out of place, clean up unused files and retry the command. If the file system is not out of space, seek technical assistance.

Format 8 indicates that the command could not send a message to the Coordinator Of Spooler Output Processes (CSOP). Seek technical assistance.

Formats 9 through 12 indicate that CSOP could not make a new temporary copy of the OMDB for applying updates while the OMDB is in the temporary state. Seek technical assistance.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 5.
- Format 2 has an OMDB key of 2.
- Format 3 has an OMDB key of 3.
- Format 5 has an OMDB key of 8.
- Format 6 has an OMDB key of 9.
- Format 7 has an OMDB key of 10.

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Format 8 has an OMDB key of 118.
Formats 9 - 12 have an OMDB key of 642.

Input Messages

ACTV: OMDB

APPLY: OMDB

OP: OMDB

UPD: OMDB

OP: ST-FRDISK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ATR:T1M
WORK CENTER.. MOC
GENERIC 4AP15 Rel. 2 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] RING ATR T1M STARTED
T1M a b SUCCESSFULLY STARTED ATR
[c] d WITH e
FOR f MINUTE DURATION AT l
EXPECT A g PD REPORT(S) AT h
- [2] RING ATR T1M COMPL
T1M a b STOP ATR COMPLETED
NO ATR REPORT (PD) GENERATED
ATR STOPPED BEFORE ATR SETUP COMPLETED

- [3] RING ATR T1M STARTED
ATR REPORT FOR T1M a b
[c] d WITH e
FOR f MINUTE DURATION
THE g PD REPORT(S) FOLLOWS

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM O-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M COMPL
ATR T1M COMPLETED AT l NETWORK TIME

SEE PROPRIETARY NOTICE ON COVER PAGE

[4] RING ATR T1M STARTED
ATR REPORT FOR T1M a b
[c] d WITH e
FOR f MINUTE DURATION
THE g PD REPORT(S) FOLLOWS

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM O-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M COMPL
ATR T1M COMPLETED AT l NETWORK TIME

SEE PROPRIETARY NOTICE ON COVER PAGE

[5] RING ATR T1M STARTED
ATR REPORT FOR T1M a b
[c] d WITH e
FOR f MINUTE DURATION
THE g PD REPORT(S) FOLLOWS

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM O-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M COMPL
ATR T1M COMPLETED AT l NETWORK TIME

SEE PROPRIETARY NOTICE ON COVER PAGE

[6] RING ATR T1M STARTED
ATR REPORT FOR T1M a b
[c] d WITH e
FOR f MINUTE DURATION
THEIg PD REPORT(S) FOLLOWS

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM 0-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM 0-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M COMPL
ATR T1M COMPLETED AT l NETWORK TIME

SEE PROPRIETARY NOTICE ON COVER PAGE

[7] RING ATR T1M STARTED
ATR REPORT FOR T1M a b
[c] d WITH e
FOR f MINUTE DURATION
THE g PD REPORT(S) FOLLOWS

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM 0-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM 0-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M COMPL
ATR T1M COMPLETED AT l NETWORK TIME

SEE PROPRIETARY NOTICE ON COVER PAGE

[8] RING ATR T1M STARTED
ATR REPORT FOR T1M a b
[c] d WITH e
FOR f MINUTE DURATION
THE g PD REPORT(S) FOLLOWS

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM 0-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE NTWK VALID RSP_STAT
GR MEM 0-D E/F TIME NTRVLS UFRYATLO
a b i j k l m n

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L COUNTS
GR MEM 0-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k o p q q q q q q
.
a b i j k o p q q q q q q

SEE PROPRIETARY NOTICE ON COVER PAGE

RING ATR T1M REPORT IN PROG
RNA ADR SIDE I N T E R V A L SUMMARY COUNTS
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC
a b i j k l p q q q q q q

RING ATR T1M COMPL
ATR T1M COMPLETED AT l NETWORK TIME

- [9] RING ATR T1M STOPPED
T1MIa b REQUEST DENIED
SLMK FAILED THE (u) REQ WITH THE REASON OF r
- [10] RING ATR T1M STOPPED
T1M a b STOP ATR REQUEST DENIED
IN FINAL STAGE OF COMPLETING START ATR REQUEST
- [11] RING ATR T1M STOPPED
T1M a b START ATR REQUEST DENIED
ATR ALREADY IN PROGRESS
- [12] RING ATR T1M STOPPED
T1MIa b STOP ATR REQUEST DENIED
NO ATR IN PROGRESS
- [13] RING ATR T1M STOPPED
T1M a b (IT) SESSION TERMINATED T1 RETURNED TO NORMAL
- [14] RING ATR T1M STOPPED
T1M a b ATR REQUEST FAILED
THE ATR REQ TIMED OUT WAITING FOR ULN RESPONSE
- [15] RING ATR T1M STOPPED
T1M a b START ATR REQUEST DENIED
UNABLE TO SEND (u) REQ TO SLMK
- [16] RING ATR T1M STOPPED
T1MIa b START ATR REQUEST DENIED
[c] - s - (IT) ALREADY IN PROGRESS
- [17] RING ATR T1M STOPPED
T1M a b ATR REQUEST FAILED
SLMK (u) GUARD TIMER TIMEOUT,
T1M CAN'T PROCEED WITHOUT SLMK PERMISSION
- [18] RING ATR T1M STOPPED
T1M a b s REQUEST DENIED
MAXIMUM (IT) ALREADY IN PROGRESS

SEE PROPRIETARY NOTICE ON COVER PAGE

- [19] RING ATR T1M STOPPED
T1M REQUEST FAILED
THE [c] (IT) REQ AT NODE a b FAILED WITH REASON -
r
- [20] RING ATR T1M STOPPED
T1M a b START ATR REQUEST DENIED
[c] (IT) REQUEST IN PROGRESS, TRY AGAIN LATER
- [21] RING ATR T1M STOPPED
T1M a b START ATR REQUEST DENIED
WAITING LNC RESPONSE FOR RNA a b, TRY AGAIN LATER
- [22] RING ATR T1M ABORTED
T1M a b ATR (SIG) OR (LB) DEACTIVATE ABORTED
TRANSFERING CONTROL TO EXC
(SIG) AND OR (LB) STILL ACTIVE
- [23] RING ATR T1M ABORTED
T1M a b ATR ABORT
UNABLE TO GET TIMER FOR ATR (PM) DATA COLLECTION
- [24] RING T1Ma b ATR ABORT
UNABLE TO GET TIMER FOR ATR (PM) DATA COLLECTION
TRANSFERING CONTROL TO EXC
(SIG) AND OR (LB) STILL ACTIVE
- [25] RING ATR T1M ABORTED
T1M a b ATR ABORT
INCOMPLETE MESSAGE(S) FOR ATR (PM) DATA COLLECTION
CAN NOT PROCEED WITHOUT DATA
- [26] RING ATR T1M ABORTED
T1M a b ATR ABORT
ATR STATE MANAGEMENT CORRUPTION
ATR CAN NOT PROCEED WITH PROCESSING
- [27] RING ATR T1M ABORTED
T1M a b ATR ABORT
UNABLE TO SEND REQUEST MSG. TO THE NODE
- [28] RING ATR T1M ABORTED
T1M a b ATR ABORT
TRANSFERING CONTROL TO EXC
(SIG) AND OR (LB) STILL ACTIVE
- [29] RING ATR T1M ABORTED
T1M a b ATR ABORT
ATR (SIG) OR (LB) FOR RNA v CORRUPTED

SEE PROPRIETARY NOTICE ON COVER PAGE

- [30] RING ATR T1M ABORTED
T1M a b ATR ABORT
DATA FOR RNA I CORRUPTED
- [31] RING ATR T1M STOPPED
T1M a b NEULN TARGET ADR. j REQUEST FAILED/DENIED
WITH THE REASON OF r
- [32] RING ATR T1M STOPPED
T1Ma b FEULN TARGET ADR. j REQUEST FAILED/DENIED
WITH THE REASON OF r
- [33] RING ATR T1M STOPPED
T1M a b START ATR REQUEST DENIED
FAR END (PD) REQUEST NOT ALLOWED
WHEN FAR END LINE LOOPBACK ACTIVE
- [34] RING ATR T1M STOPPED
T1M a b ATR TESTING HAS BEEN ABORTED BY SLMK
WITH THE REASON OF r
- [35] RING EXC T1M STOPPED
T1M a b START ATR REQUEST DENIED
NEAR END - LINE LOOPBACK - (IT) IN PROGRESS
NO FAR END REQUEST ALLOWED

2. REASON FOR OUTPUT

Prints in response to the ATR:T1M input message.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | The group number of the link node (00-63). |
| b | The member number of the link node (1-15). |
| c | FAR END
NEAR END |
| d | ALL ZERO TEST SIGNAL
HIGH DENSITY TEST SIGNAL
LOW DENSITY TEST SIGNAL
NO TEST SIGNAL
QUASI-RANDOM TEST SIGNAL
YELLOW TEST SIGNAL |

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- e FAR END LINE LOOPBACK
FAR END PAYLOAD LOOPBACK
NEAR END PAYLOAD LOOPBACK
NO LOOPBACK
- f Duration in minutes the test is to be run (1-720).
- g FEULN
NEULN
NEULN AND FEULN
- h Approximately twenty four hour network time the report will be generated.
- i Origination address for ULN (A or Z)
- j Destination address for ULN (A or Z)
- k Side equipment or facility (E or F). ULN is E only.
- l Current network time of day or current network time of day report completed.
- m Valid intervals in the report data.
- n 8-bit current status of the T1 device. The current-status octet for the ULN T1 termination has the following per-bit indicators to show the status/health of the receive-side signal of the designated T1 termination:

7 6 5 4 3 2 1 0 <-bit position

cur_stat=U F R Y A T L O where:

The previous bit positions match the following descriptions of valid status indications:

Octet		
Bit	Bit	
Pos.	Symbol	Description
b7	U	Set when any remaining bit is set
b6	F	Set when unavailable-signal (alias failed signal) condition exists
b5	R	Red alarm (i.e., red LOF or CFC)
b4	Y	YELLOW alarm signal detected on ESF-DL
b3	A	BLUE alarm indication signal (LOF/CFC)
b2	T	Not used

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Octet		
Bit	Bit	
Pos.	Symbol	Description (continued)
b1	L	Test signal or loopback activated on transmit side
b0	O	LOS/LFVR alarm state

For invalid status indications. U-bit not set, and the following values are recorded on the remaining bits:

b7 U Bit NOT set; bit=0;
b3 A Request denial between ULNs (new for ULN)

o Time interval/interval time, one of 96 15-minute intervals in a 24-hour period.

p Duration of the interval.

q Count of the specific error:

- Errored Seconds (ES) - a second with one or more:
 - CRC6 checksum errors
 - Out-Of-Frame (OOF) conditions
 - Slip events
- Failed Seconds (FS) - also called an Unavailable Seconds (UAS). A second during which:
 - One Loss-Of-Frame (LOF) occurs
 - The failed signal state is entered, following 10 consecutive Severely-Errored Seconds (SES)
- Bursty-Errored Seconds (BES) - a second with:
 - One < CRC6 errors <320
- Severely Errored Seconds (SES) - a second with:
 - 320 or more CRC6 errors
 - One or more OOF conditions
 - One or more slip events
- Controlled- SLIP Seconds (SLIPS) - also called a slip event. A second with:
 - The occurrence of slip buffer overflow or underflow
- Loss Of Frame Count (LOFC) - the number of times:
 - A RED (alarm) LOF event
 - A BLUE (alarm) LOF event occurs

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r (IT) REQUEST IN PROGRESS, TRY AGAIN LATER
ACT FE LLB SEQ FLD; LB'S DEACT'D CK INC
ACT FE LLB SEQ FLD; LB'S DEACT'D CK OK
ACT FE LLB SEQ FLD; LLB DEACT'D CK FLD
ACT FE LLB SEQ FLD; PLB DEACT'D CK FLD
CBNMTCE FINDS FE ITR ALREADY SET
CBNMTCE FINDS FE PLB ALREADY SET
CBNMTCE FINDS REMOTE LLB ALREADY SET
CBNMTCE GRD TMR T.O. AWAIT T1DH RESP
CBNMTCE MTCE MODE NOT ENAB FOR ITR TST
DEA FE LLB SEQ FLD; LB'S DEACT'D CK INC
DEA FE LLB SEQ FLD; LB'S DEACT'D CK OK
DEA FE LLB SEQ FLD; LLB DEACT'D CK FLD
DEA FE LLB SEQ FLD; PLB DEACT'D CK FLD
FE CBNMTCE GRD TMR T.O. AWAIT OMAP RESP
FE CBNMTCE GRD TMR T.O. AWAIT T1DH RESP
INVALID LINK TYPE FOR T1 TESTING
LNC STOPS T1M TESTING
MAJOR STATE ISN'T AVL/UNA
MINOR STATE ISN'T MOOS
MINOR STATE ISN'T TEST
NODE DOES NOT ACK TO 3B
NODE IS OOS
SLM ISN'T IN A GOOD STATE TO DO LM
WAITING LNC RESPONSE, TRY AGAIN LATER
s ALL ZERO TEST SIGNAL
HIGH DENSITY TEST SIGNAL
HIGH DENSITY, LOW DENSITY, ALL ZERO, OR QUASI-RANDOM
TEST SIGNAL.
LINE LOOPBACK
LOW DENSITY TEST SIGNAL
PAYLOAD LOOPBACK

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	QUASI-RANDOM TEST SIGNAL
	YELLOW TEST SIGNAL
t	ACTIVATE
	ACTIVATE OR DEACTIVATE
	DEACTIVATE
u	IT
	PD
v	Ring node address (0-1023).

4. ACTION TO BE TAKEN

Formats 1 through 8, 10, 20 and 21 - None.

Format 9, where reason is

MINOR STATE ISN'T MOOS, or
MINOR STATE ISN'T TEST, or
MAJOR STATE ISN'T AVL/UNA, or
INVALID LINK TYPE FOR T1 TESTING,

the node must be a Universal Link Node (ULN) or High Speed Link and the link must be in the AVL, MOOS or UNA, TEST state. Put the link in one of the previously-mentioned states.

For all other values, if the action to be taken is not self explanatory, seek technical assistance.

Format 11, None or stop the in progress Automatic Trouble Report ATR and start a new ATR.

Format 12, None, the node must be a ULN or HSL, and in the AVL/MOOS or UNA/TEST state. Put the HSL in one of the previously-mentioned states. For all other values of r, if the action to be taken is not self-explanatory, seek technical assistance.

Format 13, restart the test session if desired.

Format 14, if NEAR END,

1. Verify that the ULN node is restored, and that the ULN link state is AVL, MOOS or UNA, TEST.
2. Try the command again. If this second try also fails, then
3. Remove and restore the node, verify the ULN's link is in the proper link state, and try the command again. If this third try also fails, then
4. Enter the OP:T1M,ST,...;NEULN:RAW input command to collect information about the status of the ULN, and seek technical assistance.

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Format 14, if FAR END,

- A. Determine whether the T1 facility has failed.
Enter the `OP:T1M,ST,LNgg mm;FEULN:RAW` command to get the status of the ULN and the T1 facility. Examine the `OP:T1M,ST` output and verify:
1. That the T1 facility has not failed. If the `RSP_STAT UFRYATLO` field is not all zeroes, then use the `OP:T1M` output message to interpret the non-zero indications to determine whether a T1 facility failure has occurred.
- If a T1 facility failure has occurred, and if the tester has direct access to the far-end ULN via its far-end STP (i.e. NOT via the failed T1 path), then the tester should be able to start/stop the test signal with the `EXC:T1M, . . . ;FEULN;{START|STOP}` form of the command on the far-end ULN.
- B. If the T1 facility has NOT failed, and the previous test attempts fail, then:
1. Remove/restore the near-end ULN, ensure the ULN is restored and its link is in the AVL, MOOS or UNA, TEST link state, and retry the intended test procedure.
 2. Remove/restore the far-end ULN, ensure that the ULN is restored and its link is in the AVL, MOOS or UNA, TEST link state, and retry the intended test procedure. If it still fails, then seek technical assistance.

Format 15, try the command again. If the problem persists, seek technical assistance.

Format 16, terminate any existing intrusive activity via `EXC:T1M`; then retry the `ATR:T1M` request again.

Determine whether the denial might be due to the near-end T1 intrusive test status and the far-end T1 intrusive test status being out of agreement because of a previous/current T1 path failure.

Enter the `OP:T1M,ST, . . . ;NEULN:RAW` input command for the near-end, and `OP:T1M,ST, . . . ;FEULN:RAW` for the far-end ULNs, and examine the output to see whether the intrusive test statuses are consistent. If the near-end and the far-end statuses agree, use the `EXC:T1M, . . . ;STOP` command to bring them into agreement, then restart/resume testing.

Format 17, try the command again. If the problem persists, seek technical assistance.

Format 18, None, or Stop a test so the desired test can be started.

Format 19, where reason is
`CBNMTCE GRD TMR T.O. AWAIT T1DH RESP`, or
`FE CBNMTCE GRD TMR T.O. AWAIT T1DH RESP`,
try the command again, making sure the node is fully restored. If the problem persists, seek technical assistance. If, however:

Format 19, where reason is `CBNMTCE MTCE MODE NOT ENAB FOR ITR TST`, ensure that the link state is either AVL, MOOS or UNA, TEST, then try the command again. If the problem persists, seek technical assistance.

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Format 22, before starting another ATR command on the RNA, use the EXC command to stop the test signal and/or loopback that was left active when the ATR completed, but was unable to deactivate the test signal and/or loopback that was activated by the ATR.

Format 23, try the command again. If the problem persists, seek technical assistance.

Format 24, see Format 22 actions to be taken, then see Format 23 actions to be taken.

Format 25, see Format 23 actions to be taken.

Format 26, remove and restore the RNA if possible, and try the command again. Otherwise seek technical assistance.

Format 27, see Format 23 actions to be taken.

Format 28, Before starting another ATR command on the RNA, use the EXC command to stop the test signal and/or loopback that was left active when the ATR failed. Then see Format 23 actions to be taken.

Formats 29 and 30, see Format 26 actions to be taken.

Format 31, where reason is CBNMTCE GRD TMR T.O. AWAIT T1DH RESP, try the command again, making sure the node is fully restored. If the problem persist, seek technical assistance. If, however:

Format 31, where reason is CBNMTCE MTCE MODE NOT ENAB FOR ITR TST, ensure that the link is either AVL, MOOS or UNA, TEST, then try the command again. If the problem persists, seek technical assistance. For all other values of r, if the action to be taken is not self-explanatory, seek technical assistance.

Format 32, where reason is FE CBNMTCE GRD TMR T.O. AWAIT T1DH RESP try the command again, making sure the node is fully restored. If the problem persist, seek technical assistance. If, However:

Format 32, where reason is CBNMTCE MTCE MODE NOT ENAB FOR ITR TST, ensure that the link is either AVL, MOOS or UNA, TEST, then try the command again. If the problem persists, seek technical assistance. For all other values of r, if the action to be taken is not self-explanatory, seek technical assistance.

Format 33, if desired to get a far end performance data report for the ATR on this RNA, stop the far end line loopback via the EXC command, then try the ATR command again.

Format 34, see Format 9 actions to be taken.

Format 35, if desired, deactivate the near-end line loopback with the EXC command, then try the ATR command again.

5. REFERENCES

Input Messages

ATR:T1M

CLR:T1M

EXC:T1M

OP:T1M

SET:T1M

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

CLR:T1M

EXC:T1M

OP:T1M

SET:T1M

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:AMARR-1
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

AUD ENV=RTR AMARR 1 a COMPLETED
b ERRORS FOUND
c ERRORS CORRECTED

AUD ENV=RTR AMARR 1 a ABORTED CODE d

AUD ENV=RTR AMARR 1 a ERROR e REPORT

DATA1 x'f DATA2 x'g
DATA3 x'h DATA4 x'i

AUD ENV=RTR AMARR NOT STARTED
INVALID DATA j
INVALID ID k
CONFLICT WITH CURRENT SYSTEM STATUS 1
RETRY LATER m
UNABLE TO IDENTIFY ERROR INPUT ERROR

2. REASON FOR OUTPUT

To report the termination status of AUD:AMARR-1 and/or any errors that were found during the execution of the AMARR audit.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Instance name (HOURLY, DAILY, MANUAL, or SOFTREQ). |
| b | Total number of errors found. |
| c | Total number of errors corrected. |
| d | Aborted code. Possible values are:

3 — Audit aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — SIM could not start or dispatch the audit.
6 — Error encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limits.
8 — SIM aborted an executing routine audit because of a blocking request. |

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e

Error Code:

0 — Error found in a partition header.

f — The audit instance name.

0 — HOURLY

1 — DAILY

2 — SOFTREQ

3 — MANUAL

g — Partition header number.

h — Partition header status.

0 — The partition is under initialization.

1 — The partition has recording register available.

2 — The partition has no recording register available.

3 — The partition is under audit.

i — This field is not used, therefore, it is always 0.

1 — Error found in a recording register.

f — Recording register index number.

g — The partition header number to which the recording register belongs.

h — The recording register type, Automatic Message Accounting (AMA) / International Call Detail Recording (ICDR).

i — The (AMA/ICDR) table entry number contained in the recording register.

2 — Error found in (AMA/ICDR) index table.

f — The index number of the recording register which points to a table entry that does not point to it.

g — The recording register index number in the table entry.

h — Table type.

1 — AMA table.

2 — ICDR table.

i — The (AMA/ICDR) table entry number contained in the recording register.

j — Explanation of error - see Output Audit Appendix A, APP:AUD-A.

k — Explanation of error - see Output Audit Appendix B, APP:AUD-B.

l — Explanation of error - see Output Audit Appendix C, APP:AUD-C.

m — Explanation of error - see Output Audit Appendix D, APP:AUD-D.

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4. ACTION TO BE TAKEN

STOP: AUD does not apply to this audit, since this audit is defined as nonkillable.

Refer to the *System Audit User's Guide* for recovery procedures from serious to fatal failures.

5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System
System Maintenance Manual*

Practice 254-341-235 *Audit Facilities 3B20D Processor Software Subsystem Description*

Output Appendixes

APP: AUD - A

APP: AUD - B

APP: AUD - C

APP: AUD - D

Input Messages

ALW: AUD

AUD: AMARR - 1

INH: AUD

OP: AUD

STOP: AUD

Output Messages

OP: AUD

OP: AUDERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:APDRV1
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B-APS
TYPE Output

1. FORMAT

[1] AUD ENV=RTR APDRV 1 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'f

AUD ENV=RTR APDRV 1 a COMPLETED
g ERRORS FOUND
h ERRORS CORRECTED

[2] AUD ENV=RTR APDRV 1 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 x'f

AUD ENV=RTR APDRV 1 STOPPED

[3] AUD ENV=RTR APDRV 1 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'f

AUD ENV=RTR APDRV 1 ABORTED CODE i

2. REASON FOR OUTPUT

To report the termination status of the Attached Processor Driver (APDRV) 1 audit, and/or any APDRV buffer allocation errors that were found during the execution of the APDRV audit.

3. VARIABLE FIELD DEFINITIONS

a Instance name:

DMABUF — Direct memory access buffer.

FMIBUF — File manager interface buffer.

b Error code:

1 — Addressing error.

2 — Buffer missing from linked list; lost buffer inserted.

3 — Buffer missing from linked list; lost buffer not inserted.

4 — Excessive buffers duplicated on linked lists; APDRV recovery to reinitialize buffers and notify 1B by removing the Attached Processor Interface (API) units.

5 — Excessive buffers duplicated on linked lists; linked list not reconstructed.

6 — Buffer with invalid job status; recovery taken.

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- 7 — Buffer with invalid job status; recovery not taken.
 - 8 — Links found bad on list; links corrected.
 - 9 — Links found bad on list; links not corrected.
- c Address of the buffer with error.
- d Invalid buffer data (job status or link number).
- e Index of buffer with error.
- f Expected data.
- g Total number of errors found.
- h Total number of errors corrected.
- i Abort code:
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.

4. ACTION TO BE TAKEN

No action is necessary.

5. REFERENCES

Practice 254-341-235 *Audit Facilities Software Subsystem Description 3B20D Processor*

PA-4C006-01 *System Audit Guide*

Input Messages

AUD:APDRV

OP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:APDRV2
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B-APS
TYPE Output

1. FORMAT

[1] AUD ENV=RTR APDRV 2 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'[f]

AUD ENV=RTR APDRV 2 a COMPLETED
g ERRORS FOUND
h ERRORS CORRECTED

[2] AUD ENV=RTR APDRV 2 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'[f]

AUD ENV=RTR APDRV 2 STOPPED

[3] AUD ENV=RTR APDRV 2 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'[f]

AUD ENV=RTR APDRV2 ABORTED CODE i

2. REASON FOR OUTPUT

To report the termination status of audit Attached Processor Driver (APDRV) 2 and / or any inconsistency in the table data that was found since the last APDRV audit report.

3. VARIABLE FIELD DEFINITIONS

- a Instance name:
DISKBUF — The disk buffer administration table.
- b Error code:
1 — Inconsistency in disk buffer allocation bits.
- c Address of bit referencing inconsistent allocation.
- d Value of bit referencing inconsistent allocation.
- e Index of failing buffer.
- f Expected data (NULL) or valid block limit.
- g Total number of errors found.
- h Total number of errors corrected.

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i

Abort code:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System Integrity Monitor (SIM) could not start or dispatch audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Practice 254-341-235 *Audit facilities Software Subsystem Description 3B20D Processor*

PA-4C006-01 *System Audit Guide*

Input Messages

AUD:APDRV

OP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:APDRV3
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B-APS
TYPE Output

1. FORMAT

[1] AUD ENV=RTR APDRV 3 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'f

AUD ENV=RTR APDRV 3 COMPLETED
g ERRORS FOUND
h ERRORS CORRECTED

[2] AUD ENV=RTR APDRV 3 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'f

AUD ENV=RTR APDRV 3 STOPPED

[3] AUD ENV=RTR APDRV 3 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'f

AUD ENV=RTR APDRV 3 ABORTED CODE i

2. REASON FOR OUTPUT

To report the termination status of audit Attached Processor Driver (APDRV) 3 and /or any 1B status file errors that were found during the execution of the APDRV audit. The audit will also report errors found in the file administration table of the APDRV. The file administration table contains information that the system uses to determine from which file should come normal reads/writes and read specifics. One raw data block will be printed for each error found in the file administration table. Only one raw data block will be printed if errors are found in the 1B status file.

3. VARIABLE FIELD DEFINITIONS

- a Instance name:
STATFLAGS — File status flags.
- b Error code:
1 — Inconsistency in 1B status file (corrected).
2 — Inconsistency in 1B status file (non-corrected).
3 — Logical device ID found to be bad in file administration table (corrected).
4 — Logical device ID found to be bad in file administration table (non-corrected).

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- 5 — Key number found to be bad in file administration table (corrected).
- 6 — Key number found to be bad in file administration table (non-corrected).
- c Address of file administration table slot for capability number found to be bad.
- d Bad data found to be inconsistent with 1B status file.
- e Index (capability number) of inconsistent data:
 - 1 — Entry for reads/ writes to NORMAL file found to be bad.
 - 2 — Entry for reads/ writes to UPDATE file found to be bad.
 - 3 — Entry for specific requests to disk 0 found to be bad.
 - 4 — Entry for specific requests to disk 1 found to be bad.
 - 5 — Entry for request to file 0, disk 0, found to be bad.
 - 6 — Entry for requests to file 0, disk 1, found to be bad.
 - 7 — Entry for request to file 1, disk 0, found to be bad.
 - 8 — Entry for requests to file 1, disk 1, found to be bad.
- f Expected data for this file administration capability number.
- g Total number of errors found.
- h Total number of errors corrected.
- i Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.

4. ACTION TO BE TAKEN

If an inconsistency was found in the 1B status file (error code is 1 or 2), the disk copy of the 1B status file will be checked for internal consistency. If the disk copy is also found to be bad, the information in the status file will be defaulted to a known value and 1B will duplex fail 1B file access (indicated by a Base Level Maintenance Report at the 1B informing the uses of this).

If this duplex failure condition occurs, follow normal procedures for recovering from 1B file access duplex failure. If the audit does not result in 1B file access duplex failure, then no action is necessary.

5. REFERENCES

Practice 254-341-235 *Audit Facilities Software Subsystem Description 3B20D Processor*
PA-4C006-01 *System Audit Guide*

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages
AUD: APDRV
OP: AUD

Output Message
OP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:APDRV4
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B-APS
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR APDRV 4 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'f
- AUD ENV=RTR APDRV 4 a COMPLETED
g ERRORS FOUND
h ERRORS CORRECTED
- [2] AUD ENV=RTR APDRV 4 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'f
- AUD ENV=RTR APDRV 4 STOPPED
- [3] AUD ENV=RTR APDRV 4 a ERROR b REPORTED
DATA1 X'c DATA2 X'd
DATA3 X'e DATA4 X'f
- AUD ENV=RTR APDRV 4 ABORTED ERROR CODE i

2. REASON FOR OUTPUT

To report the termination status of audit Attached Processor Driver (APDRV) 4 and / or any APDRV disk cache audit errors that were found during the execution of the APDRV audit.

3. VARIABLE FIELD DEFINITIONS

- a Instance name:
- CACHECCB — Disk cache control block audit.
CACHEBAL — Disk cache blocked address list audit.
- b Error code.
- For disk Cache Control Block (CCB) audit:
- 1 — CCB header cache_size incorrect, corrected from 1B status file (/dev/1astat).
 - 2 — CCB header cache_size incorrect, not corrected.
 - 3 — CCB header max_req_size incorrect, corrected from 1B status file.
 - 4 — CCB header max_req_size incorrect, not corrected.
 - 5 — CCB header max_cache_num incorrect, corrected from 1B status file.

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- 6 — CCB header max_cache_num incorrect, not corrected.
- 7 — CCB header cache_sz_bytes incorrect, corrected from 1B status file.
- 8 — CCB header cache_sz_bytes incorrect, not corrected.
- 9 — CCB header cache_probe incorrect, initialized to one.
- 10 — CCB header cache_probe incorrect, not corrected.
- 11 — FREE CCB data incorrect, data fields initialized. (See item d for fields found incorrect).
- 12 — FREE CCB data incorrect, data fields not corrected. (See item d for mask of fields found incorrect).
- 13 — AVAILABLE CCB data incorrect, data fields initialized. (See item d for fields found incorrect).
- 14 — AVAILABLE CCB data incorrect, data fields not corrected. (See item d for fields found incorrect).
- 15 — BUSY CCB data incorrect, data fields initialized. (See item d for fields found incorrect).
- 16 — BUSY CCB data incorrect, data fields not corrected. (See item d for fields found incorrect).
- 17 — CCB found in invalid state, CCB initialized.
- 18 — CCB found in invalid state, CCB not corrected.

For disk cache Blocked Address List (BAL) audit:

- 1 — BAL link bad on free linked list, link corrected.
- 2 — BAL link bad on free linked list, link not corrected.
- 3 — Free BAL data incorrect, data corrected. (See item d for fields found incorrect).
- 4 — Free BAL data incorrect, data not corrected. (See item d for fields found incorrect).
- 5 — BAL link bad on active linked list, link corrected.
- 6 — BAL link bad on active linked list, link not corrected.
- 7 — Active BAL data incorrect, data corrected. (See item d for fields found incorrect).
- 8 — Active BAL data incorrect, data not corrected. (See item d for fields found incorrect).
- 9 — BAL lost from linked lists, lost buffer inserted.
- 10 — BAL lost from linked lists, lost buffer not inserted.
- 11 — Duplicate BALs found on linked lists, APDRV recovery initiated to reinitialize buffers and notify 1B by removing APIs.
- 12 — Duplicate BALs found on linked lists, linked lists not reconstructed.

c Address of the buffer with error.

d Invalid buffer data or mask of fields found incorrect or zero.

For a = CACHECCB and b = 1-10, 17, 18 or
a = CACHEBAL and b = 1, 2, 5, 6:

b = Invalid buffer data.

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For a = CACHECCB and b = 11-16 or
a = CACHEBAL and b = 3, 4, 7, 8:

b = Mask of fields found incorrect:

- Bit 0 — CCB WIPMAP (DMA write in progress map) field incorrect.
- Bit 1 — CCB RIP (read from disk in progress) field incorrect.
- Bit 2 — CCB DJIP (DMA read jobs in progress) field incorrect.
- Bit 3 — CCB/BAL disk address incorrect.
- Bit 4 — CCB/BAL FQR (first File Manager Interface (FMI) queued request) field incorrect.
- Bit 5 — CCB/BAL LQR (last FMI queued request) field incorrect.
- Bit 6 — CCB/BAL previous FMI buffer link found incorrect.
- Bit 7 — CCB/BAL next FMI buffer link found incorrect.
- Bit 8 — CCB/BAL NWO (number of CCBs waiting on) found incorrect.
- Bit 9 — Queued FMI buffer cache_flag incorrect.
- Bit 10 — Queued FMI buffer bale_flag incorrect.

e Index of buffer with error.

f Expected data or zero.

For a = CACHECCB and b = 1-10 or
a = CACHEBAL and b = 1, 2, 5, 6:

f = Expected data.

g Total number of errors found.

h Total number of errors corrected.

i Abort code:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System Integrity Monitor (SIM) could not start or dispatch audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.

4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Practice 254-341-235 *Audit Facilities Software Subsystem Description 3B20D Processor*

PA-4C006-01 *System Audit Guide*

Input Messages

AUD:APDRV

OP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:APDRV5-ERR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B-APS
TYPE Output

1. FORMAT

AUD ENV=RTR APDRV 5 COMPLETED a ERRORS FOUND
AUD ENV=RTR APDRV 5 b:c
.
.
.
AUD ENV=RTR APDRV 5 b:c

2. REASON FOR OUTPUT

To report any errors found when auditing the file manager interface (FMI) module of the attached processor driver (APDRV) for verification of the allocation bits in the disk buffer administration table.

3. VARIABLE FIELD DEFINITIONS

a Total number of errors found by the audit.
b Type of error:
 A — Buffer found with invalid allocation map.
c Number of times the error occurred.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
OP:AUD

Output Message
OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:APDRV6-ERR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B-APS
TYPE Output

1. FORMAT

AUD ENV=RTR APDRV 6 COMPLETED a ERRORS FOUND
AUD ENV=RTR APDRV 6 b:c
.
.
.
AUD ENV=RTR APDRV 6 b:c

2. REASON FOR OUTPUT

To report any errors found when auditing the 1B status file of the Attached Processor Driver (APDRV) for the File Manager Interface (FMI) module.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found by the audit.
- b Type of error:
 - A — The 1B status file was bad.
- c Number of times the error occurred.

4. ACTION TO BE TAKEN

Regenerate a 1B file via tape if the APDRV has fallen back to an old version of the 1B file. This may be caused by some error that forces the APDRV through initialization.

5. REFERENCES

Input Message
OP:AUD

Output Message
OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:ATP
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR ATP a, INS LNb-c COMPLETED
d ERRORS FOUND
e ERRORS CORRECTED
- [2] AUD ENV=RTR ATP a, INS LNb-c STOPPED
- [3] AUD ENV=RTR ATP a, INS LNb-c ABORTED CODE f
- [4] AUD ENV=RTR ATP a, INS LNb-c ERROR g {CORR|NOT CORR} REPORT COMPLETED
DATA 1 X'00000000 DATA 2 X'00000000
DATA 3 X'00000000 DATA 4 X'00000000

2. REASON FOR OUTPUT

To report the termination status of the AT&T Trigger Platform (ATP) application audit and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

- a Audit member:
 - 1 — Call block idle list audit.
 - 2 — Active call block audit.
 - 3 — Trunk Scanner Number (TSN) table audit.
 - 4 — Timer list audit.
 - 5 — Access table audit.
 - 6 — Ring write buffer audit.
 - 7 — Internode (Call Blocks) audit.
 - 8 — Database Pointers audit.
- b ATP group number.
- c ATP member number.
- d Total number of errors found.
- e Total number of errors corrected.

SEE PROPRIETARY NOTICE ON COVER PAGE

f

Abort code:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.

g

Error code for Audits 1-8.

Error codes for Audit 1:

- 1 — Call Block state is not idle.
Data word 1: Idle Call Block sublist number.
Data word 2: Current Call Block index.
- 2 — First Call Block does not point back to CB_NULL.
Data word 1: Idle Call Block sublist number.
Data word 2: Current Call Block index.
Data word 3: Previous Call Block index.
- 3 — Next Call Block in sublist is not idle.
Data word 1: Idle Call Block sublist number.
Data word 2: Next Call Block index.
Data word 3: Current Call Block index.
- 4 — Next Call Block in sublist does not point back to current Call Block.
Data word 1: Idle Call Block sublist number.
Data word 2: Next Call Block index.
Data word 3: Next Call Block's backward index.
Data word 4: Current Call Block index.
- 5 — Multiple sublists connected.
Data word 1: Idle Call Block sublist number.
Data word 2: Alien Call Block sublist number.
Data word 3: Alien Call Block index.
Data word 4: Previous Call Block index.
- 6 — Idle Call Block sublist's head pointers have inconsistent values.
Data word 1: Idle Call Block sublist number.
Data word 2: Forward head pointer.
Data word 3: Backward head pointer.
- 7 — First Call Block on sublist belongs to another sublist.
Data word 1: Idle Call Block sublist number.
Data word 2: Alien Call Block sublist number.
Data word 3: Alien Call Block index.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 8 — Dangling idle Call Blocks.
Data word 1: Idle Call Block sublist number.
Data word 2: Idle Call Block count from sublist.
Data word 3: Idle Call Block count from Call Block array.
- 9 — Next Call Block index is out of range.
Data word 1: Idle Call Block sublist number.
Data word 2: Current Call Block index.
Data word 3: Next Call Block index.
- 10 — Sublist's backward head pointer does not point to last Call Block in sublist.
Data word 1: Idle Call Block sublist number.
Data word 2: Last Call Block index.
Data word 3: Backward head pointer.
- 11 — Index of first Call Block in sublist is out or range.
Data word 1: Idle Call Block sublist number.
Data word 2: First Call Block index.

Error Codes for Audit 2:

- 1 — TSN state in the TSN Table is not P1.
Data word 1: Call Block index.
Data word 2: Call Block's P1 TSN.
Data word 3: TSN state in the TSN Table.
- 2 — TSN state in the TSN Table is not P2.
Data word 1: Call Block index.
Data word 2: Call Block's P2 TSN.
Data word 3: TSN state in the TSN Table.
- 3 — Call Block index in TSN Table for P1 TSN is not the current Call Block index.
Data word 1: Current Call Block index.
Data word 2: Call Block's P1 TSN.
Data word 3: Call Block index in the TSN Table.
- 4 — Call Block index in TSN Table for P2 TSN is not the current Call Block index.
Data word 1: Current Call Block index.
Data word 2: Call Block's P2 TSN.
Data word 3: Call Block index in the TSN Table.
- 5 — Timer A is not in the Timer ID List.
Data word 1: Call Block index.
Data word 2: Timer ID.
- 6 — Timer B is not in the Timer ID List.
Data word 1: Call Block index.
Data word 2: Timer ID.
- 7 — Internal timer is not in the Timer ID List.
Data word 1: Call Block index.
Data word 2: Timer ID.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 8 — Timer A is not active.
Data word 1: Call Block index.
Data word 2: Timer ID.
Data word 3: Timer's current list.
- 9 — Timer B is not active.
Data word 1: Call Block index.
Data word 2: Timer ID.
Data word 3: Timer's current list.
- 10 — Internal timer is not active.
Data word 1: Call Block index.
Data word 2: Timer ID.
Data word 3: Timer's current list.
- 11 — Call Block's and Timer Block's Timer IDs do not agree (UserA).
Data word 1: Call Block index.
Data word 2: Call Block's Timer ID.
Data word 3: Timer Block's Timer ID.
- 12 — Call Block's and Timer Block's Timer IDs do not agree (User B).
Data word 1: Call Block index.
Data word 2: Call Block's Timer ID.
Data word 3: Timer Block's Timer ID.
- 13 — Call Block's and Timer Block's Timer IDs do not agree (Internal).
Data word 1: Call Block index.
Data word 2: Call Block's Timer ID.
Data word 3: Timer Block's Timer ID.
- 14 — Call Block's P1 TSN is zero.
Data word 1: Call Block index.
- 15 — Timer Block address out of range (User A).
Data word 1: Call Block index.
Data word 2: Call Block's Timer ID.
Data word 3: Timer Block address.
- 16 — Timer Block address out of range (User B).
Data word 1: Call Block index.
Data word 2: Call Block's Timer ID.
Data word 3: Timer Block address.
- 17 — Timer Block address out of range (Internal).
Data word 1: Call Block index.
Data word 2: Call Block's Timer ID.
Data word 3: Timer Block address.

SEE PROPRIETARY NOTICE ON COVER PAGE

Error Codes for Audit 3:

- 1 — Call Block's P1 TSN is not current TSN.
Data word 1: Current TSN.
Data word 2: Call Block's TSN.
Data word 3: Call Block index.
- 2 — Call Block's P2 TSN is not current TSN.
Data word 1: Current TSN.
Data word 2: Call Block's TSN.
Data word 3: Call Block index.
- 3 — TSN is linked to an idle Call Block.
Data word 1: Current TSN.
Data word 2: Call Block index.
- 4 — Unspecified TSN state.
Data word 1: Current TSN.
Data word 2: TSN state.
- 5 — P1 TSN is linked to an out of range Call Block.
Data word 1: Current TSN.
Data word 2: Call Block index.
- 5 — P2 TSN is linked to an out of range Call Block.
Data word 1: Current TSN.
Data word 2: Call Block index.

Error codes for Audit 4:

- 1 — Crossed Timer Lists.
Data word 1: Current Timer Block index.
Data word 2: Current Timer Block's list.
Data word 3: Next Timer Block's list.
- 2 — Timer ID is out of range.
Data word 1: Timer Block index.
Data word 2: Timer ID.
- 3 — Call Block associated with Timer ID is not active.
Data word 1: Timer Block index.
Data word 2: Timer Block's list.
Data word 3: Call Block index.
- 4 — Invalid Timer List.
Data word 1: Timer Block index.
Data word 2: Timer Block's list.
- 5 — Timer ID is not on the Timer ID List (User A).
Data word 1: Timer Block index.
Data word 2: Timer ID.
- 6 — Timer ID is not on the Timer ID List (User B).
Data word 1: Timer Block index.
Data word 2: Timer ID.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 7 — Timer ID is not on the Timer ID List (Internal).
Data word 1: Timer Block index.
Data word 2: Timer ID.
- 8 — Associated Call Block's User A timer is not active.
Data word 1: Timer Block.
Data word 2: Timer ID.
- 9 — Associated Call Block's User B timer is not active.
Data word 1: Timer Block.
Data word 2: Timer ID.
- 10 — Associated Call Block's Internal timer is not active.
Data word 1: Timer Block.
Data word 2: Timer ID.
- 11 — Call Block index from Timer ID is out of range.
Data word 1: Timer Block index.
Data word 2: Timer Block's list.
Data word 3: Timer ID.
Data word 4: Call Block index.
- 12 — Timer Block's list is not the Expired List.
Data word 1: Timer Block pointer.
Data word 2: Timer Block's list.
- 13 — Timer Block's list is not the current Active List.
Data word 1: Current Active List.
Data word 2: Timer Block pointer.
Data word 3: Timer Block's list.
- 14 — Timer Block's Timer ID is not the current Timer ID.
Data word 1: Current Timer ID.
Data word 2: Timer Block pointer.
Data word 3: Timer Block's Timer ID.
- 15 — Next Timer Block address is out of range.
Data word 1: Current Timer Block index.
Data word 2: Next Timer Block address.
Data word 3: Current Timer Block's list.
- 16 — Idle Timer Block in Timer ID List.
Data word 1: Timer ID.
Data word 2: Timer Block pointer.
- 17 — Invalid Timer Number.
Data word 1: Timer Block index.
Data word 2: Timer Block's list.
Data word 3: Timer ID.
Data word 4: Timer Number.
- 18 — Timer Block address from Timer ID List is out of range.
Data word 1: Current Timer Block index.
Data word 2: Timer ID.
Data word 3: Timer Block address.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 19 — Expired Timer List pointers mismatch.
Data word 1: Expired Timer List ID.
Data word 2: Expired Timer List's end pointer.
- 20 — Idle Timer List head pointer is out of range.
Data word 1: Idle Timer List head pointer.
Data word 2: Idle Timer List ID.
- 21 — Expired Timer List head pointer is out of range.
Data word 1: Expired Timer List head pointer.
Data word 2: Expired Timer List ID.
- 22 — Active Timer List head pointer is out of range.
Data word 1: Active Timer List pointer.
Data word 2: Active Timer List ID.
- 23 — Expired Timer List end pointer is out of range.
Data word 1: Expired Timer List ID.
Data word 2: Expired Timer List end pointer.
- 24 — Timer Block's list is not the Idle Timer List.
Data word 1: Timer Block pointer.
Data word 2: Timer Block's list.
- 25 — Next Timer Block's list is invalid.
Data word 1: Current Timer Block index.
Data word 2: Next Timer Block pointer.
Data word 3: Next Timer Block's list.
- 26 — Timer Block address from Timer ID List is out of range.
Data word 1: Timer ID List index.
Data word 2: Timer Block address.

Error codes for Audit 5:

- 1 — ATP Trigger Validation (ATV) Table index out of range.
Data word 1: Access Table index.
Data word 2: ATV Table index.
Data word 3: Maximum number of ATV entries.
- 2 — Access Table points to an inactive ATV entry.
Data word 1: Access Table index.
Data word 2: ATV Table index.
- 3 — Validation key mismatch.
Data word 1: Current Access Table index (Validation key).
Data word 2: Validation key on ATV Table.
- 4 — ATV index mismatch.
Data word 1: Current ATV index.
Data word 2: ATV index in Access Table.
Data word 3: Access Table index.

SEE PROPRIETARY NOTICE ON COVER PAGE

Error codes for Audit 6:

- 1 — Application time limit exceeded for the System Integrity Monitor (SIM) pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 2 — Interprocess Message Switch (IMS) time limit exceeded for the SIM pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 3 — Application time limit exceeded for the Timing pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 4 — IMS time limit exceeded for the Timing pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 5 — Application time limit exceeded for the State Control pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 6 — IMS time limit exceeded for the State Control pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 7 — Application time limit exceeded for the Measurements pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 8 — IMS time limit exceeded for the Measurements pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 9 — Application time limit exceeded for the Synchronization pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 10 — IMS time limit exceeded for the Synchronization pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 11 — Application time limit exceeded for the Status Switch pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 12 — IMS time limit exceeded for the Status Switch pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 13 — Application time limit exceeded for the Backup pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 14 — IMS time limit exceeded for the Backup pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 15 — Application time limit exceeded for the Call Processing pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 16 — IMS time limit exceeded for the Call Processing pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 17 — Application time limit exceeded for the Database pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 18 — IMS time limit exceeded for the Database pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 19 — Application time limit exceeded for the Audits pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 20 — IMS time limit exceeded for the Audits pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 21 — Application time limit exceeded for the Generic Utilities pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.

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- 22 — IMS time limit exceeded for the Generic Utilities pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.
- 23 — Application time limit exceeded for the Error Reporting pool.
Data word 1: Ring Write Buffer index.
Data word 2: Application time limit.
Data word 3: Absolute time difference.
- 24 — IMS time limit exceeded for the Error Reporting pool.
Data word 1: Ring Write Buffer index.
Data word 2: IMS time limit.
Data word 3: Absolute time difference.

Error code for Audit 7:

- 1 — Call Block data mismatch.
Data word 1: Call Block's P1 TSN.
Data word 2: Call Block's word number.
Data word 3: Remote Call Block word's contents.
Data word 4: Local Call Block word's contents.

Error codes for Audit 8:

- 1 — Invalid Primary Database.
Data word 1: Primary Database pointer.
Data word 2: Pointer to Database A.
Data word 3: Pointer to Database B.
- 2 — Primary Hash Table is not Hash Table A.
Data word 1: Incorrect Primary Hash Table pointer.
Data word 2: Hash Table A pointer.
- 3 — Primary Hash Table is not Hash Table B.
Data word 1: Incorrect Primary Hash Table pointer.
Data word 2: Hash Table B pointer.
- 4 — Primary Access Table is not Access Table A.
Data word 1: Incorrect Primary Access Table pointer.
Data word 2: Access Table A pointer.
- 5 — Primary Access Table is not Access Table B.
Data word 1: Incorrect Primary Access Table pointer.
Data word 2: Access Table B pointer.
- 6 — Secondary Database is not Database A.
Data word 1: Incorrect Secondary Database pointer.
Data word 2: Database A pointer.
- 7 — Secondary Database is not Database B.
Data word 1: Incorrect Secondary Database pointer.
Data word 2: Database B pointer.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 8 — Secondary Hash Table is not Hash Table A.
Data word 1: Incorrect Secondary Hash Table pointer.
Data word 2: Hash Table A pointer.
- 9 — Secondary Hash Table is not Hash Table B.
Data word 1: Incorrect Secondary Hash Table pointer.
Data word 2: Hash Table B pointer.
- 10 — Secondary Access Table is not Access Table A.
Data word 1: Incorrect Secondary Access Table pointer.
Data word 2: Access Table A pointer.
- 11 — Secondary Access Table is not Access Table B.
Data word 1: Incorrect Secondary Access Table pointer.
Data word 2: Access Table B pointer.
- 12 — Incorrect Feature Table pointer.
Data word 1: Incorrect Feature Table pointer.
Data word 2: Correct Feature Table pointer.
- 13 — Incorrect Trigger Table pointer.
Data word 1: Incorrect Trigger Table pointer.
Data word 2: Correct Trigger Table pointer.
- 14 — Incorrect ATV Table pointer.
Data word 1: Incorrect ATV Table pointer.
Data word 2: Correct ATV Table pointer.
- 15 — Incorrect Access Table pointer.
Data word 1: Incorrect Access Table pointer.
Data word 2: Correct Access Table pointer.
- 16 — Incorrect numbering plan area (NPA) Table pointer.
Data word 1: Incorrect NPA Table pointer.
Data word 2: Correct NPA Table pointer.

4. ACTION TO BE TAKEN

Seek technical assistance if errors occur.

5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System
System Maintenance Manual*

Practice 254-341-235 *Audit Facilities Software Subsystem Description*

Input Message
AUD:ATP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:CNC-1
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR CNC 1 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR CNC 1 STOPPED
- [3] AUD ENV=RTR CNC 1 ABORTED CODE c
- [4] AUD ENV=RTR CNC 1 ERROR d REPORT
 - DATA1 X'e DATA2 X'f
 - DATA3 X'g DATA4 X'h

NO SUPPLEMENTARY DATA

2. REASON FOR OUTPUT

To report the termination status of the Central Node Control (CNC) audit and/or any errors found.

This audit may have been executed due to:

1. Routine schedule.
2. Manual request.
3. IMS initialization (level 0 or 1B).

When the audit finds no errors, termination status is printed only for manual requests.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected. Non-zero values indicate that error correction will be attempted, not that it has been verified.
- c Abort Code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run.
- 13 — SIM aborted executing audit because audit subsystem is being reinitialized.

d

Error code:

- 0 — Illegal restore job state (e or g).
- 1 — Restore job states (e and g) inconsistent about CNC abort.
- 2 — Restore job states (e and g) indicate too many active jobs.
- 3 — Restore job states (e and g) indicate queued job with none active.
- 4 — Job or CNC abort time limit exceeded.
- 5 — CNC and ARR inconsistent.
- 6 — CNC has job from dead IMSRMVRST.
- 7 — CNC inconsistent with RST.IUN.
- 8 — 3BWRT.NP inconsistent with IUN.PUMP.

e

For d = 0-5, CNC's ARR restore job state:

- 0 — Idle.
- 1 — Queued.
- 2 — Active.
- 3 — CNC aborting jobs.
- 4 — CNC aborting jobs and job queued.

For d = 6, CNC's MIRA restore job state, values same as for CNC's ARR restore job state.

For d = 7, indicates source of CNC's active restore job:

- 0 — ARR.
- 1 — MIRA (via IMSRMVRST).
- other — No active restore job.

For d = 8, 3BWRT.NP's current work: physical node address (X'C00-X'FFF) or no work (X'1000) or otherwise busy (X'1001).

f

For d = 0-5, CNC's ARR restore job physical node address (X'C00-X'FFF), when job queued or active.

For d = 6, CNC's MIRA restore job physical node address (X'C00-X'FFF), when job queued or active.

For d = 7, if e = 0-1, CNC's active restore job's state:

- 0 — Idle.
- 1 — Queued.
- 2 — Active.
- 3 — CNC aborting jobs.
- 4 — CNC aborting jobs and job queued.

SEE PROPRIETARY NOTICE ON COVER PAGE

- For d = 8, IUN.PUMP's current work: physical node address (X'C00-X'FFF), no work (X'1000) or otherwise busy (X'1001).
- g For d = 0-4, CNC's MIRA restore job state:
- 0 — Idle.
 - 1 — Queued.
 - 2 — Active.
 - 3 — CNC aborting jobs.
 - 4 — CNC aborting jobs and job queued.
- For d = 5, NODE.RMON's view of CNC ARR work: physical node address (X'C00-X'FFF), no work (X'1000) or otherwise busy (X'1001).
- For d = 6, not used.
- For d = 7, if e = 0-1, CNC's active restore job's physical node address (X'C00-X'FFF).
- For d = 8, CNC's ARR work: physical node address (X'C00-X'FFF) or no work (X'1000).
- h For d = 0-4, CNC's MIRA restore job physical node address (X'C00-X'FFF), when job queued or active.
- For d = 5-6, not used.
- For d = 7, RST.IUN's current restore work: physical node address (X'C00-X'FFF), no work (X'1000) or otherwise busy (X'1001).
- For d = 8, CNC's MIRA work: physical node address (X'C00-X'FFF) or no work (X'1000).

4. ACTION TO BE TAKEN

Format 1 should appear alone only when the audit is manually requested with the summary option or detected no errors. Error analysis must be based on Format 4 messages.

Format 2 is printed when an execution of the audit is stopped via the STOP:AUD input message or by an initialization of the IMS subsystem.

Format 3 should occur only during outages and initializations of the IMS subsystem. If it occurs when IMS is operational, seek technical assistance.

Format 4 reports errors detected by the audit. Seek technical assistance to determine the cause of the trouble.

All of the errors reported by this audit indicate mutilated internal data or other software problems. Such errors can occur as a side effect of other problems, such as those reported via the REPT:IMSDRV-FLT output message.

SEE PROPRIETARY NOTICE ON COVER PAGE

If error correction was indicated ($b > 0$), then the audit attempted to clear the trouble by canceling the maintenance jobs associated with the errors.

To verify that error correction was successful, run the audit again via the AUD:CNC-1 input message.

5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Audits Section

Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:CNC-1

OP:AUD

STOP:AUD

Output Messages

OP:AUD

REPT:IMSDRV-FLT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:CUMEM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR CUMEM 1 COMPLETED
a ERRORS FOUND
b ERRORS CORRECTED
- [2] AUD ENV=RTR CUMEM 1 STOPPED
- [3] AUD ENV=RTR CUMEM 1 ABORTED CODE c
- [4] AUD ENV=RTR CUMEM 1 ERROR {30|34|36} {CORR | NON CORR} REPORT
{STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'f

[NO SUPPLEMENTARY DATA]
- [5] AUD ENV=RTR CUMEM 1 ERROR g {CORR | NON CORR} REPORT
{STARTED | IN PROGRESS | COMPLETED}
DATA1 X'h DATA2 X'e
DATA3 X'i DATA4 X'j

[NO SUPPLEMENTARY DATA]
- [6] AUD CUMEM NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS k
|RETRY LATER l
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR m}
- [7] AUD ENV=RTR CUMEM 1 AUTOMATICALLY n

2. REASON FOR OUTPUT

To report the termination status of the CUMEM audit and/or any error found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.

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- 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
- ERROR 30 Error code, in decimal notation. Offline store access failed.
- ERROR 34 Error code, in decimal notation. Memory mismatch mainstore error.
- ERROR 36 Error code, in decimal notation. Memory mismatch cache error.
- d Audit test number that failed. This is the physical mainstore address at which the test failed.
- e Was error corrected:
 - 1 — Yes.
 - 15 — No.
- f Field is not used and has a value equal to 0.
- g Error code, in decimal notation:
 - 2 — Bad data in the Equipment Configuration Database (ECD) for a Control Unit (CU) unit or subunit.
 - 4 — Could not access the ECD. Possibly a bad Record Identification (RID) number.
 - 6 — Maintenance channel failed.
 - 8 — Could not read the offline mainstore.
 - 10 — Call to the kconfig library failed.
 - 12 — Erroneous major state for a CU unit or subunit.
 - 14 — Bad online System Status Register (SSR) value.
 - 16 — Bad offline SSR value.
 - 18 — Bad online Hardware Status Register (HSR) value.
 - 20 — Bad offline HSR value.
 - 24 — Plant measurements library call failed.
 - 26 — Audit control library call failed.
 - 28 — Internal CUMEM error.
 - 32 — Internal error during memory compare.
 - 38 — CUMEM tried to run, CUs not in active standby.
- h Audit test number that failed:
 - 0x2000 — Memory audit did not complete its entire memory block comparison.
 - 0x2001 — Call to kconfig rptrerr unsuccessful.
 - 0x2002 — Call to kconfig rptrerr unsuccessful.
 - 0x2003 — Call to kconfig fltdrvr to remove other CU unsuccessful.

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- 0x2004 — CUMEM called when offline CU was not standby.
- i Complemented offline SSR value (asserted = 1).
- j Complemented on-line SSR value (asserted = 1).
- k Explanation of error - see Audit Appendix C, APP:AUD-C.
- l Explanation of error - see Audit Appendix D, APP:AUD-D.
- m Explanation of error - see Audit Appendix B, APP:AUD-B.
- n Inhibit status:
- ALLOWED — Audit has been automatically allowed by SIM.
- INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Audit Appendixes A and B, APP:AUD-A and APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. See the CIC Select Code 304-046 *System Maintenance Manual* for additional information on audits. The list contains some actions to specific error codes. If the message persists, contact your next level of technical assistance.

Error: Action:

- 4 — Run the ECD 1 audit.
- 6 — If the offline CU was not taken out of service, remove it. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair and restore the other CU.
- 8 — The offline CU should have been removed automatically. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair, and restore the other CU.
- 24 — Run the PMS 1 audit.
- 30 — The offline CU should have been removed automatically. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair, and restore the other CU.
- 34 — If the offline CU was not taken out of service, remove it. Diagnose it, repair it if necessary, and restore it.
- 36 — If the online CU was not taken out of service, switch CUs and remove it. Diagnose it, repair it if necessary, and restore it.

5. REFERENCES

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

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Output Appendixes

APP: AUD-A
APP: AUD-B
APP: AUD-C
APP: AUD-D

Input Messages

AUD: CUMEM
OP: AUD
STOP: AUD

Output Message

OP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:CUSTAT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR CUSTAT 1 COMPLETED
a ERRORS FOUND
b ERRORS CORRECTED
- [2] AUD ENV=RTR CUSTAT 1 STOPPED
- [3] AUD ENV=RTR CUSTAT 1 ABORTED CODE c
- [4] AUD ENV=RTR CUSTAT 1 ERROR {30|34|36} {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'e DATA2 X'f
DATA3 X'g DATA4 X'g

[NO SUPPLEMENTARY DATA]
- [5] AUD ENV=RTR CUSTAT 1 ERROR d {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'h DATA2 X'f
DATA3 X'i DATA4 X'j

[NO SUPPLEMENTARY DATA]
- [6] AUD CUSTAT NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS k
|RETRY LATER l
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR m}
- [7] AUD ENV=RTR CUSTAT 1 AUTOMATICALLY n

2. REASON FOR OUTPUT

To report the termination status of the CUSTAT audit and/or any error found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 12 — Audit rejected the request to run from SIM.
 - 13 — SIM aborted an executing audit because the audit system is being reinitialized.
- ERROR 30 Error code in decimal notation. Off-line store access failed.
- ERROR 34 Error code in decimal notation. Memory mismatch mainstore error.
- ERROR 36 Error code in decimal notation. Memory mismatch cache error.
- d Error code in decimal notation:
- 2 — Bad data in the Equipment Configuration Database (ECD) for a CU unit or subunit.
 - 4 — Could not access the ECD. Possibly a bad Process Identification (PID).
 - 6 — Maintenance channel failed.
 - 8 — Could not read the off-line mainstore.
 - 10 — Call to the kconfig library failed.
 - 12 — Erroneous major state for a CU unit or subunit.
 - 14 — Bad on-line System Status Register (SSR) value.
 - 16 — Bad off-line SSR value.
 - 18 — Bad on-line Hardware Status Register (HSR) value.
 - 20 — Bad off-line HSR value.
 - 24 — Plant measurements library call failed.
 - 26 — Audit control library call failed.
 - 28 — Internal CUSTAT error.
 - 32 — Internal error during memory compare.
 - 38 — CUMEM tried to run, CUs not in active standby.
 - 42 — EAI buffers mismatch.
 - 44 — SSR values inconsistent between CUs.
- e Audit test number that failed. This is the physical mainstore address at which the test failed.
- f Was error corrected:
- 1 — Yes.
 - 15 — No.
- g Field is not used and has a value equal to 0.

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h

Audit test number that failed:

- 0x1000 — RID for on-line CU is IDNULL.
- 0x1001 — Call to ECD lla_rdget to get on-line CU UCB unsuccessful.
- 0x1002 — On-line CU UCB u_dtype (device type) not DEV_CU.
- 0x1003 — RID for off-line CU is same as RID for on-line CU.
- 0x1004 — Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
- 0x1005 — Off-line CU UCB u_dtype (device type) not DEV_CU.
- 0x1006 — Call to ECD lla_rdget to get on-line CU Minor Device Chain Table (MDCT) unsuccessful.
- 0x1007 — MDCT for the on-line CU has too many m_minxt entries. This would indicate that there are more than two CUs.
- 0x1008 — MDCT for the on-line CU has too many m_minxt entries. This would indicate that there are more than two CUs.
- 0x1009 — MDCT m_minxt[0] equals m_minxt[1] indicating that CU0 and CU1 have same RIDs.
- 0x100a — MDCT m_minxt[0] does not equal RID for on-line or off-line CU.
- 0x100b — MDCT m_minxt[1] does not equal RID for on-line or off-line CU.
- 0x1100 — Maintenance Channel (MCH) not functional.
- 0x1101 — Off-line CU memory access failure; update circuit not functional.
- 0x1102 — Call to kconfig fltdrvr to remove other CU unsuccessful.
- 0x1103 — Call to kconfig fltdrvr to remove other CU unsuccessful.
- 0x1105 — Maintenance Channel (MCH) and update circuit not functional; but other CU UCB u_stat is Standby (STBY).
- 0x1106 — Call to kconfig fltdrvr to remove other CU unsuccessful.
- 0x1107 — Call to kconfig chgstate to change off-line CU UCB u_stat to UNAV unsuccessful.
- 0x1108 — Call to kconfig chgstate to change off-line CU UCB u_stat to UNAV unsuccessful.
- 0x1109 — Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
- 0x110b — Call to ECD chuchb to change off-line CU UCBs u_manrqst to ON unsuccessful.

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- 0x110c — Call to kconfig chgstate to change off-line CU UCB u_stat to OOS unsuccessful.
- 0x110d — Call to ECD chucb to change off-line CU UCBs u_manrqst to OFF unsuccessful.
- 0x110e — Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
- 0x1200 — On-line CU UCB u_stat not Active (ACT) or Initializing (INIT).
- 0x1201 — Call to kconfig chgstate to change on-line CU UCB u_stat to ACT unsuccessful.
- 0x1202 — Off-line CU SSR (SSR_CC bit 19) indicates it is the on-line CU.
- 0x1203 — Call to PCPAUD initofl to initialize off-line CU unsuccessful.
- 0x1204 — Call to kconfig fltdrvr to remove other CU unsuccessful.
- 0x1205 — Off-line CU UCB u_stat is ACT.
- 0x1206 — Call to kconfig fltdrvr to remove other CU unsuccessful; Other CU UCB u_stat is ACT.
- 0x1207 — Simplex mode on-line CU SSR has force off-line (SSR_FOFL bit 9) asserted.
- 0x1208 — On-line CU HSR bit 8 (backup maintenance channel bit) asserted.
- 0x1209 — On-line CU HSR bit 8 or bit 9 (backup maintenance channel bits) asserted.
- 0x120a — Call to kconfig fltdrvr to remove other CU unsuccessful.
- 0x120b — On-line CU SSR IO disable (SSR_DSAB bit 30) asserted.
- 0x120c — On-line CU SSR isolate DMA from MAS bus (SSR_ISOD bit 20) asserted.
- 0x120d — Off-line CU SSR initialization sequence control bits (SSR_ISC0 or SSR_ISC1 bits 4 and 5) asserted.
- 0x1300 — On-line CU SSR is in enable update mode (SSR_UPD bit 19 asserted) but off-line CU SSR has isolate other (on-line) CU from main store bus (SSR_ISOU bit 21) asserted.
- 0x1301 — Call to kconfig fltdrvr to remove other CU unsuccessful.
- 0x1302 — Off-line CU SSR is in enable update mode (SSR_UPD bit 19 asserted) or off-line CU SSR has isolate other (on-line) CU from main store bus (SSR_ISOU bit 21) asserted.
- 0x1303 — Call to PCPAUD initofl to initialize off-line CU unsuccessful.

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- 0x1304 — Call to `kconfig fltdrvr` to remove other CU unsuccessful.
- 0x1305 — Simplex on-line CU SSR in enable update mode (SSR_UPD bit 19 asserted).
- 0x1306 — On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR_ISOUI bit 21 not asserted).
- 0x1307 — 3B21D CUs only: On-line CU SSR not isolating its expansion slots from its main store bus (SSR_ISOIE bit 22 not asserted).
- 0x1308 — 3B21D CUs only: Off-line CU SSR not isolating its expansion slots from its main store bus (SSR_ISOIE bit 22 not asserted).
- 0x1309 — Call to `PCPAUD initofl` to initialize off-line CU unsuccessful.
- 0x1400 — On-line CU UCB `u_update` is OFF (not updated).
- 0x1401 — Call to `ECD lla_rdget` to get on-line CU UCB unsuccessful.
- 0x1402 — Call to `ECD lla_uprid` to change on-line CU UCB `u_update` to ON (updated) unsuccessful.
- 0x1403 — Off-line CU UCB `u_stat` is Standby (STBY), but off-line CU UCB `u_update` is OFF (not updated) or on-line CU SSR is not in enable update mode (SSR_UPD bit 19 not asserted).
- 0x1404 — Call to `kconfig fltdrvr` to remove other CU unsuccessful.
- 0x1405 — On-line CU SSR not in enable update mode (SSR_UPD bit 19 not asserted), but off-line CU UCB `u_update` is ON (updated).
- 0x1406 — Call to `ECD chucb` to change off-line CU UCBs `u_update` to OFF unsuccessful.
- 0x1500 — 3B20D CUs only: Duplex configuration, but on-line CU SSR indicating simplex (SSR_SIDU bit 2 not asserted).
- 0x1501 — 3B20D CUs only: Same as 0x1500 except off-line CU SSR indicating simplex (SSR_SIDU bit 2 not asserted).
- 0x1502 — Simplex configuration but on-line CU indicating duplex (SSR_SIDU bit 2 asserted).
- 0x1503 — Off-line CU SSR has force on-line (SSR_FONL bit 10) asserted.
- 0x1504 — On-line CU SSR forced on-line (SSR_FONL bit 10) asserted, off-line CU SSR forced off-line (SSR_FONL bit 9) not asserted).
- 0x1505 — On-line CU SSR forced on-line (SSR_FONL bit 10) not asserted, off-line CU SSR forced off-line (SSR_FONL bit 9) asserted.

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- 0x1506 — Both CU SSRs indicate they are CU 1 (SSR_CCID bit 0 asserted).
- 0x1507 — Both CU SSRs indicate they are CU 0 (SSR_CCID bit 0 not asserted).
- 0x1508 — Off-line CU SSR has power clear (SSR_PCLR bit 15) asserted.
- 0x1509 — Call to PCPAUD initofl to initialize off-line CU unsuccessful.
- 0x150a — Off-line CU has HSR bit 8, 9, or 31 asserted.
- 0x150b — Call to PCPAUD initofl to initialize off-line CU unsuccessful.
- 0x150c — Call to ECD gnxt unsuccessful in on-line CU UCB chain.
- 0x150d — Calls to ECD gnxt did not find a CC UCB (u_dtype=DEV_CC) in the on-line CU UCB chain.
- 0x150e — Call to ECD gnxt unsuccessful in off-line CU UCB chain.
- 0x150f — Calls to ECD gnxt did not find a CC UCB (u_dtype=DEV_CC) in the off-line CU UCB chain.
- 0x1510 — On-line CU 1 CC 0 UCB does not have u_opccid (bit 4) asserted in u_equip.
- 0x1511 — On-line CU 0 CC 0 UCB has u_opccid (bit 4) asserted in u_equip.
- 0x1512 — Off-line CU 0 CC 0 UCB has u_opccid (bit 4) asserted in u_equip.
- 0x1513 — Off-line CU 1 CC 0 UCB does not have u_opccid (bit 4) asserted in u_equip.
- 0x1514 — 3B20D CUs only: Duplex configuration, but on-line CU CC 0 UCB specifying simplex (u_opsimdup bit 6 not asserted in u_equip).
- 0x1515 — 3B20D CUs only: Duplex configuration, but off-line CU CC 0 UCB specifying simplex (u_opsimdup bit 6 not asserted in u_equip).
- 0x1516 — 3B20D CUs only: Simplex configuration, but CU CC 0 UCB specifying duplex (u_opsimdup bit 6 asserted in u_equip).
- 0x1517 — On-line CU SSR has power clear (SSR_PCLR bit 15) asserted.
- 0x1518 — Call to ECD lla_rldget to get on-line CU MASC UCB unsuccessful.

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	0x1519 — Call to ECD <code>lla_rdget</code> to get off-line CU MASC UCB unsuccessful.
	0x151a — 3B20D CUs only: On-line CU memory controller type indicators inconsistent between the SSR (SSR_VLMAS bit 1) and the MASC UCB.
	0x151b — 3B20D CUs only: Off-line CU memory controller type indicators inconsistent between the SSR (SSR_VLMAS bit 1) and the MASC UCB.
	0x151c — Call to <code>kconfig fltdrvr</code> to remove other CU unsuccessful.
	0x151d — Call to ECD <code>lla_rdget</code> to get off-line CU UCB unsuccessful.
	0x1600 — CU 0 and CU 1 EAI data buffers mismatch.
	0x1601 — Call to PCPAUD <code>getoflipb</code> to read off-line CU EAI Initialization Parameter Buffer (IPB) unsuccessful.
	0x2000 — Memory comparison did not complete its entire memory block comparison.
	0x2001 — Call to <code>kconfig rptrerr</code> unsuccessful.
	0x2002 — Call to <code>kconfig rptrerr</code> unsuccessful.
	0x2003 — Call to <code>kconfig fltdrvr</code> to remove other CU unsuccessful.
i	Complemented off-line SSR value (asserted = 1).
j	Complemented on-line SSR value (asserted = 1).
k	Explanation of error - see Audit Appendix C, APP:AUD-C.
l	Explanation of error - see Audit Appendix D, APP:AUD-D.
	NOTE: See Audit Appendixes A and B, APP:AUD-A and APP:AUD-B, for assorted parsing errors when the IM catalog is not active.
m	Explanation of error - see Audit Appendix B, APP:AUD-B.
n	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. See the CIC Select Code 304-046 *System Maintenance Manual* for additional information on audits. The list contains some actions to specific error codes. If the message persists, contact your next level of technical assistance.

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Error: Action:

- 4 — Run ECD 1 audit.
- 6 — Check maintenance channel cable. Run CU diagnostics on the off-line CU. The problem could also be in the on-line CU maintenance channel. Switch CUs, run CU diagnostics. The problem is serious and should be taken care of as soon as possible.
- 8 — Run CU diagnostics, switch CUs, run CU diagnostics.
- 14 — Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
- 16 — Take action on this error only if it occurs repeatedly. Run CU diagnostics.
- 18 — Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
- 20 — Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
- 24 — Run Plant Measurements System (PMS) 1 audit.
- 30 — Run CU diagnostics, switch CUs, run CU diagnostics.
- 42 — Clear the EAls with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
- 44 — Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Formats 4 and 5 have an OMDB key of 52.

Format 7 has an OMDB key of 558.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

APP: AUD-A

APP: AUD-B

APP: AUD-C

APP: AUD-D

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Input Messages

AUD:CUMEM

OP:AUD

STOP:AUD

Output Message

OP:AUD

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ID AUD:DADC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. APS
TYPE Output

1. FORMAT

AUD ENV=RTR DADC a COMPLETED
b ERRORS FOUND
c ERRORS CORRECTED

AUD ENV=RTR DADC a STOPPED

AUD ENV=RTR DADC a ABORTED CODE d

AUD ENV=RTR DADC a ERROR e REPORT
DATA1 X'f DATA2 X'g
DATA3 X'h DATA4 X'i

2. REASON FOR OUTPUT

To report the termination status of a Direct Address Data Channel (DADC) audit and/or any errors found while executing the audit. All DADC audits are concerned with the TSN <--> RNA + LID translation that takes place on the 3B processor.

3. VARIABLE FIELD DEFINITIONS

- a Audit member number:
- 1 — Recalculate 3B hash values and compare these with 1B disk file hash values.
 - 2 — Compare 3B hash values with 1B disk file hash values.
 - 3 — Full pump of 3B DADC translators from 1B disk file.
- b Number of errors found.
- c Number of errors corrected.
- d Audit abort code:
- 3 — Audit was aborted without completing work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not restart or dispatch the audit.
 - 6 — An error was encountered in the audit Control/audit library interface.
 - 7 — Audit exceeded timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.

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e

Error code:

- 1 — Failed to enable system messages.
 - f — 0 - Not used.
 - g — 0 - Not used.
 - h — 0 - Not used.
 - i — 0 - Not used.
- 2 — Failed initialization sequence from SIM.
 - f — Size of init_msg.
 - g — Aud_init return code.
 - h — 0 - Not used.
 - i — 0 - Not used.
- 3 — Failed getting DAmaster port ID.
 - f — DAmaster port ID.
 - g — Return code from getport.
 - h — 0 - Not used.
 - i — 0 - Not used.
- 4 — Failed to get existing data segment.
 - f — Segment virtual address index.
 - g — 0 - Not used.
 - h — 0 - Not used.
 - i — 0 - Not used.
- 5 — Bad Operating System Trap (OST) initialization.
 - f — Ostinit return code.
 - g — DAmaster process ID.
 - h — 0 - Not used.
 - i — 0 - Not used.
- 101 — Bad incore data, will escalate to pump.
- 200 — Changed value in 3B for 1B trunk scanner number-data link translator address (TSN-DLTA) value.
THIS IS NOT AN ERROR CONDITION - ONLY A REPORT.
 - f — Old value TSN.
 - g — New value TSN.
 - h — 1B disk address for change.
 - i — 3B virtual address for change.

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- 201 — Changed value in 3B for DLTA-TSN value.
THIS IS NOT AN ERROR CONDITION - ONLY A REPORT.
- f — Old value DLTA.
 - g — New value DLTA.
 - h — 1B disk address for change.
 - i — 3B virtual address for change.
- 210 — Failed to read 1B disk TSN-DLTA head table.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 212 — Failed to read 1B disk DLTA-TSN head table.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 213 — Failed to make new segment.
- f — Segment virtual address index.
 - g — Requested size of segment.
 - h — 0 - Not used.
 - i — 0 - Not used.
- 214 — Failed read of 1B disk hash head table.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 215 — Failed read of 1B hash entry.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 216 — Failed read of 1B hash value.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 217 — Failed read of 1B subtranslator.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.

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- 218 — Failed read of DLTA-TSN hash entry.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 219 — Failed read of DLTA-TSN hash value.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 220 — Failed read of DLTA-TSN subtranslator.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 221 — Bad incore data, will escalate to pump.
- 301 — Failed to make new segment.
- f — Segment virtual address index.
 - g — Requested size of segment.
 - h — 0 - Not used.
 - i — 0 - Not used.
- 302 — Cannot allocate enough memory for new segment.
- f — Requested size of segment.
 - g — Size segment returned.
 - h — Segment virtual address index.
 - i — 0 - Not used.
- 303 — DAmaster failed to add segment.
- f — DAmaster process ID.
 - g — Segment name.
 - h — Segment virtual address index.
 - i — Segment size.
- 304 — Failed to read TSN-DLTA head table.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.
- 305 — Failed to read DLTA-TSN head table.
- f — File descriptor.
 - g — Address of memory for read.
 - h — Return code from read.
 - i — System errno.

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306 — Failed to read 1B disk hash head table.

f — File descriptor.
g — Address of memory for read.
h — Return code from read.
i — System errno.

307 — No subtranslators found in head table.

f — 1 — DLTA-TSN subtranslator.
2 — TSN-DLTA subtranslator.
g — 0 - Not used.
h — 0 - Not used.
i — 0 - Not used.

308 — Failed read of 1B DLTA-TSN subtranslator.

f — File descriptor.
g — Address of memory for read.
h — Return code from read.
i — System errno.

309 — Failed read of 1B DLTA-TSN value.

f — File descriptor.
g — Address of memory for read.
h — Return code from read.
i — System errno.

310 — Failed read of 1B TSN-DLTA subtranslator.

f — File descriptor.
g — Address of memory for read.
h — Return code from read.
i — System errno.

311 — Failed read of 1B TSN-DLTA value.

f — File descriptor.
g — Address of memory for read.
h — Return code from read.
i — System errno.

312 — DAmaster failed to add segment.

f — DAmaster process ID.
g — Segment name.
h — Segment virtual address index.
i — Segment size.

314 — No subtranslators found in head table.

f — 1 — DLTA-TSN subtranslator.
2 — TSN-DLTA subtranslator.
g — 0 - Not used.
h — 0 - Not used.
i — 0 - Not used.

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315 — Failed read of 1B DLTA-TSN subtranslator.

- f — File descriptor.
- g — Address of memory for read.
- h — Return code from read.
- i — System errno.

4. ACTION TO BE TAKEN

Error codes 200 and 201 report whenever a value changes between 1B disk and 3B memory. After a 1B recent change that affects the DADC translators, this report should be expected.

For other errors in DADC audits 1 and 2, the software will escalate to a full DADC 3, which is a full pump of the translators.

For errors in DADC 3, seek technical assistance.

5. REFERENCES

Input Messages
AUD:DADC
STOP:DADC

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1. FORMAT

```

[1] AUD DCNAUD a LNb c COMPLETED
    d MODE
    e ERRORS FOUND
    f ERRORS CORRECTED

[2] AUD DCNAUD a LNb c FAILED
    REASON: OTHER AUDIT IS RUNNING

[3] AUD DCNAUD a LNb c FAILED
    REASON: AUDIT IS ALREADY RUNNING

[4] AUD DCNAUD a LNb c FAILED
    REASON: ACM AT INITIALIZATION

[5] AUD DCNAUD a LNb c FAILED
    REASON: INVALID AUDIT NUMBER

[6] AUD DCNAUD a LNb c ERROR g { CORR | NOT CORR } REPORT COMPLETED
    d MODE
    TOTAL h DATA WDS (X')
    xxxxxxxx  xxxxxxxx  xxxxxxxx  xxxxxxxx
           .
           .
           .
    xxxxxxxx  xxxxxxxx  xxxxxxxx  xxxxxxxx

[7] AUD DCNAUD a LNb c FAILED
    REASON: NODE IS NOT DCHAN

[8] AUD DCNAUD a LNb c FAILED
    REASON: NODE IS NOT ACTIVE

[9] AUD DCNAUD a LNb c FAILED
    REASON: SEND MSG TO DCHAN FAILED

[10] AUD DCNAUD a LNb c FAILED
    REASON: RECEIVED _RTNMSG OR _SRCMATCH MSG

```

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September 2001

2. REASON FOR OUTPUT

To report the termination status of the D-Channel Node (DCN) application audit and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

- a Audit member. One of the following:
- 1 — Data Blocks audit.
 - 2 — User call reference value (CRV) Table audit.
 - 3 — Network CRV Table audit.
 - 4 — Channel ID Table audit.
 - 5 — Idle Data Blocks List audit.
- b DCN group number.
- c DCN member number.
- d Audit Mode. One of the following:
- MAN — Manual mode
 - ROUT — Routine mode
 - SOFT — Software mode
 - UNK — Unknown mode
- e Total number of errors found.
- f Total number of errors corrected.
- g Error code. One of the following:
- 1 — User CRV out of range.
 - 2 — Network CRV out of range.
 - 3 — CRV Table entry is idle.
 - 4 — Data Block index out of range.
 - 5 — Data Block is idle.
 - 6 — Link mismatch.
 - 7 — CHID mismatch.
 - 8 — CRV mismatch.
 - 9 — Invalid channel type.
 - 10 — CHID out of range.
 - 11 — Link out of range.
 - 12 — Data Block index mismatch.
 - 13 — Idle Data Block List's head and tail mismatch.
 - 14 — Data Block is in wrong idle list.
 - 15 — Data Block is not idle.
 - 16 — Data Block's previous link mismatch.
 - 17 — Data Block's next list mismatch.
 - 18 — Next Data Block is in wrong idle list.
 - 19 — Next Data Block is not idle.
 - 20 — Next Data Block's previous link mismatch.
 - 21 — Idle Data Block List's tail mismatch.
 - 22 — Dangling idle Data Blocks.

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h Number of data words received.

xxxxxxxx DCN memory dump unique to the each audit. The fields of this dump, by audit member and error code, are as follows:

— Audit member 1

- Error code 1

DBI	DB_addr	CHID_(DB)	link_(DB)
CRV_(DB)	channel_type	call_state	CHID_t_addr
CRV_(CHID_t)	undefined	undefined	
- Error code 2

DBI	DB_addr	CHID_(DB)	link_(DB)
CRV_(DB)	channel_type	call_state	CHID_t_addr
CRV_(CHID_t)	undefined	undefined	
- Error code 8

DBI	DB_addr	CHID_(DB)	link_(DB)
CRV_(DB)	channel_type	call_state	CHID_t_addr
CRV_(CHID_t)	CRV_t_addr	DBI_(CRV_t)	
- Error code 9

DBI	DB_addr	CHID_(DB)	link_(DB)
CRV_(DB)	channel_type	call_state	CHID_t_addr
CRV_(CHID_t)	CRV_t_addr	DBI_(CRV_t)	
- Error code 10

DBI	DB_addr	CHID_(DB)	link_(DB)
CRV_(DB)	channel_type	call_state	undefined
undefined	undefined	undefined	
- Error code 11

DBI	DB_addr	CHID_(DB)	link_(DB)
CRV_(DB)	channel_type	call_state	undefined
undefined	undefined	undefined	
- Error code 12

DBI	DB_addr	CHID_(DB)	link_(DB)
CRV_(DB)	channel_type	call_state	CHID_t_addr
CRV_(CHID_t)	CRV_tbl_addr	DBI_(CRV_t)	

— Audit member 2

- Error code 4

link	User_CRV	UCRV_t_addr	DBI_(UCRV_t)
undefined	undefined	undefined	undefined
- Error code 5

link	User_CRV	UCRV_t_addr	DBI_(UCRV_t)
DB_addr	call_state	CRV_(DB)	link_(DB)

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• Error code 6	link	User_CRV	UCRV_t_addr	DBI_(UCRV_t)
	DB_addr	call_state	CRV_(DB)	link_(DB)
• Error code 8	link	User_CRV	UCRV_t_addr	DBI_(UCRV_t)
	DB_addr	call_state	CRV_(DB)	link_(DB)
— Audit member 3				
• Error code 4	link	Network_CRV	NCRV_t_addr	DBI_(NCRV_t)
	undefined	undefined	undefined	undefined
• Error code 5	link	Network_CRV	NCRV_t_addr	DBI_(NCRV_t)
	DB_addr	call_state	CRV_(DB)	link_(DB)
• Error code 6	link	Network_CRV	NCRV_t_addr	DBI_(NCRV_t)
	DB_addr	call_state	CRV_(DB)	link_(DB)
• Error code 8	link	Network_CRV	NCRV_t_addr	DBI_(NCRV_t)
	DB_addr	call_state	CRV_(DB)	link_(DB)
— Audit member 4				
• Error code 1	CHID_t_addr	link	CHID	CRV_(CHID_t)
	undefined	undefined	undefined	undefined
	undefined	undefined	undefined	undefined
• Error code 2	CHID_t_addr	link	CHID	CRV_(CHID_t)
	undefined	undefined	undefined	undefined
	undefined	undefined	undefined	undefined
• Error code 3	CHID_t_addr	link	CHID	CRV_(CHID_t)
	CRV_t_addr	DBI_(CRV_t)	undefined	undefined
	undefined	undefined	undefined	undefined
• Error code 4	CHID_t_addr	link	CHID	CRV_(CHID_t)
	CRV_t_addr	DBI_(CRV_t)	undefined	undefined
	undefined	undefined	undefined	undefined
• Error code 5	CHID_t_addr	link	CHID	CRV_(CHID_tbl)
	CRV_t_addr	DBI_(CRV_t)	DB_addr	call_state
	link_(DB)	chid_(DB)	channel_type	CRV_(DB)

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- Error code 6
CHID_t_addr link CHID CRV_(CHID_tbl)
CRV_t_addr DBI_(CRV_t) DB_addr call_state
link_(DB) chid_(DB) channel_type CRV_(DB)
- Error code 7
CHID_t_addr link CHID CRV_(CHID_tbl)
CRV_t_addr DBI_(CRV_t) DB_addr call_state
link_(DB) chid_(DB) channel_type CRV_(DB)
- Error code 8
CHID_t_addr link CHID CRV_(CHID_tbl)
CRV_t_addr DBI_(CRV_t) DB_addr call_state
link_(DB) chid_(DB) channel_type CRV_(DB)
- Error code 9
CHID_t_addr link CHID CRV_(CHID_tbl)
CRV_t_addr DBI_(CRV_t) DB_addr call_state
link_(DB) chid_(DB) channel_type CRV_(DB)

— Audit member 5

- Error code 4
list_idx list_addr head tail
DBI undefined undefined undefined
undefined undefined undefined undefined
undefined undefined undefined undefined
- Error code 13
list_idx list_addr head tail
undefined undefined undefined undefined
undefined undefined undefined undefined
undefined undefined undefined undefined
- Error code 14
list_idx list_addr head tail
DBI DB_addr DB_list call_state
prev_idx next_idx undefined undefined
undefined undefined undefined undefined
- Error code 15
list_idx list_addr head tail
DBI DB_addr DB_list call_state
prev_idx next_idx undefined undefined
undefined undefined undefined undefined
- Error code 16
list_idx list_addr head tail
DBI DB_addr DB_list call_state
prev_idx next_idx undefined undefined
undefined undefined undefined undefined

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- Error code 17

list_idx	list_addr	head	tail
DBI	DB_addr	DB_list	call_state
prev_idx	next_idx	undefined	undefined
undefined	undefined	undefined	undefined
- Error code 18

list_idx	list_addr	head	tail
DBI	DB_addr	DB_list	call_state
prev_idx	next_idx	nxt_DB_addr	nxt_DB_list
nxt_call_st	nxt_prev_idx	undefined	undefined
- Error code 19

list_idx	list_addr	head	tail
DBI	DB_addr	DB_list	call_state
prev_idx	next_idx	nxt_DB_addr	nxt_DB_list
nxt_call_st	nxt_prev_idx	undefined	undefined
- Error code 20

list_idx	list_addr	head	tail
DBI	DB_addr	DB_list	call_state
prev_idx	next_idx	nxt_DB_addr	nxt_DB_list
nxt_call_st	nxt_prev_idx	undefined	undefined
- Error code 21

list_idx	list_addr	head	tail
DBI	DB_addr	DB_list	call_state
prev_idx	next_idx	undefined	undefined
undefined	undefined	undefined	undefined
- Error code 22

list_idx	list_addr	head	tail
undefined	undefined	undefined	undefined
undefined	undefined	undefined	undefined
undefined	undefined	idl_DBs_fnd	true_idl_DBs

4. ACTION TO BE TAKEN

Format 1 indicates successful execution. Seek technical assistance if errors occur or mode is UNK.

Format 2 indicates that other audit is active. The OP:DCNAUD input message can be used to determine the current audit status.

Format 3 indicates that the audit is already active. The OP:DCNAUD input message can be used to determine the current audit status.

Format 4 indicates that the Audit Control Mechanism on the DCN is under initialization. Wait until DCN finishes initialization and retry.

Format 5 indicates that the audit number is not valid.

Format 6 indicates that the audit found an error. Seek technical assistance.

Format 7 indicates that the requested node is not a DCN. Retry with a correct group and member number for the DCN.

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Format 8 indicates that the DCN is not active. Wait until the DCN is active and retry.

Format 9 indicates that DCNAP cannot send message to the DCN. Retry. If you get the same error multiple times, seek technical assistance.

Format 10 indicates that DCNAP received returned or source matched messages. Either the IMS channel is not open on the DCN or the DCN is not active.

5. REFERENCES

Input Messages

AUD : DCNAUD

OP : DCNAUD

Output message

OP : DCNAUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:DLN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

AUD ENV=RTR DLN a, INS LNb-c COMPLETED
d ERRORS FOUND
e ERRORS CORRECTED

AUD ENV=RTR DLN a, INS LNb-c STOPPED

AUD ENV=RTR DLN a, INS LNb-c ABORTED CODE f

AUD ENV=RTR DLN a, INS LNb-c ERROR g REPORT
DATA 1 X'00000000 DATA 2 X'00000000
DATA 3 X'00000000 DATA 4 X'00000000

2. REASON FOR OUTPUT

To report the termination status of the DLN application audit and /or any errors found.

3. VARIABLE FIELD DEFINITIONS

- a Audit member:
- 1 — Compare DLN and 1B hash words.
 - 2 — Compare DLN and 1B ACI/ISUP translation data.
 - 3 — DLN performs hash of its ACI/ISUP translation data.
- b DLN group number.
- c DLN member number.
- d Total number of errors found.
- e Total number of errors corrected.
- f Abort code:
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
- g Error code:
- 1 — Invalid audit type.
 - 2 — Invalid DLN ID.

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- 3 — DLN not in service or has no translation data.
- 4 — Invalid disk address for hash data.
- 5 — Invalid translation address for translation data.
- 6 — Invalid number of binks.
- 7 — DLN pump is in progress.
- 8 — DLN update is in progress.
- 9 — Unable to seize Binkmap.
- 10 — DLN-DLNCM communication (protocol) failure.
- 11 — Failed to correct errors via a DLN pump or update.
- 20 — Failed to get the ECD logdev record for the 1B file (/dev/1afile0 or /dev/1afile1) (see Table III).
- 21 — DLNCM sync'ed to the wrong 1B file - correction started via DLNCM task SWITCH_1B (see Table IV).
- 30 — Translation data word error (see Table I).
- 40 — Hash word error (see Table II).
- 701 — Failed to send a DLN BUFSTAT dma command.
Data word 1: DLN ring node address.
Data word 2: DLN IMS state - OOS(0) ACT(1).
Data word 3: DLN CNI state.
 - OOS — 0
 - ACT — 1
 - OFL — 2
 - STBY — 3Data word 4: Return code from the dma command (senddln()).
- 702 — Invalid DLN dma response buffer.
Data word 1: DLN ring node address.
Data word 2: Dma buffer job field.
Data word 3: Dma buffer job response field.
Data word 4: Return code from the dma command (senddln()).
- 703 — DLN in CNI state OOS or OFL or STBY found scanning the APIDLN stream.
Data word 1: DLN ring node address.
Data word 2: DLN CNI state.
 - OOS — 0
 - ACT — 1
 - OFL — 2
 - STBY — 3Data word 3: DLN scanning status from the DLN.

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0x8000 — DLN is scanning out.

0x0080 — DLN is scanning in.

Data word 4: Return code from stopping the stream.

704 — Two way or one way in DLN has improper scan status.

Data word 1: DLN ring node address.

Data word 2: DLN CNI mode field.

TWOWAY — 1

1WAYIN — 2

1WAYOUT — 3

Data word 3: DLN scanning status from the DLN.

0x8000 — DLN is scanning out.

0x0080 — DLN is scanning in.

Data word 4: APIDLN DLN stream status.

0xf — Scan both directions active.

0x5 — Scan out direction active.

0xa — Scan in direction active.

705 — Two way or one way out DLN has improper scan status.

Data word 1: DLN ring node address.

Data word 2: DLN CNI mode field.

TWOWAY — 1

1WAYIN — 2

1WAYOUT — 3

Data word 3: DLN scanning status from the DLN.

0x8000 — DLN is scanning out.

0x0080 — DLN is scanning in.

Data word 4: APIDLN DLN stream status.

0xf — Scan both directions active.

0x5 — Scan out direction active.

0xa — Scan in direction active.

4. ACTION TO BE TAKEN

Seek technical assistance if errors occur.

5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System
System Maintenance Manual*

Practice 254-341-235 *Audit Facilities Software Subsystem Description*

Input Message
AUD:DLN

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Table I - DLN Audit 2

Data word 1: 1B disk address of hash word.

Data word 2: 1B hash word.

Data word 3: DLN hash word.

Data word 4: Bink number.

Table II - DLN Audit 1

Data word 1: 1B disk address of bink.

Data word 2: Word offset.

Data word 3: 1B translation word.

Data word 4: DLN translation word.

Table II - DLN Audit 3

Data word 1: Bink number.

Data word 2: DLN expected hash word.

Data word 3: DLN calculated hash word.

Data word 4: Zero value.

Table III - DLN Audit 1 Error 20

Data word 1: Return code from function `f_1adevid()` (`init.c`).

Data word 2: Active 1B file `mdct` record pointer.

Data word 3: Active 1B file partition number.

Data word 4: 0.

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Table IV - DLN Audit 1 Error 21

Data word 1: Active 1B file mdct record pointer.

Data word 2: Active 1B file partition number.

Data word 3: Correct 1B file mdct record pointer.

Data word 4: Correct 1B file partition number.

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ID AUD:DLNCM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR DLNCM a, COMPLETED
b ERRORS FOUND
c ERRORS CORRECTED
- [2] AUD ENV=RTR DLNCM a, STOPPED
- [3] AUD ENV=RTR DLNCM a, ABORTED CODE d
- [4] AUD ENV=RTR DLNCM a, ERROR e REPORT
DATA 1 X'00000000 DATA 2 X'00000000
DATA 3 X'00000000 DATA 4 X'00000000

2. REASON FOR OUTPUT

To report the termination status of the DLNCM audit and /or any errors found.

3. VARIABLE FIELD DEFINITIONS

- a Audit member (1).
- b Total number of errors found.
- c Total number of errors corrected.
- d Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
- e Error code:
 - 1 — Invalid procedure number for task.
 - 2 — Invalid status for task.
 - 3 — Wrong number of tasks for DLNCM.
 - 4 — Clock procedure is not running.
 - 5 — Attached Processor Interface (API) device guard timer out of range.

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- 6 — DLN device guard timer out of range.
- 7 — API device guard timer is zero and the overall API device fault counter is non zero.
- 8 — API device guard timer is zero and a specific API device fault counter is non zero.
- 9 — DLN device guard timer is zero and the overall DLN device fault counter is non zero.
- 10 — DLN device guard timer is zero and a specific DLN device fault counter is non zero.
- 11 — Interprocess Message Switch Driver (IMSDRV) process is not in normal gear shift mode and DLNCM is not at cause. It is normal for the IMSDRV process to be in high gear while Restoring (RST) a node such as a SADC node. Therefore, the appearance of this report in conjunction with a node restoral is just informational and not a cause for concern.
Data word 1: IMSDRV gear shift value.
 - 1 — normal gear - 50 msec tick.
 - 2 — high gear - 20 msec tick.
 - 3 — critical gear - 20 msec tick.
- 101 — A DLN is scanning the API-DLN stream when it shouldn't (stream should be down).
- 102 — A API is scanning the API-DLN stream when it shouldn't (stream should be down).
- 110 — An API isn't scanning the API-DLN stream when it should (stream should be up).
- 111 — A DLN isn't scanning the API-DLN stream when it should (stream should be up).
- 112 — The API-DLN stream header pointer is corrupt.
Data word 1: Pointer corrupt value.
Data word 2: Pointer correct value.
- 113 — The DLN stream status word contains trash.
Data word 1: Contents of the dlncstat word.
Data word 2: Mask of valid area.
- 114 — The API stream status word contains trash. This is a non-correctable error as only the Attached Processor Driver (APDRV) has write access to this word.
Data word 1: Contents of the apistat word.
Data word 2: Mask of valid area.

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- 201 — A DLN is in a transient state for more than 2 minutes - the DLN is removed from service.
Data word 1: DLN ring node address.
Data word 2: DLN IMS state.
- 0 — OOS.
 - 1 — ACT.
- Data word 3: DLN Common Network Interface (CNI) state.
- 0 — OOS.
 - 1 — ACT.
 - 2 — OFL.
 - 3 — STBY.
- Data word 4: DLN CNI mode.
- 1 — TWOWAY.
 - 2 — 1WAYIN.
 - 3 — 1WAYOUT.
- 202 — More than 1 active DLN in the OUT direction DLN(s) in data words 2-4 are removed from service.
Data word 1: Outgoing DLN rna (retained).
Data word 2: Outgoing DLN rna (removed).
Data word 3: Outgoing DLN rna or 0 (removed).
Data word 4: Outgoing DLN rna or 0 (removed).
- 203 — More than 1 active DLN in the IN direction DLN(s) in data words 2-4 are removed from service.
Data word 1: Incoming DLN rna (retained).
Data word 2: Incoming DLN rna (removed).
Data word 3: Incoming DLN rna or 0 (removed).
Data word 4: Incoming DLN rna or 0 (removed).
- 204 — No DLN(s) found in the incoming or outgoing state NONCORRECTED error as other detection/correction mechanisms should fire (heartbeat on the 1B processor).
Data word 1: Number of outgoing DLN(s).
Data word 2: Number of incoming DLN(s).
Data word 3: 1B processor communication status.
- 0 — Communicating with the 1B processor.
 - 1 — Not communicating with the 1B processor.
- Data word 4: API-DLN stream header dln scanning status.
- 206 — Unknown DLN CNI STATE see data words for error 201.
- 207 — Unknown DLN CNI MODE see data words for error 201.

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- 210 — Failure connecting to the Equipment Configuration Database (ECD) - this may indicate core corruption within seg 0x460000 (/illalib) or seg 0x5c0000 (/ecdlib) - a non corrected error.
- 211 — Failed to fetch ECD ucb record for a DLN - a non corrected error.
Data word 1: DLN ring node address.
Data word 2: ECD rid that failed `lla_get()`.
Data word 3: ECD setid for ucb records.
- 212 — ECD ucb DLN status is OOS but CNI ims state is not OOS - this could be a transient condition as CNI may not have responded to an IMS node removal - non corrected error.
Data word 1: DLN ring node address.
Data word 2: DLN ECD rid.
Data word 3: DLN ECD ucb status.
- 0 — ACT.
 - 1 — STBY.
 - 2 — UNAV.
 - 3 — OFL.
 - 4 — OOS.
 - 5 — UNEQIP.
 - 6 — INIT.
 - 7 — GROW.
- Data word 4: DLN IMS state.
- 0 — OOS.
 - 1 — ACT.
- 213 — ECD ucb DLN status is ACT but CNI imsstate is no ACT - the DLN is removed. See data words for error 201.
- 301 — TCAP-TN Q head is non-zero and out of range.
Data word 1: Value of TCAP-TN Q head.
- 302 — TCAP-TN Q link is non-zero and out of range.
Data word 1: Address of TCAP-TN Q element.
Data word 2: Address of next (bad) TCAP-TN Q element.

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- 303 — TCAP-TN Q element on Q is not in a Q state.
Data word 1: Address of TCAP-TN Q element.
Data word 2: Contents of the state field.
- 0 — IDLE (available).
 - 1 — LOAD (being loaded by AMA).
 - 2 — Q (on Q waiting for a DLN).
 - 3 — UNLOAD (being unloaded by a DLN).
 - 4 — AUDLK (locked for audits).
- 304 — TCAP-TN Q element on Q more than once.
Data word 1: Address of TCAP-TN Q element.
Data word 2: Q element number.
- 305 — TCAP-TN Dload variable is non-zero and out of range. This is the buffer being loaded by AMA. The variable is set to zero.
Data word 1: Contents of TCAP-TN Dload variable.
- 306 — TCAP-TN buffer in the Q state and the Q is empty. The buffer is moved to the IDLE state.
Data word 1: Address of the TCAP-TN buffer.
- 307 — TCAP-TN buffer in the Q state and not on the Q list. The buffer is moved to the IDLE state.
Data word 1: Address of the TCAP-TN buffer.
- 308 — More than one TCAP-TN buffer in the LOAD state. The buffer is moved to the IDLE state.
Data word 1: Address of the TCAP-TN buffer.
Data word 2: Contents of the Dload variable.
Data word 3: 2.
- 309 — TCAP-TN variable Dload does not point to buffer in the LOAD state. The buffer ID moved to the IDLE state.
Data word 1: Contents of the Dload variable.
Data word 2: Address of the TCAP-TN buffer.
- 310 — TCAP-TN variable Dload is zero and a buffer exists in the LOAD state. Variable Dload is set to point to the buffer.
Data word 1: Contents of variable Dload.
Data word 2: Address of the TCAP-TN buffer.
- 311 — More than one TCAP-TN buffer in the UNLOAD state. The buffer is moved to the idle state.
Data word 1: Address of the TCAP-TN buffer.
Data word 2: Number of buffers in the UNLOAD state.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 312 — Audit TCAP-TN buffer accounting does not match the number of TCAP-TN buffers allocated. Non-corrected error.
Data word 1: Number of buffers in the IDLE state.
Data word 2: Number of buffers in the LOAD state.
Data word 3: Number of buffers in the Q state.
Data word 4: Number of buffers in the UNLOAD state.
- 313 — TCAP-TN scanner tasks DLNOUT should be running but is not. Start the task.
Data word 1: Number of buffers in the IDLE state.
- 314 — All TCAP-TN buffers are idle and the DLNOUT scanner task is still running. Stop the task from running.
Data word 1: Procedure number of the DLNOUT task.
Data word 2: DLNCM task number of DLNOUT.
- 401 — There is an open capability number with the File Manager (FMGR) and the associated task is zero. The correcting action is to close the capability number with the FMGR.
Data word 1: Index into DLNCM file descriptor table.
Data word 2: Address of DLNCM file descriptor table.
Data word 3: Capability number.
- 402 — There is a task on the open DLNCM file table with a zero capability number. The correcting action is to zero the task process ID from the file table.
Data word 1: Index into DLNCM file descriptor table.
Data word 2: Address of DLNCM file descriptor table.
Data word 3: Task process ID.
- 403 — There is an open capability number with the File Manager (FMGR) and the associated task is non-existent. The correcting action is to close the capability number with the FMGR and zero out the task process ID in the DLNCM file table.
Data word 1: Index into DLNCM file descriptor table.
Data word 2: Address of DLNCM file descriptor table.
Data word 3: Task process ID.
Data word 4: Capability number.
- 404 — There is a non-existing task ID on the open DLNCM file table with a zero capability number. The correcting action is to zero the task process ID from the file table.
Data word 1: Index into DLNCM file descriptor table.
Data word 2: Address of DLNCM file descriptor table.
Data word 3: Task process ID.
Data word 4: Capability number.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 405 — The file descriptor has been in a transient reserved state for two iterations of the audit. The correcting action is to zero the process number and task process ID from the file table.
Data word 1: Index into DLNCM file descriptor table.
Data word 2: Address of DLNCM file descriptor table.
Data word 3: Task process ID.
Data word 4: Capability number.
- 601 — The DLNCM - ARTS DLN error printing threshold is out of range.
- 701 — Invalid CNI initialization level.
- 702 — Static hash is corrupted.
- 703 — Configure_dlms flag is corrupt (no ring initialization is in progress).
- 704 — Configure_dlms flag is corrupt (ring initialization is in progress).

4. ACTION TO BE TAKEN

Seek technical assistance if errors occur.

5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System
System Maintenance Manual*

Practice 254-341-235 *Audit Facilities Software Subsystem Description*

Input Message
AUD:DLNCM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:ECD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR ECD a [b] COMPLETED
c ERRORS FOUND
d ERRORS CORRECTED

- [2] AUD ENV=RTR ECD a [b] STOPPED

- [3] AUD ENV=RTR ECD a [b] ABORTED CODE e

- [4] AUD ENV=RTR ECD a [b] ERROR f {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'00000000 DATA2 X'00000000
DATA3 X'00000000 DATA4 X'00000000

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR ECD a [b] ERROR f {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
{SUPPLEMENTARY DATA BLOCK NUMBER 1 |
SUPPLEMENTARY DATA FILE}
g

- [6] AUD ECD NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS h
|RETRY LATER i
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR j}

- [7] AUD ENV=RTR a AUTOMATICALLY k

- [8] AUD ENV=RTR ECD ERROR f - g

2. REASON FOR OUTPUT

To report the termination status of the Equipment Configuration Database (ECD) audit and/or any errors found.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a	Audit member: 1 — Structural incore ECD audit. 2 — Structural disk ECD audit. 3 — Raw data incore ECD audit.
b	Instance name (appears only when a = 2). APPECD — Application ECD. ECD — DMERT only ECD.
c	Total number of errors found.
d	Total number of errors corrected.
e	Abort code: 3 — Audit was aborted without completing its work. 4 — Audit was faulted while correcting errors. 5 — System Integrity Monitor (SIM) could not start or dispatch the audit. 6 — An error was encountered in the audit control/audit library interface. 7 — Audit exceeded its timeout or segment limit. 8 — SIM aborted an executing routine audit because of a blocking request. 9 — Transient process that was running the process terminated. 10 — A segmented audit exceeded an error threshold.
f	Error code: (1-2999) — LLA structural error. (3000-3999)— Fatal error. (4000-4999)— Error. (5000-5999)— Correction.
g	Explanation of error identified by error code. If error code is 1-2999, see the APP:LLA appendix. If error code is 3000-5999, see the Table.
h	Explanation of error; see Audit Appendix C, APP:AUD-C.
i	Explanation of error; see Audit Appendix D, APP:AUD-D.
j	Explanation of error - see Audit Appendix B, APP:AUD-B.
k	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Audit Appendixes A and B, APP:AUD-A and APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If the audit was manually run in the noncorrecting mode and the output indicates that corrections are needed, rerun the audit in correcting mode.

NOTE: That recent changes should not be applied while an audit that uses the ECD is running.

Seek technical assistance if errors occur.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Format 4 has an OMDB key of 52.

Format 5 has an OMDB key of 64.

Format 8 has an OMDB key of 720.

The OMDB keys apply to the error codes listed in the Table.

Error codes 3000, 3001, 3003, 3004, 3007, 3008, 3009, 3011 through 3016, 3022, 4006, 4007, and 4008 have an OMDB key of 459.

Error codes 3002, 3010, and 3017 through 3020 have an OMDB key of 458.

Error code 3021 has an OMDB key of 607.

Error code 3024 has an OMDB key of 459 if it is associated with format 4.

Error code 3024 has an OMDB key of 720 if it is associated with format 8.

Error codes 4000, 4002, 4004, and 4005 have an OMDB key of 457.

Error code 4001 has an OMDB key of 456.

Error code 4003 has an OMDB key of 455.

Error codes 4009 through 4014 have an OMDB key of 619.

Error code 5000 has an OMDB key of 454.

Error code 5001 has OMDB keys of 454 and 459.

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UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

APP: AUD-A

APP: AUD-B

APP: AUD-C

APP: AUD-D

APP: LLA

Input Messages

AUD: ECD

OP: AUD

STOP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
OP:AUD

Table

Error Code:	Explanation:
3000	Cannot open incore ECD, errno = x.
3001	'malloc' failure, errno = x.
3001	'malloc' failure.
3002	Read failure for z, errno = x.
3002	Read failure for z.
3003	Audit ECD z has more records than incore ECD.
3004	Incore ECD has more records than audit ECD z.
3005	'lla_rldget' failure for incore ECD to check RCV semaphore.
3006	Audits blocked during RCV session - try later.
3007	'lla_ainit' failure for structural audit.
3008	'lla_irel' failure for incore ECD.
3009	'lla_dbrel' failure for z.
3010	Cannot open disk ECD z, errno = x.
3010	Cannot open disk ECD z.
3011	'lla_nsqrld' failure for z.
3012	'getport' failure, errno = x.
3013	'getseg' failure, errno = x.
3014	'lla_iatt' failure for incore ECD.
3015	'lla_opensq' failure for incore ECD.
3016	Audit copy z corrupted.
3017	fopen failure for z, errno = x.
3017	fopen failure for z.
3018	fread failure for z, errno = x.
3018	fread failure for z.
3019	fseek failure for z, errno = x.
3019	fseek failure for z.
3020	fwrite failure for z, errno = x.
3020	fwrite failure for z.
3021	The incore ECD does not match the disk ECD z.
3022	Driver PID notification table out of space, entries = x.
3023	makeseg failure - cannot create new segment.
3024	If this error code is associated with format 4 then Cannot run audit in corr mode while ABD is active. (Note: Active ABD means that system is operating with an ABD selected.) If this error code is associated with format 8 then Audits blocked during offline boot - try later.
4000	'lla_rinfo' failure for z, RID = y.

SEE PROPRIETARY NOTICE ON COVER PAGE

Table (continued)

Error Code:	Explanation:
4001	Incore RID does not match audit (z) RID.
4002	'lla_rdget' failure for z, RID = y.
4003	Record size of incore ECD does not match record size of audit z.
4004	Record type of incore does not match audit z, RID = y.
4005	'lla_uprid' failure for z, RID = y.
4006	Local copy record changes: unable to notify driver, PID = x.
4007	Possible inconsistency (structure corrected) of disk ECD z.
4008	Structural audit cannot continue without previous corrections.
4009	UCB a b c d points down to a UCB which does not point back up for z.
4010	UCB a b c d has incorrect UP0 pointer for its side chain for z.
4011	UCB a b c d has incorrect UP1 pointer for its side chain for z.
4012	UCB a b c d points down to the beginning of a side chain loop for z.
4013	UCB a b c d should not have a side pointer for z.
4014	UCB a b c d points down to itself for z.
5000	Record corrected, RID = y, record = z. Incore record data will be followed by audit record data.
5001	Record needs correction, RID = y, record = z. Incore record data will be followed by audit record data. For LLA audit error messages reference file w.

a = UCB complex unit
 b = UCB unit
 c = UCB complex unit
 d = UCB name
 w = file name:
 /etc/log/ecdaud-disk - for disk audit
 /etc/log/ecdaud-struct - for structural incore audit
 /etc/log/ecdaud-raw - for raw audit
 x = integer
 y = hexadecimal integer
 z = database name

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:ECDOWN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR ECDOWN 1 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED

- [2] AUD ENV=RTR ECDOWN 1 STOPPED

- [3] AUD ENV=RTR ECDOWN 1 ABORTED CODE c

- [4] AUD ENV=RTR ECDOWN 1 ERROR d {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'00000000 DATA2 X'00000000
DATA3 X'00000000 DATA4 X'00000000

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR ECDOWN 1 ERROR d {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
{SUPPLEMENTARY DATA BLOCK NUMBER e |
SUPPLEMENTARY DATA FILE}
f

- [6] AUD ECDOWN NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS g
|RETRY LATER h
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR i}

- [7] AUD ENV=RTR ECDOWN 1 AUTOMATICALLY j

2. REASON FOR OUTPUT

To report the termination status of the ECDOWN audit and /or any errors found.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.

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- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

d	Error code: Error (100-199) Correction (200-200)
e	Supplementary data block number.
f	An explanation of the error identified by the error code. See Table.
g	Explanation of error - see the Output Audit Appendix C, APP:AUD-C.
h	Explanation of error - see the Output Audit Appendix D, APP:AUD-D.
i	Explanation of error - see Audit Appendix B, APP:AUD-B.
j	Inhibited status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit was manually run in the noncorrecting mode and the output indicates that corrections are needed, rerun the audit in correcting mode.

Note that recent changes should not be applied while an audit that uses the ECD is running.

Seek technical assistance if errors occur.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 78.
- Formats 2 and 3 have an OMDB key of 76.
- Format 4 has an OMDB key of 52.
- Format 5 has an OMDB Key of 64 or 460.
- Format 7 has an OMDB key of 558.

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UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

APP: AUD-A

APP: AUD-B

APP: AUD-C

APP: AUD-D

Input Messages

AUD: ECDOWN

OP: AUD

STOP: AUD

Output Message

OP: AUD

Table	
Error Code:	Explanation:
100	Unable to release special device file, RID = x.
101	Unable to release Unit Control Block (UCB), RID = x.
102	Improper reserved entity - not SDF or UCB.
200	Special device file released, RID = x.
201	UCB released, RID = x.
202	Special device file should be released, RID = x.
203	UCB should be released, RID = x.

Where x is a hexadecimal integer.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FMGR1
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 1 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR FMGR 1 STOPPED
- [3] AUD ENV=RTR FMGR 1 ABORTED CODE c
- [4] AUD ENV=RTR FMGR 1 ERROR d {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'e DATA2 X'f
DATA3 X'g DATA4 X'h

[NO SUPPLEMENTARY DATA]
- [5] AUD FMGR 1 NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS i
|RETRY LATER j
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR k}
- [6] AUD ENV=RTR FMGR 1 AUTOMATICALLY l

2. REASON FOR OUTPUT

To report the termination status of the task queue audit (FMGR 1) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

	8 — SIM aborted an executing routine audit because of a blocking request.
	9 — Transient process that was running the process terminated.
	10 — A segmented audit exceeded an error threshold.
	12 — Audit rejected the request to run from SIM.
	13 — SIM aborted an executing audit because the audit system is being reinitialized.
d	Error code: 2 — Invalid taskid field. 3 — Invalid sleep address. 4 — Invalid task stack pointer. 5 — Invalid message pointer. 6 — Task too old. 7 — Invalid task time stamp.
e	Address of the error: pointer to the task header information.
f	Erroneous data value.
g	Error index: used to identify the error.
h	Corrected data value.
i	Explanation of error - the Output Audit Appendix C, APP:AUD-C.
j	Explanation of error - the Output Audit Appendix D, APP:AUD-D.
k	Explanation of error - see Audit Appendix B, APP:AUD-B.
l	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 both have an OMDB key of 76.

Format 4 has an OMDB key of 52.

Format 6 has an OMDB key of 558.

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Output Appendixes

APP: AUD-A

APP: AUD-B

APP: AUD-C

APP: AUD-D

Input Messages

AUD: FMGR

OP: AUD

STOP: AUD

Output Message

OP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FMGR2
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 2 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED

- [2] AUD ENV=RTR FMGR 2 STOPPED

- [3] AUD ENV=RTR FMGR 2 ABORTED CODE c

- [4] AUD ENV=RTR FMGR 2 ERROR 12 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR FMGR 2 ERROR 16 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'h
DATA3 X'i DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [6] AUD ENV=RTR FMGR 2 ERROR 19 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'j DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [7] AUD ENV=RTR FMGR 2 ERROR 28 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'k DATA4 X'g

[NO SUPPLEMENTARY DATA]

SEE PROPRIETARY NOTICE ON COVER PAGE

- [8] AUD ENV=RTR FMGR 2 ERROR 92 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'l DATA4 X'g

[NO SUPPLEMENTARY DATA]
- [9] AUD ENV=RTR FMGR 2 ERROR m {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'[n] DATA4 X'g

[NO SUPPLEMENTARY DATA]
- [10] AUD FMGR 2 NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS o
|RETRY LATER p
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR q}
- [11] AUD ENV=RTR FMGR 2 AUTOMATICALLY r

2. REASON FOR OUTPUT

To report the termination status of the internal inode table audit (FMGR 2) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|-----------------------------------|
| a | Total number of errors found. |
| b | Total number of errors corrected. |
| c | Abort code: |
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 12 — Audit rejected the request to run from SIM.
 - 13 — SIM aborted an executing audit because the audit system is being reinitialized.
- | | |
|----------|--------------------------------------|
| ERROR 12 | Error code. Invalid reference count. |
|----------|--------------------------------------|

SEE PROPRIETARY NOTICE ON COVER PAGE

d	Address of the error: pointer to the inode table, block device table or character device table.
e	Erroneous data.
f	Error index: 1 — incorrect inode open count. 2 — inode open count nonzero, but no corresponding file table exists.
g	Corrected data value. See Table.
ERROR 16	Error code. DISK/INCORE inode mismatch.
h	Minor device chain table record ID.
i	Error index: rstuvwxx: r — 1 — size field mismatch. s — 1 — group ID field mismatch. t — 1 — user id field mismatch. u — 1 — link field mismatch. v — 1 — mode field mismatch. w — 0 — not used. x — 1-13 — Nth address mismatch (1 - d in hex).
ERROR 19	Error code. Invalid mount table pointer, or invalid inode flag.
j	Error index: 0 — invalid inode flag (i-flag). 1 — invalid mount table pointer.
ERROR 28	Error code. Invalid mount table or mount table pointer.
k	Error index: 1 — invalid device pointer field inode. 2 — device pointer field in inode does not point to start of mount table. 3 — invalid mount table entry.
ERROR 92	Error code. Open count for driver is incorrect.
l	Error index: 0 — the block device table is incorrect. 1 — the character device table is incorrect.
m	Error code: 13 — Invalid write count. 14 — Invalid taskid. 15 — Invalid time stamp. 17 — Invalid file table pointer. 25 — Incorrect inode in use count.

SEE PROPRIETARY NOTICE ON COVER PAGE

	26 — Invalid table size value.
	27 — Bad degrow page start pointer.
n	Error index.
o	Explanation of error - see the Output Audit Appendix C, APP:AUD-C.
p	Explanation of error - see the Output Audit Appendix D, APP:AUD-D.
q	Explanation of error - see the Output Audit Appendix B, APP:AUD-B.
r	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.
Formats 2 and 3 both have an OMDB key of 76.
Formats 4 through 9 have an OMDB key of 52.
Format 11 has an OMDB key of 558.

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Output Appendixes

APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D

Input Messages

AUD:FMGR
OP:AUD
STOP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

Table	
Error Code:	Explanation:
12	Open count for the file table entry corresponding to the inode.
13	Inode reference count.
14	NULL.
15	Current system time.
16	Partition number inode number.
17	Correct file table pointer.
19	If error index = 0, valid inode flag (i-flag). If error index = 1, valid mount table pointer (if one exists).
25 - 28	NULL.
92	Correct open count for driver.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FMGR3
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 3 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED

- [2] AUD ENV=RTR FMGR 3 STOPPED

- [3] AUD ENV=RTR FMGR 3 ABORTED CODE c

- [4] AUD ENV=RTR FMGR 3 ERROR 21 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR FMGR 3 ERROR 22 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'h DATA4 X'i

[NO SUPPLEMENTARY DATA]

- [6] AUD ENV=RTR FMGR 3 ERROR 24 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'j

[NO SUPPLEMENTARY DATA]

- [7] AUD ENV=RTR FMGR 3 ERROR k {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'l

[NO SUPPLEMENTARY DATA]

- [8] AUD FMGR 3 NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS m
|RETRY LATER n
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR o}

SEE PROPRIETARY NOTICE ON COVER PAGE

[9] AUD ENV=RTR FMGR 3 AUTOMATICALLY p

2. REASON FOR OUTPUT

To report the termination status of the hash table and internal pointer table audit (FMGR 3) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a	Total number of errors found.
b	Total number of errors corrected.
c	Abort code: 3 — Audit was aborted without completing its work. 4 — Audit was faulted while correcting errors. 5 — System Integrity Monitor (SIM) could not start or dispatch the audit. 6 — An error was encountered in the audit control/audit library interface. 7 — Audit exceeded its timeout or segment limit. 8 — SIM aborted an executing routine audit because of a blocking request. 9 — Transient process that was running the process terminated. 10 — A segmented audit exceeded an error threshold. 12 — Audit rejected the request to run from SIM. 13 — SIM aborted an executing audit because the audit system is being reinitialized.
ERROR 21	Invalid hash table entry.
d	Address of the error; pointer to the ilist table.
e	Erroneous data value.
f	Error index: used to identify the error.
g	Corrected data value. Correct hash table entry.
ERROR 22	Invalid forward or backward ilist pointer.
h	Error index: used to identify the error. 1 — Invalid free list chain. 2 — Invalid free list tail pointer. 3 — Invalid hash chain. 5 — Ilist entry not on any chain.
i	Corrected data value. Correct tail pointer.
ERROR 24	Invalid chain pointer.
j	Corrected data value. NULL.
k	Error code.
l	Corrected data value.

SEE PROPRIETARY NOTICE ON COVER PAGE

m Explanation of error - see Output Audit Appendix C, APP:AUD-C.

n Explanation of error - see Output Audit Appendix D, APP:AUD-D.

o Explanation of error - see Output Audit Appendix B, APP:AUD-B.

p Inhibit status:

ALLOWED — Audit has been automatically allowed by SIM.

INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Formats 4 through 7 have an OMDB key of 52.

Format 9 has an OMDB key of 558.

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Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:FMGR

OP:AUD

STOP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FMGR4
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 4 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED

- [2] AUD ENV=RTR FMGR 4 STOPPED

- [3] AUD ENV=RTR FMGR 4 ABORTED CODE c

- [4] AUD ENV=RTR FMGR 4 ERROR 31 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR FMGR 4 ERROR 32 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'h

[NO SUPPLEMENTARY DATA]

- [6] AUD ENV=RTR FMGR 4 ERROR 33 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'i

[NO SUPPLEMENTARY DATA]

- [7] AUD ENV=RTR FMGR 4 ERROR 34 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'j

[NO SUPPLEMENTARY DATA]

SEE PROPRIETARY NOTICE ON COVER PAGE

- [8] AUD ENV=RTR FMGR 4 ERROR 35 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'k

[NO SUPPLEMENTARY DATA]
- [9] AUD ENV=RTR FMGR 4 ERROR 36 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'l DATA4 X'm

[NO SUPPLEMENTARY DATA]
- [10] AUD ENV=RTR FMGR 4 ERROR 39 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'n

[NO SUPPLEMENTARY DATA]
- [11] AUD ENV=RTR FMGR 4 ERROR 40 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'o DATA4 X'k

[NO SUPPLEMENTARY DATA]
- [12] AUD ENV=RTR FMGR 4 ERROR 90 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'p

[NO SUPPLEMENTARY DATA]
- [13] AUD ENV=RTR FMGR 4 ERROR 91 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'q

[NO SUPPLEMENTARY DATA]
- [14] AUD ENV=RTR FMGR 4 ERROR r {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X's

[NO SUPPLEMENTARY DATA]

SEE PROPRIETARY NOTICE ON COVER PAGE

- [15] AUD FMGR 4 NOT STARTED
 {CONFLICT WITH CURRENT SYSTEM STATUS t
 |RETRY LATER u
 |UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR v}
- [16] AUD ENV=RTR FMGR 4 AUTOMATICALLY w

2. REASON FOR OUTPUT

To report the termination status of the file table audit (FMGR 4) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

- | | |
|----------|---|
| a | Total number of errors found. |
| b | Total number of errors corrected. |
| c | Abort code: |
| | 3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit.
8 — SIM aborted an executing routine audit because of a blocking request.
9 — Transient process that was running the process terminated.
10 — A segmented audit exceeded an error threshold.
12 — Audit rejected the request to run from SIM.
13 — SIM aborted an executing audit because the audit system is being initialized. |
| ERROR 31 | Error code. Invalid flag field. |
| d | Address of the error: pointer to the file table entry. |
| e | Erroneous data value. |
| f | Error index: used to identify the error. |
| g | Corrected data value. Flag field. |
| ERROR 32 | Error code. Invalid pointer to associated incore inode table entry. |
| h | Corrected data value. Valid inode pointer (if one exists). |
| ERROR 33 | Error code. Invalid pointer to associated internal capability table entry. |
| i | Corrected data value. Valid capability table entry (if one exists). |
| ERROR 34 | Error code. Invalid pointer to the next file table entry on the chain. |
| j | Corrected data value. Pointer to the next file table entry on its chain. |

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ERROR 35	Error code. Invalid taskid.
k	Corrected data value. NULL.
ERROR 36	Error code. Use count of open files does not match the number of associated capabilities.
l	Error index: used to identify the error: 1 — Associated capability table chain is bad. 2 — Use count is incorrect.
m	Corrected data value. Depends on the error index value, if the error index value is: 1 — Then this value means the capability table must be audited and then the file table re-audited. 2 — Then this value is the correct use count.
ERROR 39	Error code. Incorrect count of file table entries currently in use - Nfile.
n	Corrected data value. Correct number of file table slots in use.
ERROR 40	Error code. Invalid free list.
o	Error index: used to identify the error: 1 — Free chain broken or looped. 2 — Non-free entry on free chain. 3 — Free entry not on chain. 4 — Invalid tail pointer.
ERROR 90	Error code. Invalid file table size - Filtabsz.
p	Corrected data value. Correct file table size.
ERROR 91	Error code. Invalid degrowth page marker.
q	Corrected data value. Correct start of degrowth page.
r	Error code.
s	Corrected data value.
t	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
u	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
v	Explanation of error - see Output Audit Appendix B, APP:AUD-B.
w	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

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NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

If the error code is 33 or 36, run the capability table audit.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Formats 4 through 14 have an OMDB key of 52.

Format 16 has an OMDB key of 558.

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Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:FMGR

OP:AUD

STOP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FMGR5
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 5 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED

- [2] AUD ENV=RTR FMGR 5 STOPPED

- [3] AUD ENV=RTR FMGR 5 ABORTED CODE c

- [4] AUD ENV=RTR FMGR 5 ERROR 41 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'0 DATA4 X'f

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR FMGR 5 ERROR 42 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'0 DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [6] AUD ENV=RTR FMGR 5 ERROR 43 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'0 DATA4 X'h

[NO SUPPLEMENTARY DATA]

- [7] AUD ENV=RTR FMGR 5 ERROR 44 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'i DATA4 X'j

[NO SUPPLEMENTARY DATA]

SEE PROPRIETARY NOTICE ON COVER PAGE

- [8] AUD ENV=RTR FMGR 5 ERROR 45 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'0 DATA4 X'k

[NO SUPPLEMENTARY DATA]
- [9] AUD ENV=RTR FMGR 5 ERROR 46 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'0 DATA4 X'l

[NO SUPPLEMENTARY DATA]
- [10] AUD ENV=RTR FMGR 5 ERROR 47 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'm DATA4 X'f

[NO SUPPLEMENTARY DATA]
- [11] AUD ENV=RTR FMGR 5 ERROR 48 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'0 DATA4 X'n

[NO SUPPLEMENTARY DATA]
- [12] AUD ENV=RTR FMGR 5 ERROR 49 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'0 DATA4 X'o

[NO SUPPLEMENTARY DATA]
- [13] AUD ENV=RTR FMGR 5 ERROR p {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'0 DATA4 X'q

[NO SUPPLEMENTARY DATA]
- [14] AUD FMGR 5 NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS r
|RETRY LATER s
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR t}
- [15] AUD ENV=RTR FMGR 5 AUTOMATICALLY u

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

To report the termination status of the internal capability table audit (FMGR 5) and /or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a	Total number of errors found.
b	Total number of errors corrected.
c	Abort code: 3 — Audit was aborted without completing its work. 4 — Audit was faulted while correcting errors. 5 — System Integrity Monitor (SIM) could not start or dispatch the audit. 6 — An error was encountered in the audit control/audit library interface. 7 — Audit exceeded its timeout or segment limit. 8 — SIM aborted an executing routine audit because of a blocking request. 9 — Transient process that was running the process terminated. 10 — A segmented audit exceeded an error threshold. 12 — Audit rejected the request to run from SIM. 13 — SIM aborted the executing audit because the audit system is being reinitialized.
ERROR 41	Error code. Nonexistent process.
d	Address of the error: pointer to the file table entry.
e	Erroneous data value.
f	Corrected data value if correcting audit. NULL.
ERROR 42	Error code. Invalid file table pointer.
g	Corrected data value if correcting audit. Pointer to the file table entry associated with this capability.
ERROR 43	Error code. Invalid pointer to the next capability table entry on the chain.
h	Corrected data value if correcting audit. Pointer to the next capability table entry on the chain.
ERROR 44	Error code. Invalid capability pointer in file table entry.
i	Error index: used to identify the error. 1 — Value when error is not corrected. 2 — File table entry's capability pointer restored. 3 — File table entry not in use - capability removed.

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j	Corrected data value if correcting audit. Current value of file table entry's capability pointer.
ERROR 45	Error code. Invalid capability chain.
k	Corrected data value if correcting audit. Next entry on capability chain.
ERROR 46	Error code. Incorrect count of capability table entries currently in use - Ncap.
l	Corrected data value if correcting audit. Correct number of capability entries currently in use.
ERROR 47	Error code. Invalid free list.
m	Error index: used to identify the error.
	1 — Free chain broken or looped.
	2 — Non-free entry on free chain.
	3 — Free entry not on chain.
	4 — Invalid tail pointer.
ERROR 48	Error code. Incorrect capability table size.
n	Corrected data value if correcting audit. Correct capability table size.
ERROR 49	Error code. Incorrect degrowth page marker.
o	Corrected data value if correcting audit. Correct start of degrowth page.
p	Error code.
q	Corrected data value if correcting audit.
r	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
s	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
t	Explanation of error - see Output Audit Appendix B, APP:AUD-B.
u	Inhibit status:
	ALLOWED — Audit has been automatically allowed by SIM.
	INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

In addition, run the file table audit.

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NOTE: If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Formats 4 through 13 have an OMDB key of 52.

Format 15 has an OMDB key of 558.

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Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:FMGR

OP:AUD

STOP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FMGR6
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 6 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED

- [2] AUD ENV=RTR FMGR 6 STOPPED

- [3] AUD ENV=RTR FMGR 6 ABORTED CODE c

- [4] AUD ENV=RTR FMGR 6 ERROR 51 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR FMGR 6 ERROR 52 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'h DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [6] AUD ENV=RTR FMGR 6 ERROR 54 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'i DATA4 X'j

[NO SUPPLEMENTARY DATA]

- [7] AUD ENV=RTR FMGR 6 ERROR 55 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'k DATA4 X'j

[NO SUPPLEMENTARY DATA]

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- [8] AUD ENV=RTR FMGR 6 ERROR 56 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'l DATA4 X'm

[NO SUPPLEMENTARY DATA]
- [9] AUD ENV=RTR FMGR 6 ERROR 57 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'n DATA4 X'o

[NO SUPPLEMENTARY DATA]
- [10] AUD ENV=RTR FMGR 6 ERROR 58 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'l DATA4 X'g

[NO SUPPLEMENTARY DATA]
- [11] AUD ENV=RTR FMGR 6 ERROR {59|60} {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'l DATA4 X'p

[NO SUPPLEMENTARY DATA]
- [12] AUD ENV=RTR FMGR 6 ERROR {61|62} {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'q DATA2 X'e
DATA3 X'l DATA4 X'g

[NO SUPPLEMENTARY DATA]
- [13] AUD ENV=RTR FMGR 6 ERROR 64 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'q DATA2 X'e
DATA3 X'r DATA4 X's

[NO SUPPLEMENTARY DATA]
- [14] AUD FMGR 6 NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS t
|RETRY LATER u
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR v}
- [15] AUD ENV=RTR FMGR 6 AUTOMATICALLY w

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

To report the termination status of the buffer audit (FMGR 6) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a	Total number of errors found.
b	Total number of errors corrected.
c	Abort code: 3 — Audit was aborted without completing its work. 4 — Audit was faulted while correcting errors. 5 — System Integrity Monitor (SIM) could not start or dispatch the audit. 6 — An error was encountered in the audit control/audit library interface. 7 — Audit exceeded its timeout or segment limit. 8 — SIM aborted an executing routine audit because of a blocking request. 9 — Transient process that was running the process terminated. 10 — A segmented audit exceeded an error threshold. 12 — Audit rejected the request to run from SIM. 13 — SIM aborted an executing audit because the audit system is being reinitialized.
ERROR 51	Error code. Free list chain is broken.
d	Address of the error. Pointer to the file table entry.
e	Erroneous data value.
f	Error index: used to identify the error. 1 — Forward chain is bad. 2 — Backward chain is bad.
g	Corrected data value. NULL.
ERROR 52	Error code. Device chain is broken.
h	Error index: used to identify the error. 1 — Buf's forward device chain is broken. 2 — Buf's backward device chain is broken. 3 — Bdevtab's forward device chain is broken. 4 — Bdevtab's backward device chain is broken.
ERROR 54	Error code. Invalid free list chain pointer.
i	Error index: used to identify the error. 1 — Forward chain pointer is bad. 2 — Backward chain pointer is bad. 3 — Both chain pointers are bad.

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j	Corrected data value. Pointer to itself (this problem will be repaired later in the audit).
ERROR 55	Error code. Invalid device chain pointer.
k	Error index: used to identify the error. 4 — Forward chain pointer is bad. 8 — Backward chain pointer is bad. c — Both chain pointers are bad. Any value greater than X'C reflects the number of forward or backward chain errors.
ERROR 56	Error code. Invalid buffer pointer.
l	Error index: used to identify the error.
m	Corrected data value. Correct buffer pointer.
ERROR 57	Error code. Invalid mount table pointer.
n	Error index: used to identify the error: 1 — Mount chain is bad. 2 — Invalid flag/mount pointer combination.
o	Corrected data value. Depends on the error index value, if the error index value is: 1 — Then this value is the pointer to mount table, if any, associated with the buffer, or it is NULL. 2 — Then this value is NULL.
ERROR 58	Error code. Invalid taskid.
ERROR 61	Error code. Invalid taskid/ilock combination.
ERROR 62	Error code. Invalid taskid/flock combination.
ERROR 59	Error code. Buffer is too old.
ERROR 60	Error code. Invalid time stamp.
p	Corrected data value. Current system time.
ERROR 64	Error code. Invalid total number of free inodes.
q	Address of the error. Pointer to the superblock.
r	Offset in superblock to s_tinode.
s	Correct total number of free inodes.
t	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
u	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
v	Explanation of error - see Output Audit Appendix B, APP:AUD-B.

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w

Inhibit status:

ALLOWED — Audit has been automatically allowed by SIM.

INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Formats 4 through 13 have an OMDB key of 52.

Format 15 has an OMDB key of 558.

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Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:FMGR

OP:AUD

STOP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FMGR7
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 7 COMPLETED
a ERRORS FOUND
b ERRORS CORRECTED
- [2] AUD ENV=RTR FMGR 7 STOPPED
- [3] AUD ENV=RTR FMGR 7 ABORTED CODE c
- [4] AUD ENV=RTR FMGR 7 ERROR 72 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'g

[NO SUPPLEMENTARY DATA]
- [5] AUD ENV=RTR FMGR 7 ERROR 74 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'h DATA4 X'i

[NO SUPPLEMENTARY DATA]
- [6] AUD ENV=RTR FMGR 7 ERROR 75 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'j DATA4 X'k

[NO SUPPLEMENTARY DATA]
- [7] AUD ENV=RTR FMGR 7 ERROR 77 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'j DATA4 X'l

[NO SUPPLEMENTARY DATA]

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- [8] AUD ENV=RTR FMGR 7 ERROR m {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'j DATA4 X'n

[NO SUPPLEMENTARY DATA]
- [9] AUD FMGR 7 NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS o
|RETRY LATER p
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR q}
- [10] AUD ENV=RTR FMGR 7 AUTOMATICALLY q

2. REASON FOR OUTPUT

To report the termination status of the mount table audit (FMGR 7) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 12 — Audit rejected the request to run from SIM.
 - 13 — SIM aborted an executing audit because the audit system is being reinitialized.
- ERROR 72 Error code. Buffer error.
- d Address of the error: pointer to the mount table entry.
- e Erroneous data value.
- f Error index: used to identify the error.
- 1 — Buf table entry associated with the mount table does not have the B_MOUNT flag set.
 - 2 — Invalid buf pointer.

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g	Corrected data value. Depends on the error index value, if the error index value is: 1 — Then this value is the flags field of the associated buf table entry. 2 — Then this value is the pointer to the associated buf table entry.
ERROR 74	Error code. Inode error.
h	Error index: used to identify the error. 1 — Inode table entry associated with the mount table does not have the I_MOUNT flag set. 2 — Invalid inode pointer.
i	Corrected data value. Depends on the error index value, if the error index value is: 1 — Then this value is the flags field of the associated inode table entry. 2 — Then this value is the pointer to the associated inode table entry.
ERROR 75	Error code. Invalid inode.
j	Error index: used to identify the error.
k	Corrected data value. Pointer to the root inode.
l	Corrected data value. NULL.
ERROR 77	Error code. Invalid taskid.
m	Error code.
n	Corrected data value.
o	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
p	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
q	Explanation of error - see Output Audit Appendix B, APP:AUD-B.
r	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

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5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Formats 4 through 8 have an OMDB key of 52.

Format 10 has an OMDB key of 558.

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UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

APP: AUD-A

APP: AUD-B

APP: AUD-C

APP: AUD-D

Input Messages

AUD: FMGR

OP: AUD

STOP: AUD

Output Message

OP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FMGR8
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 8 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED

- [2] AUD ENV=RTR FMGR 8 STOPPED

- [3] AUD ENV=RTR FMGR 8 ABORTED CODE c

- [4] AUD ENV=RTR FMGR 8 ERROR 82 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR FMGR 8 ERROR 83 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'h

[NO SUPPLEMENTARY DATA]

- [6] AUD ENV=RTR FMGR 8 ERROR i {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'j

[NO SUPPLEMENTARY DATA]

- [7] AUD FMGR 8 NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS k
|RETRY LATER l
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR m}

- [8] AUD ENV=RTR FMGR 8 AUTOMATICALLY n

2. REASON FOR OUTPUT

To report the termination status of the delayed queue audit (FMGR 8) and/or any errors found while executing the audit.

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3. VARIABLE FIELD DEFINITIONS

a	Total number of errors found.
b	Total number of errors corrected.
c	Abort code: 3 — Audit was aborted without completing its work. 4 — Audit was faulted while correcting errors. 5 — System Integrity Monitor (SIM) could not start or dispatch the audit. 6 — An error was encountered in the audit control/audit library interface. 7 — Audit exceeded its timeout or segment limit. 8 — SIM aborted an executing routine audit because of a blocking request. 9 — Transient process that was running the process terminated. 10 — A segmented audit exceeded an error threshold. 12 — Audit rejected the request to run from SIM. 13 — SIM aborted an executing audit because the audit system is being reinitialized.
ERROR 82	Error code. The number of delayed open requests is bad.
d	Address of the error: pointer to the mount_q table or the open_q table.
e	Erroneous data value.
f	Error index: used to identify the error.
g	Corrected data value. Correct number of delayed open requests.
ERROR 83	Error code. The number of delayed mount requests is bad.
h	Corrected data value. Correct number of delayed mount requests.
i	Error code.
j	Corrected data value.
k	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
l	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
m	Explanation of error - see Output Audit Appendix B, APP:AUD-B.
n	Inhibit status: - ALLOWED — Audit has been automatically allowed by SIM. - INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A, and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

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4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Formats 4 through 6 have an OMDB key of 52.

Format 8 has an OMDB key of 558.

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Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:FMGR

OP:AUD

STOP:AUD

Output Message

OP:AUD

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ID AUD:FMGR9
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FMGR 9 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED

- [2] AUD ENV=RTR FMGR 9 STOPPED

- [3] AUD ENV=RTR FMGR 9 ABORTED CODE c

- [4] AUD ENV=RTR FMGR 9 ERROR 81 {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR FMGR 9 ERROR h {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'd DATA2 X'e
DATA3 X'f DATA4 X'g

[NO SUPPLEMENTARY DATA]

- [6] AUD FMGR 9 NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS i
|RETRY LATER j
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR k}

- [7] AUD ENV=RTR FMGR 9 AUTOMATICALLY l

2. REASON FOR OUTPUT

To report the termination status of the message queue audit (FMGR 9) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.

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- 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

ERROR 81	Error code. There are too many messages (message blocks) on the file manager's queue.
d	NULL.
e	Erroneous data value.
f	Error index: used to identify the error.
g	Corrected data value: ten times the number of tasks (160).
h	Error code.
i	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
j	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
k	Explanation of error - see Output Audit Appendix B, APP:AUD-B.
l	Inhibit status: - ALLOWED — Audit has been automatically allowed by SIM. - INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A, and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If failure occurs, run the file manager's task queue audit in noncorrecting mode.

NOTE: If the messages appear regularly (i.e. rolling messages) even after the audit has been run in correcting mode, contact your next level of technical support.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 78.
- Formats 2 and 3 have an OMDB key of 76.
- Formats 4 and 5 have an OMDB key of 52.
- Format 7 has an OMDB key of 558.

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Output Appendixes

APP: AUD-A
APP: AUD-B
APP: AUD-C
APP: AUD-D

Input Messages

AUD: FMGR
OP: AUD
STOP: AUD

Output Message

OP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FSBLK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FSBLK a b COMPLETED
c ERRORS FOUND
d ERRORS CORRECTED

- [2] AUD ENV=RTR FSBLK a b STOPPED

- [3] AUD ENV=RTR FSBLK a b ABORTED CODE e

- [4] AUD ENV=RTR FSBLK a b ERROR f {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'g DATA2 X'h
DATA3 X'i DATA4 X'j

[NO SUPPLEMENTARY DATA]

- [5] AUD FSBLK NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS k
|RETRY LATER l
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR m}

- [6] AUD ENV=RTR FSBLK a AUTOMATICALLY n

2. REASON FOR OUTPUT

To report the termination status of the file system block audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

- a Audit member. RTR audits have the value 1, but application audits may be greater than 1.
- b Name of the file system that was audited.
- c Total number of errors found.
- d Total number of errors corrected.
- e Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.

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- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

f

Error code:

- 1 — Bad superblock label.
- 2 — Bad file mode.
- 3 — Bad file size.
- 4 — Bad block (block out of file system block range).
- 5 — Duplicate block number.
- 6 — Bad address block (address block contains invalid block addresses).
- 7 — Temporary file found in filesystem when audit invoked with PARAM=BACKUP. This condition does not represent an actual file system error, but if a backup tape is made with this condition present, the backup tape could contain file system errors. There is no corrective action that is possible or needed for this condition.
- 8 — Audit library initialization failed.
- 9 — Unable to open device file.
- 10 — Unable to start device file.
- 11 — Device file not a block device.
- 12 — Unable to open device file.
- 13 — Unable to queue a message.
- 14 — Unable to add segments.
- 15 — Unable to read superblock.
- 16 — Unable to access block (or get buffer to read block).
- 17 — Unable to get a free block.
- 18 — Unable to access inode.
- 19 — Unable to remove a segment.
- 20 — Cannot mount the device.
- 21 — Unable to get bitmap segment ID.

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- 22 — Bitmap I/O failed.
- 26 — The device file is open for writing.
- 35 — File manager segment list is full.

ERROR 1

- g Not used.
- h File system label.
- i Not used.
- j Not used.

ERROR 2

- g Inode number (index into inode table).
- h File mode.
- i Index used to locate error.
- j Not used.

ERROR 3

- g Inode number (index into inode table).
- h Incorrect file size.
- i File type:
 - 1 — Regular file direct block.
 - 2 — Single indirect file.
 - 3 — Double indirect file.
 - 4 — Triple indirect file.
 - 5 — Extent file.
- j New file size, if corrected; otherwise, old file size.

ERROR 4

- g Inode number (index into inode table).
- h Bad block number.
- i Block or file type:
 - 1 — Regular file direct block.
 - 2 — Single indirect file.
 - 3 — Double indirect file.
 - 4 — Triple indirect file.
 - 5 — Extent file.
- j New block number if corrected; otherwise, old block number.

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ERROR 5

- g Inode number.
- h Duplicate block number.
- i Block or file type:
- 1 — Regular file direct block.
 - 2 — Single indirect block.
 - 3 — Double indirect block.
 - 4 — Triple indirect block.
 - 5 — Extent file.
- j New block number if corrected; otherwise, old block number.

ERROR 6

- g Inode number.
- h Bad or duplicate block number.
- i 0x000000AB indicating block or file type. A and B may have the values:
- A = 0 — The block is a data block.
 - 1 — The block is an address block.
 - B = 1 — Regular file direct block.
 - 2 — Single indirect block.
 - 3 — Double indirect block.
 - 4 — Triple indirect block.
 - 5 — Extent file.
- j New block number if corrected; otherwise, old block number.

ERROR 7

- g Inode number.
- h Not used.
- i Not used.
- j Not used.

ERROR 8

- g Not used.
- h Not used.
- i Index used to locate error.
- j Not used.

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ERROR 9

g	Not used.
h	Error returned from attempt to open.
i	Index used to locate error.
j	Not used.

ERROR 10

g	Not used.
h	Error returned from attempt to get status.
i	Index used to locate error.
j	Not used.

ERROR 11

g	Not used.
h	File type.
i	Index used to locate error.
j	Not used.

ERROR 12

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 13

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 14

g	Segment index into file manager's segment table.
h	Error returned from attempt to add segment.
i	Size in bytes of the segment to be added.
j	Not used.

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ERROR 16

g	Block number.
h	Error returned.
i	Index used to locate error.
j	Inode number of current inode.

ERROR 17

g	Inode number of current inode.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 18

g	Inode number.
h	Error returned on attempt to access.
i	Index used to locate error.
j	Not used.

ERROR 19

g	Index in file manager's segment list.
h	Zero or error returned from attempt to remove the segment.
i	Indicates reason for failure: 000c — Failed to allocate a message. 000d — Failed to queue the message. 0013 — Request to remove the segment failed; error returned is found in h.
j	Not used.

ERROR 20

g	Not used.
h	Not used.
i	Index with the values: 000a — No free mount table entry. 000b — Unable to read superblock.
j	Not used.

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ERROR 21

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 22

g	Not used.
h	Error returned from I/O attempt.
i	Index used to locate error.
j	Not used.

ERROR 26

g	Inode number of device file.
h	Number of opens for writing on the device.
i	Record Identification (RID) of the Minor Device Chain Table (MDCT) for the file system on which the device file resides.
j	Partition for the file system on which the device file resides.

ERROR 35

g	Not used.
h	Not used.
i	Index used to locate error
j	Not used.
k	For explanation of error, see output Audit Appendix C, APP:AUD-C.
l	For explanation of error, see output Audit Appendix D, APP:AUD-D.
m	For explanation of error, see output Audit Appendix B, APP:AUD-B.
n	Inhibit status:

ALLOWED — Audit has been automatically allowed by SIM.

INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See output Audit Appendix A, APP:AUD-A, and output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

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4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4,

Error codes ERROR 1 and ERROR 2 are not correctable. Back up the file system from a backup source.

For size and block errors (error codes ERROR 3, ERROR 4, ERROR 5, and ERROR 6), use the input message OP:FNAME to print the full pathname of the file. To correct the error, rerun the audit in the CORR mode.

For error codes ERROR 8 through ERROR 26, seek technical assistance.

Error code ERROR 35 occurs when the maximum number of file manager tasks are running and using all of the available file manager segment table slots. Rerun the audit at a time when there are no other file system audits running. If the problem persists, execute a level 3 craft initialization. If the problem still persists, create an off-line memory dump tape and seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Format 4 has an OMDB key of 52.

Format 5 has an OMDB key of 314.

Format 6 has an OMDB key of 558.

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Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:FSBLK

OP:FNAME

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ID AUD:FSCMPT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FSCMPT a b COMPLETED
c ERRORS FOUND
d ERRORS CORRECTED
- [2] AUD ENV=RTR FSCMPT a b STOPPED
- [3] AUD ENV=RTR FSCMPT a b ABORTED CODE e
- [4] AUD ENV=RTR FSCMPT a b ERROR f {CORR | NOT CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'g DATA2 X'h
DATA3 X'i DATA4 X'j

[NO SUPPLEMENTARY DATA]
- [5] AUD ENV=RTR FSCMPT a b DATA k
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'g DATA2 X'h
DATA3 X'i DATA4 X'j

[NO SUPPLEMENTARY DATA]
- [6] AUD FSCMPT NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS l
|RETRY LATER m
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR n}
- [7] AUD ENV=RTR FSCMPT a AUTOMATICALLY o

2. REASON FOR OUTPUT

To report the termination status of the file system compaction audit and/or errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

- a Audit member. RTR audits have the value 1, but application audits may be greater than 1.
- b Name of the file system that was audited.
- c Total number of error or report messages.

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- d Total number of reports for corrected errors and for compaction completed.
- e Abort Code:
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 12 — Audit rejected the request to run from SIM.
 - 13 — SIM aborted an executing audit because the audit system is being reinitialized.
- f Error code:
- 1 — Bad superblock label.
 - 4 — Bad block (block out of file system block range).
 - 5 — Duplicate block number.
 - 6 — Bad address block (address block contains invalid block addresses).
 - 8 — Audit library initialization failed.
 - 9 — Unable to open device file.
 - 10 — Unable to stat device file.
 - 11 — Device file not a block device.
 - 12 — Unable to allocate a message.
 - 13 — Unable to queue a message.
 - 14 — Unable to add segments.
 - 16 — Unable to access block (or get buffer to read block).
 - 17 — Unable to get a free block.
 - 18 — Unable to access inode.
 - 19 — Unable to remove a segment.
 - 20 — Cannot mount the device.
 - 21 — Unable to get bitmap segment ID.
 - 22 — Bitmap Input/Output (I/O) failed.
 - 23 — No available structures for mapping allocated blocks for the compaction.

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- 24 — Concurrent file system activity is interfering with the compaction effort.
- 25 — I/O attempt failed.
- 26 — The device file is open for writing.
- 35 — File manager segment list is full.

ERROR 1

- g Not used.
- h File system label.
- i Not used.
- j Not used.

ERROR 4, ERROR 5, ERROR 6

- g Inode number.
- h Bad or duplicate block number.
- i 0x000000AB indicating block and file type, or 0x000000C0 indicating the block usage change that was occurring when the error was detected. A, B, and C have the values:
 - A = 0 — The block is a data block.
 - 1 — The block is an address block.
 - B = 1 — Regular file direct block.
 - 2 — Single indirect block.
 - 3 — Double indirect block.
 - 4 — Triple indirect block.
 - 5 — Extent file.
 - C = 3 — A block was being added to a regular file.
 - 4 — A block was being removed from a regular file.
 - 5 — Blocks were being added to a multi-extent or contiguous file.
 - 6 — Blocks were being removed from a multi-extent or contiguous file.
- j If i is of the form 0x000000AB, the new block number if corrected; otherwise, old block number. If i is of the form 0x000000C0, the number of block usage errors found before termination of the audit.

ERROR 8

- g Not used.
- h Not used.
- i Index used to locate error.
- j Not used.

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ERROR 9

g	Not used.
h	Error returned from attempt to open.
i	Index used to locate error.
j	Not used.

ERROR 10

g	Not used.
h	Error returned from attempt to get status.
i	Index used to locate error.
j	Not used.

ERROR 11

g	Not used.
h	File type.
i	Index used to locate error.
j	Not used.

ERROR 12

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 13

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 14

g	Segment index into file manager's segment table.
h	Error returned from attempt to add segment.
i	Size in bytes of the segment to be added.
j	Not used.

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ERROR 16

g	Block number.
h	Error returned.
i	Index used to locate error.
j	Inode number of current inode.

ERROR 17

g	Inode number of current inode.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 18

g	Inode number.
h	Error returned on attempt to access.
i	Index used to locate error.
j	Not used.

ERROR 19

g	Index in file manager's segment list.
h	Zero or error returned from attempt to remove the segment.
i	Indicates reason for failure: 000c — Failed to allocate a message. 000d — Failed to queue the message. 0013 — Request to remove the segment failed, error returned is found in h.
j	Not used.

ERROR 20

g	Not used.
h	Not used.
i	Index with the values: 000a — No free mount table entry. 000b — Unable to read superblock.
j	Not used.

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ERROR 21

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 22

g	Not used.
h	Error returned from I/O attempt.
i	Index used to locate error.
j	Not used.

ERROR 23

g	Inode number.
h	First block number to be mapped.
i	0x000000AB indicating block or file type, or 0x000000C0 indicating the block usage change that was occurring when the error was detected. A, B, and C have the values: A = 0 — The block is a data block. 1 — The block is an address block. B = 1 — Regular file direct block. 2 — Single indirect block. 3 — Double indirect block. 4 — Triple indirect block. 5 — Extent file. C = 3 — A block was being added to a regular file. 4 — A block was being removed from a regular file. 5 — Blocks were being added to a multi-extent or contiguous file. 6 — Blocks were being removed from a multi-extent or contiguous file.
j	If i is of the form 0x000000AB, first block number to be mapped. If i is of the form 0x000000C0, the number of errors found before termination of the audit.

ERROR 24

g	Number of relocations needed at the beginning of an interval.
h	Number of relocations needed at the end of the interval.
i	Number of I/O read/write jobs already executed to achieve compaction.
j	Number of errors found before termination of the audit.

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ERROR 25

- g Type of I/O:
- 1 — Attempt to read file system blocks failed.
 - 2 — Attempt to write file system blocks failed.
 - 3 — Attempt to update inodes failed.
- h Error returned on read or write attempt.
- i If g is 1 or 2, the starting block address. If g is 3, the inode number.
- j If g is 1 or 2, the number of blocks. If g is 3:
- 0001 — The inode is not in a temp'd state, or the incore copy of the temp'd inode is being updated.
 - 0002 — The disk copy of a temp'd inode is being updated.

ERROR 26

- g Inode number of device file.
- h Number of opens for writing on the device.
- i Mdct-rid for the file system on which the device file resides.
- j Partition for the file system on which the device file resides.

ERROR 35

- g Not used.
- h Not used.
- i Index used to locate error
- j Not used.
- k Data report code:
- 2 — This report is generated for three conditions: 1) compaction was requested in non-correcting (information only) mode, 2) compaction was requested in either correcting or non-correcting mode and could not complete because of non-corrected errors, or 3) compaction was requested in correcting mode and the projected number of contiguous blocks that could be freed is less than or equal to the current number of contiguous free blocks.
 - 3 — Compaction was completed, and the fields are for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE

DATA 2

g	Total number of free blocks.
h	Projected number of contiguous free blocks after compaction.
i	Current maximum number of contiguous free blocks.
j	Projected cost of compaction in number of relocations required. If the audit is internally aborted before the cost of compaction could be estimated, this field will be 0xffffffff. If the audit is internally aborted after some compaction effort has been made, this field is the number of I/O read/write jobs already executed before the internal abort.

DATA 3

g	Total number of free blocks.
h	Number of contiguous free blocks at end of file system after compaction.
i	Maximum number of contiguous free blocks before compaction.
j	Cost of compaction in number of I/O read/write jobs executed. If this field is zero, the file system requires no compaction.
l	For explanation of error, see output Audit Appendix C, APP:AUD-C.
m	For explanation of error, see output Audit Appendix D, APP:AUD-D.
n	For explanation of error, see output Audit Appendix B, APP:AUD-B.
o	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See output Audit Appendix A, APP:AUD-A, and output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, 6, and 7, no action is necessary.

For Format 4,

Error code 1 is not correctable. Back up the file system from backup source.

For block errors (error codes 4, 5, and 6), run the block audit in non-correcting mode. If it finds errors, run the block audit in correcting mode. Then try this audit again.

For error codes 8 through 23, 25, and 26, seek technical assistance.

For error code 24, run this audit with reduced file system activity.

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Error code 35 occurs when the maximum number of file manager tasks are running and using all of the available file manager segment table slots. Rerun the audit at a time when there are no other file system audits running. If the problem persists, execute a level 3 craft initialization. If the problem still persists, create an off-line memory dump tape and seek technical assistance.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 78.
- Formats 2 and 3 have an OMDB key of 76.
- Format 4 has an OMDB key of 52.
- Format 5 has an OMDB key of 693.
- Format 6 has an OMDB key of 314.
- Format 7 has an OMDB key of 558.

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UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

- APP:AUD-A
- APP:AUD-B
- APP:AUD-C
- APP:AUD-D

Input Messages

- AUD:FSCMPT
- OP:FNAME

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:FSLINK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR FSLINK a b COMPLETED
c ERRORS FOUND
d ERRORS CORRECTED
- [2] AUD ENV=RTR FSLINK a b STOPPED
- [3] AUD ENV=RTR FSLINK a b ABORTED CODE e
- [4] AUD ENV=RTR FSLINK a b ERROR f {CORR | NOT CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'g DATA2 X'h
DATA3 X'i DATA4 X'j

[NO SUPPLEMENTARY DATA]
- [5] AUD FSLINK NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS k
|RETRY LATER l
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR m}
- [6] AUD ENV=RTR FSLINK a AUTOMATICALLY n

2. REASON FOR OUTPUT

To report the termination status of file system link audit and/or any errors found during the audit execution.

3. VARIABLE FIELD DEFINITIONS

- a Audit member. RTR audits have the value 1, but application audits may be greater than 1.
- b Name of the file system that was audited.
- c Total number of errors.
- d Total number of reports for corrected errors and for compaction completed.
- e Abort Code:
3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — System Integrity Monitor (SIM) could not start or dispatch the audit.

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- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the audit terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

f

Error code:

- 1 — Bad superblock label.
- 2 — Trashed inode in the inode table.
- 3 — Bad directory entry.
- 4 — Bad directory block (block out of file system block range).
- 5 — Bad link count (link count in inode not same as number of references in directories).
- 6 — Unreferenced inode.
- 7 — Link count of the directory inode is less than two.
- 8 — Audit library initialization failed.
- 9 — Unable to open device file.
- 10 — Unable to stat device file.
- 11 — Device file not block device.
- 12 — Unable to allocate a message.
- 13 — Unable to queue a message.
- 14 — Unable to add segments.
- 16 — Unable to access block (or get buffer to read block).
- 18 — Unable to access inode.
- 19 — Unable to remove a segment.
- 20 — Cannot mount the device.
- 26 — The device file is open for writing.
- 27 — Current directory entry could not be referenced from the parent directory.
- 28 — Current directory entry cannot reference its parent directory.
- 29 — Current directory entry has a bad inode.
- 30 — References to a free inode.

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- 31 — Current directory has more than one parent directory.
- 32 — Current directory is not reachable from file system root.
- 33 — Active but unreferenced file in filesystem when audit invoked with PARAM=BACKUP. This condition does not represent an actual file system error, but if a backup tape is made with this condition present, the backup tape could contain file system errors. There is no corrective action provided or needed for this condition.
- 35 — File manager segment list is full.

ERROR 1

- g Not used.
- h File system label.
- i Not used.
- j Not used.

ERROR 2

- g Inode number (index into inode table).
- h Inode number from inode table entry.
- i Not used.
- j Not used.

ERROR 3

- g Inode number (index into inode table).
- h Inode number in the directory entry.
- i File type of directory:
 - 1 — Regular file direct block.
 - 2 — Single indirect block.
 - 3 — Double indirect block.
 - 4 — Triple indirect block.
 - 5 — Extent file.
- j Corrected directory inode number if corrected; otherwise, inode number in the directory entry.

ERROR 4

- g Inode number (index into inode table).
- h Bad block number.
- i Not used.
- j Not used.

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ERROR 5

g	Inode number.
h	Bad link count of the inode.
i	Not used.
j	CORRECTED (if correcting audit) or CORRECT link count.

ERROR 6

g	Inode number.
h	Bad link count of the inode.
i	For non-correcting audit, not used.
	For correcting audit, correcting type:
	0 — The unreferenced inode was zeroed out.
	1 — The unreferenced inode was written into a lost+found directory.
j	If non-correcting mode, the number of links from the file system. If correcting mode and the file was zero length, the file is removed and this value is zero; otherwise, the file is linked into the lost+found directory and this value will be non-zero and the corrected number of links from the file system.

ERROR 7

g	Inode number.
h	Link count in inode.
i	Not used.
j	Not used.

ERROR 8

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 9

g	Not used.
h	Error returned from attempt to open.
i	Index used to locate error.
j	Not used.

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ERROR 10

g	Not used.
h	Error returned from attempt to get status.
i	Index used to locate error.
j	Not used.

ERROR 11

g	Not used.
h	File type.
i	Index used locate error.
j	Not used.

ERROR 12

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 13

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.

ERROR 14

g	Segment index into file manager's segment table.
h	Error returned from attempt to add segment.
i	Size in bytes of the segment to be added.
j	Not used.

ERROR 16

g	Block number.
h	Error returned.
i	Index used to locate error.
j	Inode number of current inode.

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ERROR 18

- g Inode number.
- h Error returned on attempt to access.
- i Index used to locate error.
- j Not used.

ERROR 19

- g Index in file manager's segment list.
- h Zero or error returned from attempt to remove the segment.
- i Indicates reason for failure:
 - 000c — Failed to allocate a message.
 - 000d — Failed to queue the message.
 - 0013 — Request to remove the segment failed, error returned is found in h.
- j Not used.

ERROR 20

- g Not used.
- h Not used.
- i Index with the values:
 - 000a — No free mount table entry.
 - 000b — Unable to read superblock.
- j Not used.

ERROR 26

- g Inode number of device file.
- h Number of opens for writing on the device.
- i Minor Device Chain Table (MDCT) Record Identification (RID) for the file system on which the device file resides.
- j Partition for the file system on which the device file resides.

ERROR 27

- g Inode number.
- h Bad link count of the inode.
- i Correction type:
 - 1 — Not corrected - aborted. Parent inode should be two, but it is not.
 - 2 — Corrected. Parent inode should be two, but it is not.
 - 3 — Not corrected - aborted. Parent inode is not a directory.

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	4 — Corrected. Parent inode is not a directory, but all files under the parent inode have written into the lost+found directory.
	5 — Unable to make the correction. Unable to write into the lost+found directory.
	6 — Corrected. Corrupted inode has been written into the lost+found directory.
j	Value. Zero if unknown; otherwise, the bad inode number.
ERROR 28	
g	Current directory inode number.
h	Bad link count of the inode.
i	Not used.
j	Parent directory inode number.
ERROR 29	
g	Inode number.
h	Bad link count of the inode.
i	Not used.
j	Bad inode number.
ERROR 30	
g	Inode number with invalid references.
h	Not used.
i	Not used.
j	Zero if corrected; otherwise, number of invalid references.
ERROR 31	
g	Inode number.
h	Parent inode originally specified by (. .) in current directory.
i	Not used.
j	Not used.
ERROR 32	
g	Inode number.
h	Parent inode originally specified by (. .) in current directory.
i	Not used.
j	Not used.

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ERROR 33

g	Inode number.
h	Number of active opens on this inode.
i	Not used.
j	Process ID of a process (there may be others) with the inode open.

ERROR 35

g	Not used.
h	Not used.
i	Index used to locate error.
j	Not used.
k	For explanation of error, see output Audit Appendix C, APP:AUD-C.
l	For explanation of error, see output Audit Appendix D, APP:AUD-D.
m	For explanation of error, see output Audit Appendix B, APP:AUD-B.
n	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See output Audit Appendix A, APP:AUD-A, and output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the action to be taken depends on the error code.

Error codes ERROR 1, ERROR 2, ERROR 4, and ERROR 7, are usually not correctable. Before backing up the file system from the backup source, rerun the audit in the correcting mode; this may correct some of the errors.

For error codes ERROR 3, ERROR 5, and ERROR 27 through ERROR 32, use the input command OP:FNAME to print the full pathname of file. To correct errors, rerun the audit in the Correcting (CORR) mode. If the audit has detected multiple errors, then file system corruption has occurred. Save a copy of all FSLINK audit error messages and seek technical assistance.

For error code ERROR 6, the unreferenced file cannot be reached in the file system by any name. To correct errors, rerun the audit in the Correcting (CORR) mode.

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For error codes ERROR 8, ERROR 12, ERROR 13, ERROR 14, ERROR 16, ERROR 18, ERROR 19, and ERROR 20, check disk status and/or system resource usage. Rerun audit when the system is quiet and the disks are active. Disk access error or system resource access error has occurred.

For error codes ERROR 9, ERROR 10, and ERROR 11, check and repair or create a device file that defines the file system. The device file is non-existent or the wrong type.

For error codes ERROR 15 and ERROR 17, seek technical assistance.

For error code ERROR 26, rerun the audit later. If error persists, seek technical assistance.

Error code ERROR 35 occurs when the maximum number of file manager tasks are running and using all of the available file manager segment table slots. Rerun the audit at a time when there are no other file system audits running. If the problem persists, execute a level 3 craft initialization. If the problem still persists, create an off-line memory dump tape and seek technical assistance.

The correcting mode may not correct all errors. For further investigation, contact your next level of technical assistance.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 78.
- Formats 2 and 3 have an OMDB key of 76.
- Format 4 has an OMDB key of 52.
- Format 5 has an OMDB key of 314.
- Format 6 has an OMDB key of 558.

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Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

- APP:AUD-A
- APP:AUD-B
- APP:AUD-C
- APP:AUD-D

Input Messages

- AUD:FSLINK
- OP:FNAME

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ID AUD:LKBDST-1
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR LKBDST 1 COMPLETED
a ERRORS FOUND
b ERRORS CORRECTED
- [2] AUD ENV=RTR LKBDST 1 STOPPED
- [3] AUD ENV=RTR LKBDST 1 ABORTED CODE c
- [4] AUD ENV=RTR LKBDST 1 ERROR d REPORT COMPLETED
DATA1 X'e DATA2 X'f
DATA3 X'g DATA4 X'h

NO SUPPLEMENTARY DATA

2. REASON FOR OUTPUT

Prints in response to the executing of LKBDST audit, which audits the consistency of basic link and band status information, both in the 3B computer and IUN. Unless stated otherwise, any data item found in error is corrected and no other action taken.

This audit may have been executed due to:

- Routine schedule.
- Manual request.

If this audit has been executed by routine scheduling and no errors were found, no output is generated. The output generated in other cases is described in the following.

Format 1 prints when any of the following conditions occur:

- A. The audit is manually requested on a specified node and no errors are found. Here, Fields a and b are set to zero. Refer to the input command to determine the identity of the node audited.
- B. The audit is manually requested on a specified node and errors are found. Here, both Format 1 and Format 4 messages are printed. Fields a and b in Format 1 are set to zero.
- C. The audit is manually requested and no node is specified and no errors are found. Here, fields a and b are set to zero. The node is picked by the system and its identity is not available at the time of output in Format 1.

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- D. The audit is manually requested and no node is specified and errors are found. Here, both Format 1 and Format 4 messages are printed. Fields a and b in Format 1 are set to the number of errors found.
- E. The audit is automatically scheduled and errors are found. Here both Format 1 and Format 4 messages are printed. Fields a and b in the Format 1 message are set to the number of errors found.

Format 2 prints when the LKBDST audit is stopped.

Format 3 prints when the LKBDST audit is aborted.

Format 4 prints when any of the following conditions occur:

- A. The audit is manually requested on a specified node and errors are found. Here, both Format 1 and Format 4 are printed. Field DATA1 in the Format 4 message contains the identity of the node audited.
- B. The audit is manually requested and no node is specified and errors are found. Here both Format 1 and Format 4 messages are printed. Field DATA1 in Format 4 contains the identity of the node audited.
- C. The audit is automatically scheduled and no errors are found. Here both Format 1 and Format 4 messages are printed. Field DATA1 in Format 4 contains the identity of the node audited.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Total number of errors found (maximum 16.). |
| b | Total number of errors corrected (maximum 16). |
| c | Abort code: <ul style="list-style-type: none">3 — Audit was aborted without completing its work.4 — Audit was faulted while correcting errors.5 — SIM could not start or dispatch the audit.6 — An error was encountered in the audit control/audit library interface.7 — Audit exceeded its timeout or segment limit.8 — SIM aborted an executing routine audit because of a blocking request.9 — Transient process that was running the process terminated.10 — A segmented audit exceeded an error threshold. |

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- d Error code for each detected error. This is followed by the appropriate block of raw data (see following). This output is printed for up to 16 errors per audit; if more than 16 errors are found, a 17th block (see d = 200) is added to indicate the number of detected errors. Assigned error codes are:
- 1 — Syntax error in PARAM field of input request.
 - 2 — Group number specified on input request too big.
 - 3 — Comma missing, possible other syntax problem on input request.
 - 4 — Member number on input request no good.
 - 5 — Node number from input request no good.
 - 0 — Internal link status (in-service vs. other) in the 3B computer, used for traffic management.
 - 1 — Internal mate link status (in-service vs. other) in the 3B computer, used for traffic management.
 - 2 — Internal mate link status (in-service vs. other) in IUN, used for traffic management.
 - 3 — Link prove-in state (emergency restart vs. normal) as seen by the CNI.
 - 4 — Route switch table entry for this link, kept in IUN, reflects received TFP, TFR, TFA signals; used to route banded message traffic.
 - 100 - 169 — CCS7 and CCS6 error codes, see the following explanation of variable fields e,f,g,h.
 - 200 — Overflow; indicates total number of errors detected by this audit.
 - 201 — Node audit timeout. Indicates that one or more of the audit response messages from the node was not received. This may occur due to previously reported errors on the node, or due to transient node overload conditions. The ring node address of the node is contained in field e.
 - 300 - 350 — DCHN and SADC error codes, see explanation of variable fields e,f,g, and h.
- e, f, g, h Raw data (in hexadecimal). Meaning depends on field d as follows:

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If d = 0 - 4

- e — Ring Node Address (RNA) of link node being audited.
- f — Observed (incorrect) value.
- g — Band number (nearest lower multiple of 4) if applicable, else 0.
- h — Reference (correct) value.

If d = 100

- e — Ring node address of link node being audited.
- f — Protocol value found in 3B computer.
- g — Protocol value found in RNA.
- h — 0

If d = 101

- e — Ring node address of link node being audited.
- g — Link type found in 3B computer.
- g — Link type found in RNA.
- h — 0

If d = 102

- e — Ring node address of link node being audited.
- f — Link speed found in 3B computer.
- g — Link speed found in RNA.
- h — 0

If d = 103

- e — Ring node address of link node being audited.
- f — Encryption indicator found in 3B computer.
- g — Encryption indicator found in RNA.
- h — 0

If d = 104

- e — Ring node address of link node being audited.
- f — Major link state found in 3B computer.
- g — Major link state found in RNA.
- h — 0

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If d = 105

- e — Ring node address of link node being audited.
- f — Identity of mate link found in 3B computer.
- g — Identity of mate link found in RNA.
- h — 0

If d = 106

- e — Ring node address of link node being audited.
- f — Far-end STP even / odd indicator found in 3B computer.
- g — Far-end STP even / odd indicator found in RNA.
- h — 0

If d = 107

- e — Ring node address of link node being audited.
- f — Far-end function number found in 3B computer.
- g — Far-end function number found in RNA.
- h — 0

If d = 108

- e — Ring node address of link node being audited.
- f — Normal prove-in threshold found in 3B computer.
- g — Normal prove-in threshold found in RNA.
- h — 0

If d = 109

- e — Ring node address of link node being audited.
- f — Emergency prove-in threshold found in 3B computer.
- g — Emergency prove-in threshold found in RNA.
- h — 0

If d = 110

- e — Ring node address of link node being audited.
- f — Leaky bucket threshold found in 3B computer.
- g — Leaky bucket threshold found in RNA.
- h — 0

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If d = 111

- e — Ring node address of link node being audited.
- f — Far-end region found in 3B computer.
- g — Far-end region found in RNA.
- h — 0

If d = 112

- e — Ring node address of link node being audited.
- f — Far-end point code found in 3B computer.
- g — Far-end point code found in RNA.
- h — 0

If d = 113

- e — Ring node address of link node being audited.
- f — syu code found in 3B computer.
- g — syu code found in RNA.
- h — 0

If d = 114

- e — Ring node address of link node being audited.
- f — VFL type found in 3B computer.
- g — VFL type found in RNA.
- h — 0

If d = 115

- e — Ring node address of link node being audited.
- f — Changeover limit found in 3B computer.
- g — Changeover limit found in RNA.
- h — 0

If d = 116

- e — Ring node address of link node being audited.
- f — Receive buffer threshold found in 3B computer.
- g — Receive buffer threshold found in RNA.
- h — 0

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If d = 117

- e — Ring node address of link node being audited.
- f — Break-in indicator found in 3B computer.
- g — Break-in indicator found in RNA.
- h — 0

If d = 118

- e — Ring node address of link node being audited.
- f — Pool number found in 3B computer.
- g — Pool number found in RNA.
- h — 0

If d = 119

- e — Ring node address of link node being audited.
- f — Combined pool number found in 3B computer.
- g — Combined pool number found in RNA.
- h — 0

If d = 120

- e — Ring node address of link node being audited.
- f — Link layer assignment found in 3B computer.
- g — Link layer assignment found in RNA.
- h — 0

If d = 121

- e — Ring node address of link node being audited.
- f — Voice access test quadrant found in 3B computer.
- g — Voice access test quadrant found in RNA.
- h — 0

If d = 122

- e — Ring node address of link node being audited.
- f — Attempt to audit unequipped link.
- g — 0
- h — 0

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If d = 123

- e — Ring node address of link node being audited.
- f — Minor state found in 3B computer.
- g — New minor state (GROW).
- h — 0

If d = 124

- e — Ring node address of link node being audited.
- f — Minor state found in 3B computer.
- g — New minor state (OOS).
- h — 0

If d = 125

- e — Ring node address of link node being audited.
- f — Major state found in 3B computer.
- g — New major state (UNA).
- h — 0

If d = 130

- e — Ring node address of link node being audited.
- f — Linkset found in 3B computer.
- g — Linkset found in RNA.
- h — 0

d = 131

- e — Ring node address of link node being audited.
- f — Combined linkset found in 3B computer.
- g — Combined linkset found in RNA.
- h — 0

If d = 132

- e — Ring node address of link node being audited.
- f — Signaling link code found in 3B computer.
- g — Signaling link code found in RNA.
- h — 0

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If d = 133

- e — Ring node address of link node being audited.
- f — Receive queue size found in 3B computer.
- g — Receive queue size found in RNA.
- h — 0

If d = 134

- e — Ring node address of link node being audited.
- f — Receive congestion onset threshold found in 3B computer.
- g — Receive congestion onset threshold found in RNA.
- h — 0

If d = 135

- e — Ring node address of link node being audited.
- f — Receive congestion abatement threshold found in 3B computer.
- g — Receive congestion abatement threshold found in RNA.
- h — 0

If d = 136

- e — Ring node address of link node being audited.
- f — Transmit queue size found in 3B computer.
- g — Transmit queue size found in RNA.
- h — 0

If d = 144

- e — Ring node address of link node being audited.
- f — Normal SUERM error rate threshold found in 3B computer.
- g — Normal SUERM error rate threshold found in RNA.
- h — 0

If d = 145

- e — Ring node address of link node being audited.
- f — Emergency SUERM error rate threshold found in 3B computer.
- g — Emergency SUERM error rate threshold found in RNA.
- h — 0

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If d = 148

- e — Ring node address of link node being audited.
- f — Re-transmit queue size found in 3B computer.
- g — Re-transmit queue size found in RNA.
- h — 0

If d = 150

- e — Ring node address of link node being audited.
- f — Leaky bucket threshold found in Link Interface (LI) of RNA.
- g — Expected value.
- h — 0

If d = 151

- e — Ring node address of link node being audited.
- f — Break-in indicator found in LI of RNA.
- g — Expected value.
- h — 0

If d = 152

- e — Ring node address of link node being audited.
- f — Changeover limit found in LI of RNA.
- g — Expected value.
- h — 0

If d = 153

- e — Ring node address of link node being audited.
- f — Receive buffer threshold found in LI of RNA.
- g — Expected value.
- h — 0

If d = 154

- e — Ring node address of link node being audited.
- f — syu code found in LI of RNA.
- g — Expected value.
- h — 0

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If d = 156

- e — Ring node address of link node being audited.
- f — Own-link switch found in RNA.
- g — Old minor state.
- h — Corrected minor state.

If d = 157

- e — Ring node address of link node being audited.
- f — Faulty link mode found in LI of RNA.
- g — Old minor state.
- h — Corrected minor state.

If d = 158

- e — Ring node address of link node being audited.
- f — pro mode found in LI of RNA.
- g — Old minor state.
- h — Corrected minor state.

If d = 159

- e — Ring node address of link node being audited.
- f — Own-link switch found in node.
- g — Corrected minor state.
- h — 0

If d = 160

- e — Ring node address of link node being audited.
- f — Faulty link mode found in LI of RNA.
- g — pro mode found in LI of RNA.
- h — Link status indicators.

If d = 161

- e — Ring node address of link node being audited.
- f — Own-link switch found in node.
- g — Corrected minor state.
- h — 0

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If d = 162

- e — Ring node address of link node being audited.
- f — Facility found in 3B computer.
- g — Facility found in RNA.
- h — 0

If d = 163

- e — Ring node address of link node being audited.
- f — T1FA control node found in 3B computer.
- g — T1FA control node found in RNA.
- h — 0

If d = 164

- e — Ring node address of link node being audited.
- f — Medium found in 3B computer.
- g — Medium found in RNA.
- h — 0

If d = 165

- e — Ring node address of link node being audited.
- f — Encryption mode found in 3B computer.
- g — Encryption mode found in RNA.
- h — 0

If d = 166

- e — Ring node address of link node being audited.
- f — Link interface type found in 3B computer.
- g — Link interface type found in RNA.
- h — 0

If d = 167

- e — Ring node address of link node being audited.
- f — N1 limit of Message Signal Unit (MSU) in retransmit buffer found in the 3B computer.
- g — N1 limit of MSU in retransmit buffer found in RNA.
- h — 0

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If d = 168

- e — Ring node address of link node being audited.
- f — T1 clock mode found in 3B computer.
- g — T1 clock mode found in RNA.
- h — 0

If d = 169

- e — Ring node address of link node being audited.
- f — Linkset associated pointcode found in 3B computer.
- g — Linkset associated pointcode found in RNA.
- h — 0

If d = 200

- e — Total number of errors detected during entire audit (all nodes).
- f, g, h — 0

If d = 201

- e — Link node address of link node being audited.
- f, g, h — 0

If d = 300 DATA AUDIT : CAUSES NODE REMOVAL

- e — Ring node address of link node being audited.
- f — Nodetype value found in 3B computer
- g — Nodetype value found in node
- h — 0

If d = 301 DATA AUDIT : CAUSES NODE REMOVAL

- e — Ring node address of link node being audited.
- f — LI4 equipage value found in 3B computer
- g — LI4 equipage value found in node
- h — 0

If d = 302 DATA AUDIT: CAUSES NODE REMOVAL

- e — Ring node address of link node being audited.
- f — Facility type value found in 3B computer
- g — Facility type value found in node
- h — 0

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If d = 303 DATA AUDIT: CAUSES NODE REMOVAL

- e — Ring node address of link node being audited.
- f — Control node RNA value found in 3B computer
- g — Control node RNA value found in node
- h — 0

If d = 309 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — PRIMARY/SECONDARY value found in 3B computer
- g — PRIMARY/SECONDARY value found in node
- h — Link number

If d = 310 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Link Speed value found in 3B computer
- g — Link Speed found in node
- h — Link number

If d = 311 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Link Major state found in 3B computer
- g — Link Major state found in node
- h — Link number

If d = 312 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Mate Link value found in 3B computer
- g — Mate Link value found in node
- h — Link number

If d = 313 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Link USER value found in 3B computer
- g — Link USER value found in node
- h — Link number

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If d = 314 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Link Link Access Circuit Identifier (LACID) value found in 3B computer
- g — Link LACID value found in node
- h — Link number

If d = 315 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Application data item 0 found in 3B computer
- g — Application data item 0 found in node
- h — Link number

If d = 316 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Application data item 1 found in 3B computer
- g — Application data item 1 found in node
- h — Link number

If d = 317 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Application data item 2 found in 3B computer
- g — Application data item 2 found in node
- h — Link number

If d = 318 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Application data item 3 found in 3B computer
- g — Application data item 3 found in node
- h — Link number

If d = 319 DATA AUDIT: CAUSES LINK RESTARTS

- e — Ring node address of link node being audited.
- f — Application data item 4 found in 3B computer
- g — Application data item 4 found in node
- h — Link number

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If d = 320 STATE AUDIT: MAJ=UNE, BAD MINOR

- e — Ring node address of link node being audited.
- f — Link MINOR state found in 3B computer
- g — New minor state (UNE)
- h — Link number

If d = 321 STATE AUDIT: MAJ=UNA, BAD MINOR

- e — Ring node address of link node being audited.
- f — Link MINOR state found in 3B computer
- g — New minor state (GROW)
- h — Link number

If d = 322 STATE AUDIT: MAJ=AVL, BAD MINOR

- e — Ring node address of link node being audited.
- f — Link MINOR state found in 3B computer
- g — New minor state (OOS)
- h — Link number

If d = 323 STATE AUDIT: BAD MAJOR STATE

- e — Ring node address of link node being audited.
- f — Link MAJOR state found in 3B computer
- g — New MINOR state
- h — Link number

If d = 330 STATE MISMATCH: 3B IS, np OOS

- e — Ring node address of link node being audited.
- f — node on / off switch
- g — node link state
- h — Link number

If d = 331 STATE MISMATCH: 3B IS, np IS, li4 OOS

- e — Ring node address of link node being audited.
- f — li4 on / off switch
- g — li4 link state
- h — Link number

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If d = 332 STATE MISMATCH: 3B 00S, np IS

- e — Ring node address of link node being audited.
- f — node on / off switch
- g — node link state
- h — Link number

If d = 333 STATE MISMATCH: 3B 00S, np 00S, li4 IS

- e — Ring node address of link node being audited.
- f — li4 on / off switch
- g — li4 link state
- h — Link number

If d = 334 STATE MISMATCH: 3B M00S, np IS

- e — Ring node address of link node being audited.
- f — node on / off switch
- g — node link state
- h — Link number

If d = 335 STATE MISMATCH: 3B M00S, np 00S, li4 IS

- e — Ring node address of link node being audited.
- f — li4 on / off switch
- g — li4 link state
- h — Link number

If d = 336 STATE MISMATCH: 3B GROW, np IS

- e — Ring node address of link node being audited.
- f — node on / off switch
- g — node link state
- h — Link number

If d = 337 STATE MISMATCH: 3B GROW, np 00S, li4 IS

- e — Ring node address of link node being audited.
- f — li4 on / off switch
- g — li4 link state
- h — Link number

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If d = 338 STATE MISMATCH: 3B TEST, np IS

- e — Ring node address of link node being audited.
- f — node on / off switch
- g — node link state
- h — Link number

If d = 339 STATE MISMATCH: 3B TEST, np 00S, li4 IS

- e — Ring node address of link node being audited.
- f — li4 on / off switch
- g — li4 link state
- h — Link number

If d = 340 STATE MISMATCH: 3B UNE, np IS

- e — Ring node address of link node being audited.
- f — node on / off switch
- g — node link state
- h — Link number

If d = 341 STATE MISMATCH: 3B UNE, np 00S, li4 IS

- e — Ring node address of link node being audited.
- f — li4 on / off switch
- g — li4 link state
- h — Link number

If d = 350 NODE SOFTWARE ERROR

- e — Ring node address of link node being audited.
- f — Nodetype value in audit message from node
- g — Unexpected audit message type
- h — 0

If d = 351 NODE SOFTWARE ERROR

- e — Ring node address of link node being audited.
- f — Nodetype value in audit message from node
- g — Audit message type
- h — Errored Link Number in audit message

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If d = 352 NODE SOFTWARE ERROR

- e — Ring node address of link node being audited.
- f — Nodetype value in audit message from node
- g — Expected Link Number value in audit message
- h — Errored Link Number value in audit message

If d = 370 LACID ROUTING ERR CORRECTED: link IS, route off

- e — Ring node address of link node being audited.
- f — Link minor state
- g — LACID value assigned to link
- h — Link number

If d = 371 LACID ROUTING ERR NONCORRECTED: link IS, route off

- e — Ring node address of link node being audited.
- f — Link minor state
- g — LACID value assigned to link
- h — Link number

If d = 372 LACID ROUTING ERR CORRECTED: link [M]OOS, route on

- e — Ring node address of link node being audited.
- f — Link minor state
- g — LACID value assigned to link
- h — Link number

If d = 373 LACID ROUTING ERR NONCORRECTED: link [M]OOS, route on

- e — Ring node address of link node being audited.
- f — Link minor state
- g — LACID value assigned to link
- h — Link number

If d = 374 LACID ROUTING ERR CORRECTED: RNA / PLID mismatch on

- e — Ring node address of incore LNDATA for LACID
- f — Incore LACID for this RNA / link id
- g — LACID value of LACID table
- h — Link number of incore LNDATA for LACID

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If d = 375 LACID ROUTING ERR CORRECTED: RNA /PLID of LACID table out of range:

- e — Ring node address in LACID table
- f — 0
- g — LACID value of LACID table
- h — Link number in LACID table

If d = 376 LACID ROUTING ERR CORRECTED: Node not a DCHN or SADC

- e — Ring node address
- f — 0
- g — LACID value of LACID table
- h — Link number

If d = 377 LACID ROUTING ERR CORRECTED: LACID mismatch between incore LNDATA and LACID table

- e — Ring node address of incore LNDATA for LACID
- f — Incore LACID for this RNA/link id
- g — LACID value of LACID table
- h — Link number of incore LNDATA for LACID

If d = 378 LACID ROUTING ERR NONCORRECTED: Multiply defined LACIDs

- e — Ring node address of incore LNDATA for LACID
- f — Incore LACID for this RNA/link id
- g — LACID value of LACID table
- h — Link number of incore LNDATA for LACID

4. ACTION TO BE TAKEN

Format 1 requires no action.

Format 2 prints when an execution of the audit is stopped via the AUD:STOP input message or by an initialization of the CNI subsystem.

Format 3 prints only during outages or initializations of the CNI subsystem.

If it occurs when the CNI is operational, seek technical assistance.

Format 4 reports nonfatal errors detected by the audit. Seek technical assistance to determine the cause of the trouble.

All of the errors reported by this audit indicate mutilated internal data or other software problems. Such errors can occur as a side effect of other problems such as hardware faults. If error correction was indicated (b > 0), then the audit attempted to clear the trouble,

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where possible, either by data correction or by other action. To verify that either action was successful, run the audit again.

5. REFERENCES

Practice 256-090-122, *CNI Maintenance Manual*, Audits Section

Input Messages

AUD:LKBDST-1

OP:AUD

STOP:AUD

Output Messages

OP:AUD

OP:RING

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ID AUD:MMGR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR MMGR a COMPLETED
b ERRORS FOUND
c ERRORS CORRECTED

- [2] AUD ENV=RTR MMGR a STOPPED

- [3] AUD ENV=RTR MMGR a ABORTED CODE d

- [4] AUD ENV=RTR MMGR a ERROR e {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}
DATA1 X'f DATA2 X'
DATA3 X'h DATA4 X'i

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR MMGR a ERROR e {CORR|NOT CORR}
REPORT {STARTED | IN PROGRESS|COMPLETED}

SUPPLEMENTARY DATA BLOCK NUMBER 1

HEXADECIMAL DATA

	+X'0	+X'4	+X'8	+X'c
X'000000	j	k	l	m
	.	.	.	.
	.	.	.	.
	.	.	.	.

AUD ENV=RTR MMGR a ERROR ERROR e {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}

SUPPLEMENTARY DATA BLOCK NUMBER 2

HEXADECIMAL DATA

	+X'0	+X'4	+X'8	+X'c
X'000000	nnnnnnnn	000opppp	nnnnnnnn	000opppp
	.	.	.	.
	.	.	.	.
	.	.	.	.

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- [6] AUD ENV=RTR MMGR a DATA q
REPORT {STARTED|IN PROGRESS|COMPLETED}
DATA1 X'r DATA2 X's
DATA3 X't DATA4 X'u

[NO SUPPLEMENTARY DATA]
- [7] AUD MMGR NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS v
|RETRY LATER w
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR x}
- [8] AUD ENV=RTR MMGR a AUTOMATICALLY y

2. REASON FOR OUTPUT

To report the termination status of the memory manager audits and /or any errors found.

3. VARIABLE FIELD DEFINITIONS

- a Audit member:
- 1 — Segment descriptor table audit.
 - 2 — Page table audit.
 - 3 — Page descriptor table audit.
 - 4 — Segment release audit.
 - 5 — Segment unlock audit.
 - 9 — Swap space compaction audit.
- b Total number of errors found.
- c Total number of errors corrected.
- d Abort code:
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit.
 - 9 — Transient process that was running the audit terminated.
 - 10 — A segmented audit exceeded an error threshold.
- e Error code:
- 2 The swap space compaction audit was requested to run in a non-correcting mode, which is meaningless for this audit. If d = 2, fields f through i will be 0, field b will be 1 (1 error found) and c will be 0 (no errors corrected).

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- 3 The swap space compaction audit was unable to "move" a particular segment. Fields f and g are for information only.
- 10 Incorrect values in one or more. Pointer to first segment descriptor, pointer to last segment descriptor, number of segment descriptors.
- 20 Incorrect values in one or more. Pointer to first page table, pointer to last page table, number of page tables.
- 30 Incorrect values in one or more. Pointer to first page descriptor, pointer to last page descriptor, number of page descriptors.
- 101 Invalid link in the segment descriptor free list.
- 102 Segment descriptor on the free list is allocated.
- 103 Incorrect value in the number of free segment descriptors.
- 104 Segment descriptor free list is circular.
- 105 Segment descriptor on free list not marked on-free-list.
- 106 Free segment descriptor not on the free list.
- 107 Segment descriptor with a valid page table pointer and/or non-zero status not marked allocated.
- 108 Empty page table linked to a segment descriptor that is not page-protected.
- 109 Page table linked to a segment descriptor not marked allocated.
- 110 Invalid page table pointer in a segment descriptor.
- 112 Incorrect segment index in a page descriptor for a page linked to a segment descriptor.
- 113 Incorrect page index in a page descriptor for a page linked to a segment descriptor.
- 114 Incorrect in-memory-page-count in segment descriptor.
- 115 Page descriptor for a page linked to a segment descriptor not marked allocated.
- 116 Invalid page address in page table entry for a segment.
- 118 Segment has pages that overlap.
- 120 Two segments overlap in a page.
- 122 Two segments have the same page table.
- 201 Invalid link in the page table free list.
- 202 Page table on the free list has non-free entries.
- 203 Incorrect value in the number of free page tables.

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	204	Page table free list is circular.
	205	Page table on free list not marked on-free-list.
	206	Page table lost; not on the free list and not linked to a segment descriptor.
	301	Invalid link index in the list of free pages.
	302	Page on the free list is allocated.
	303	Incorrect value in the number of free pages.
	304	Free page list is circular.
	305	Page descriptor for a page on free list not marked on-free-list.
	306	Lost page; page not on free list and not linked to a segment descriptor.
	401	Breakdown of a segment interrupted.
	501	Old iolocked segment.
ERROR 3		
f		Disk address (block number) of the segment.
g		Segment size in blocks.
h		0 - Not used.
i		0 - Not used.
ERROR 10		
f		Value in pointer to first segment descriptor.
g		Value in pointer to last segment descriptor.
h		Value in number of segment descriptors.
i		0 - Not used.
ERROR 20		
f		Value in pointer to first page table.
g		Value in pointer to last page table.
h		Value in number of page tables.
i		0 - Not used.
ERROR 30		
f		Value in pointer to first page descriptor.
g		Value in pointer to last page descriptor.
h		Value in number of page descriptors.
i		0 - Not used.

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ERROR 101		
f		Invalid segment descriptors.
g, h, i		0 - Not used.
ERROR 102		
f		Pointer to the allocated segment descriptor.
g, h, i		0 - Not used.
ERROR 103		
f		Correct number of free segment descriptors.
g		Incorrect value in the number of free segment descriptors.
h, i		0 - Not used.
ERROR 104		
f		Pointer to the segment descriptor at which error was found.
g, h, i		0 - Not used.
ERROR 105 CORR mode:		
f		Pointer to the segment descriptor.
g, h, i		0 - Not used.
ERROR 105 NOT CORR mode:		
f		Pointer to the segment descriptor.
g		Pointer to first free segment descriptor.
h, i		0 - Not used.
ERROR 106		
f		Pointer to the segment descriptor.
g		Pointer to first free segment descriptor.
h, i		0 - Not used.
ERROR 107		
f		Pointer to the segment descriptor.
g		Uncorrected value of the status word in the segment descriptor.
h, i		0 - Not used.
ERROR 108		
f		Pointer to the segment descriptor.
g		Pointer to the page table.
h, i		0 - Not used.

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ERROR 109

f Pointer to the segment descriptor.
g Pointer to the page table.
h, i 0 - Not used.

ERROR 110

f Pointer to the segment descriptor.
g Invalid page table pointer.
h, i 0 - Not used.

ERROR 112

f Pointer to the segment descriptor.
g Index into the segment's page table for the page.
h Page number.
i Incorrect segment index.

ERROR 113

f Pointer to the segment descriptor.
g Index into the segment's page table for the page.
h Page number.
i Incorrect page index.

ERROR 114

f Pointer to the segment descriptor.
g Correct in-memory-page-count.
h Incorrect in-memory-page-count in segment descriptor.
i 0 - Not used.

ERROR 115

f Pointer to the segment descriptor.
g Index into the segment's page table for the page.
h Page number.
i 0 - Not used.

ERROR 116 NOT CORR mode:

f Pointer to the segment descriptor.
g Index into the segment's page table for the page.
h The invalid page address.
i 0 - not used.

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ERROR 118 NOT CORR mode:

- f Pointer to the segment descriptor.
- g Index of one entry in the page table for the page.
- h Index of the other entry in the page for the page.
- i Page number.

ERROR 120 NOT CORR mode:

- f Pointer to the segment descriptor for the first segment.
- g Pointer to the segment descriptor for the second segment.
- h 00PP00QQ, where PP (00 - 3F) is the index in the page table of the first segment for the common page, and QQ (00 - 3F) is the index in the page table of the second segment for the common page.
- i Page number.

ERROR 122 NOT CORR mode:

- f Pointer to the segment descriptor for the first segment.
- g Pointer to the segment descriptor for the second segment.
- h Pointer to the common page table.
- i 0 - not used.

ERROR 116-ERROR 122 CORR mode:

- f Number of segments with error.
- g Number of non-killable processes that have any of these segments in their address spaces.
- h Number of killable processes that have any of these segments in their address spaces.
- i Number of killable processes that have been terminated.

SUPPLEMENTARY DATA BLOCK NUMBER 1 — each line of four data words describes a serious error.

- j Error codes and corresponding error data:
 - 00000074 (decimal 116) — Invalid page address in an entry of the page table for a segment.
 - k — Pointer to the segment descriptor.
 - l — 000000NN, where NN (00 - 3F) is the index of the entry in the page table.
 - m — The invalid page address.

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00000076 Overlap of pages within a segment.

- k — Pointer to the segment descriptor.
- l — 000000NN, where NN (00 - 3F) is the index of one entry in the page table for the page.
- m — 000000PP, where PP (00 - 3F) is the index of the other entry in the page table for the page.

00000078 Two segments overlap in a page.

- k — Pointer to the segment descriptor for the first segment.
- l — Pointer to the segment descriptor for the second segment.
- m — 00PP00QQ, where PP (00 - 3F) is the index in the page table of the first segment for the common page, and QQ (00 - 3F) is the index in the page table of the second segment for the common page.

0000007a Two segments have the same page table.

- k — Pointer to the segment descriptor for the first segment.
- l — Pointer to the segment descriptor for the second segment.
- m — Pointer to the common page table.

SUPPLEMENTARY DATA BLOCK NUMBER 2 — Each pair of data words describes a process that contains, in its address space, one or more of the segments with serious errors.

nnnnnnnn Process number of the process.

o Flags describing the process.

- 8 — Process is a special kernel process.
- 4 — Process is non-killable.
- 3 — Process is killable and a termination message has been sent.
- 2 — Process is killable, but no termination message was sent by this audit of the process.

pppp The pcode portion of the utility ID.

ERROR 201

f Invalid page table pointer.

g 0 - not used.

h 0 - not used.

i 0 - not used.

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ERROR 202

f	Pointer to the page table.
g	0 - not used.
h	0 - not used.
i	0 - not used.

ERROR 203

f	Correct number of free page tables.
g	Incorrect value in the number of free page tables.
h	0 - Not used.
i	0 - Not used.

ERROR 204

f	Pointer to the page table at which error was found.
g	0 - Not used.
h	0 - Not used.
i	0 - Not used.

ERROR 205

f	Pointer to the page table.
g	0 - Not used.
h	0 - Not used.
i	0 - Not used.

ERROR 206

f	Pointer to the page table.
g	Pointer to first free page table.
h	0 - Not used.
i	0 - Not used.

ERROR 301

f	Invalid link index.
g	0 - Not used.
h	0 - Not used.
i	0 - Not used.

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ERROR 302

f	Page number of the page.
g	0 - Not used.
h	0 - Not used.
i	0 - Not used.

ERROR 303

f	Correct number of free pages.
g	Incorrect value in the number of free pages.
h	0 - Not used.
i	0 - Not used.

ERROR 304

f	Page number at which error was found.
g	0 - Not used.
h	0 - Not used.
i	0 - Not used.

ERROR 305

f	Page number of the page.
g	0 - Not used.
h	0 - Not used.
i	0 - Not used.

ERROR 306

f	Page number of the page.
g	Page number of first free page.
h	0 - Not used.
i	0 - Not used.

ERROR 401

f	Pointer to a segment descriptor.
g	Status word in segment descriptor.
h	Index into segment descriptor table.
i	0 - Not used.

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ERROR 501

f	Pointer to segment descriptor.
g	Age of segment in minutes.
h	Index into segment descriptor table.
i	Utility ID of segment's last owner (not necessarily the process that left the segment locked). 0 indicates the utility ID is not available.
q	Data report code: 1 — Swap space has been compacted, and fields are for information only.

DATA 1

r	Number of holes after compaction.
s	Size of the largest hole after compaction.
t	Number of segments "moved" on the swap disk.
u	Number of segments swapped into memory by the compaction function.
v	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
w	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
x	Explanation of error - see Output Audit Appendix B, APP:AUD-B.
y	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A, and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit was run in non-correcting mode and reported errors, rerun it in correcting mode.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 78.
- Formats 2 and 3 have an OMDB key of 76.
- Format 4 has an OMDB key of 52.
- Format 5 has an OMDB key of 71.
- Format 6 has an OMDB key of 693.
- Format 7 has an OMDB key of 558.

SEE PROPRIETARY NOTICE ON COVER PAGE

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UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

APP: AUD-A

APP: AUD-B

APP: AUD-C

APP: AUD-D

Input Messages

AUD: MMGR

OP: AUD

STOP: AUD

Output Message

OP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:MSGBUF
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR MSGBUF a COMPLETED
b ERRORS FOUND
c ERRORS CORRECTED
- [2] AUD ENV=RTR MSGBUF a STOPPED
- [3] AUD ENV=RTR MSGBUF a ABORTED CODE X'd
- [4] AUD ENV=RTR MSGBUF a ERROR e {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}
DATA 1 X'f DATA 2 X'g
DATA 3 X'h DATA 4 X'i

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR MSGBUF a ERROR e {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}

SUPPLEMENTARY DATA BLOCK NUMBER 1

MESSAGE HEADER

X'j	LINK
X'k	FROM
X'l	TO
X'm	NBLKS
X'n	FLAGS
X'o	TYPE
X'p	STAT
X'q	SIZE
X'r	OTYPE
X's	SEQNUM
X't	IDENT

SEE PROPRIETARY NOTICE ON COVER PAGE

- [6] AUD ENV=RTR MSGBUF a ERROR e {CORR|NOT CORR}
REPORT {STARTED|IN PROGRESS|COMPLETED}

SUPPLEMENTARY DATA BLOCK NUMBER 2

MESSAGE BUFFER EXTENDER BLOCK

X'u	LINK
X'v	OWNER
X'w	TSTAMP
X'x	BLKS
X'y	FLAGS
X'z	TYPE
X'aa	UNUSED

- [7] AUD MSGBUF NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS bb
|RETRY LATER cc
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR dd}
- [8] AUD ENV=RTR MSGBUF a AUTOMATICALLY ee

2. REASON FOR OUTPUT

To report the termination status of the Message Buffer (MSGBUF) resources audit and/or any errors found.

NOTE: The high order 16 bits of utility ID indicates process Dispatch Control Table (DCT) index, and the low order 16 bits of utility ID indicates pcode (process code).

NOTE: A NULL utility ID for a queued/dequeued message indicates that the associated process has died.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Audit member:
1 — Message buffer queue audit.
2 — Message buffer extender block audit. |
| b | Total number of errors found. |
| c | Total number of errors corrected. |
| d | Abort code:
3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.
5 — SIM could not start or dispatch the audit.
6 — An error was encountered in the audit control/audit library interface.
7 — Audit exceeded its timeout or segment limit. |

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- 8 — System Integrity Monitor (SIM) aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the audit terminated.
- 10 — A segmented audit exceeded an error threshold.
- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

e

Error code:

- 110 — Bad message queue head pointer.
- 111 — Bad message queue link pointer.
- 112 — Allocation bit not set in message extender of queued message.
- 113 — Bad on-queue indicator in message extender of queued message.
- 114 — Allocation bit not set in message header of queued message.
- 115 — Bad message-to-field in message and bad message owner field in message extender.
- 116 — Bad message owner in message extender.
- 117 — Bad message to field in message.
- 118 — Message queue out of order.
- 119 — Old audit fault message queued to a non-killable process.
- 120 — Old audit fault message queued to a killable process.
- 121 — Old queued message (except an old queued audit fault message).
- 122 — Process has a circular message queue.
- 123 — Bad message queue tail pointer.
- 124 — Bad message queue block count.
- 125 — Old acknowledgment message queued to a non-killable supervisor process.
- 126 — Old acknowledgment message queued to a killable supervisor process.
- 200 — Allocated message with an invalid owner field.
- 201 — Old allocated message.
- 214 — Allocated bit not set in message header of allocated message.
- 216 — Queued message with an invalid owner.
- 219 — Old audit fault message queued to a non-killable process.
- 220 — Old audit fault message queued to a killable process.

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- 221 — Old queued message (except an old queued audit fault message).
- 270 — Dequeued message with an invalid owner field.
- 271 — Old dequeued audit fault message owned by a non-killable process.
- 272 — Old dequeued audit fault message owned by a killable process.
- 273 — Old dequeued message (except an audit fault message).
- 274 — Over nine old non-queued messages (excluding audit fault messages) owned by a killable process.
- 290 — Audit fault message response has an invalid message status.
- 291 — Invalid status for a message pointer in an audit fault message response.

ERROR 110

- f Address of the queue head pointer.
- g Bad queue head pointer.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i Corrected queue head pointer if the error was corrected, 0 if it was not. (0 is also a valid queue head pointer).

ERROR 111

- f Address of the message extender.
- g Bad queue link pointer.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i Corrected queue link pointer if the error was corrected, 0 if it was not. (0 is also a valid queue link pointer). If the corrected queue link pointer is the same as the bad queue link pointer, then the message extender with the bad link pointer was either marked unallocated or unqueued, and was not put onto the rebuilt message queue.

ERROR 112

- f Address of the message extender.
- g Bad extender flags field.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i 0 - not used.

SEE PROPRIETARY NOTICE ON COVER PAGE

ERROR 113

- f Address of the message extender.
- g Bad extender flags field.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i Correct extender flags field.

ERROR 114

- f Address of the message.
- g Bad message flags field.
- h Utility ID of process owning the queue. Refer to the **NOTES**.
- i Correct message flags field.

ERROR 115

- f Address of the message.
- g Process ID in message to field.
- h Process ID in message owner field.
- i Process ID of process owning queue.

ERROR 116

- f Address of the message extender.
- g Process ID in message owner field.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i Process ID of process owning queue.

ERROR 117

- f Address of the message.
- g Process ID in message to field.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i Process ID of process owning queue.

ERROR 118

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

SEE PROPRIETARY NOTICE ON COVER PAGE

ERROR 119

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 120

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 121

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 122

- f Address of the message extender.
- g Queue link pointer.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i Corrected queue link pointer if the error was corrected, 0 if it was not.
(0 is also a valid queue link pointer.)

ERROR 123

- f Address of the queue tail pointer.
- g Bad queue tail pointer.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i Corrected queue tail pointer if the error was corrected, 0 if it was not.
(0 is also a valid queue tail pointer.)

ERROR 124

- e Address of message queue count.
- f Bad message queue block count.
- g Utility ID of process owning queue. Refer to the **NOTES**.
- h Correct message queue block count.

SEE PROPRIETARY NOTICE ON COVER PAGE

ERROR 125

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 126

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 200 Allocated message with an invalid owner field.

- f Address of the message.
- g Process ID in message owner field.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 201

- f Address of the message.
- g Owner's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 214

- f Address of the message.
- g Bad message flags field.
- h Utility ID of process owning queue. Refer to the **NOTES**.
- i Correct message flags field.

ERROR 216

- f Address of the message.
- g Process ID in message owner field.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

SEE PROPRIETARY NOTICE ON COVER PAGE

ERROR 219

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 220

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 221

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 270

- f Address of the message.
- g Process ID in message owner field.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 271

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

ERROR 272

- f Address of the message.
- g Receiver's utility ID. Refer to the **NOTES**.
- h Message type.
- i Sender's utility ID. Refer to the **NOTES**.

SEE PROPRIETARY NOTICE ON COVER PAGE

ERROR 273

f	Address of the message.
g	Receiver's utility ID. Refer to the NOTES .
h	Message type.
i	Sender's utility ID. Refer to the NOTES .

ERROR 274

f	Owner's process ID.
g	Owner's utility ID. Refer to the NOTES .
h	0 - not used.
i	0 - not used.

ERROR 290

f	Address of the audit fault message.
g	Invalid message status.
h	Sender's process ID.
i	0 - not used.

ERROR 291

f	Address of the audit fault message.
g	Invalid message pointer status.
h	Sender's process ID.
i	Message pointer.
j	Message link.
k	Process ID of message sender.
l	Process ID of message receiver.
m	Size of message in blocks.
n	Message flags.
o	Message type.
p	Message status.
q	Message size in bytes.
r	Old message type.
s	Sequence number.
t	Message identification.
u	Message queue link.

SEE PROPRIETARY NOTICE ON COVER PAGE

v	Process ID of message owner.
w	Time stamp.
x	Size of message in blocks.
y	Message extender flags.
z	Message type.
aa	Unused.
bb	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
cc	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
dd	Explanation of error - see Output Audit Appendix B, APP:AUD-B.
ee	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A, and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

ERROR 119, ERROR 120, ERROR 219, ERROR 220, ERROR 271, ERROR 272, ERROR 290, and ERROR 291 indicate that a process has probably mishandled an audit fault message, notify your next level of technical assistance. It is likely that errors ERROR 201 and ERROR 273 will not be corrected if any of these errors occur.

ERROR 121, ERROR 125, ERROR 126, ERROR 201, ERROR 221, ERROR 273, and ERROR 274 indicate that a process may be having problems in processing its messages. Notify your next level of technical assistance.

ERROR 219, ERROR 220, and ERROR 221 indicate an error in a queued message found by the message extender audit. Run the message queue audit (MSGBUF 1) and if the error is not found and corrected, then run the message extender audit (MSGBUF 2) again.

ERROR 200, ERROR 216, and ERROR 270 indicate a problem in the ownership of a message. This may occur if a breakdown happens in a process termination. Run the Process Administration Audit (PROAD 1) to complete the process termination.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.
Format 2 and 3 have an OMDB key of 76.
Format 4 has an OMDB key of 52.
Format 5 has an OMDB key of 74.
Format 6 has an OMDB key of 75.
Format 8 has an OMDB key of 558.

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Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D

Input Messages

AUD:MSGBUF
OP:AUD
STOP:AUD

Output Messages

OP:AUD
REPT:KAUDPRC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-1
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four output formats:

- [1] AUD ENV=RTR NIDATA 1 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 1 STOPPED
- [3] AUD ENV=RTR NIDATA 1 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 1 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the office identification data will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System integrity monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.
 - 12 — Audit rejected a request to run from SIM.
 - 13 — SIM aborted audit, audit subsystem was reinitialized.

SEE PROPRIETARY NOTICE ON COVER PAGE

d

Error code:

- 100 — Unable to open the office data disk file.
- 101 — Read error encountered with the office data disk file.
- 102 — The local CLLI® on disk does not match the 3B computer copy.
- 103 — Invalid local CLLI®.
- 104 — Links cannot use the local CLLI®.
- 105 — The region number on disk does not match the 3B computer copy.
- 106 — Invalid region number.
- 107 — The function number on disk does not match the 3B computer copy.
- 108 — Invalid function number.
- 109 — Links cannot use the local function number as their far-end function number.
- 110 — The point code on disk does not match the 3B computer copy.
- 111 — Invalid point code.
- 112 — The region number contained in the point code does not match the local region number.
- 113 — Links cannot use the local point code as their far-end point code.
- 116 — The international point code on disk does not match the 3B computer copy.
- 117 — Invalid international point code.
- 118 — Links cannot use the international local point code as their far-end point code.
- 119 — Cannot write or create the office data disk file.
- 120 — Invalid version number on disk file.
- 127 — The signal transfer point (STP) indicator flag is not 0.
- 128 — The ANSI Standard Point Code flag on disk does not match the 3B computer copy.
- 129 — The ANSI Standard Point Code flag is invalid.
- 134 — The signaling route set test low priority timer "Srs_low_timer" on disk does not match the 3B computer copy.
- 135 — The signaling route set test low priority timer "Srs_low_timer" is out of range.
- 136 — The signaling route set test low priority timer "Srs_low_timer" is not a multiple of 30.

e

Text string describing the error encountered.

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4. ACTION TO BE TAKEN

If d 100, 101

According to these error messages, the audit is having difficulty in opening and/or reading the office or link set to multiple point code data disk file. This will be corrected during the audit by creating a new disk file and populating it with the data in the 3B computer. It is suggested that the audit be rerun to verify that this condition no longer exists.

d 102, 105, 107, 110, 116

These errors indicate that the data on disk does not match the data in the 3B computer. If the data in the 3B computer is correct, then doing a recent change that copies 3B computer to disk will remedy the problem. If the disk version is correct, then the data in the 3B computer must be changed via an office data or link set to multiple point code data recent change.

d 103, 106, 108, 111, 112, 117

These errors all indicate that one of the data items is invalid. These can be corrected by doing a recent change of the office data or link set to multiple point code data and modifying the data item in question.

d 104, 109, 113, 118

These are discrepancies between the office data and the link data. If the link data is in error, then doing link data recent changes on the appropriate links should clear up the problems. If the office data is wrong, then a recent change of the office data can be done to modify the item(s) in error.

d 119

According to this error message, the audit is having difficulty in creating or writing the new office data disk file. It is suggested that the audit be rerun and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.

d 120

The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

d 127

The STP indicator flag is not 0. The value 0 indicates that the office is not an STP. This can be corrected by performing a CNI level 3 initialization.

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d 128, 129

The ANSI Standard Point Code flag is invalid. If the flag in the 3B computer is correct, then doing a recent change that copies 3B computer office data to disk will remedy the problem. If the flag in the 3B computer is not correct, then use CNIDBOC's "U" option for office data to change the flag, cDstdpc, to the correct value. A value of 0 means that the office has the AT&T point code format. A value of 1 means that the office has the ANSI point code format. After correcting the 3B flag, perform a recent change that copies 3B computer office data to disk.

d 134

This error indicates that the data on disk does not match the data in the 3B computer. If the data in the 3B computer is correct, then doing a recent change that copies 3B computer to disk will remedy the problem. If the disk version is correct, then the data in the 3B computer must be changed via an office data recent change.

d 135, 136

These errors indicate that one of the data items is out of range or not valid. These can be corrected by doing a recent change of the office data and modifying the data item in question.

5. REFERENCES

Input Messages
AUD:NIDATA
OP:AUD
STOP:AUD

Output Message
OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-2
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR NIDATA 2 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
 - [2] AUD ENV=RTR NIDATA 2 STOPPED
 - [3] AUD ENV=RTR NIDATA 2 ABORTED CODE c
 - [4] AUD ENV=RTR NIDATA 2 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
- SUPPLEMENTARY DATA FILE
e

2. REASON FOR OUTPUT

Any errors encountered while auditing the office identification data will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.

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d

12 — Audit rejected a request to run from SIM.

13 — SIM aborted audit, audit subsystem was reinitialized.

Error code:

200 — Unable to open the link data disk file.

201 — Read error encountered in the link data disk file.

202 — Link data exists for an RPC.

203 — Disk file exists but no data in the 3B computer.

204 — Invalid protocol.

205 — Invalid encryption field.

206 — Invalid link type.

207 — Invalid far-end *STP*.

208 — Inappropriate SYU code.

209 — Inappropriate break-in.

210 — Invalid combined link set.

211 — Invalid mate link.

212 — Mate link is an RPC.

213 — Invalid mate relationship.

214 — Mate links are going to same far-end *STP*.

215 — Invalid CLLI code.

216 — A/E/B/D/W-link has local/mate CLLI code.

217 — A/E/B/D-link has an invalid far-end function.

218 — A/E/B/D-link has local/mate function.

219 — Invalid major state.

220 — Available links can not be self-looped.

221 — Available CCS6 links must have SLKs assigned.

222 — Invalid speed (i.e., does not match protocol).

223 — Invalid vfl field.

224 — Invalid voice access test quadrant.

225 — B/D-link has an invalid far-end region.

226 — Invalid pool number.

227 — No pool but there is a combined pool.

228 — The pool-link table is not consistent with the link data.

229 — Invalid layer number.

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- 230 — Invalid signaling link code.
- 231 — Invalid link set.
- 232 — No link set but there is a combined link set.
- 233 — A/E/B/D/W-link has an invalid far-end point code.
- 234 — A/E/B/D/W-link has local/ mate point code.
- 235 — The link data in the 3B computer does not match the copy on disk.
- 236 — Links going to the same destination need to have consistent data.
- 237 — The derived data items are incorrect.
- 238 — The linkset-link table is not consistent with the link data.
- 239 — The linkset relation table is not consistent with the link data.
- 240 — There are files in the link data directory which do not conform to the naming convention.
- 241 — The VL assignments as shown in the link data do not match the logical-physical tables.
- 242 — Mate link should be a CCS link.
- 243 — For SADC node, Facility Access Type (FACIL) must be MODEM.
- 244 — Invalid LI4 equipage.
- 245 — Invalid Mate link field.
- 246 — Invalid Link Speed.
- 247 — Invalid Link Facility ID.
- 248 — Invalid Circuit ID number (CIN).
- 249 — Invalid User.
- 250 — Invalid Ring Node Address (RNA) or RNA out of range.
- 251 — For SADC node with MODEM facility, T1FA Control Node (TCN) field must be unassigned.
- 252 — Invalid version number on disk file.
- 253 — Invalid Mate Link Major Field.
- 254 — Mated mate DCHN link should not be in the same node.
- 255 — Inconsistent Primary/Secondary field and Mate link field.
- 256 — Invalid Logical Link ID (LACID).
- 257 — LACID provisioned for link does not match the LACID provisioned on the mate link.

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- 258 — Mate link must be SECONDARY, since link is provisioned as PRIMARY.
 - 259 — Mate link must be PRIMARY, since link is provisioned as SECONDARY.
 - 260 — Invalid Primary/Secondary field.
 - 261 — Invalid mate link RNA.
 - 262 — Invalid mate link node type.
 - 263 — Invalid facility field.
 - 264 — Invalid medium field (must be SATELLITE or TERRESTRIAL).
 - 265 — Invalid ec_mode field (error correction mode).
 - 266 — Invalid receive queue (rxqlen) and/or transmit queue (txqlen) fields.
 - 267 — Invalid congestion onset threshold field.
 - 268 — Invalid congestion abatement threshold field.
 - 269 — Invalid normal AERM SU error rate threshold (tin_val) field.
 - 270 — Invalid emergency AERM SU error rate threshold (tie_val) field.
 - 271 — Invalid encryption mode.
 - 272 — Invalid re-transmit queue (rxqlen) field.
 - 273 — Invalid screen field.
 - 274 — Invalid far-end region.
 - 275 — Invalid Link Interface (LI) type field.
 - 276 — Invalid N1 limit of Message Signal Unit (MSU) field (n1_msu_rxmt).
 - 277 — Invalid T1 clock mode.
 - 278 — Protocol Timers and Parameters (PTP) data for the RNA is missing.
 - 279 — Invalid Re-Transmission Buffer Size (RXQLEN).
- e Text string describing the error encountered.

4. ACTION TO BE TAKEN

If variable d = 200, 201

These errors indicate problems in opening/reading the link data disk file. These will be corrected in the audit by creating a new file and populating it based on the data in the 3B computer. It is suggested that the audit be re-run in order to insure that this condition no longer exists.

SEE PROPRIETARY NOTICE ON COVER PAGE

If variable d = 202

This error indicates that a link data disk file exists for an RPC. This file should be removed.

If variable d = 203

If the disk file is not needed, remove it. If this link is supposed to have data, then do a link data recent change and add the appropriate information (the old disk file will be over-written with the new data).

If variable d = 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 220, 222, 223, 224, 225, 226, 227, 229, 230, 231, 232, 233, 234, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277

These error messages all indicate that there is some invalid data items in the link data. These can all be corrected by doing a link data recent change and modifying the appropriate field.

If variable d = 221

Available CCS6 links must have an SLK assigned if the logical-physical tables are to be used. The SLK can be assigned using a logical-physical add recent change.

If variable d = 235

Error messages of this type reflect the fact that the data in the 3B computer does not match the data on disk. If the data in the 3B computer is deemed correct, then do a recent change that copies the 3B computer to disk. If however, the data on disk is correct, then do a link data recent change and modify the appropriate fields.

If variable d = 236

These errors are due to the fact that links going to the same far-end function have inconsistent data. The link(s) that are incorrect can be fixed using a link data recent change.

If variable d = 237

Certain items stored in the link data do not appear on the RC form because these items can be derived based on the speed of the link. If these items should become inconsistent with the current speed of the link, doing a link data recent change without changing anything should cause the items to be derived correctly.

If variable d = 239

While scanning through the link data, a linkset relation table will be generated. If the current linkset relation table does NOT match the table just generated, then the existing table will be corrected accordingly. Running the audit again will verify that the table was indeed updated correctly.

If variable d = 240

This error indicates that there are files in the link data directory which do not fit the 'lnXX-X' format. These files should be inspected and corrected accordingly.

SEE PROPRIETARY NOTICE ON COVER PAGE

If variable d = 241

These errors can be corrected by doing a recent change that copies the logical-physical tables to disk. When the logical-physical tables are updated on disk, the VL assignments in the link data will be updated at the same time.

If variable d = 249

This error message indicates that there is an invalid data item in the link data. Doing a link data recent change without changing anything should cause the item to be derived correctly.

If variable d = 252

The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

If variable d = 278

This error indicates that the PTP data is missing for the specified RNA. Removing and adding the link node data for the RNA will correct this problem. Running the audit again will verify that the PTP data is indeed added.

If variable d = 279

This error code is the result of one of two possible problems. In both cases it indicates that the re-transmission buffer size is incorrect for the link specified in the "Supplementary Data File" output.

In the first case, if the "Supplementary Data File" output has the format "Link xx-y rxqlen (nnnn) should be 4000", it indicates that Link xx-y is a link in a link set where at least one link within that link set has MEDIUM as satellite and the error correction mode of Basic Error Correction (BEC). Verify that MEDIUM is correct. If MEDIUM is set to satellite for at least one link in the link set, all other links in that link set should have the Re-Transmission Buffer Size (RXQLEN). set to 4000. Use RC/V to make any corrections.

In the second case, if the "Supplementary Data File" output has the format "Link xx-y rxqlen (4000) should be 910", it indicates that there is no link with MEDIUM "satellite" using error correction mode "BEC" is present in the link set. Use RC/V to set the re-transmission buffer to 910.

NOTE: For the second case, verify that Message Transfer Part (MTP) Level 2 and 3 timer values have also been RC to the default values of terrestrial links without any satellite link in the link set.

5. REFERENCES

Input Messages
AUD:NIDATA
OP:AUD
STOP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
OP:AUD
OP:RING

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-3
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four output formats:

- [1] AUD ENV=RTR NIDATA 3 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 3 STOPPED
- [3] AUD ENV=RTR NIDATA 3 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 3 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the logical-physical translation data will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.
 - 12 — Audit rejected a request to run from SIM.
 - 13 — SIM aborted audit, audit subsystem was reinitialized.

SEE PROPRIETARY NOTICE ON COVER PAGE

d

Error code:

- 300 — The user has not provided these tables to the CNI.
- 301 — Open/read error encountered with the lxp_tab disk file.
- 302 — Open/read error encountered with the pxl_tab disk file.
- 303 — Open/read error encountered with the vl_tab disk file.
- 304 — Open/read error encountered with the ln7slots disk file.
- 305 — The logical-physical data on disk does not match the 3B computer copy.
- 306 — The physical-logical data on disk does not match the 3B computer copy.
- 307 — All CCS6 links in the AVL major state must have an SLK assigned.
- 308 — A link has an SLK assigned but there is no link data for the link.
- 309 — Physical-logical table indicates that the link is CCS7 but the link data is CCS6.
- 310 — The index into the virtual link table is invalid.
- 311 — A link is using an entry in the virtual link table which is marked as unused.
- 312 — The virtual link data on disk does not match the 3B computer copy.
- 313 — A link is using an invalid SLK.
- 314 — An RNA/VL translates to an SLK but the reverse translation does not hold true.
- 315 — A CCS7 link has an entry in the virtual link table but it doesn't have any vl's assigned.
- 316 — Physical-logical table indicates that the link is CCS6 but the link data is CCS7.
- 317 — An SLK translates to an invalid RNA/VL.
- 318 — An SLK translates to a link which is unequipped (i.e., no link data).
- 319 — An SLK translates to a CCS6 link but the virtual link is not 0.
- 320 — An SLK translates to an RNA/VL but the reverse translation does not hold true.
- 321 — An SLK translates to a CCS7 link but no index into virtual link table.
- 322 — An SLK translates to a CCS7 link but the virtual link is invalid.
- 323 — The ln7slots data on disk does not match the 3B computer copy.
- 324 — Invalid value in the ln7slots table.
- 325 — A virtual link entry is marked used but match no link is using this entry.
- 326 — A virtual link entry is marked unused but there is a virtual link assigned.
- 327 — The virtual link assignments in the logical-physical tables are inconsistent with the link data.

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328 — An SLK translates to a link which is equipped but is not a CCS link.

329 — Invalid version numbers on disk files.

e Text string describing the error encountered.

4. ACTION TO BE TAKEN

If d 301, 302, 303, 304

These errors indicate problems in opening/reading the disk files associated with the logical-physical translation tables. These will be corrected in the audit by creating a new disk file and populating it based on the data in the 3B computer. It is suggested that the audit be rerun in order to insure that this condition no longer exists.

If d 305, 306, 312, 323

The data in the 3B computer does not match the data on disk. If the 3B computer is correct, then do a recent change that copies the 3B computer to disk. If however, the disk is correct, do a recent change which updates the tables with the correct data.

If d 307, 308, 309, 310, 311, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 324, 325, 326, 327, 328

These errors are not corrected. User should do recent change to remove the incorrect entry, and another recent change to add the logical to physical and physical to logical data.

If d 329

The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

5. REFERENCES

Input Messages
AUD:NIDATA
OP:AUD

Output Messages
OP:AUD
OP:RING

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-4
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four output formats:

- [1] AUD ENV=RTR NIDATA 4 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 4 STOPPED
- [3] AUD ENV=RTR NIDATA 4 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 4 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the cluster/member routing data will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code.
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.
 - 12 — Audit rejected a request to run from SIM.
 - 13 — SIM aborted audit, audit subsystem was reinitialized.

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d	Error code: 400 — Unable to open the cluster disk file. 401 — Read error encountered in the cluster disk file. 404 — Small network populated cluster is for nonlocal network only. 405 — The number of static members in a small network is incorrect. 406 — The cluster flag in the 3B computer does not match the cluster flag on disk. 407 — Invalid cluster flag. 408 — Invalid linkset in the cluster or member table(s). 409 — Point code cannot be equal to local point code. 410 — The linkset in the 3B computer cluster table does not match the linkset on disk. 415 — Cannot create disk file. 416 — Inconsistency between the cluster level flag and the unpopulated bit for the nonlocal network. 417 — The cluster is marked as unassigned but routing information exists. 420 — The member flag in the 3B computer table does not match the member flag on disk. 421 — Invalid flag in the member table. 422 — The linkset in the 3B computer member table does not match the linkset on disk. 423 — Unable to open the member disk file. 424 — Read error encountered in the member disk file. 425 — Invalid version number on disk file. 426 — Unable to write cluster disk file. 427 — Unable to append version number to member disk file. 428 — Invalid member flag was found in member disk file.
e	Text string describing the error encountered.

4. ACTION TO BE TAKEN

If d	400, 401, 423, 424	These errors will be corrected during the audit. A new disk file will be created and populated from the table in the 3B computer. Rerunning the audit will verify that the condition no longer exists.
If d	404	These errors are not corrected. User should do recent change to remove the incorrect entry, and another recent change to add the small network populated cluster for the nonlocal network.

SEE PROPRIETARY NOTICE ON COVER PAGE

d 406, 410, 420, 422

The data in the 3B computer does not match the data on disk. If the 3B computer is correct, then do a recent change that copies the 3B computer to disk. If however, the disk is correct, do a recent change which updates the tables with the correct data.

d 405, 407, 421

Invalid data in the cluster/member table can be corrected by doing a recent change which updates the tables with the correct data.

d 408

This error represents a problem with the linkset that appears in either the cluster or member table. The linkset should be changed to a valid linkset.

d 409

This error indicates that the point code is equal to the local point code. To correct this, delete the routing information for this point code with a recent change which updates the tables.

d 415

According to this error message, the audit is having difficulty in creating the new routing data disk file. It is suggested that the audit be re-run and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.

d 416

This error is corrected during the audit by changing the unpopulated bit to match the flag field.

d 417

Delete the routing information with a recent change which updates the tables.

d 425

The version number on the disk does not match the version number the audit expects. The user should check whether the file was retrofitted or whether it is in the proper format.

d 426

According to this error message, the audit is having difficulty in writing the new cluster disk file. It is suggested that the user re-run the audit and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.

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d 427

According to this error message, the audit is having difficulty in appending the version number to the new member disk file. It is suggested that the user removes the cluster or member disk file and re-run the audit and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.

d 428

According to this error message, the audit found one or more entries in the member disk file which had an invalid flag entry. This was corrected by deleting the entry or entries. The audit should be re-run to confirm the error has been corrected.

5. REFERENCES

Input Messages
AUD:NIDATA
OP:AUD

Output Messages
OP:AUD
STOP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-5
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four output formats:

- [1] AUD ENV=RTR NIDATA 5 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 5 STOPPED
- [3] AUD ENV=RTR NIDATA 5 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 5 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the subsystem information data will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code.
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.
 - 12 — Audit rejected a request to run from SIM.
 - 13 — SIM aborted audit, audit subsystem was reinitialized.

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d

Error code:

- 500 — Unable to open the subsystem distribution disk file.
- 501 — Read error encountered in the subsystem distribution disk file.
- 502 — Unable to open the local subsystem information disk file.
- 503 — Read error encountered in the local subsystem information disk file.
- 504 — The data in the 3B computer does not match the copy on disk.
- 505 — The subsystem should be equipped.
- 506 — Invalid equipped indicator.
- 507 — For an equipped subsystem:
Invalid channel to receive signaling messages.
- 508 — For a subsystem which is equipped by default:
Invalid local function index.
- 509 — For a subsystem which is not equipped by default:
Invalid local function index.
- 510 — For an equipped subsystem:
Invalid want pause indicator.
- 511 — For an equipped subsystem:
Invalid channel to receive management indications.
- 512 — Invalid simplex/ duplex indicator.
- 513 — For an unequipped subsystem:
Invalid address to receive signaling messages.
- 514 — For an unequipped subsystem:
Invalid channel to receive signaling messages.
- 515 — For an unequipped subsystem:
Invalid local function index.
- 516 — For an unequipped subsystem:
Invalid want pause indicator.
- 517 — For an unequipped subsystem:
Invalid simplex/ duplex indicator.
- 518 — For an unequipped subsystem:
Invalid channel to receive management indications.
- 519 — For an unequipped subsystem:
Invalid mate subsystem number.
- 520 — For an unequipped subsystem:
Invalid mate point code.
- 521 — For an unequipped subsystem:
Invalid address to receive management indications.
- 522 — For an equipped subsystem:
Invalid address to receive signaling messages, or invalid address to receive management indications.
- 523 — For an equipped subsystem:
The address to receive signaling messages or the address to receive management indications is an RPC.
- 524 — For an equipped subsystem:
The address to receive signaling messages or the address to receive management indications should be an equipped CCS7 link.

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- 525 — For a simplex subsystem:
Should have a null mate subsystem number.
- 526 — For a simplex subsystem:
Should have a null mate point code.
- 527 — For a duplex subsystem:
Invalid mate subsystem number.
- 528 — For a duplex subsystem:
Invalid mate point code.
- 529 — For a subsystem which is not equipped by default:
Invalid outgoing local function index.
- 530 — For an unequipped subsystem:
Invalid outgoing local function index.
- 531 — Subsystem Manager has an invalid field.
- 532 — Invalid version numbers on disk files.

e Text string describing the error encountered.

4. ACTION TO BE TAKEN

If d 500, 501, 502, 503

This error is corrected during the audit. A new disk file will be created and populated from the table in the 3B computer. Rerunning the audit will verify that the condition no longer exists.

d 504

Error messages of this type reflect the fact that the data in the 3B computer does not match the data on disk. If the data in the 3B computer is deemed correct, then do a recent change that copies the 3B computer to disk. If the data on disk is correct, then do a subsystem information recent change and modify the appropriate fields.

d 505

Certain subsystems must be equipped by default. The "equipped indicator" does not appear on the RC form, but is handled automatically. This error is corrected by doing a "define subsystem information" recent change, followed by a recent change that copies 3B computer to disk. The "equipped indicator" will be set automatically.

d 506

The "equipped indicator" does not appear on the RC form, but is handled automatically. This error is corrected by doing a "define subsystem information" or "delete subsystem information" recent change, followed by a recent change that copies 3B computer to disk. The "equipped indicator" will automatically be set or cleared appropriately.

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d 507, 508, 509, 510, 511, 512, 522, 523, 524, 525,
526, 527, 528, 529

These error messages all indicate that there is some invalid data items for an equipped subsystem. These can all be corrected by doing a "define subsystem information" recent change which modifies the appropriate field(s), followed by a recent change that copies 3B computer to disk.

d 513, 514, 515, 516, 517, 518, 519, 520, 521, 530

These error messages all indicate that there is some invalid data items for an unequipped subsystem. These errors are corrected during the audit. The invalid data items are replaced by the proper default data items for an unequipped subsystem. Rerunning the audit will verify that the condition no longer exists.

d 531

This error message indicates that there is an invalid field for the subsystem manager. These errors are corrected during the audit. The invalid fields are replaced by the proper default values for subsystem manager and the table entry is copied from the 3B computer to disk. Rerunning the audit will verify that the condition no longer exists.

d 532

The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

5. REFERENCES

Input Messages
AUD:NIDATA
OP:AUD
STOP:AUD

Output Messages
OP:AUD
OP:RING

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-6
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four output formats:

- [1] AUD ENV=RTR NIDATA 6 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 6 STOPPED
- [3] AUD ENV=RTR NIDATA 6 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 6 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the permanent relations table will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.
 - 12 — Audit rejected a request to run from SIM.
 - 13 — SIM aborted audit, audit subsystem was reinitialized.

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d	Error code: 600 — Read error encountered with the permanent relations disk file. 601 — Unable to open the permanent relations disk file. 602 — The other clock node does not appear in the permanent relations table. 603 — The permanent relations table should be empty. 604 — Even home STP missing from the permanent relations table. 605 — Odd home STP missing from the permanent relations table. 606 — Mated point code and subsystem(s) missing from the permanent relations table. 607 — Multiple appearances of a point code in the permanent relations table. 608 — Permanent relations table or disk contain embedded zeros within the table. 609 — Subsystem(s) associated with the point code from disk does not match the subsystem(s) from the 3B computer. 610 — Point code on disk does not match point code in 3B computer. 611 — Subsystem(s) associated with the point code from the 3B computer does not match the subsystem(s) on disk. 612 — Point code in 3B computer does not match point code on disk. 613 — Network identifier of the point code out of range. 614 — Invalid version number on disk file.
e	Text string describing the error encountered.

4. ACTION TO BE TAKEN

If d	600, 601 These errors indicate problems in opening/reading the disk file associated with the permanent relations table. These will be corrected in the audit by creating a new disk file and populating it based on the data in the 3B computer. It is suggested that the audit be rerun in order to insure that this condition no longer exists.
d	602 This error indicates that this office is one of the clock nodes, but a permanent relation has not been established with the other clock node. The audit will automatically add the clock node to the permanent relations table if this situation exists.
d	603 Invalid data was detected in the permanent relations table. The audit automatically clears it by zeroing out the contents. This error is only detected in an STP that is not a clock node.

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- d 604, 605
- Even/odd home STPs are missing from the permanent relations table. Once detected, the audit automatically adds them to the existing table.
- d 606
- A permanent relation should be established with each mated subsystem. If the relation does not exist, the audit automatically adds it.
- d 607
- The permanent relations table contains multiple occurrences of the same point code. The audit automatically replaces the excess point code(s) with zeros to prevent their duplication.
- d 608
- This error indicates that the permanent relations table and disk copy contain embedded zeros. The audit automatically moves the empty slots to the bottom, thus creating a proper dense list.
- d 609
- The subsystem numbers associated with a point code on disk do not match the subsystem numbers in the 3B computer. If the subsystems that are in the 3B computer are correct, then do an RC to copy 3B computer to disk. If the disk file is correct, then do an RC to add the subsystems to the 3B computer.
- d 610
- The disk point code does not match any of the point codes in the 3B computer. This can be corrected by adding the point code to the 3B computer with an RC, or copying from 3B computer to disk.
- d 611
- The subsystem numbers associated with a point code in the 3B computer do not match the subsystem numbers on disk. If the subsystems that that are in the disk are correct, then do an RC to copy disk to 3B computer. If the 3B computer file is correct, then do an RC to add the subsystems to disk.
- d 612
- The 3B computer point code does not match any of the point codes on disk. Corrections are done by removing the point code from the 3B computer by means of an RC, or with an RC to copy 3B computer to disk.

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d 613

The 3B computer point code has a network identifier that is out of range. Correction is done by removing the point code and then add in the correct point code by means of the RC, or with the RC to copy 3B computer to disk.

d 614

The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

5. REFERENCES

Input Messages
AUD:NIDATA
OP:AUD

Output Messages
OP:AUD
STOP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-7
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four formats.

- [1] AUD ENV=RTR NIDATA 7 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 7 STOPPED
- [3] AUD ENV=RTR NIDATA 7 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 7 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the office identification data will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.
 - 12 — Audit rejected a request to run from SIM.
 - 13 — SIM aborted audit, audit subsystem was reinitialized.

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d	Error code:
	700 — Unable to open the international routing data disk file.
	701 — Read error encountered with the international routing data disk file.
	702 — Unable to create or write the international routing data disk file.
	703 — The 3B computer copy and disk do not match.
	707 — Linkset must consist of all international links.
	712 — The number of equipped point codes in the international routing data table does not match the global actual number of equipped point codes.
	714 — Unable to lseek the international routing data disk file.
	715 — The number of equipped point codes in the international routing data disk file does not match the actual number of equipped point codes.
	716 — The first linkset in the international data disk file is invalid for NOIPC point code.
	717 — The first linkset in the international data disk file is invalid for non NOIPC point code.
	718 — The number of routes in the international routing data structure does not match the actual number of routes.
	719 — The linkset in the international routing data structure is out of range.
	720 — The linkset in the international routing data structure has to be unique.
	721 — The first linkset in the international routing data structure for a valid point code can not be NOSET.
	722 — The linkset of a non-equipped route in the international routing data structure should be NOSET.
	723 — Indexes in Cninf_index and Cnindx_pc tables are not identical for the same point code.
	724 — Index in Cninf_index or Cnindx_pc table is invalid.
e	Text string describing the error encountered.

4. ACTION TO BE TAKEN

If d	700, 701
	According to these error messages, the audit is having difficulty in opening, reading, or creating the international routing data disk file. This will be corrected during the audit by creating a new disk file and populating it with the data in the 3B computer. It is suggested that the audit be rerun to verify that this condition no longer exists.
If d	702
	According to this error message, the audit is having difficulty in creating or writing the new international routing data disk file. It is suggested that the audit be rerun; and if the error message appears

SEE PROPRIETARY NOTICE ON COVER PAGE

again, the user should consult with his system administrator to find out the cause of the error.

If d 703

This error indicates that the data on disk does not match the data in the 3B computer. If the data in the 3B computer is correct, then doing a recent change that copies 3B computer to disk will remedy the problem. If the disk version is correct, then the data in the 3B computer must be changed via an international routing data recent change.

If d 707

This is a discrepancy between the international routing data and the link data. If the link data is in error, then doing link data recent changes on the appropriate links should clear up the problems. If the international routing data is wrong, then a recent change of the international routing data can be done to modify the item(s) in error.

If d 712

This is a discrepancy between the number of equipped international point codes that were found in the international routing table and the actual number of the equipped point codes. This will be corrected during the audit assigning the number of equipped international point codes to the global variable which holds the actual number of equipped point codes.

If d 714

According to this error message, the audit is having difficulty in seeking the desired disk file position before writing the new international routing data disk file. It is suggested that the audit be rerun and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.

If d 715

This is a discrepancy between the number of equipped point codes and the actual number of the equipped point codes in the international routing data disk file. This will be corrected during the audit by assigning the number of equipped point codes to the actual number of equipped point codes.

If d 716

This error indicates that the first linkset for an NOIPC (invalid entry) point code is not NOSET in the international data disk file. The error is corrected during the audit by assigning the first link set to be NOSET for NOIPC point code.

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If d 717

This error indicates that the first linkset for a non NOIPC (valid entry) point code is NOSET in the international data disk file. If the data in 3B is correct, then doing a recent change that copies 3B to disk will remedy the problem.

If d 718

This is a discrepancy between the number of equipped routes and the actual number of the equipped routes of a point code in the international routing data structure. This will be corrected during the audit by assigning the number of equipped routes to the actual number of equipped routes.

If d 719, 720

This error indicates that the linkset is invalid in the international routing data structure. These can be corrected by doing a recent change of the international routing data and modifying the data item in question.

If d 721

This error indicates that the first linkset for a valid point code is NOSET in the international routing data structure. This can be corrected by doing a recent change of the international routing data structure.

If d 722

This error indicates that the linkset is invalid for a nonequipped route in the international routing data structure. This will be corrected during the audit by assigning NOSET to this linkset in the international routing data structure.

If d 723

This error indicates that the indexes in Cninf_index and Cnindx_pc tables are not identical for the same point code. The user should consult with his system administrator to find out the cause of the error.

If d 724

This error indicates that the index in either Cninf_index or Cnindx_pc table is wrong. This will be corrected during the audit.

5. REFERENCES

Input Messages
AUD:NIDATA
OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
OP:AUD
STOP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-8
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four output formats:

- [1] AUD ENV=RTR NIDATA 8 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 8 STOPPED
- [3] AUD ENV=RTR NIDATA 8 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 8 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the office identification data will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.
 - 12 — Audit rejected a request to run from SIM.
 - 13 — SIM aborted audit, audit subsystem was reinitialized.

SEE PROPRIETARY NOTICE ON COVER PAGE

d	Error code: 800 — Unable to open the global title translator data disk file. 801 — Read error encountered with the global title translator data disk file. 802 — Unable to create or write the global title translator data disk file. 803 — The 3B computer global translator pair and cSadjstp table do not match. 804 — The 3B computer copy and disk do not match. 805 — The global title translator pair is zero. 806 — Invalid network identifier. 807 — Member should be zero for an stp point code. 808 — If an STP, the global translator pair must equal to the point code. 809 — No routing data exists for the point code. 810 — Invalid version number on disk file.
e	Text string describing the error encountered.

4. ACTION TO BE TAKEN

If d	800, 801 According to these error messages, the audit is having difficulty in opening or reading the global title translator data disk file. This will be corrected during the audit by creating a new disk file and populating it with the data in the 3B computer. It is suggested that the audit be rerun to verify that this condition no longer exists.
d	802 According to this error message, the audit is having difficulty in creating or writing the new global title translator data disk file. It is suggested that the audit be rerun and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.
d	803 This error indicates that the data in the 3B computer for the general translator pair does not match the cSadjstp table. The audit will correct the general translator pair recording to the cSadjstp table.
d	804 This error indicates that the data on disk does not match the data in the 3B computer. If the data in the 3B computer is correct, then doing the recent change that copies 3B computer to disk will remedy the problem. If the disk version is correct, then the data in the 3B computer must be changed via a global title translator data recent change.

SEE PROPRIETARY NOTICE ON COVER PAGE

- | | | |
|---|----------|---|
| d | 805 | This error indicates that the general translator pair is zero and different from the cSadjstp table (the cSadjstp point codes are different than zero). The audit will correct the general translator pair according to the cSadjstp table. |
| d | 806, 807 | These errors all indicate that one of the data items in the table is invalid. These can be corrected by doing a recent change of the global title translator data and modifying the data item in question. |
| d | 808 | This error indicates that the general translator pair for an STP office is incorrect. The audit will correct the general translator pair to contain the local point code. |
| d | 809 | This error indicates that no routing data exists for the point code in the table. The user will have to enter routing data by doing a recent change. |
| d | 810 | The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format. |

5. REFERENCES

CNI Maintenance Manual 256-090-122

Audits Section

Input Messages

AUD:NIDATA

OP:AUD

Output Messages

OP:AUD

STOP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-9
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four output formats:

- [1] AUD ENV=RTR NIDATA 9 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 9 STOPPED
- [3] AUD ENV=RTR NIDATA 9 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 9 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the office identification data will be output so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 11 — An audit was blocking a needed demand audit.
 - 12 — Audit rejected a request to run from SIM.
 - 13 — SIM aborted audit, audit subsystem was reinitialized.

SEE PROPRIETARY NOTICE ON COVER PAGE

d	Error code: 900 — Unable to open the network identifier routing data disk file. 901 — Read error encountered with the network identifier routing data disk file. 902 — Unable to create or write the network identifier routing data disk file. 903 — The 3B computer data and disk data do not match. 904 — Local NID point code assigned but director information used field is not. 905 — Invalid director index value. 906 — Director index wrong for NID. 907 — Director index does not have a corresponding network identifier. 908 — For nonlocal network cluster/member level routing, the flag and director index are not consistent. 909 — For network level only routing the director index should not be assigned. 910 — Invalid Link set. 911 — For cluster member level routing the prefer field at the NID level should not be assigned. 912 — For local network cluster/member level routing, the flag and director index are not consistent. 913 — Invalid version number on disk file.
e	Text string describing the error encountered.

4. ACTION TO BE TAKEN

If d	900, 901 According to these error messages, the audit is having difficulty in opening, reading the network identifier routing data disk file. This will be corrected during the audit by creating a new disk file and populating it with the data in the 3B computer. It is suggested that the audit be rerun to verify that this condition no longer exists.
d	902 According to this error message, the audit is having difficulty in creating or writing the new network identifier routing data disk file. It is suggested that the audit be rerun and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.
d	903 This error indicates that the data on disk does not match the data in the 3B computer. If the data in the 3B computer is correct, then doing a recent change that copies 3B computer to disk will remedy the problem. If however, the disk version is correct, then the data in the 3B computer must be changed via a network identifier routing data recent change.

SEE PROPRIETARY NOTICE ON COVER PAGE

d 904, 907, 909, 911

These errors are corrected by the audit. Run the audit again and the errors should no longer appear.

d 904, 905, 908, 910, 912

These errors either indicate that there is an inconsistency among flag, index and linkset fields or one of them is out of range. These can be corrected by doing two network identifier routing data recent changes: first, delete the network identifier corresponding to the out-of-range or inconsistent value. Second, add the network identifier back into the database with the correct data.

d 906

This is an inconsistency between the network identifier routing data and the director index data. This can be corrected by doing two network identifier routing data recent changes: First, delete the inconsistent data, this might cause another inconsistency error message (since the director index that was wrongfully used by the network identifier is being deleted and that director index might originally correspond to another network identifier), run the audit again to see if the delete is done properly. If not, delete again. Second, add the correct data. If there are multiple director indexes in the network identifier data assigned to single network identifier in the director index data, the correcting step 1 should be repeated and the audit should be run again until they are all corrected.

d 913

The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

5. REFERENCES

CNI Maintenance Manual 256-090-122
Audits Section

Input Messages
AUD:NIDATA
OP:AUD

Output Messages
OP:AUD
STOP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NIDATA-10
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR NIDATA 10 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR NIDATA 10 STOPPED
- [3] AUD ENV=RTR NIDATA 10 ABORTED CODE c
- [4] AUD ENV=RTR NIDATA 10 ERROR d REPORT
 - DATA 1 X'00000000 DATA 2 X'00000000
 - DATA 3 X'00000000 DATA 4 X'00000000
 - SUPPLEMENTARY DATA FILE
 - e

2. REASON FOR OUTPUT

Any errors encountered while auditing the protocol timers/parameters data will be output so that the appropriate action can be taken to correct the data.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.

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- d Error code:
- 1000 — Unable to open the protocol timer / parameter disk file.
 - 1001 — Read error encountered in the protocol timer / parameter disk file.
 - 1002 — Unable to create / write protocol timer / parameter disk file.
 - 1003 — Office timer data in the 3B memory differs from that in the disk file.
 - 1004 — Office timer data in the 3B memory is invalid.
 - 1005 — Link set timer data in the 3B memory differs from that in the disk file.
 - 1006 — Link set timer data in the 3B memory is invalid.
 - 1007 — The link Protocol Timers and Parameters (PTP) data index to the Ring Node Address (RNA) mapping array (Cl7ptp2lk[]) and the RNA to the link PTP data index mapping array (Cl7lk2ptp[]) in the 3B have invalid values.
 - 1008 — The link PTP data is present but the link node data is missing.
 - 1009 — Link timer data in the 3B memory differs from that in the disk file.
 - 1010 — Link timer data in the 3B memory is invalid.
 - 1011 — The link PTP data index to the RNA mapping array (Cl7ptp2lk[]) in the disk has an invalid RNA value.
 - 1012 — The RNA to link PTP data index mapping array (Cl7lk2ptp[]) is inconsistent with the link PTP data to RNA mapping array (Cl7ptp2lk[]).
 - 1013 — Invalid version number in the disk file.
 - 1014 — Too many bytes in the protocol timer / parameter disk file.
 - 1015 — The link PTP data index to the RNA mapping array (Cl7ptp2lk[]) mismatch between the 3B memory and the disk.
- e Text string describing the error encountered.

4. ACTION TO BE TAKEN

If variable d = 1000, 1001

These errors are corrected during the audit. A new disk file will be created and populated from the data in the 3B computer. Rerunning the audit will verify that the condition no longer exists.

If variable d = 1002

This error indicates that the operating system prevented the audit from creating / writing a new disk file. The reason should be determined and corrected before rerunning the audit.

SEE PROPRIETARY NOTICE ON COVER PAGE

If variable d = 1003

Error messages of this type reflect the fact that the office timer data in the 3B computer does not match the data on the disk. If the data in the 3B computer is deemed correct, then do an office timer recent change that copies the 3B memory office timers to disk. If the data on disk is correct, then do an office timer recent change for 3B memory and modify the appropriate timers.

If variable d = 1004

These error messages indicate that there are invalid office timer data items in 3B memory. These can be corrected by doing an office timer recent change for 3B memory. Consider following this with an office timer recent change that copies the 3B memory office timers to disk.

If variable d = 1005

Error messages of this type reflect the fact that the link set timer data in the 3B computer does not match the data on the disk. If the data in the 3B computer is deemed correct, then do a link set timer recent change that copies the 3B memory link set timers to disk. If the data on disk is correct, then do a link set timer recent change for 3B memory and modify the appropriate timers.

If variable d = 1006

These error messages indicate that there are invalid link set timer data items in 3B memory. These can be corrected by doing a link set timer recent change for 3B memory. Consider following this with a link set timer recent change that copies the 3B memory link set timers to disk.

If variable d = 1007

The Cl7ptp2lk[] is an array mapping the slot containing the link PTP data to RNA. The Cl7lk2ptp[] is an array mapping the RNA to the slot containing the link PTP data. This error reflects that the 3B memory of either of these arrays has an invalid value. The audit corrects this problem by resetting the value to 0. Re-running the audit will verify that the condition no longer exists.

If variable d = 1008

The audit corrects these errors by deleting the link PTP data. Re-running the audit will verify that the condition no longer exists.

If variable d = 1009

Error messages of this type reflect the fact that the link timer data in the 3B computer does not match the data on the disk. If the data in the 3B computer is deemed correct, then do a link parameter (not link node data) recent change that copies the 3B memory link parameters to disk. If the data on disk is correct, then do a link parameter (not link node data) recent change for 3B memory and modify the appropriate timers.

If variable d = 1010

These error messages indicate that there are invalid link timer data items in 3B memory. These can be corrected by doing a link parameter (not link node data) recent change for 3B memory. Consider following this with a link parameter recent change that copies the 3B memory link parameters to disk.

SEE PROPRIETARY NOTICE ON COVER PAGE

If variable d = 1011

The Cl7ptp2lk[] is an array mapping the slot containing the link PTP data to RNA. This error reflects that the disk copy of this array has an invalid RNA value. These errors can be corrected by doing a link PTP disk update that copies the 3B memory link PTP data to disk.

If variable d = 1012

The Cl7ptp2lk[] is an array mapping the slot containing the link PTP data to RNA. The Cl7lk2ptp[] is an array mapping the RNA to the slot containing the link PTP data. These error messages indicate that the 3B memory of these two arrays are inconsistent. The audit corrects these problems by making the values of the Cl7lk2ptp[] array consistent with the values of the Cl7ptp2lk[] array because Cl7lk2ptp[] is derived from Cl7ptp2lk. Re-running the audit will verify that the condition no longer exists.

If variable d = 1013

The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was created or retrofitted, and whether it is in the proper format.

If variable d = 1014

This error is corrected during the audit. A new disk file will be created and populated from the data in the 3B computer. Re-running the audit will verify that the condition no longer exists.

If variable d = 1015

The Cl7ptp2lk[] is an array mapping the slot containing the link PTP data to RNA. Error messages of this type reflect the fact that the 3B memory and disk values of this array do not match. These errors can be corrected by doing a link PTP disk update that copies the 3B memory link PTP data to disk.

5. REFERENCES

Input Message
AUD:NIDATA

SEE PROPRIETARY NOTICE ON COVER PAGE

WARNING
INAPPROPRIATE USE OF THIS
MESSAGE MAY INTERRUPT OR
DEGRADE SERVICE. READ PURPOSE
CAREFULLY.

ID AUD:NMDATA-1
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

WARNING
CNI Customer Support should always be notified in the event of an
error. CNI does not recommend running this audit in error correction
mode. Error correction mode should only be used under the guidance of
CNI Customer Support.

When the audit is run in error correction mode, the applications are
NOT notified of the updates to the 3B20D/3B21D routing data.

1. FORMAT

[1] AUD ENV=RTR NMDATA 1 COMPLETED
a ERRORS FOUND
b ERRORS CORRECTED

[2] AUD ENV=RTR NMDATA 1 STOPPED

[3] AUD ENV=RTR NMDATA 1 ABORTED CODE c

[4] AUD ENV=RTR NMDATA 1 ERROR [d]e f REPORT COMPLETED
DATA1 X'gggggggg DATA2 X'hhhhhhh
DATA3 X'iiiiiii DATA4 X'jjjjjjjj

NO SUPPLEMENTARY DATA

2. REASON FOR OUTPUT

This output is the result of executing the NMDATA 1 audit.

Format 1 prints when the NMDATA 1 audit runs to completion (with or without errors).
Contains the summary report.

Format 2 prints in response to the STOP:AUD (with NMDATA-1 option) input command.

Format 3 prints in response to a problem that the System Integrity Monitor (SIM)
encountered with the audit.

Format 4 prints when errors are detected by the NMDATA 1 audit. Reports the errors.

3. VARIABLE FIELD DEFINITIONS

a Total number of errors found.
b Total number of errors corrected.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Abort code:
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
- d Table that the error occurred in:
- 10 — Network table.
 - 11 — Cluster table.
 - 12 — Page Access table.
 - 13 — Member table.
 - 14 — Free List Header table.
 - 15 — Link Set Translation table.
 - 16 — Routing Priority Index (RPI) status table.
 - 18 — Director index to network table.
 - 19 — Page Access count.
- NOTE:** If the error code is 13 or 14, then the table the error occurred in will not be present in the output.
- e Error code:
- 00 — Invalid free list header.
 - 01 — Infinite free list (loop in free list).
 - 02 — Multiple pointers point to the next table entry.
 - 03 — No pointer exists.
 - 04 — Index error.
 - 05 — Invalid flag value.
 - 06 — Invalid/inconsistent route status.
 - 07 — Error in count of exceptional page access data.
 - 08 — An unused data field has an invalid value.
 - 09 — An entry in the director index to network table is inconsistent with data in the network table.
 - 10 — The link set translation table is inconsistent with the link set relation or routing priority tables.
 - 11 — The RPI status table is inconsistent with the link set status table.
 - 12 — SCCP index field inconsistency.
 - 13 — Maximum errors threshold reached.
 - 14 — Invalid internal audit data.
- NOTE:** Errors 00 through 13 are associated with different tables. Errors 13 and 14 are not associated with any tables and therefore the table that the error occurred in variable will not be printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

f	Indicates whether the error was corrected or not: CORR NOT CORR
g	Address of the error.
h	Erroneous data value.
i	Index into the table (see table that the error occurred variable to determine which table).
j	Correct data value.

4. ACTION TO BE TAKEN

Run the AUD:NIDATA-4 input command for more information.

5. REFERENCES

Practice 256-090-182 *CNI Maintenance Manual* - Audits Section

Input Appendix
APP:AUD

Input Message
AUD:NIDATA
AUD:NMDATA

Output Message
AUD:NIDATA-4

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NMDATA-2
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

[1] AUD ENV=RTR NMDATA 2 COMPLETED
a ERRORS FOUND
b ERRORS CORRECTED

[2] AUD ENV=RTR NMDATA 2 STOPPED

[3] AUD ENV=RTR NMDATA 2 ABORTED CODE c

[4] AUD ENV=RTR NMDATA 2 ERROR d e REPORT COMPLETED
DATA1 X'ffffffff DATA2 X'ggggggggg
DATA3 X'hhhhhhh DATA4 X'iiiiiii

NO SUPPLEMENTARY DATA

2. REASON FOR OUTPUT

This output is the result of executing the NMDATA 2 audit.

Format 1 Prints when the NMDATA 2 audit runs to completion (with or without errors).
Contains the summary report.

Format 2 Prints in response to the STOP:AUD (with NMDATA-2 option) input command.

Format 3 Prints in response to a problem that the System Integrity Monitor (SIM)
encountered with the audit.

Format 4 Prints when errors are detected by the NMDATA 2 audit. Reports the errors.

3. VARIABLE FIELD DEFINITIONS

a Total number of errors found.

b Total number of errors corrected.

c Abort code:

- 3 — Audit was aborted without completing its work.
- 4 — Audit was faulted while correcting errors.
- 5 — SIM could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.

- d Error code:
- 15 — Invalid internal audit data.
 - 20 — Bad Ring Node Address (RNA) value in loadshare table.
 - 21 — RNA in loadshare table is inconsistent with link node data.
 - 22 — RNA found in loadshare table but should not be in the table.
 - 23 — RNA was not found in loadshare table, but should be.
 - 24 — Link state for RNA indicates that the linkset status should be NORMAL.
- e Indicates whether the error was corrected or not:
- CORR
- NOT CORR.

If d = 20, 21, or 22

- f The address of the error in the loadshare table.
- g The erroneous data value. For error 16, DATA2 contains the value of the RNA which has the inconsistency with the link node data. For error 17, DATA2 contains the value of the RNA which is in the table, but should not be.
- h The linkset number which is used to access the specific loadshare table.
- i The correct data value from a newly-created copy of the loadshare table. The correct data value from the copy of the loadshare table is associated with the same Signaling Link Selection (SLS) code as the incorrect data value.

If d = 23 or 24

- f The address of the RNA in the linkset-to-RNA table.
- g The erroneous data value. For error 18, DATA2 contains the value of the RNA which is not in the table but should be. For error 19, DATA2 contains the value of the RNA for which the link state indicates the linkset status should be NORMAL.
- h The linkset number used to access the specific loadshare table.
- i 0 for these errors.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

CNI Customer Support should be notified in the event of an error. This audit is normally run in error correcting mode. Any changes in the 3B20D/3B21D data are also reflected in Direct Link Nodes (DLNs) and D-Channel (DCHN) nodes. The applications are notified of loadshare table updates when this audit is run in error correction mode.

5. REFERENCES

CIC Select Code 303-080 *Audit Appendix* - Supplementary Information Section.

Practice 234-151-180 *Trouble Clearing and Maintenance Procedures* - Audits Section

Practice 256-090-182 *CNI Maintenance Manual* - Audits Section

Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Message

AUD:NMDATA

SEE PROPRIETARY NOTICE ON COVER PAGE

CAUTION
INAPPROPRIATE USE OF THIS
MESSAGE MAY INTERRUPT OR
DEGRADE SERVICE. READ PURPOSE
CAREFULLY.

ID AUD:NMDATA-3
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

CAUTION
CNI Customer Support should always be notified in the event of an
error. CNI does not recommend running this audit in error correction
mode. Error correction mode should only be used under the guidance of
CNI Customer Support.

1. FORMAT

[1] AUD ENV=RTR NMDATA 3 COMPLETED
a ERRORS FOUND
b ERRORS CORRECTED

[2] AUD ENV=RTR NMDATA 3 STOPPED

[3] AUD ENV=RTR NMDATA 3 ABORTED CODE c

[4] AUD ENV=RTR NMDATA 3 ERROR de f REPORT COMPLETED
DATA1 X'gggggggg DATA2 X'gggggggg
DATA3 X'gggggggg DATA4 X'gggggggg

NO SUPPLEMENTARY DATA

2. REASON FOR OUTPUT

This output is the result of executing the NMDATA 3 audit.

Format 1 Prints when the NMDATA 3 audit runs to completion (with or without errors).
Contains the summary report.

Format 2 Prints in response to the STOP:AUD (with NMDATA 3 option) input command.

Format 3 Prints in response to a problem that the System Integrity Monitor (SIM)
encountered with the audit.

Format 4 Prints when errors are detected by the NMDATA 3 audit. Reports the errors.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 5 — SIM could not start or dispatch the audit.
- 6 — An error was encountered in the audit control/audit library interface.
- 7 — Audit exceeded its timeout or segment limit.
- 8 — SIM aborted an executing routine audit because of a blocking request.
- 9 — Transient process that was running the process terminated.
- 10 — A segmented audit exceeded an error threshold.

d

Table that the error occurred in:

- 0 — Network table.
- 1 — Cluster table.
- 2 — Page access table.
- 3 — Member table.
- 4 — Free list header table.
- 5 — Page access count.
- 6 — Subsystem count.
- 7 — Route set test table.
- 8 — Cluster route set test table.

e

Error code:

- 30 — Incorrect route set test count value.
- 31 — Invalid point code in the route set test table.
- 32 — Invalid cluster in the cluster route set test table.
- 33 — Point code without TFR or TFP route is in the route set test table.
- 34 — Cluster without TFR or TFP route is in the cluster route set test table.
- 35 — Point code with nonlocal network is in the local route set test table.
- 36 — Cluster with nonlocal network is in the local cluster route set test table.
- 37 — Point code with local network is in the nonlocal route set test table.
- 38 — Cluster with local network is in the nonlocal cluster route set test table.
- 39 — Point code twice in the route set test table.
- 40 — Cluster twice in the cluster route set test table.
- 41 — Point code should be put in the route set test table.
- 42 — Cluster should be put in the cluster route set test table.
- 43 — Rst_running bit in routing table incorrect.

f

Indicates whether the error was corrected or not:

CORR

NOT CORR

SEE PROPRIETARY NOTICE ON COVER PAGE

DATA1	The address of the error.
DATA2	The erroneous data value.
DATA3	The index into the table (see variable field d to determine which table).
DATA4	The correct data value.
ggggggggg	Hexadecimal data field information.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Practice 256-090-122, *CNI Maintenance Manual* Audits Section

Output Appendixes

APP: AUD-A

APP: AUD-B

APP: AUD-C

APP: AUD-D

Input Message

AUD: NMDATA

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:NODEST
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR NODEST a COMPLETED
b ERRORS FOUND
c ERRORS CORRECTED
- [2] AUD ENV=RTR NODEST a STOPPED
- [3] AUD ENV=RTR NODEST a ABORTED CODE d
- [4] AUD ENV=RTR NODEST a ERROR e REPORT
DATA1 X'f DATA2 X'g
DATA3 X'h DATA4 X'i

NO SUPPLEMENTARY DATA

2. REASON FOR OUTPUT

To report the termination status of the ring Node State (NODEST) audits and/or any errors found.

These audits may be executed due to:

- Routine schedule.
- Manual request.
- IMS initialization (level 0 or 1B).

When the audit finds no errors, termination status is printed only for manual requests.

3. VARIABLE FIELD DEFINITIONS

- a Specifies a particular member of the NODEST family of audits.
1 — The node availability map audit. (See the AUD:NODEST input message for a description.)
- b Total number of errors found.
- c Total number of errors corrected.
- d Abort Code:
3 — Audit was aborted without completing its work.
4 — Audit was faulted while correcting errors.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the audit terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 12 — Audit rejected the request to run.
 - 13 — SIM aborted executing audit because audit subsystem is being reinitialized.
- e Error code. For a = 1 the error code is always 0.
- f For a = 1, the bit position in the node availability map (0-X'3FF). When this is expressed as three hexadecimal digits, the left two digits identify the ring node group and the right digit identifies the ring node position in the group. Thus X'3FF corresponds to ring node group 63, position 15.
- g For a = 1, the expected value of the map bit corresponding to the ring node f.
- 0 — Ring node is an RPCN or is an IUN which is not in the ACT major state.
 - 1 — Ring node is an IUN in the ACT major state.
- h For a = 1, the major state of ring node f, as recorded within the IMS driver process. (For more detail see the OP-RING output message.)
- 0 — ACT
 - 1 — STBY
 - 2 — UNAV
 - 3 — OFL
 - 4 — OOS
 - 5 — UNEQIP
 - 6 — INIT
 - 7 — GROW
- i For a = 1, should always be 0.

4. ACTION TO BE TAKEN

Format 1 should appear alone only when the audit is manually requested with the summary option or detected no errors. Error analysis must be based on Format 4 messages.

Format 2 is printed when an execution of the audit is stopped via the STOP:AUD input message or by an initialization of the IMS subsystem.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 3 should occur only during outages and initializations of the IMS subsystem. If it occurs when IMS is operational, seek technical assistance.

Format 4 reports errors detected by the audit. Seek technical assistance to determine the cause of the trouble.

For a = 1 (The node availability map audit), all of the errors indicate mutilated internal data or other software problems. These errors can occur as a side effect of other problems, such as those reported via the REPT-IMSDRV-FLT output message.

Correction should be made by the audit. If error correction was indicated (c > 0) then the audit corrected the errors.

To verify that error correction was successful, run the audit again via the AUD:NODEST (with option 1) input message.

5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Audits Section

Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:NODEST

OP:AUD

STOP:AUD

Output Messages

OP:AUD

OP:RING

REPT:IMSDRV-FLT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:PDKEY
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two output formats:

- [1] AUD ENV=RTR PDKEY 1 STOPPED
- [2] AUD ENV=RTR PDKEY 1 ABORTED CODE a

2. REASON FOR OUTPUT

To report the abnormal termination of the periodic audit that rekeys the links in the office.

3. VARIABLE FIELD DEFINITIONS

- a Abort code:
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.

4. ACTION TO BE TAKEN

See REPTLOG for further information.

5. REFERENCES

CNI Maintenance Manual 256-090-122
Audits Section

Input Messages
INH: AUD
OP: AUD
STOP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:PMS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR PMS a COMPLETED
b ERRORS FOUND
c ERRORS CORRECTED

- [2] AUD ENV=RTR PMS a STOPPED

- [3] AUD ENV=RTR PMS a ABORTED CODE d

- [4] AUD ENV=RTR PMS a ERROR e {CORR | NOT CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA 1 X'00000000 DATA 2 X'00000000
DATA 3 X'00000000 DATA 4 X'00000000

[NO SUPPLEMENTARY DATA]

- [5] AUD ENV=RTR PMS a ERROR e {CORR | NOT CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
{SUPPLEMENTARY DATA BLOCK NUMBER f
| SUPPLEMENTARY DATA FILE}
g

- [6] AUD ENV=RTR PMS a ERROR e {CORR|NOT CORR} REPORT
{STARTED | IN PROGRESS | COMPLETED}
SUPPLEMENTARY DATA FROM OMDB
g

- [7] AUD PMS NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS h
|RETRY LATER i
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR j}

- [8] AUD ENV=RTR PMS a AUTOMATICALLY k

2. REASON FOR OUTPUT

Format 1 indicates the input message completed, how many errors were found, and how many were corrected.

Format 2 indicates the audit stopped.

Format 3 indicates the audit aborted.

SEE PROPRIETARY NOTICE ON COVER PAGE

Formats 4, 5, and 6 indicate that an error has been found in the audit of the Plant Measurements System (PMS).

Format 7 indicates that the audit can not be started at this time.

Format 8 indicates the inhibit status of the PMS audit.

3. VARIABLE FIELD DEFINITIONS

- a Audit member number:
- 1 — Manual, routine, or demand audit.
 - 2 — Create the database.
- b Total number of errors found.
- c Total number of errors corrected.
- d Abort code:
- 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — SIM could not start or dispatch the audit.
 - 6 — An error was encountered in the audit control/audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.
 - 9 — Transient process that was running the process terminated.
 - 10 — A segmented audit exceeded an error threshold.
 - 12 — Audit rejected the request to run from SIM.
 - 13 — SIM aborted an executing audit because the audit system is being reinitialized.
- e Error code (0-5034). See CIC Select Code 304-046 *System Maintenance Manual*, Plant Measurements System (PMS) Audits chapter, for error codes 0-3, 1000, 1001, or 2000-5034. See LLA Output Appendix, APP:LLA, for error codes 100-1301.
- f Supplementary data block number.
- g An explanation of the error identified by the error code. If the error code is 0-3, 1000, 1001, or 2000-5034, refer to the following list. If the error code is 100-1301, see LLA Output Appendix, APP:LLA.
- CAN'T ATTACH TO INCORE DATA BASE.
- CAN'T ATTACH TO PRIMARY DISK DATA BASE.
- CAN'T GET setid_rec.
- CAN'T LOCK THE INCORE DATA BASE.
- CAN'T OPEN /etc/pmdb.aud
- CAN'T OPEN /etc/pmdb

SEE PROPRIETARY NOTICE ON COVER PAGE

CAN'T RECEIVE THE MESSAGE FROM SIM.
CAN'T RELEASE THE DISK DATA BASE.
CAN'T RELEASE THE INCORE DATA BASE.
CAN'T UNLINK DISK DATABASE.
CAN'T UNLOCK INCORE DATA BASE.
CANNOT ATTACH TO SECONDARY DISK DATABASE
CANNOT falloc DISK DATABASE
FAIL TO WRITE DISK DATA BASE TO INCORE.
FAIL TO WRITE INCORE DATA BASE TO DISK.
FATAL, CAN'T COPY NEW DISK DATA BASE TO INCORE.
FATAL, CAN'T CREATE NEW DATA BASE.
FATAL, INCORE AND DISK DATA BASES MUTILATED, NEW
DATA BASE WILL BE CREATED.
INTERNAL STRUCTURE CORRECTED. SEE /etc/log/pmsaud.
INVALID AUDIT MEMBER NUMBER.
INVALID AUDIT TYPE.
INVALID DISK NAME.
INVALID DISPATCHED MESSAGE.
INVALID EXECUTION MODE.
INVALID RETURN VALUE FROM lla_audit.
INVALID SET TYPE.
NEW DATA BASE CREATED.
NONCORRECTABLE INTERNAL STRUCTURE.
PRIMARY DISK DATABASE IS BAD
REQUESTING DEMAND AUDIT TO RECOVER
RESTORED INCORE DATABASE FROM DISK
RESTORED PRIMARY DISK DATABASE
RESTORED SECONDARY DISK DATABASE
SECONDARY DISK DATABASE IS BAD
fstat FAILURE.
lcall FAILURE.
lla_ainit FAILURE.
lla_gtrid FAILURE.

SEE PROPRIETARY NOTICE ON COVER PAGE

	lla_opensq FAILURE.
	lla_opnset FAILURE.
	lla_rdget FAILURE.
	lla_seqset FAILURE.
	lla_uprid FAILURE.
	makeseg FAILURE.
	msgenab FAILURE.
	plib FAILURE.
	setid_rec CORRECTED.
	setid_rec MUTILATED.
h	Explanation of error - see Output Audit Appendix C, APP:AUD-C.
i	Explanation of error - see Output Audit Appendix D, APP:AUD-D.
j	Explanation of error - see Output Audit Appendix B, APP:AUD-B.
k	Inhibit status: ALLOWED — Audit has been automatically allowed by SIM. INHIBITED — Audit has been automatically inhibited by SIM.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

Format 2 is an informational message that the audit has stopped. Take no action.

Format 3 indicates that the audit aborted. The action to be taken varies from retrying the audit to seeking technical advice, depending on the abort code.

Formats 4, 5, and 6 indicate that an error has been found in the audit of the PMS. Look up the error code as described in the variable field description section. Action to be taken varies depending on the error code.

Format 7 indicates that the audit can not be started at this time. Action to be taken varies from retrying the audit to seeking technical advice, depending on the reason for failure. See the Output Audit Appendix C, APP:AUD-C, and Output Audit Appendix D, APP:AUD-D.

Format 8 indicates the inhibit status of the PMS audit. Take no action.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB Key of 78.
Formats 2 and 3 have an OMDB Key of 76.
Format 4 has an OMDB Key of 52.
Format 5 has an OMDB Key of 64.
Format 6 has an OMDB Key of 210.
Format 8 has an OMDB Key of 558.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:LLA

Input Messages

AUD:PMS
OP:AUD
STOP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:PROAD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR PROAD 1 COMPLETED
 - a ERRORS FOUND
 - b ERRORS CORRECTED
- [2] AUD ENV=RTR PROAD 1 STOPPED
- [3] AUD ENV=RTR PROAD 1 ABORTED CODE c
- [4] AUD ENV=RTR PROAD 1 ERROR d {CORR | NON CORR}
REPORT {STARTED | IN PROGRESS | COMPLETED}
DATA1 X'e DATA2 X'f
DATA3 X'g DATA4 X'h

[NO SUPPLEMENTARY DATA]
- [5] AUD PROAD NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS i
|RETRY LATER j
|UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR k}
- [6] AUD ENV=RTR PROAD 1 AUTOMATICALLY l

2. REASON FOR OUTPUT

To report the termination status of the process administration audit and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

- a Total number of errors found.
- b Total number of errors corrected.
- c Abort code:
 - 3 — Audit was aborted without completing its work.
 - 4 — Audit was faulted while correcting errors.
 - 5 — System Integrity Monitor (SIM) could not start or dispatch the audit.
 - 6 — An error was encountered between the audit control and audit library interface.
 - 7 — Audit exceeded its timeout or segment limit.
 - 8 — SIM aborted an executing routine audit because of a blocking request.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 12 — Audit rejected the request to run from SIM.
- 13 — SIM aborted an executing audit because the audit system is being reinitialized.

d Error code. Values 100-399 represent errors that occur during process termination. In particular, values 100-199 occur in the scheduler, 200-299 in the capability manager, and 300-399 in the process manager. Values 500-799 represent errors that occur during process creation. In particular, values 500-599 represent errors during pcreat of kernel processes, 600-699 represent errors during pcreat of supervisor processes, and 700-799 represent errors during process fork. Value 800 indicates that the process has been suspended from execution for over 30 minutes.

A problem occurred during or after:

- 100 — The use count was decremented.
- 110 — term_dct was called.
- 120 — GRASP or DART was informed.
- 130 — The DCTE was unlinked from its dispatch chain.
- 140 — The Address Translation Buffers (ATBs) were flushed.
- 150 — The acknowledgement message was allocated and copied.
- 160 — The Dispatch Control Table Entry (DCTE) was unlinked from the ready or not-ready list.
- 170 — The incarnation count was bumped.
- 180 — The message has (or should have) gone to the capability manager.
- 190 — The message has (or should have) gone to the process manager.
- 200 — The capabilities were removed.
- 210 — The segments were removed (supervisor).
- 220 — The segments were removed (kernel process).
- 300 — The core dump has started.
- 310 — The message was sent to the capability manager.
- 500 — pcreat has started (kp).
- 510 — DCTE was linked.
- 520 — Initialization event sent.
- 600 — pcreat has started (sp).
- 610 — DCTE was linked.
- 620 — The pstart has completed.
- 630 — Execute started.
- 700 — fork started (pfork1).
- 710 — DUPCAPS message sent to the file manager.
- 720 — pfork2 started.
- 730 — Sending the wake up event to the child.
- 800 — Process has been suspended from execution.

e Process's utility ID.

f The amount of time, in milliseconds, that the process has been stuck.

SEE PROPRIETARY NOTICE ON COVER PAGE

- g Process number.
- h Correction completion code:
- 00000000 — The error was corrected, or the audit was run in non-correcting mode.
 - 00000010 — The DCT pointer failed fault retry validation when trying to send a DUPCAPS message.
 - 00000020 — The DCT extender pointer failed fault retry validation when trying to send a DUPCAPS message.
 - 00000030 — The PCB segid in the process's DCT entry was found to be invalid when trying to send a DUPCAPS message.
 - 00000040 — The audit could not attach to the process's PCB when trying to send a DUPCAPS message.
 - 00000050 — The audit could not allocate a DUPCAPS message.
 - 00000060 — The audit could not queue a DUPCAPS message.
 - 00000070 — The DCT pointer failed fault retry validation when trying to send a terminate message.
 - 00000080 — The DCT extender pointer failed fault retry validation when trying to send a terminate message.
 - 00000090 — The audit could not allocate a terminate message to kill a suspended process.
 - 000000a0 — The audit could not queue a terminate message to kill a suspended process.
 - 000000b0 — The PCB segid in the process's DCT entry was found to be invalid when trying to fake a pcreat acknowledgement message.
 - 000000c0 — The audit could not attach to the process's PCB when trying to fake a pcreat acknowledgement message.
 - 000000d0 — The audit could not allocate a pcreat message to fake a pcreat acknowledgment message.
 - 000000e0 — The audit could not queue a pcreat message to fake a pcreat acknowledgment message.
 - 000000f0 — The audit could not allocate a terminate message to kill a process.
 - 00000100 — The audit could not queue a terminate message to kill a process.
- i For explanation of error, see the Output Audit Appendix C, APP:AUD-C.
- j For explanation of error, see the Output Audit Appendix D, APP:AUD-D.
- k Explanation of error - see Audit Appendix B, APP:AUD-B.
- l Inhibit status:
- ALLOWED — Audit has been automatically allowed by SIM.
 - INHIBITED — Audit has been automatically inhibited by SIM.

SEE PROPRIETARY NOTICE ON COVER PAGE

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in non-correcting mode and failures occur, rerun the audit in correcting mode.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 78.

Formats 2 and 3 have an OMDB key of 76.

Format 4 has an OMDB key of 52.

Format 6 has an OMDB key of 558.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

AUD:PROAD-1

OP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:REMACS
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

RING AUD ENV=RTR REMACS
explanatory string(s)

2. REASON FOR OUTPUT

Prints in response to AUD:REMACS input request.

3. VARIABLE FIELD DEFINITIONS

The explanatory string(s) will describe the result of the AUD:REMACS input message. It will indicate whether or not the input command was executed as requested and the reason for failure if required.

In addition the STATUS option will display the following:

AUDIT IS xxxxxxxxx
CURRENT CYCLE COUNT IS y
FREQ IS ONCE PER z REMACS INVOCATIONS(S)

Where:

xxxxxxx	ALLOWED
	INHIBITED
	INHIBITED AND CYCLING
	RUNNING ON DEMAND
y	Current cycle count if the audit is cycling
z	Current frequency of invocation.

The WINDOW "W" option will cause the following display message:

DEMAND AUDIT V

Where V is one of the following and "W" is the window name specified in the AUD:REMACS:WINDOW "W" command:

ON WINDOW "W" STARTED
ON WINDOW "W" COMPLETED
ON WINDOW "W" IS INVALID
NOT ALLOWED

SEE PROPRIETARY NOTICE ON COVER PAGE

The NOT ALLOWED message indicates that either the REMACS audits are not inhibited or that the demand audit is already running. To determine which condition applies, use the AUD:REMACS:STATUS command.

The ON WINDOW "W" IS INVALID indicates that "W" specifies an undefined REMACS window.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
AUD:REMACS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID AUD:TDAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] AUD ENV=RTR TDAS - NO PASSWORD FILE
- [2] AUD ENV=RTR TDAS REPORTS
TDAS PARTITION ERROR REPORT
a b - c
TDAS AUDIT DISK MANAGEMENT REPORT
FREE BLOCKS LEFT ON PARTITION - d
NUMBER OF GOOD e FILES - f

2. REASON FOR OUTPUT

To print the traffic data administration system (TDAS) audit report which is scheduled to run once a week. If the process which formats data for the TDAS data base detects certain types of errors implying a bad file structure within TDAS, the audit will be run. If this output comes out at a time different than is listed in crontab, another TDAS error has taken place to cause the audit to be run.

All TDAS related messages are recorded in the log file TDASLOG and may be accessed using OP:LOG;TDASLOG.

3. VARIABLE FIELD DEFINITIONS

- a The pathname in the TDAS partition that caused the error.
- b The action that the audit performed. Actions depend on the cause of the error. Actions are:
- REMOVED —The file has been removed from the system.
- RECREATED —The file was recreated and now exists.
- NOACTION —The file should exist and will be recreated by other means.
- UNABLE TO RECREATE — Unable to recreate at this time and will try again next time audit is called.
- c The cause of the error. Causes are:
- CORRUPT STRUCTURE — Internal TDAS format no good.
- AGED — Data file over 7 days old will be removed.
- BAD PATHNAME — Illegal file in TDAS system.
- BAD MAGIC NUMBER — Bad magic number in file.

SEE PROPRIETARY NOTICE ON COVER PAGE

WAS NON-EXISTENT — Required file non-existent.

- d The number of free blocks left in the TDAS partition for new data. In a running office, this number will be near zero and new data will replace old data.
- e Type of data. "mc1" refers to measurement class 1 data, "ftsg" refers to fixed trunk subgroup data, "vtsg" refers to variable subgroup data, and "icdr" refers to international call record data.
- f Number of good data files for a specific measurement class (MC). Each file corresponds with one hour of data. Only MCs with at least one good data file will be listed.

Note: Also given is the number of hours of data in each MC removed due to the aging function of the audit. The audit removes any file over one week old. Given that the audit runs once a week, the oldest file in the TDAS data base will be 13 days old.

4. ACTION TO BE TAKEN

If the audit runs at a time different than listed in crontab, investigate the initial TDAS error.

For format 1, no data link access is possible to the TDAS data without a password file. The password file will be created automatically when the first ID and password are entered into the system using the IN:TDAS input message.

5. REFERENCES

Input Messages

CLR:TDAS

IN:TDAS

OP:LOG

Output Messages

CLR:TDAS

IN:TDAS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CFR:DADC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B-APS
TYPE Output

1. FORMAT

This message has three formats.

- [1] CFR DADC COMPLETE
a b TRANSITIONED FROM c TO c
- [2] CFR DADC ABORT CODE d
[a b STILL IN STATE c]
- [3] CFR DADC SYNTAX ERROR d

2. REASON FOR OUTPUT

To respond to a CFR:DADC input message. Format 1 reports a change in the incore equipment configuration data base (ECD). No ECD changes are made if Format 2 or 3 is output. Any ECD changes made previous to an error are backed out.

3. VARIABLE FIELD DEFINITIONS

- a ECD device type:
 - SDL — Synchronous data link.
 - SDLC — Synchronous data link controller.
- b Device unit number. For SDL the range is from 40 to 55; for SDLC the range is from 20 to 27.
- c State of the device:
 - UNEQIP — The unit is unequipped.
 - GROW — The unit is grow.
 - OOS — The unit is out-of-service.
- f Abort code:
 - 800 (DADC) must be in a field of its own.
 - 801 Keyword DADC must stand alone.
 - 803 Keyword ADD or DLT must be in a field of its own.
 - 804 Keyword ADD or DLT must stand alone.
 - 805 Keyword must be ADD or DLT.
 - 806 Keyword GROW, OOS, or UNEQIP must be in its own field.
 - 807 Keyword GROW, OOS, or UNEQIP must stand alone.

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808 Keyword must be GROW or OOS.
809 Keyword must be GROW or UNEQIP.
810 Controller number out of range.
811 Controller accessing ECD returned IDERROR.
812 Controller accessing ECD returned IDNULL.
813 State of controller must be UNEQIP.
814 State of controller must be GROW.
815 State of controller must be OOS.
816 State of controller must be GROW.
817 Device on controller accessing ECD returned IDERROR.
818 State of device for controller must be GROW or UNEQIP.
819 State of device for controller must be UNEQIP.
820 Change of ECD data base for controller failed.
821 Device number out of range.
822 ECD returned IDERROR of controller for device.
823 ECD returned IDNULL of controller for device.
824 Controller state for device must be GROW, OOS, or ACT.
825 Controller state for device must be OOS or ACT.
826 ECD returned IDERROR for device.
827 Change of ECD for device failed.
828 ECD page cannot be created.
829 Device state must be UNEQIP.
830 Device state must be OOS.
831 Device state must be GROW.
832 Change of ECD for device failed.
833 Input must be SDLC a [,SDL a].
834 Controller name must be SDLC.
835 Device name must be SDL.
836 Controller number is out of range.
837 Device number is out of range.
838 Controller and device not on same controller.
839 ECD returned IDERROR for controller.
840 ECD returned IDNULL for controller.
841 Controller state must be UNEQIP.
842 Controller state must be OOS.
843 Controller state must be GROW.
844 ECD returned IDERROR for device.
845 Creating ECD page for device failed.
846 New state must be ADD and GROW for ECD page to be created.
847 Device state must be UNEQIP.
848 Device state must be GROW.
849 ECD returned IDERROR checking device.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 850 Device state must be 00S.
- 851 Other device on controller must be GROW or UNEQIP.
- 852 Device state must be GROW.
- 853 Other device on controller must be UNEQIP.
- 854 ECD failed to install controller and device.
- 855 Input must be SDLC a [, SDL a].
- 856 NSC is configured on controller.
- 858 Release from ECD failed.
- 859 Release from ECD failed.
- 860 Error returned attaching to data base.
- 861 Attaching to ECD returned error.
- 863 Getting ECD record returned error.
- 864 Release from ECD failed.
- 865 Release from ECD failed.

4. ACTION TO BE TAKEN

The output of a Format 2 message may be caused by either a logical mistake on the input specification or a system problem. The abort code will determine whether to seek technical assistance or to reenter the input message with different parameters.

5. REFERENCES

Input Message
CFR:DADC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CFR:DUPLEXDISKS
WORK CENTER.. MOC
GENERIC 4AP17 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CFR DUPLEXDISKS STOPPED WITH ERROR a
- [2] CFR DUPLEXDISKS COMPLETED

2. REASON FOR OUTPUT

To report the result of executing the CFR:DUPLEXDISKS command.

3. VARIABLE FIELD DEFINITIONS

a Type of error found:

X'C000 — ABD is not active.

The system is not booted with an Alternate Boot Disk (ABD) selected. Moving Head Disk (MHD) 0 and MHD 1 are the current duplexed boot disk pair.

X'C001 — Failed to get Unit Control Block (UCB) for the current duplexed boot disk pair.

An internal error occurred trying to read the in-core Equipment Configuration Database (ECD). Additional information is provided by Process Recovery Message (PRMs) generated by Error Interrupt Handler (EIH).

X'C002 — An invalid state was detected.

If MHD 0 is one of the current duplexed boot disks, it's state must be Active (ACT). MHD 1 and the Alternate Boot Disk must not be in the ACT, Standby (STBY), or Initialization (INIT) states.

If MHD 1 is one of the current duplexed boot disks, it's state must be ACT. MHD 0 and the Alternate Boot Disk must not be in the ACT, STBY, or INIT states.

X'C003 — A failure occurred trying to configure the duplex boot disk pair to the system default.

An internal error occurred trying to configure the duplex boot disk pair to MHD 0 and MHD 1. Additional information is provided by PRMs generated by EIH.

SEE PROPRIETARY NOTICE ON COVER PAGE

X'C004 — Disk Driver not notified of change.

The 120 Status Page will not show the correct disk status.

X'C005 — RTS not notified of change.

The 102 Status Page will not show the correct disk configuration.

X'C006 — This command is only supported on the 3B21D Hardware Platform.

X'C007 — At least one of MHD 0, MHD 1, or the ABD is reserved by another process.

4. ACTION TO BE TAKEN

If Format 1 is printed, resolve the error condition described above. Seek technical assistance if necessary to resolve the error condition.

Format 2 indicates that the command completed execution successfully. If this format is printed, no action is necessary.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 774.

Format 2 has an OMDB key of 773.

Input Message

CFR:DUPLEXDISKS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CFR:RING
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

This message has three output formats:

- [1] CFR RING a b c
d
- [2] CFR RING a c
d
- [3] CFR RING c
d

2. REASON FOR OUTPUT

This is a termination message in response to a CFR:RING input message, which requests a ring configuration change or a requested EAR recovery level.

3. VARIABLE FIELD DEFINITIONS

- a First ring node name specified in CFR:RING command (e.g., RPCN00 0) or ZEROCNTS or LEVEL [0|3|4|5].
- b Second ring node name specified in CFR:RING command (e.g., RPCN00 0).
- c Termination status of the input command. {COMPL | NOT STARTED | STOPPED}
- d Reason command was NOT STARTED:

NODE [a|b] NOT FOUND IN ECD
REQUESTED RING CONFIGURATION ALREADY EXISTS
CANDIDATE CONTROLLING RPC NODE NOT AVAILABLE
CAN'T ISOLATE ACT OR INIT NODE(S)
CAN'T ISOLATE ADDITIONAL NODES
ACTIVE RING SEGMENT NOT LONG ENOUGH
BISO AND/OR EISO NODE OOS, MUST BE RESTORED FIRST
CAN'T ISOLATE ENTIRE RING
CAN'T FRAGMENT EXISTING ISOLATED SEGMENT
CAN'T INCLUDE GROW OR FAULTY NODES
CANDIDATE BISO AND/OR EISO NODE NOT AVAILABLE
ILLEGAL REQUEST
IMS RING CONFIGURATION PROGRAM ERROR
IMPROPER USE OF CFR:RING IN RING DOWN STATE
IMPROPER USE OF MOVFLT OPTION

SEE PROPRIETARY NOTICE ON COVER PAGE

SYSTEM INITIALIZATION IN PROGRESS
SYSTEM ABORT IN PROGRESS
NO STANDBY RPCS AVAILABLE
INSUFFICIENT HARDWARE TO ESTABLISH A RING
IMS RING INITIALIZATION PROGRAM ERROR
RING STATUS IS NOT STABLE
IMPROPER USE OF CFR:RING WITHIN A CONFIDENCE
INTERVAL

or reason command was STOPPED:

DMA FAILURE AT RPC NODE
PREPARATION FOR RING CONFIGURATION ATTEMPT FAILED
SYSTEM FAILED TO RESTORE AFTER CONFIGURATION WAS
ESTABLISHED
JOB ABORTED, GUARD TIMER FIRED
RING ERRORS REPORTED AFTER CONFIGURATION WAS
ESTABLISHED
RPC CONFIG COMPLETION MESSAGE NOT RECEIVED
FORCED READ OPERATION FAILED
OPERATION TO QUARANTINE ISOLATED NODE FAILED
OPERATION TO QUARANTINE NODE FAILED
RING SILENCE OPERATION FAILED
OPERATION TO CLEAR ISOLATION FAILED
OPERATION TO ESTABLISH ISOLATED SEGMENT FAILED
OPERATION TO SHRINK/REMOVE ISOLATED SEGMENT FAILED
RING TEST FAILED
WRITING OF TOKENS FAILED
IMS RING CONFIGURATION PROGRAM ERROR
RING INITIALIZATION FAILED, RING IS DOWN
MANUAL EAR RECOVERY FAILED

4. ACTION TO BE TAKEN

If the c field indicates NOT STARTED or STOPPED, determine why the request was not honored. The d variable indicates the nature of the problem and the OP:RING command will output the current ring configuration. The states of individual nodes can be verified by the OP:RING command with various options.

5. REFERENCES

Input Messages
CFR:RING
OP:RING

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CHG:GEN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

CHG GEN COMPL

2. REASON FOR OUTPUT

Response to CHG:GEN input request.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
CHG:GEN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CHG:MRVT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two output formats of this command. Format 1 is used when a valid input command is entered, with or without the optional Delay parameter specified. Format 2 is used when the range of the input is outside the permissible limits (8 - 15 seconds).

- [1] CHG:MRVT DELAY PARAMETER SET TO a SECONDS
- [2] CHG:MRVT REQUESTED DELAY PARAMETER a OUT OF RANGE DELAY
PARAMETER RANGE IS 8 - 15 SECONDS INCLUSIVE

2. REASON FOR OUTPUT

This output is in response to a CHG:MRVT request. The output will be directed to the standard output associated with the initiator of the command, and also to the maintenance class. If they are the same device, only one printout will be generated.

3. VARIABLE FIELD DEFINITIONS

- a The requested or current value of the MRVT Delay parameter. The range is 8 - 15 seconds (8 is default).

4. ACTION TO BE TAKEN

None.

5. REFERENCES

CNI Feature Description Manual 256-090-177, MVRT Section.

Input Messages

CHG:MRVT
EXC:MRVT

Output Messages

EXC:MRVT
REPT:MRVR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CHG:SLK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

CHG SLK a b [c d]
= CHG SLK a b [c d] e, f [,g][,h][= i][= j]

2. REASON FOR OUTPUT

Response to a request to change the Minor state of a Signaling Link (SLK). Circuit pack and port numbers may be included to identify an SLK on a multi-link node.

The new minor state value is the "externally visible" minor state that existed when the initial state change processing completed. Total processing to change minor states begins with this initial state change processing, which initiates a concurrent sequence of protocol actions and associated additional processing that usually complete very quickly, and usually are completed by the time initial state change processing ends. In this case the minor state value is the final minor state requested in the CHG:SLK input message. But the initiated sequence of protocol actions may complete with some delay, or be obstructed and not complete at all, in which case the minor state value is an intermediate minor state or even the minor state that existed when the CHG:SLK message was entered.

For an example that involves protocol action delays, the input command CHG:SLK() ;ARST requests the change from the Manual Out Of Service (MOOS) state to the In Service (IS) state. This command actually sequences the link through the MOOS, Out Of Service OOS), and IS states. If link protocol actions are delayed or obstructed, the link may be reported as being OOS instead of IS when the CHANGE ACCEPTED, NEW MINOR STATE = j message is printed.

Also, to keep the number of transactions and output messages associated with the minor state change of a mated D-Channel link reasonably few in number, some internal, transitional states that normally last only a fractional part of a second are not given external visibility. However, when link protocol actions are delayed or obstructed, state change processing can stay in these internal, transitional states much longer, i.e. tens of seconds or even minutes. In these cases, the minor state that continues to be displayed externally is the last minor state that the link was in that is given external visibility, i.e. that is not a "hidden" minor state. For example, the command CHG:SLK(a, b, e, f) ; IS when used to change a Standby mated D-Channel link to the in-service minor state, causes the link to sequence from Standby to wait (an internal, hidden state) to IS. While in the internal wait state, Standby (STBY) continues to be displayed externally. If link protocol actions are delayed or obstructed, then, while the link is in the internal wait state, STBY will continue to be displayed externally until the link actually enters the IS state or the OOS state (both of these minor states are externally visible).

When the CHANGE ACCEPTED message is printed, the value for the minor state value is the externally visible minor state value that actually existed when initial state change

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processing ended. If, in the rare occurrence of protocol delay or obstruction, the minor state value is not the final minor state being requested, then per-link displays (if available) should be monitored for progress toward the final requested minor state, or the OP:SLK input message should be used to check for progress toward that requested state. The OP:SLK input message with the RAW option can be used to display the numerical values of some internal states. For example, with the RAW option, the internal level 3 control state for mated D-Channels can be examined to check if the mated link is stuck in one of the normally transient, hidden wait or MB states.

3. VARIABLE FIELD DEFINITIONS

- a Group number (0-63).
- b Member number (1-15).
- c Circuit pack number (0-1).
- d Port number (0-3).
- e CHANGE ACCEPTED
CHANGE DENIED
CHANGE REQUEST FAILED
CHANGE REQUEST TIMEOUT
RESPONSE UNKNOWN
- f ALREADY IN MINOR STATE
CCS7:LST LNK IN LS
CHANNEL IN USE
CURRENT MINOR STATE
FAR END MCO ACTIVE
FAR END REFUSED MCO REQUEST
INSUFFICIENT BACKUP FOR MCO,AV
INSUFFICIENT BACKUP FOR MCO,CV
INTERNAL ERROR
INTL:LST LNK IN LS
INVALID REQUEST FOR UNMATED LINK
LINK CHECK IN PROGRESS
MATE LINK a b [c d] MINOR STATE
NEAR END MCO RMVD
NEW MINOR STATE
RETRY LATER
SWITCHOVER IN PROGRESS

SEE PROPRIETARY NOTICE ON COVER PAGE

	VALID CHANGES FOR AVL LINK
	VALID CHANGES FOR UNA LINK
	VERIFY SLK STATE
g	ALT LS FLD
	ALT LS TFP
	MINOR STATE
	NO ALT LS
	RETRY LATER
h	C LS FLD
	C LS TFP
i	GROW TEST
	IS ARST MOOS STBY FIS
j	Minor state:
	GROW — Unavailable grow.
	IS — Available in service.
	MOOS — Available manual out-of-service.
	OOS — Available out-of-service.
	STBY — Available standby.
	TEST — Unavailable test.

4. ACTION TO BE TAKEN

If a change request is denied, the output message will indicate what kind of a problem was encountered.

A common reason for denied change requests is incompatibility between the request and the current minor state of the link. The current minor state of the link is printed in the output message in some cases, or it can be determined via the `OP:SLK` command or other status displays. The `CHG:SLK` input message should be used to determine the valid change requests for a given link minor state.

If a change request is denied with the message `CHANNEL IN USE`, `RETRY LATER`, the most likely reason is that a previously issued `CHG:SLK` command is currently executing. Only one `CHG:SLK` request can be in-progress at any one time. The `CHG:SLK` command also competes with the `LKC:SLK` command for a communications channel. Thus, only one `CHG:SLK` or `LKC:SLK` command can be in-progress at any one time.

If c = SLK a b CHANGE DENIED, FAR END REFUSED MCO REQUEST

The far end has refused the MCO (Manual Change Over) request, and there is no data at the near end to indicate why the MOOS (Manual out-of-service) was denied. To determine the reason for refusal, a MOOS can be requested from the far end and the reason for refusal will be output there.

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5. REFERENCES

CNI Maintenance Manual - 256-090-122

Ring and Ring Node Maintenance Procedures Section
D-Channel and Special Access Data Channel Signaling
Link Operating Procedures Section
D-Channel and International Link Node Signaling
Link Test Procedures Section

CNI Operations Manual - 256-090-121

Analog Signaling Link Operating Procedures Section
Analog Signaling Link Test Procedures Section
Digital Signaling Link Operating Procedures Section
Digital Signaling Link Test Procedures Section
International Link Node Signaling Link Operating Procedures Section

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Ring and Ring Node Maintenance Procedures Section

Input Messages

CHG:SLK

LKC:SLK

OP:SLK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CHG:SRVT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two formats.

- [1] CHG:SRVT DELAY PARAMETER SET TO a SECONDS
- [2] CHG:SRVT REQUESTED DELAY PARAMETER, a, OUT OF RANGE
DELAY PARAMETER RANGE IS 8 - 16 SECONDS INCLUSIVE

Format 1 prints when a valid CHG:SRVT command is entered, with or without the optional delay parameter specified. Format 2 prints when the range of the input is outside the permissible limits (8-16 seconds).

2. REASON FOR OUTPUT

This output is generated by the CHG:SRVT command. The output will be directed to the standard output device associated with the initiator of the command, and also to the maintenance class. If they are the same device, only one printout will occur.

3. VARIABLE FIELD DEFINITIONS

- a The requested or current value of the SCCP Routing Verification Test (SRVT) delay parameter, in seconds.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

CNI Maintenance Manual 256-090-122
SRVT Section

CNI Feature Description Manual 256-090-177
SRVT Section

Input Messages
CHG:SRVT
EXC:SRVT
OP:TPC

Output Messages
EXC:SRVT
OP:TPC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:DLNESC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] CLR DLNESC COMPLETE
DLN LNxx yy ESCALATION PARAMS CLEARED
- [2] CLR DLNESC COMPLETE
[MESSAGE]
.
.
.

where [MESSAGE] is one of:

- CANNOT GET UCB FOR DLN LNxx yy - ERR=eee
- CANNOT FIND UCB FOR DLN LNxx yy
- CANNOT CLR RCCNT FOR DLN LNxx yy- ERR=eee
- CANNOT CLR RCCNT FOR DLN LNxx yy- ERR=eee

2. REASON FOR OUTPUT

This output is the result of a CLR:DLNESC input command.

Format 1 is the "normal case", indicating that the CLR:DLNESC command executed with no errors.

Format 2 is output when errors occur during execution of the CLR:DLNESC command. [MESSAGE] indicates the exact error encountered.

3. VARIABLE FIELD DEFINITIONS

LNxx	Group number of DLN.
yy	Member number of DLN.
eee	System error indication.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
CLR:DLNESC
OP:DLNESC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
OP:DLNESC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:EMERDMP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

CLR EMERDMP COMPLETED

2. REASON FOR OUTPUT

To report the termination status of the CLR:EMERDMP input message.

3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

4. ACTION TO BE TAKEN

None. This message is for information only.

5. REFERENCES

Input Messages
COPY:T-EMERDMP
OP:EMERSTAT

Output Message
REPT:EMER-DUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:F-DIR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR FILESYS DIR COMPLETED
- [2] CLR FILESYS DIR STOPPED
a

2. REASON FOR OUTPUT

To report the result of executing the CLR:F-DIR input message to remove a directory.

3. VARIABLE FIELD DEFINITIONS

- a The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success. If this format is printed, no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the command which was input is consistent with the CLR:F-FILE input message and, using the OP:ST-LSTDIR input message, verify that the file exists with the appropriate permissions. If both of these checks fail to uncover the problem, or the description of the error encountered is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 282.
- Format 2 has an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

- CLR:F-DIR
- CLR:F-FILE
- OP:ST-LSTDIR

Output Message

- OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:F-FILE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR FILESYS FILE COMPLETED
- [2] CLR FILESYS FILE STOPPED
a

2. REASON FOR OUTPUT

To report the result of executing the CLR:F-FILE input message to remove a file from a directory.

3. VARIABLE FIELD DEFINITIONS

- a The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success. If this format is printed, no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the command which was input is consistent with the CLR:F-DIR input message and, using the OP:ST-LSTDIR input message, verify that the directory exists with the appropriate permissions. If both of these checks fail to uncover the problem, or the description of the error encountered is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

ALW:F-ACCESS

ALW:F-MOUNT

CLR:F-DIR

CLR:F-FILE

INH:F-UMOUNT

OP:ST-LSTDIR

Output Message

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:FANALM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR FANALM UNIT a PT b[bbb] c
- [2] CLR FANALM GRPN d DUPID e PT f[fff] c
- [3] CLR FANALM NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS

2. REASON FOR OUTPUT

To indicate the result of a fan alarm reset operation requested by a CLR:FANALM input message.

Format 1 identifies a distribute point by physical location.

Format 2 identifies a distribute point by logical address.

Format 3 indicates the Scanner And Signal Distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

- a Member number of Scanner And Signal Distributor (SCSD) unit.
- b Physical scan point number on an SCSD (0-31).
- c Termination status:
 - COMPLETED — Action completed.
 - FAILED — Action could not be completed by SCSD administrator:
 - SCSD unit number is invalid.
 - Point number is invalid for the logical group.
 - Logical group name is invalid and either the SCSD unit is Out Of Service (OOS) or is in an inactive state to the SCSD administrator.
- d Logical group name.
- e Duplex group ID (0-1).
- f Number of a point within a logical group.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Issue the **OP:00S** input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter Recent Change And Verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists, and/or that the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the results are negative, seek technical assistance.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 229.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description
3B20D/3B21D Processor*

Input Messages

CLR:FANALM

OP:00S

Output Messages

REPT:FF-MULTI

REPT:FF-SING

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:IMCAT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR IMCAT COMPLETED
- [2] CLR IMCAT NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS -
FILE 1 SEGMENT

2. REASON FOR OUTPUT

To report the termination status of the CLR:IMCAT input message.

3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

4. ACTION TO BE TAKEN

If Format 2 is output, check the status of the file /cft/shl/imcatlg.

5. REFERENCES

Input Message
CLR:IMCAT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:IODRV
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR IODRV {COMPLETED|ABORTED}
- [2] CLR IODRV NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS

2. REASON FOR OUTPUT

To report the result of executing a CLR:IODRV input message.

3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

4. ACTION TO BE TAKEN

If the message reads ABORTED, the command could not be processed due to a conflict with the system status. The command will not be successfully processed until the system status changes. Check system status to determine why command aborted.

5. REFERENCES

OMDB Key
Format 1 has an OMDB key of 159.

Input Message
CLR:IODRV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:IOMEM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR IOMEM STARTED
- [2] CLR IOMEM ABORTED a
- [3] CLR IOMEM COMPLETED b

2. REASON FOR OUTPUT

To report the result of executing a CLR:IOMEM input message.

3. VARIABLE FIELD DEFINITIONS

- a Reason why the CLR:IOMEM command was aborted:
 - 7 — Message to Input/Output Driver (IODRV) port failure.
 - 8 — Message reception failure from IODRV.
 - 9 — Message to IODRV timed out.
- b Action taken by the IODRV:
 - 0 — Specified file was found and released by the IODRV.
 - 1 — Specified file has already been released by the IODRV or was never cached by the IODRV.
 - 2 — Specified file was found and unlocked and will be released by the IODRV.

4. ACTION TO BE TAKEN

No action is required for STARTED or COMPLETED messages.

ABORTED messages usually indicate that a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

5. REFERENCES

Input Message
CLR:IOMEM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:MHD-MAEC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR MHD a MAEC STARTED
- [2] CLR MHD a MAEC IN PROGRESS
- [3] CLR MHD a MAEC NOT STARTED b c
- [4] CLR MHD a MAEC STOPPED b c
- [5] CLR MHD a MAEC ERROR b c
- [6] CLR MHD a MAEC ABORTED b
- [7] CLR MHD a MAEC COMPLETED

2. REASON FOR OUTPUT

To report the result of executing a CLR:MHD;MAEC input command.

Format 1 indicates the command was started successfully.

Format 2 indicates command execution is in progress.

Format 3 indicates a system resource was not available, and command execution was discontinued.

Formats 4, 5, and 6 indicate the command encountered an error condition of some type, and command execution was halted.

Format 7 indicates the command completed successfully.

3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Process step or reason code.
 - f03 — cannot open ECD
 - f06 — cannot get UCB of unit by name
 - f09 — cannot reserve UCB
 - f0c — cannot assign special device file name
 - f0f — cannot open special device file
 - f12 — cannot set i/o mode of special device file
 - f15 — cannot enable message reception

SEE PROPRIETARY NOTICE ON COVER PAGE

f18 — see DKDRV error report on ROP
f1b — message to port failure
f1e — message reception failure
f21 — process timed out
f24 — failed to close special device file
f27 — failed to release special device file
f2a — failed to unreserve UCB of unit
f2d — failed to close ECD
f30 — terminated externally with signal

c System error code number. See System Error Codes Output Appendix, APP:SYSERR.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable, to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

Format 6 indicates that the command was aborted either because the process timed out or because the disk driver could not clear the Media Access Error Counter (MAEC) for the specified MHD. In either case, the input request should be retried. If the error condition continues, seek technical assistance from the next level of support.

A termination report specifying completion indicates that all directives of the input request were done, and no failures were encountered.

5. REFERENCES

OMDB Key

This message has an OMDB key of 621.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual
Chapter 11, File System Maintenance,
Section 11.12 Procedure for Handling Disk Errors

Output Appendix

APP:SYSERR

Input Message

CLR:MHD-MAEC

Output Message

REPT:DKDRV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:PTN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR PTN CLEARING a ON MHD b
- [2] CLR PTN ON MHD b COMPLETED
- [3] CLR PTN STOPPED WITH ERROR CODE {c|d} ERRNO e[, (f)]

2. REASON FOR OUTPUT

To report the result of executing a CLR:PTN input message, and to provide status information.

3. VARIABLE FIELD DEFINITIONS

- a Path name of partition being initialized with zeroes.
- b Specifies disk unit containing backup disk copy with application partitions cleared.
- c Error code indicating error that caused process to terminate. The first three digits indicate the nature of the error. The last two digits (represented as xx) indicate which module the error occurred in.
 - 101xx — Missing arguments.
 - 102xx — Destination disk does not exist.
 - 103xx — Destination disk is not active.
 - 104xx — Mate of destination disk does not exist.
 - 105xx — Mate of destination disk is not active.
 - 106xx — Specification file (see e) does not exist.
 - 107xx — Duplicate partitions in specification file.
 - 108xx — File name (see e) in specification file is not a partition.
 - 109xx — File name (see e) in specification file does not exist.
 - 110xx — Partition specified (see e) does not exist in destination disk.
 - 111xx — File name (see e) in specification file does not have any entry in the Volume Table Of Contents (VTOC) (it may be a block device but not a partition).
 - 112xx — Specification file (see e) is empty.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 113xx — Process was stopped by a Signal Termination (SIGTERM).
- 114xx — Partition (see e) is not an application partition. This partition needs to be set with correct flag in the VTOC.
- d Errors associated with system calls. The first three digits indicate the nature of the error. The last two digits (represented as xx) indicate which module the error occurred in.
- 201xx — The open() failed to open e.
- 202xx — mknod() failed to create special device file e (temporary file to read VTOC from disk).
- 203xx — read() failed to read file e.
- 204xx — mkseg() failed to allocate one segment of memory.
- 205xx — lseek() failed to change offset (see e) in out of service disk.
- 206xx — setio() failed to set physical IO for e.
- 207xx — write() failed on segment e (on partition being cleared).
- 208xx — ugucbn() failed to get Unit Control Block (UCB) information for Moving Head Disk (MHD) e.
- 209xx — ugucb() failed to get UCB information for MHD e.
- 210xx — unlink() failed to unlink file e.
- 211xx — ursvucb() failed to reserve MHD e.
- 212xx — ugsdf() failed to access Out Of Service (OOS) disk MHD e.
- 213xx — sendpw() failed to send message to e.
- 214xx — recvw() failed to receive message from e.
- 215xx — msgenab() failed.
- 216xx — Bad message received from Maintenance Input Request Administrator (MIRA).
- 217xx — After MIRA removed disk from service, database does not have disk as OOS.
- 218xx — ugmamirids() failed to get UCB record.
- 219xx — close() failed to close file e.
- 220xx — stat() failed on e.
- e Indicates system error code (See System Error Codes Output Appendix, APP:SYSERR).
- f Supplementary data.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Craft execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 191.

Format 2 has an OMDB key of 190.

Format 3 has an OMDB key of 189.

Output Appendix

APP:SYSERR

Input Message

CLR:PTN

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ID CLR:RUTIL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has 15 formats.

- [1] CLR RUTIL COMPL
LNaa b
- [2] CLR RUTILFLAG COMPL
LNaa b BP = c
- [3] CLR RUTILFLAG COMPL
LNaa b INVALID BP = c
- [4] CLR RUTILFLAG COMPL
LNaa b BP = c NOT SETUP COMPL
- [5] CLR RUTILFLAG COMPL
LNaa b BP = c ILLEGAL BP STATUS = e
- [6] CLR RUTILFLAG COMPL
LNaa b BP = c MEMORY PROTECTION ERROR = f
- [7] CLR RUTILFLAG COMPL
LNaa b VECTOR MEMORY PROTECTION ERROR = f
- [8] CLR RUTIL ABT
SEND2KERN MKNODE() FAILED d
- [9] CLR RUTILFLAG ABT
SEND2KERN MKNODE() FAILED d
- [10] CLR RUTIL ABT
SEND2KERN OPEN() FAILED d
- [11] CLR RUTILFLAG ABT
SEND2KERN OPEN() FAILED d
- [12] CLR RUTIL ABT
SEND2KERN KERNEL RETURNED ERROR d
- [13] CLR RUTILFLAG ABT
SEND2KERN KERNEL RETURNED ERROR d

SEE PROPRIETARY NOTICE ON COVER PAGE

- [14] CLR RUTIL ABT
KERNEL RESPONSE TIMEOUT d
- [15] CLR RUTILFLAG ABT
KERNEL RESPONSE TIMEOUT d

2. REASON FOR OUTPUT

Response to a CLR:RUTIL or CLR:RUTIL (with FLAG option) input command.

Formats 1 and 2 indicate a successful completion of the CLR:RUTIL and the CLR:RUTIL (with FLAG option) input commands, respectively.

Format 3 indicates that the breakpoint specified is invalid.

Format 4 indicates that the specified breakpoint is not set up.

Format 5 indicates that the breakpoint has an illegal status.

Formats 6 and 7 indicate that a memory protection error has occurred.

Formats 8 and 9 indicate that creating the special file for the kernel has failed.

Formats 10 and 11 indicate that attempting to open the file for the kernel processing has failed.

Formats 12 and 13 indicate that the kernel has returned a failing return code.

Formats 14 and 15 indicate that the kernel has not responded to the craft process.

3. VARIABLE FIELD DEFINITIONS

aa	The group number of the concerned node.
b	The member number of the concerned node.
c	The specified breakpoint number.
d	The value of the global variable errno.
e	Illegal breakpoint status value.
f	Memory protection error return.

4. ACTION TO BE TAKEN

For Formats 3 and 4, check the specified breakpoint number.

Otherwise seek technical assistance for Formats 5 through 15.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Messages
CLR:RUTIL
CLR:UTILFLAG
OP:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:SRST
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 2 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

CLR SRST DPC a b[c] [LS d] e
f

2. REASON FOR OUTPUT

To report that the message transfer part (MTP) signaling route set test (SRST) procedure is stopped for the specified destination point code's (DPC) route(s), and the routing status is cleared to available.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | Destination point code (DPC) network identifier (1-254). |
| b | DPC network cluster (0-255) for ANSI® Standard Format, or for AT&T Format b = h i. |
| c | DPC member (0-255). |
| d | Link set or route (1-127). |
| e | IN PROGRESS or COMPLETED. |
| f | One of the following text messages: |

ROUTE d CLEARED FOR g a b[c]
ROUTING DATA FOR DPC a b[c] DOES NOT EXIST
LINK SET d IS NOT A VALID ROUTE FOR g a b[c]
ROUTE d IS ALREADY CLEARED FOR g a b[c]
NO ABNORMAL ROUTES FOR g a b[c]
INTERNAL ERROR error-code: ROUTE d NOT CLEARED FOR g a b[c]

An internal error occurred while trying to clear the route. Error-code is the error number. Retry the command, and if it fails, seek technical assistance.

ROUTE FOR g a b[c] CORRUPTED. RUN AUD:NMDATA 1
The route status for DPC a b[c] is not valid. Run AUD:NMDATA 1, then seek technical assistance.

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INTERNAL ERROR error-code: COMMAND ABORTED DUE TO CHANNEL PROBLEM

The command was not able to open a channel to the signaling link maintenance kernel (SLMK) process. Retry the command, and if it fails, seek technical assistance.

- g The routing type for DPC a b[c]. It will be either UPOPCLU, CLU_O, POPCLU, SMEMBER, DMEMBER, or NO_RTE.
- h Region number (0-31).
- i Cluster identifier (0-7).

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
AUD:NMDATA
CLR:SRST
OP:C7NET-B

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:T1M
WORK CENTER.. MOC
GENERIC 4AP15 Rel. 2 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] RING CLR T1M COMPL
T1M a b TRGT_ADR(c) CLR PDCNTS COMPLETED AT d NETWORK TIME
- [2] RING CLR T1M COMPL
T1M a b TRGT_ADR(c) CLR ERRESF COMPLETED AT d NETWORK TIME
- [3] RING CLR T1M STOPPED
T1M a b CLEAR ERRESF e REQUEST DENIED
ULN (PD) GUARD TIMER TIMEOUT,
T1M CAN'T PROCEED WITHOUT DATA FROM e
- [4] RING CLR T1M STOPPED
T1M a b CLEAR PDCNTS e REQUEST DENIED
ULN (PD) GUARD TIMER TIMEOUT,
T1M CAN'T PROCEED WITHOUT DATA FROM e

2. REASON FOR OUTPUT

This message is output in response to the CLR:T1M input message. This message reports the results of a request to clear the Errored Extended Super Frame (ERRESF) count or the Performance Measurements Data counts of the Universal Link Nodes (ULNs) and Network Channel Office Equipments (NCOEs)

The Errored Extended Super Frame (ESF) count in the ULN is an ongoing accumulation of CRC6 Error Events and Out-of-Frame Error Events. This count, kept ONLY in the ULN, continues to increase in value as these error events occur, until the count is manually cleared with this CLR:T1M,ERRESF input command or the count reaches its maximum value of 65535. Once this counter reaches this maximum value, it stays stuck at this value until manually cleared.

This Errored ESF counter is displayed each time the ULN T1 termination's status is requested with the OP:T1M,ST input command.

The Errored ESF counter is NOT administered on periodic 15-minute intervals into historical counts as are the other Performance Measurements Data Counts described.

The addressable T1 termination's other Performance Measurements Data Counts are counts of Errored Seconds (ES), Failed Seconds (FS) (or Unavailable), Bursty Errored Seconds (BES), Severely Errored Seconds (SES), Slip Buffer Overflow/Underflow (SLIPS),

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and Loss-of-Frame Count (LOFC). A Current (15-minute) Interval set of these counts and up to 96 Historical (15-minute) Interval sets (or 24 hours' worth) of these counts are retained. The "15-minute intervals" are aligned with the network clock time.

The single set of Current Interval Counts are kept ONLY in the ULN, and they contain counts accumulated thus far into the "current 15-minute interval" from the last 15-minute interval boundary. Whenever the current interval counts are requested, they are obtained from the ULN for display.

At each "15-minute interval" boundary, the current interval set of counts in the ULN is moved into the ULN's most recent historical set of counts, and each of the ULN's other historical sets of counts is moved down into the next older set of ULN historical counts. All counts in the ULN (current and historical) are lost on ULN removal/restoral.

Sent up to the 3B where it is stored in Protective Application Segment (PAS) memory as part of the historical counts. The PAS historical counts will survive ULN removal/restoral.

The CLR:T1M,PDCNTS, . . . ;NEULN form of the input command clears both the 3B copy and the ULN copy of the historical counts.

The CLR:T1M,PDCNTS, . . . ;FEULN form of the input command clears ONLY the far-end ULN's copy of the historical counts. It does NOT clear the copy of the far-end ULN's historical data stored in the far-end 3B.

Both forms of the command cause the "Current Interval" set of counts, kept only in the ULN, to be cleared.

Thus, by using either the NEULN or FEULN form of the CLR:T1M,PDCNTS input command, it is possible to clear either one or both copies of a ULN T1 termination's historical counts.

3. VARIABLE FIELD DEFINITIONS

- a The group number of the link node (00-63).
- b The member number of the link node (1-15).
- c ULN T1 termination's target address (A or Z) or the NCOE T1 termination's target address (C-X).
- d Current Network time of day report completed.
- e NEULN — The CLR:T1M,PDCNTS, . . . ;NEULN form of the input command has been used. This form of the command clears current interval counts and both the 3B and the ULN copies of the historical sets of counts.

FEULN — The CLR:T1M,PDCNTS, . . . ;FEULN form of the input command has been used. This form of the command clears current interval counts and ONLY the far-end ULN's copy of the historical sets of counts. The far-end 3B's (PAS) copy of the far-end ULN's historical counts are NOT cleared.

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4. ACTION TO BE TAKEN

Formats 1-2, None.

Format 3, Try the command again. If the problem persists with the FEULN command form, then try the NEULN command form of this command. (This form can work even if the ULN T1 link is down.) If neither form works, seek technical assistance.

Format 4, Try the command again If the problem persists with the FEULN command form, then try the NEULN command form of this command. (This form can work even if the ULN T1 link is down.) If neither form works, seek technical assistance.

5. REFERENCES

Practice 256-090-182, *CNI Maintenance Manual*, T1 Maintenance Procedures Section

Input Messages

ATR:T1M
CLR:T1M
EXC:T1M
OP:T1M
SET:T1M

Output Messages

ATR:T1M
EXC:T1M
OP:T1M
SET:T1M

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ID CLR:TDAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

CLR TDAS USER a b

2. REASON FOR OUTPUT

To report the disposition of a CLR:TDAS input message.

All TDAS related messages are recorded in the log file TDASLOG and may be accessed using OP:LOG;TDASLOG. To get CLR:TDAS messages from the log, use OP:LOG;TDASLOG:KW CLR!

3. VARIABLE FIELD DEFINITIONS

a User ID:

- B — Traffic data concentrator unit (TDCU).
- D — Machine Administration Center (MAC).
- E — AT&T Communications southern region collection.

b Status:

CLEARED - The user identified in variable a has been cleared and no longer has access to the TDAS data base via datalink.

NON-EXISTENT - The user identified in variable a did not have a user ID for TDAS data collection via datalink.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
CLR:TDAS
IN:TDAS
OP:LOG

Output Messages
IN:TDAS
OP:LOG

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ID CLR:UMEM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR UMEM [UCL] a WAS b NOW c #d
- [2] CLR UMEM COMPLETED CKT FAILURE #d

2. REASON FOR OUTPUT

To report the disposition of a CLR:UMEM input message or to report that the Process Identification (PID) listed on the INIT:UMEM message aborted.

3. VARIABLE FIELD DEFINITIONS

- UCL Unconditional execution.
- a Status of the operation:
- COMPLETED — The trace definition has been cleared.
- NOT STARTED — The operation was ignored because data loss might have resulted.
- STOPPED UCERR — The utility circuit either does not respond or does not match the circuit present when the trace was defined.
- b State of the trace before the operation was attempted:
- DUMPED — The trace was not running and its data had already been dumped.
- NEW — The trace was not running and did not have data.
- RUNNING — The trace was collecting data.
- STOPPED — The trace was not running and did have data.
- c State of the trace after the operation was attempted.
- RUNNING — The trace is collecting data.
- STOPPED — The trace is stopped and does contain data.
- UNDEF — No trace is defined.
- d Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the status is NOT STARTED, the trace must be in the NEW or DUMPED state in order to be cleared. Use the INH:UMEM and/or the OP:UMEM input messages before reissuing the CLR:UMEM input message.

If the status is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

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5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 496.

Format 2 has an OMDB key of 504.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

CLR:UMEM

INH:UMEM

INIT:UC

INIT:UMEM

OP:UMEM

OP:UTIL

Output Message

OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:UTIL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

CLR UTIL [a] b #c

2. REASON FOR OUTPUT

To report the status of a CLR:UTIL input message to remove all breakpoints and their definitions.

3. VARIABLE FIELD DEFINITIONS

- a Numeric identifier (decimal digits) for a breakpoint being removed. Only printed if status of operation is STOPPED NGINST.
- b Status of the operation:
- COMPLETED — Printed to indicate the termination of the message.
- STOPPED NGINST — A software breakpoint instruction was not found at the breakpoint address as expected. The breakpoint definition was removed.
- STOPPED UCERR — The operation was completed for software breakpoints, but the utility circuit either does not respond or does not match the circuit present when the hardware breakpoints were defined.
- c Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the status is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. REFERENCES

OMDB Keys

There are OMDB keys of 494 and 502.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

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Input Messages

ALW:UTIL
CLR:UTIL
INIT:UC
OP:UTIL
WHEN:PID
WHEN:UID

Output Message

OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CLR:UTILFLAG
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CLR UTILFLAG a b #c
- [2] CLR UTILFLAG a COMPLETED CKT FAILURE

2. REASON FOR OUTPUT

To report the status of a CLR:UTILFLAG input message to remove a specific Generic Access Package (GRASP) breakpoint and its definition, or report the removal of a breakpoint as required by system conditions.

3. VARIABLE FIELD DEFINITIONS

- a Numeric identifier (decimal digits) for the breakpoint being removed.
- b Status of the operation:
- COMPLETED — The action was successfully completed.
- STOPPED NGINST — A software breakpoint instruction was not found at the breakpoint address as expected. The breakpoint definition was removed.
- STOPPED UCERR — The utility circuit either does not respond, or does not match the circuit present when the breakpoint was defined.
- c GRASP execution sequence number.

4. ACTION TO BE TAKEN

If the status is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. REFERENCES

OMDB Key
Format 2 has an OMDB key of 505.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages
CLR:UTILFLAG
INIT:UC
OP:UTIL
WHEN:PID
WHEN:UID

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Output Message
OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CMPR:D-CORE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CMPR DISK CORE COMPLETED
{UNABLE TO UNMOUNT FILE PARTITION a |
CANNOT EXEC MOP TO UNMOUNT PARTITION: ERRNO = b}
[BP NUMBER c AT d]
DISK AND CORE ARE EQUAL FOR e
- [2] CMPR DISK CORE STOPPED
{UNABLE TO UNMOUNT FILE PARTITION a |
CANNOT EXEC MOP TO UNMOUNT PARTITION: ERRNO = b}
[CORE AND DISK MISMATCH FOR e]
[MISMATCH AT f IN SECTION g]
[CORE CONTENTS h]
[DISK CONTENTS i]
[j]
[k: ERRNO = b]
[l: e]
[CMPR ERR m]
[MAIN...FREELIB FAILED: n]
[MAIN...LOCKLIB FAILED: o]
[MESSAGE FAILED TO RECEIVE: p]
[MESSAGE FAILED TO SEND: q]
[SIGNAL FAILED: SIG = r]

2. REASON FOR OUTPUT

To report the result of a CMPR:D-CORE input message to compare the text (.text, .patch00, and .tv) portions of the disk and core images.

Format 1 reports a successful comparison of the disk and core images.

Format 2 reports an unsuccessful comparison.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | Name of the offline partition. |
| b | Error number (ERRNO). |
| c | Breakpoint number. |
| d | Address where the breakpoint is found. |
| e | Pathname of the file compared. |

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- f Address where the mismatch between disk and core is found.
- g Name of the section where the mismatch is found.
- h Sixteen bytes of core memory, taken at the point of mismatch.
- i Sixteen bytes of disk memory, taken at the point of mismatch.
- j Additional information:
- CALL TO KILL TIMED OUT
 - CALL TO WAIT TIMED OUT
 - CANNOT ATTACH TO FLDUPD PORT
 - CANNOT EXEC MOP...A MOP PROCESS ALREADY EXIST
 - CANNOT PERFORM THE COMPARISON ON A PROCESS WITH NO TEXT
 - CMPR COMPARES PFILE, KERNEL AND SHARED LIBRARIES
 - CMPR RECEIVED BUS ERROR SIGNAL
 - CMPR RECEIVED DEATH OF CHILD SIGNAL
 - CMPR RECEIVED ILLEGAL INSTRUCTION SIGNAL
 - CMPR RECEIVED SEGMENTATION VIOLATION SIGNAL
 - CMPR RECEIVED TOO MANY SIGNALS
 - FILE REQUESTED MUST BE A NON-KILLABLE OR KPUPDATE TYPE
 - FM_OPEN I/O REQUEST FAILED
 - FM_SEGCODE I/O REQUEST FAILED
 - GETTYPE CALL FAILED
 - INVALID PATHNAME
 - LOCKLIB FAILED EVEN AFTER FREELIB
 - MOP PROCESS STILL ALIVE
 - READ ERROR ON DISK COPY
 - SEEK ERROR ON DISK COPY
 - UNABLE TO CREATE COMPARE PROCESS
 - UNEXPECTED SIGNAL RECEIVED
- k Additional error information:
- CALL TO ALARM FAILED
 - CALL TO FORK FAILED
 - CALL TO SIGNAL FAILED

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	CANNOT EXEC MOP
	KILL FAILED
	MNTSTAT FAILED: UNABLE TO READ MOUNT TABLE
l	Additional information:
	FILE FAILED TO OPEN
	WARNING: PROCESS INSTANCE DIED AFTER CMPR ATTACHED TO ITS SEGMENTS
	WARNING: PROCESS INSTANCE DOES NOT EXIST OR DIED BEFORE CMPR COULD ATTACH TO ITS SEGMENTS
m	Error codes:
	2 — Unable to 'lock out' field update.
	3 — Process failed to end.
	4 — Unable to read disk copy.
	5 — File failed to open.
	6 — File requested is killable.
	7 — Specified file is too large.
	8 — Cannot locate core image of the process.
	10 — No segments available in user address space.
	11 — Unable to share an in core segment.
	12 — Failure to change to read-only permissions.
	13 — Could not lock disk copy in core.
	14 — Read error on disk copy.
	15 — File not swabbed.
	16 — Unable to allocate a segment.
	17 — Failure freeing a shared segment.
	18 — Library specified is invalid.
	19 — pfile specified has an invalid magic number.
	20 — Unable to create compare process.
	21 — Start message failed to be sent.
	22 — Compare process still alive.
	23 — Disk and core mismatch.
	24 — File manager open request failed.
	25 — File manager segcode Input/Output (I/O) message failed.
	26 — Call to gettype() failed.
	27 — Bad core size in the segment map.
	28 — KPUPDATE process died before or during segment attach.
	29 — KPUPDATE process died after segment attach.
n	Return code of the freelib call.
o	Return code of the locklib call.
p	Return code of the recvw call.
q	Return code of the sendw call.
r	Signal number.

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4. ACTION TO BE TAKEN

For Format 1, no action is necessary.

For Format 2, seek technical assistance.

5. REFERENCES

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Input Message
CMPR:D-CORE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CMPR:MHD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] CMPR MHD a STARTED
- [2] CMPR MHD a NOT STARTED b c
- [3] CMPR MHD a STOPPED b c
- [4] CMPR MHD a ABORTED b
- [5] CMPR MHD a ERROR b c
- [6] CMPR MHD a COMPLETED
- [7] CMPR MHD a {R0} IN PROGRESS
MHD a SINGLE BLOCK READ RETRY {WORKED|FAILED}
START DISK BLOCK = d {FAILING|END}DISK BLOCK = e
- [8] CMPR MHD a [R0] PARTITION MISMATCH
MHD a PARTITION f OFFSET g BLOCKS d - e
MHD h PARTITION f OFFSET g BLOCKS d - e
- [9] CMPR MHD a [R0] PARTITION SUMMARY
MHD a PARTITION f
MHD h PARTITION f
MISMATCHES i IO JOBS j IO ERRORS k
STIME l ETIME l
- [10] CMPR MHD a {R0} EARLY TERMINATED
MHD a PARTITION f
MHD h PARTITION f
MISMATCHES i IO JOBS j IO ERRORS k
STIME l ETIME l
- [11] CMPR MHD a {R0} FINAL SUMMARY
MHD a
MHD h
MISMATCHES i IO JOBS j IO ERRORS k
STIME l ETIME l

SEE PROPRIETARY NOTICE ON COVER PAGE

- [12] CMPR MHD a {R0} PARTITION BYPASSED
MHD a PARTITION f SIZE m
MHD h PARTITION f SIZE m
PARTITION SIZES NOT EQUAL
STIME l ETIME l
- [13] CMPR MHD {a|h} {R0} PARTITION ACCESS FAILURE
MHD {a|h} {READ} FAILED
PARTITION f OFFSET g BLOCK n

2. REASON FOR OUTPUT

To report the result of executing an CMPR:MHD input message. The [R0] is output to indicate that the READ ONLY option was used. STIME is the time the message was started. ETIME is used to indicate the elapsed time for a particular partition. The ETIME for the FINAL message is the total elapsed time.

3. VARIABLE FIELD DEFINITIONS

- a Member number of the first unit of the Moving Head Disk (MHD) drive.
- b Process step or reason code:
- bxx — where xx are hex digits - see DFC Output Appendix A, APP:DFC-A.
 - f03 — cannot open Equipment Configuration Database (ECD)
 - f06 — cannot get Unit Control Block (UCB) of first unit by name
 - f09 — cannot get UCB of second unit by name
 - f12 — cannot get UCB of first unit's mate
 - f15 — cannot get UCB of first unit's mate
 - f18 — cannot reserve UCB of second unit
 - f21 — cannot assign special device file name of second unit
 - f24 — cannot open special device file of second unit
 - f27 — cannot enable message reception
 - f30 — see accompanying DKDRV error report on the ROP
 - f36 — failed to close special device file of second unit
 - f39 — failed to release special device file of second unit
 - f42 — message to port failure
 - f45 — message reception failure
 - f48 — message to port failure
 - f51 — message reception failure
 - f54 — process timed out
 - f57 — failed to close special device file of second unit
 - f60 — failed to release special device file of second unit
 - f63 — failed to unreserve UCB of second unit
 - f66 — failed to close ECD
- c System error code number; see System Error Codes Output Appendix, APP:SYSERR.

SEE PROPRIETARY NOTICE ON COVER PAGE

RO	Indicates that the READ ONLY option was selected.
d	First disk block number (of a range) that mismatched or retried while being compared.
e	Last disk block number (of a range) that mismatched, failed, or successfully retried while being compared.
f	Partition number in use when a mismatch was encountered.
g	Offset within partition when mismatch was detected.
h	Member number of the second unit of the MHD drive.
i	Number of mismatches that were detected.
j	Number of Input/Output jobs done.
k	Number of errors detected doing I/O.
STIME	The time the compare of the partition was started. For the FINAL SUMMARY report, STIME indicates the start time of the input message.
l	Time in the form hh:mm:ss, hours, minutes, and seconds.
ETIME	Elapsed time for a partition to compare. For the FINAL SUMMARY report, the ETIME is the total elapsed time of all the partitions.
m	Size of the partition given in disk blocks.
n	Disk block number that failed to read or write.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation, and try the input request again.

Appropriate mismatch messages will be generated indicating the range of disk blocks where the mismatch occurred. A maximum of eight mismatch error messages will be output per partition. More than eight mismatch messages will result in an early termination.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. REFERENCES

OMDB Keys

Formats 1 through 6 have OMDB keys of 119, 120, and 121.

Format 7 has an OMDB key of 122.

Format 8 has OMDB keys of 124 and 125.

Formats 9 and 10 have OMDB keys of 126 and 127.

Format 11 has OMDB keys of 130 and 131.

Format 12 has OMDB keys of 128 and 129.

Format 13 has OMDB keys of 132 and 133.

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Output Appendixes

APP:DFC-A

APP:SYSERR

Input Messages

DUMP:MHD-BLK

STOP:CMPR-MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID CMPR:ODA
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] CMPR ODA MTRANS
COMPARE OF a
ACT LENGTH = b OOS LENGTH = b - LOWER VALUE USED
ACT MAX NO. = c OOS MAX NO. = c - LOWER VALUE USED
COMPARE OF a MEMBER d
ACTADR = e OOSADR = e
WORD NO. OLD DATA NEW DATA
f g g
•
•
DIFFERENCES = h
COMPARE OF a MEMBER d
ACTADR = e OOSADR = e
ACT MEMBER IS OPER WHILE OOS MEMBER IS UNEQ
DIFFERENCES = h
•
•
COMPARE OF MTRANS FOUND h DIFFERENCES
- [2] CMPR ODA MCODE
COMPARE OF CSMCODE
ACTADR = e OOSADR = e
ACT LENGTH = b OOS LENGTH = b
WORD NO. OLD DATA NEW DATA
f g g
•
•
COMPARE OF PSMCODE
ACTADR = e OOSADR = e
ACT LENGTH = b OOS LENGTH = b
WORD NO. OLD DATA NEW DATA
f g g
•
•
COMPARE OF MCODE FOUND h DIFFERENCES
- [3] CMPR ODA i
COMPARE OF i
ACTADR = e OOSADR = e
LENGTH = b MASK = j
WORD NO. OLD DATA NEW DATA

SEE PROPRIETARY NOTICE ON COVER PAGE

```

          f          g          g
          •
          •
COMPARE OF j FOUND h DIFFERENCES

[4]  CMPR ODA SPCL
      SPECIAL COMPARE
      ACTADR = e          OOSADR = e
      LENGTH = b          MASK = j
      WORD NO.  OLD DATA  NEW DATA
            f          g          g
      •
      •
SPECIAL COMPARE FOUND h DIFFERENCES

```

2. REASON FOR OUTPUT

Format 1 is the MTRANS compare.

Format 2 is the MCODE compare.

Format 3 is the DIFTYPE, DSIGFNUM, FEATFLAGS, OFC_OPC, STPNET and VTRANS compares.

Format 4 is the SPECIAL compare.

3. VARIABLE FIELD DEFINITIONS

a	Type of member translators being compared.
b	Length in decimal.
c	Maximum number in active or out-of-service memory.
d	Number of member translator.
e	Octal address in active or out-of-service memory.
f	Translator word number in octal.
g	Data being compared in old or new ODA.
h	Number of differences found.
i	Type of ODA translators being compared.
j	Octal mask of data to be compared.

4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Message
CMPR:ODA

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COAMS:0
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

To print input message acknowledgement from an unknown frame:

[1] COAMS INDIR "a" ACKNOWLEDGEMENT FROM UNKNOWN FRAME b c

To indicate that no more memory was available to malloc() or realloc():

[2] COAMS INDIR MEMORY ALLOCATION FAILURE

To indicate that this process terminated due to an error or request by ularp:

[3] COAMS INDIR TERMINATED

2. REASON FOR OUTPUT

To report on a message from an intelligent terminal.

3. VARIABLE FIELD DEFINITIONS

a	Input message acknowledgement.
b	Frame complex name.
c	Frame complex number.

4. ACTION TO BE TAKEN

If format 1 prints, check the equipment configuration data bus (ECD) for the frame complex data link. If formats 2 or 3 print, take no action.

5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:0
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY a b #c
- [2] COPY d NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS e
- [3] COPY d NOT STARTED
INVALID ID FIELD
- [4] COPY d NOT STARTED
RETRY LATER

2. REASON FOR OUTPUT

To report the completion of a COPY: input message.

3. VARIABLE FIELD DEFINITIONS

- a Source of the data copied:
 - ADDR f — Virtual address.
 - PID h, ADDR f — Process ID of process and virtual address.
 - REG e — Register.
 - UID g, ADDR f — Utility ID of process and virtual address.
 - UVAR d — Utility variable.
- b Termination status of the operation:
 - COMPLETED — Request successfully completed.
 - NOT STARTED NGPID — The COPY was stopped because the process does not exist.
 - NOT STARTED NGUID — The COPY was stopped because no copies of the process exist.
 - STOPPED NGADDR — The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
 - STOPPED NGCOPY — The COPY was stopped because some other error occurred in moving the data.
 - STOPPED NGPROT — The COPY was stopped because the destination address does not have write permission granted.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Generic Access Package (GRASP) execution sequence number.
- d PID — Process ID.
UID — Utility ID.
- e Bad Process ID.

4. ACTION TO BE TAKEN

If variable b is:

NOT STARTED NGPID, the process did not exist at the time the COPY was attempted.
Consider using the process UID instead of the PID.

NOT STARTED NGUID, the process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the copy command in the action list. This will help control the exact circumstances under which the operation is performed.

STOPPED NGPROT, recheck the destination to verify that it indicates a writable area. To change program text, use the LOAD:UPNM input message.

5. REFERENCES

OMDB Keys

- Format 1 has an OMDB key of 494.
- Format 2 has an OMDB key of ACK.
- Format 3 has an OMDB key of ACK.
- Format 4 has an OMDB key of ACK.

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Practice 254-341-115 *Generic Access Package (GRASP) - Description*

Input Messages

COPY:[unit]
DUMP:ADDR-A
DUMP:ADDR-B
DUMP:PID
DUMP:REG-A
DUMP:REG-B
DUMP:UID
DUMP:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

OP:ST-PROC
WHEN:PID
WHEN:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:ACTDISK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY ACTDISK ON MHD a COMPLETED
- [2] COPY ACTDISK STOPPED WITH ERROR CODE b ERRNO c[, (d)]

2. REASON FOR OUTPUT

To report the result of executing a COPY:ACTDISK input message.

3. VARIABLE FIELD DEFINITIONS

- a Disk unit to which file was copied.
- b Error code indicating error that caused process to terminate. The first three digits indicate the nature of the error; the last two (represented as xx) indicate which module the error occurred in (the information is not provided here).
- 101xx — Missing arguments. This error is related with the usage of the /prc/mntfs process. The arguments expected by this process are: /prc/mntfs -d a -p b -, c -x d. Where a specifies the non-active disk, b the target file system, c the directory to mount the file system, d the name of the process, plus arguments, to be executed. The arguments should consist of files or directory path names, including the mount directory specified in c.
- 102xx — The partition number that corresponds to the mount point of the destination file, is not the same as the destination partition number. To by pass this check, don't include the mount point in destination file name. For example, to copy /etc/ularp to the root file system on the non-active disk, don't specify /etc/ularp as the destination file; instead the name ularp or /ularp should be specified.
- 103xx — The source specified is not a regular file, a contiguous file (type C or x), or a block device (type b, a partition or file system).
- 104xx — Cannot find mount point for destination file. To avoid the error, exclude the mount point from the destination file path name.
- 105xx — The destination disk specified is not in the Out Of Service (OOS) or Offline (OFL) state.

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- 106xx — Cannot find an entry for the destination partition, in the destination disk Volume Table Of Contents (VTOC). Make sure that the partition number specified exists in the destination disk.
- 107xx — Bad mount directory specified. This error results from the execution of the /prc/mntfs process.
- 108xx — The VTOC in the destination disk is bad or does not exist.
- 109xx — Bad destination file specified.
- 110xx — Process stopped due to SIGTERM signal.
- 111xx — The source file specified does not exist.
- 112xx — Cannot find entry for the source partition on the active disk VTOC.
- 113xx — The destination partition is smaller than the source partition.
- 114xx — The partition number specified is greater than the maximum number of partitions on disk.
- 115xx — The destination partition does not exist in the destination disk.

Errors Associated with System Calls

- 201xx — The open() failed to open d.
- 202xx — mknod() failed to create d.
- 203xx — read() failed to read file d.
- 204xx — mkseg() failed to allocate one segment of memory.
- 205xx — lseek() failed to change offset (see d) in out of service disk.
- 206xx — setio() failed to set physical IO for d.
- 207xx — write() failed on segment d.
- 208xx — ugucbn() failed to get Unit Control Block (UCB) information for Moving Head Disk (MHD) d. This error occurs when disk unit specified does not exist.
- 209xx — mount() failed to mount partition d. This error occurs when partition is not a file system, or mount directory is busy.
- 210xx — unlink() failed to unlink file d.
- 211xx — ursvucb() failed to reserve MHD d. This error occurs when the disk is reserved by other process (for example, diagnostics).
- 212xx — udsdf() failed to get special device file to access MHD d. This error occurs when another process failed to release the special device file.
- 213xx — msgport() failed to send message to the disk driver.
- 214xx — recvw() failed to receive message from the disk driver.
- 215xx — msgenab() failed.
- 216xx — Bad message received from the disk driver.
- 217xx — Bad return code received from the disk driver. This error occurs when the entry in destination disk VTOC does not have all the fields properly set (e.g., the address for the partition may be bad).

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- 218xx — chown() failed to change owner for destination file.
- 219xx — close() failed to close d.
- 220xx — stat() failed on d.
- 221xx — plock() failed to lock /prc/mntfs process in core.
- 222xx — chmod() failed to change mode of destination file.
- 223xx — system() call returned with an error code d.
- 224xx — create() failed to create the destination file, on file system in the destination disk. This error occurs when there is no more space in the file system.
- 225xx — falloc() failed to allocate contiguous space for a contiguous file, on the file system in the destination disk. This error occurs when the file system does not have enough contiguous space for the file to be created.
- 226xx — ugetrec() failed to get UCB record for destination disk MHD a in the ECD database.

- c Indicates system error code (see System Error Codes Output Appendix, APP:SYSERR).
- d Supplementary data.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 187.

Format 2 has an OMDB key of 186.

Output Appendix

APP:SYSERR

Input Message

COPY:ACTDISK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:ADDR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY ADDR a b #c
- [2] COPY ADDR {PID|UID} NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS d
- [3] COPY ADDR {PID|UID} NOT STARTED
INVALID ID FIELD e
- [4] COPY ADDR {PID|UID} NOT STARTED
RETRY LATER f

2. REASON FOR OUTPUT

To report the completion of a COPY input message.

3. VARIABLE FIELD DEFINITIONS

- a Virtual address.
- b Termination status of the operation:
 - COMPLETED — Request successfully completed.
 - NOT STARTED NGPID — The COPY was stopped because the process does not exist.
 - NOT STARTED NGUID — The COPY was stopped because no copies of the process exist.
 - STOPPED NGADDR — The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
 - STOPPED NGPROT — The COPY was stopped because the destination address does not have write permission granted.
 - STOPPED NGCOPY — The COPY was stopped because some other error occurred in moving the data.
- c Generic Access Package (GRASP) execution sequence number.
- PID Process Identification.
- UID Utility Identification.
- d Bad PID.

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- e Test phrase:
- EXTRA KEYWORD (PID).
- INCONSISTENT KEYWORDS (NL-OFF).
- INPUT ERROR (OFF COUNT).
- INVALID KEYWORD.
- RANGE ERROR (L or NL).
- RANGE ERROR (PID).
- RANGE ERROR (UVAR).
- f The system is in an overload condition.

4. ACTION TO BE TAKEN

If termination status is NOT STARTED NGPID, the process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.

If termination status is NOT STARTED NGUID, the process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If termination status is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY command in the action list. This will help control the exact circumstances under which the operation is performed.

If termination status is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area.

5. REFERENCES

OMDB Key

Formats 1 through 4 have an OMDB key of 494.

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Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
DUMP:ADDR-A
LOAD:ADDR-A

SEE PROPRIETARY NOTICE ON COVER PAGE

OP:ST-PROC
WHEN:PID
WHEN:UID

Output Messages

COPY:PID
COPY:REG
COPY:UID
COPY:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

**WARNING
INAPPROPRIATE USE OF THIS
MESSAGE MAY INTERRUPT OR
DEGRADE SERVICE. READ PURPOSE
CAREFULLY.**

ID COPY:APPDB
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

WARNING

If a copy to the ACTIVE partition aborts prematurely, the ACTIVE database will most likely be left in a corrupt state. This requires immediate attention. Retry the copy message immediately. If the reattempt does not succeed, notify NESAC immediately.

The COPY:APPDB to ACT message should be used with extreme care.

1. FORMAT

- [1] COPY APPDB FROM a TO b IN PROGRESS
COPY APPDB FROM c TO d
- [2] COPY APPDB FROM a TO b COMPLETED
- [3] COPY APPDB ACTIVE DATABASE HAS 4E16 FORMAT - VALID SID REQUIRED
- [4] COPY APPDB CANNOT OPEN c - e
- [5] COPY APPDB SOURCE DATABASE c FORMAT ERROR
- [6] COPY APPDB CANNOT CHECK MAGIC FOR c - e
- [7] COPY APPDB CANNOT CREATE SEGMENT - e
- [8] COPY APPDB CANNOT SETIO ON SOURCE DEV - e
- [9] COPY APPDB CANNOT SETIO ON DEST DEV - e
- [10] COPY APPDB CANNOT READ c - e
- [11] COPY APPDB CANNOT WRITE c - e
- [12] COPY APPDB DEST DATABASE HAS INV FORMAT, DON'T USE APP KW

2. REASON FOR OUTPUT

Print the results of copying an application database. Formats 1 and 2 indicate that the copy is in progress or has completed successfully. The other formats indicate that there was a problem with the copy and it has stopped.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

- a Application partition that is affected. Valid values are:
- ACT — Active partition, /dev/appdb0
- SCRATCH — Scratchpad partition, /dev/appdb2
- SHADOW — Backup partition, /dev/appdb1
- b Application partition that is affected. Valid values are:
- ACT — Active partition, /dev/appdb0
- SCRATCH — Scratchpad partition, /dev/appdb2
- SHADOW — Backup partition, /dev/appdb1
- c Filename of the partition that is affected. Valid values are:
- /dev/appdb0 — Active partition
- /dev/appdb1 — Backup partition
- /dev/appdb2 — Scratchpad partition
- d Filename of the partition that is affected. Valid values are:
- /dev/appdb0 — Active partition
- /dev/appdb1 — Backup partition
- /dev/appdb2 — Scratchpad partition
- e Error code indicating why the copy was not successful.

4. ACTION TO BE TAKEN

When the copy is complete, the copy can be verified with the VER:MEMORY and the VER:GTT commands. The most likely cause of an unsuccessful copy is that system conditions (insufficient resources) preclude the ability to copy at the current time. Retry the copy message later. If the copy cannot be successfully completed after a small number of attempts, NESAC should be notified.

5. REFERENCES

Input Messages
COPY:APPDB
VER:GTT
VER:MEMORY

Output Message
VER:MEMORY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:APPFILE
WORK CENTER.. MOC
GENERIC 4AP15 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] COPY APPFILE STARTED
- [2] COPY APPFILE COMPLETED
- [3] COPY APPFILE ABORTED REASON a
- [4] COPY APPFILE ABORTED CAN'T COPY SCP FILES
- [5] COPY APPFILE ABORTED VCP ERROR b
- [6] COPY APPFILE ERROR - COULD NOT GET CURRENT TIME; ERRNO = b
- [7] COPY APPFILE ERROR - COULD NOT STAT c; ERRNO = b
- [8] COPY APPFILE ERROR - c DOES NOT EXIST
- [9] COPY APPFILE ERROR - UNABLE TO CLOSE EXISTING c
- [10] COPY APPFILE ERROR - UNABLE TO COPY c
- [11] COPY APPFILE ERROR - UNABLE TO CREATE c
- [12] COPY APPFILE ERROR - UNABLE TO LOCK c
- [13] COPY APPFILE ERROR - UNABLE TO UNLINK EXISTING c; ERRNO = b
- [14] COPY APPFILE NOT STARTED; STATFILE INVALID, SEEK TECHNICAL ASSISTANCE
- [15] COPY APPFILE NOT STARTED; STATFILE INDICATES THAT SYSTEM IS IN UPDATE MODE
- [16] COPY APPFILE ABORTED, MESSAGE SEND TO 1B FAILED
- [17] COPY APPFILE ABORTED, 3B FOUND INVALID DATA IN MESSAGE FROM 1B
- [18] COPY APPFILE ABORTED, MACP ABORTED 1B JOB
- [19] COPY APPFILE ABORTED, SAWS LOCK CLIENT IN PROGRESS
- [20] COPY APPFILE ABORTED, 1B SAWS LOCK FAILED - INPUT ERROR

SEE PROPRIETARY NOTICE ON COVER PAGE

- [21] COPY APPFILE ABORTED, 1B FOUND INVALID DATA IN MESSAGE FROM 3B
- [22] COPY APPFILE ABORTED, RECEIVING MESSAGE FROM 1B FAILED ERRNO = b
- [23] COPY APPFILE ABORTED, 1B TIMED OUT WAITING TO RELEASE SAWS LOCK
- [24] COPY APPFILE ABORTED BY TIMEOUT WAITING FOR 1B SAWS LOCK

2. REASON FOR OUTPUT

To report the progress of a COPY:APPFILE input message, or display the cause of an abnormal termination.

3. VARIABLE FIELD DEFINITIONS

- a Code indicating reason for program termination.
- b Code indicating UNIX® reason for program termination.
- c Name of file causing indicated problem

4. ACTION TO BE TAKEN

Formats [1] and [2] are normal responses and indicate all-is-well. If any of the other formats are displayed or printed, contact your technical support center for assistance.

5. REFERENCES

Input Message
COPY:APPFILE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:APPTAPE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] APPTAPE ADDRESS RANGE a - b STARTED, FILE c

[2] APPTAPE COMPLETED

2. REASON FOR OUTPUT

In response to the COPY:APPTAPE command to copy LTS, TOSL, or ERAP data to archive tape.

3. VARIABLE FIELD DEFINITIONS

a	Starting file store address of data block
b	Ending file store address of data block
c	Absolute path name of source 1BFILE.

4. ACTION TO BE TAKEN

Format 1 is the expected output. It may be repeated with different address ranges, as needed to cover the data areas being archived.

Format 2 announces task completion.

5. REFERENCES

Input Messages
COPY:APPTAPE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:BKDISK
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY BKDISK a [b]
- [2] COPY BKDISK a ERROR CODE c
- [3] COPY BKDISK NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
- [4] COPY BKDISK { ABORTED | STOPPED }
[CANNOT OVERWRITE PREVIOUS SESSION |
END OF TAPE ENCOUNTERED |
HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
INVALID POSITIONING SESSION |
INVALID POSITIONING VOLUME |
INVALID TAPE DEVICE TYPE |
LOGICAL VOLUME NOT IN ASCENDING ORDER |
MRG OPTION REQUIRED |
REQUESTED SESSION TO UPDATE IS NOT MOST RECENT SESSION ON TAPE |
SESSION IS NOT IN SEQUENTIAL ORDER |
TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
TAPE LIBRARY ERROR d |
TAPE WRITE ERROR e]
- [5] COPY BKDISK STOPPED
CANNOT EXECUTE CHILD PROCESS

2. REASON FOR OUTPUT

To report the progress of the COPY:BKDISK input message, or to indicate a problem.

3. VARIABLE FIELD DEFINITIONS

- a Status messages:
 - CANNOT LOCK PROCESS IN CORE — Cannot lock Physical Disk-To-Tape (PDT) writer process program in core. This may slow down the system processing.
 - COM OPTION MISUSED. ISSUE COMMAND AGAIN. — The COM option was used on RTR boot disks that do not have a common VTOC. A common RTR VTOC includes both the 3B20D/3B21D VLMM and the 3B21D lboot partitions. Issue the command again without the COM option.

SEE PROPRIETARY NOTICE ON COVER PAGE

COM OPTION NEEDED. ISSUE COMMAND AGAIN. — The COM option is needed, since the RTR boot disk image being created has a VTOC including both the 3B20D/3B21D VLMM and the 3B21D lboot partitions. Issue the command again with the COM option.

COMMON TAPE - BOTH LBOOTS WILL BE WRITTEN. — This informs the user that even though only one lboot partition was specified in the specfile, the lboot partition for the processors will be written to tape. Both partitions are written, since the Volume Table Of Contents (VTOC) on the disk is common.

COMPLETED. DISMOUNT DATABASE TAPE AND LABEL — Dismount the tape and label it as required by local procedures.

COMPLETED. DISMOUNT GENERIC TAPE AND LABEL — Dismount the tape and label it as required by local procedures.

COMPLETED. DISMOUNT TAPE AND LABEL — Dismount the tape and label it as required by local procedures.

DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE — End of tape has been reached. There are ten minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE — If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE — End of tape has been reached. There are 10 minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE — If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

DISMOUNT TAPE LABEL AND MOUNT NEXT TAPE — End of tape has been reached. There are ten minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK;ACK input message must be entered to continue the process (see COPY:BKDISK, Format 2).

IN PROGRESS — Procedure is proceeding normally.

STOPPED — Physical disk-to-tape writer has been stopped.

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b

Error messages:

CAN'T OPEN DISK. CHECK DATA FIELD AND TRY AGAIN — The disk name given could not be opened. There may be an error in the arguments to the DISK keyword.

CAN'T OPEN TAPE. CHECK DATA FIELD AND TRY AGAIN — The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

CAN'T OPEN TAPE. NEED TO RE-WRITE ENTIRE SEQUENCE — The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

CANNOT OPEN TAPE DATA — This message indicates that the open to the tape device failed. This may be due to the tape drive being off-line or the tape being write protected. A message will follow indicating to mount tape and acknowledge. There will be four chances given to mount a tape.

CANNOT RUN WITH SYSTEM OR FIELD UPDATE, OR ANOTHER COPY BKDISK — The COPY:BKDISK message cannot run simultaneously with a field update or system update message (any UPD input message), and cannot run while another COPY:BKDISK message is in progress.

COPY BKDISK START WAS NOT ISSUED — The COPY:BKDISK;ACK input command was issued before a COPY:BKDISK;START command.

INVALID SPECFILE — Make sure that partition names were specified in the specification file.

MOUNT TAPE AGAIN AND ACKNOWLEDGE LAST CHANCE — This message will be output as the last warning for mounting a tape successfully. The COPY:BKDISK message will abort after 20 minutes.

MOUNT TAPE AND ACKNOWLEDGE — This message is printed after a previous request to mount a tape failed (for example, the open() of the tape failed), or if the COPY:BKDISK;ACK input message is not entered to continue the process. There are seven chances to mount a tape successfully, before the COPY:BKDISK;START input message aborts.

MRG OPTION INCORRECTLY USED — Specification file does not have database and generic partitions. This option should be used when there is a need to create one sequence for generic and database partitions.

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RE-INITIALIZE ENTIRE SEQUENCE — This message indicates that the entire tape writing procedure must be re-initiated using the COPY:BKDISK;START input message.

TAPE CHANGE ACTION INCORRECT — The action taken to change the tape was incorrect. This can occur if the time limits were exceeded, an invalid tape size was entered, or no tape size was entered. This message is followed immediately by RE-INITIATE ENTIRE SEQUENCE.

TAPE SIZE OUT OF RANGE RE-ENTER COMMAND — An incorrect tape size was entered for the tape device specified. The acceptable range for a 9-track tape is 600 to 2400 feet and the acceptable range for a DAT is 30 to 90 meters.

TAPE WRITE ERROR. NEED TO RE-WRITE ENTIRE SEQUENCE — A physical error was encountered while writing to the tape. This error may also appear if an incorrect device name was specified for 'EXT' (extended) format. Mount tape on proper device if necessary and enter COPY:BKDISK;START input message.

TAPE WRITE ERROR MOUNT NEW TAPE AND TRY AGAIN — A physical write error was encountered while writing to the tape. It may be necessary to mount a new tape, since write errors occur due to bad spots on tape. COPY:BKDISK;ACK input message must be entered to rewrite the tape.

C The procedure has been terminated for one of the reasons defined in the error code:

- 1 — A read of VTOC indicated zero bytes read.
- 2 — Error on read of VTOC.
- 3 — Second VTOC entry is not for 'VTOC' itself (the VTOC partitions may not be valid).
- 4 — Failed on setio system call for tape.
- 5 — Unable to open device directory /dev.
- 6 — The stat() UNIX® function failed to get device information for the diskname specified.
- 7 — The stat() UNIX® function failed to get device information for a partition name in the /dev directory.
- 8 — Two partition names specified in the specification file are duplicate (map into the same partition on disk). Remove one partition name and try again.
- 9 — Error in reading /dev device directory entries.
- 10 — Did not find stat() information for all partition names specified in specification file. One or more partition names specified may reside in a different disk. Remove these partition names and try again.
- 11 — Failed on open of partition.
- 12 — Failed on setio system call for disk.
- 13 — Error on read of partition.
- 14 — Unable to add data segment to address space.

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- 15 — Cannot open specification file. This file may not exist, or may be zero length. Add required partition names and try again.
- 16 — The COPY:BKDISK;ACK input message cannot open /tmp/pdt to get the process ID of the COPY:BKDISK;START message.
- 17 — Too many partitions specified in the specification file.
- 18 — The stat() function failed to get device information for a partition name in the /etc/pdtspec file (this partition may not exist), or the stat() function could not find the name of the disk device or tape device entered on the message line. The name entered is not a special device name. Replace the name and try again.
- 19 — Name specified in the specification file is not a partition (file is not a block device). Replace with the proper partition name and try again.
- 20 — The lla_dbatt() function failed to attach to the System Generation (SG) database (to get the SG time stamp that is included in the first header of a tape sequence).
- 21 — The lla_rdget() function failed to get the sghdr_rec record from the SG.
- 22 — Failed on lla_dbrel call.
- 23 — The getdbseg() function failed to attach to the Equipment Configuration Database (ECD) (to get the generic version to be included in the first header of a tape sequence).
- 24 — The lla_iatt() function failed trying to attach to the incore database.
- 25 — A tape sequence was not effective for a generic or database (internal error in the COPY:BKDISK;START message). Try the entire procedure again.
- 26 — The system call close() failed when trying to close the partition that was opened to read the data.
- 27 — The system call unlink() failed when trying to unlink the partition already written to tape.
- 28 — The system call mknod() failed when trying to create a special device file or a partition.
- 29 — The system call lseek() failed when trying to find the disk offset to rewrite the tape.
- 30 — The lla_rdget() function failed to get the ecdorg, ucb, or mdct records from the ECD.
- 31 — The lla_get() function failed to get the logdev record from the ECD.
- 32 — The tape device being used is not compatible with the EXT option. The EXT option is always compatible with a processor or an Administrative Work Station (AWS) tape device, since data to be written is broken up into 6K-size records by default. On the 3B21D, data is not broken up into 6K-size records by

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default. This error occurs if you are on the 3B21D and the logdev record for the tape device specified has one of the characteristics:

1. is of type IOP
2. has a fixed blocking factor
3. has a blocking factor not equal to 6K

The blocking factor for some tape devices can be determined by their naming convention. Refer to the “Magnetic Tape Special Device File Names” chapter of the *Lucent Technologies 3B20D and 3B21D Computers UNIX RTR Operating System, System Maintenance Manual* for tape device naming conventions. Seek technical assistance if necessary.

- 33 — The ECD mdct record for the source disk references more than two units.
- 34 — The ECD mdct record for the source disk does not reference any units.
- 35 — No BBOOT partition entries were found in the RTR boot disk VTOC.
- 36 — A BACKUP BBOOT partition entry was not found in the RTR boot disk VTOC.
- 37 — A PRIMARY BBOOT partition entry was not found in the RTR boot disk VTOC.

- d System error code number (see the System Error Codes Output Appendix, APP:SYSERR).
- e Tape library error code number (see the Tape Library Error Appendix, APP:TAPE-LIB).

4. ACTION TO BE TAKEN

Format 2 execution errors (error codes 8, 10, 15, 17, 18, and 19) can be corrected by examining the procedures used for execution of the message. Seek technical assistance for all other error codes.

Format 4 errors pertain to multi-volume digital audio tapes and will be accompanied by explanatory text. If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and that the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

Format 5 indicates that there is a problem invoking the `/prc/3btpwrt` process. Verify that the process exists and is executable. If these checks fail to uncover the problem, seek technical assistance.

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5. REFERENCES

OMDB Keys

Formats 1, 2 and 3 have an OMDB key of 185.

Formats 4 and 5 have an OMDB key of 748

Output Appendixes

APP:SYSERR

APP:TAPE-LIB

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:BKTAPE
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

COPY BKTAPE a
[CANNOT ALLOCATE SEGMENT, ERROR b |
CANNOT OPEN INPUT DEVICE, ERROR b |
CANNOT OPEN OUTPUT DEVICE, ERROR b |
ECD ERROR c |
HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
INCOMPLETE READ FROM INPUT DEVICE |
INPUT AND OUTPUT DEVICES ARE IDENTICAL |
INVALID MULTI VOLUME TAPE HEADER |
NO DATA ON TAPE |
OUTPUT DEVICE HAS FIXED RECORD SIZE |
READ FAILED FROM INPUT DEVICE, ERROR b |
SETIO FAILED ON INPUT DEVICE, ERROR b |
SETIO FAILED ON OUTPUT DEVICE, ERROR b |
STAT FAILED ON INPUT DEVICE, ERROR b |
TAPE CONTAINS NONSEQUENTIAL SESSIONS |
TAPE CONTAINS VOLUMES NOT IN ASCENDING ORDER |
TAPE DEVICE IS NOT ACTIVE |
TAPE DEVICE DOES NOT SUPPORT LDFT RECORD SIZE |
TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
TAPE HEADER CONTAINS INVALID SESSION |
TAPE HEADER CONTAINS INVALID VOLUME |
TAPE LIBRARY ERROR d |
TOO MANY TOP FILES ON INPUT TAPE |
UNEXPECTED END OF DATA DETECTED |
WRITE FAILED TO OUTPUT DEVICE, ERROR b]

2. REASON FOR OUTPUT

To report the status of a request to copy the contents of a multi-volume Digital Audio Tape (DAT) to a destination DAT.

3. VARIABLE FIELD DEFINITIONS

a Request status.

ABORTED — The copy failed and was aborted.

COMPLETED — The copy completed with no errors.

IN PROGRESS — The copy is in progress.

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- STARTED — The copy started.
- STOPPED — The copy failed and was stopped.
- b System error code number (see the System Error Codes Output Appendix, APP:SYSERR).
- c Internal error code for failure of an Equipment Configuration Database (ECD) access function.
- 1 — getdbseg failed, could not attach to the ECD
 - 2 — lla_iatt failed, could not attach to the incore database
 - 3 — lla_rdget failed, could not get the ecdorg record from the ECD
 - 4 — lla_get failed, could not get the logdev record for the source tape device from the ECD
 - 5 — lla_rdget failed, could not get the mdct record for the source tape device from the ECD
 - 6 — lla_rdget failed, could not get the ucb record for the source tape device from the ECD
 - 7 — lla_get failed, could not get the logdev record for the destination tape device from the ECD
 - 8 — lla_rdget failed, could not get the mdct record for the destination tape device from the ECD
 - 9 — lla_rdget failed, could not get the ucb record for the destination tape device from the ECD
 - 10 — rmovdbseg failed, could not remove incore database segments
- d Tape library error code number (see the Tape Library Error Appendix, APP:TAPE-LIB).

4. ACTION TO BE TAKEN

Errors will be accompanied by explanatory text. Verify that the command that was input is consistent with the COPY:BKTAPE input message. If the message indicates that there is a problem with a tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing a tape drive, verify that a tape is loaded and that the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Key(s):

This message has an OMDB key of 760 or 761.

Output Appendixes

APP:SYSERR

APP:TAPE-LIB

Input Messages

COPY:BKTAPE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:DIFF-SRC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY DIFF SRC MHD a STARTED
- [2] COPY DIFF SRC MHD a NOT STARTED b c
- [3] COPY DIFF SRC MHD a STOPPED b c
- [4] COPY DIFF SRC MHD a ABORTED b
- [5] COPY DIFF SRC MHD a ERROR b c
- [6] COPY DIFF SRC MHD a COMPLETED
- [7] COPY DIFF SRC MHD IN PROGRESS
MHD a SINGLE BLOCK READ RETRY {WORKED|FAILED}
START DISK BLOCK = d {FAILING|END} DISK BLOCK = e
- [8] COPY DIFF SRC MHD a PARTITION MISMATCH
MHD a PARTITION f OFFSET g BLOCKS d - e
MHD aa PARTITION f OFFSET g BLOCKS d - e
- [9] COPY DIFF SRC MHD a PARTITION SUMMARY
MHD a PARTITION f
MHD aa PARTITION f
MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
STIME hh:mm:ss ETIME hh:mm:ss
- [10] COPY DIFF SRC MHD a PARTITION EARLY TERMINATED
MHD a PARTITION f
MHD aa PARTITION f
MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
STIME hh:mm:ss ETIME hh:mm:ss
- [11] COPY DIFF SRC MHD {a|aa} PARTITION ACCESS FAILURE
MHD {a READ|aa WRITE} FAILED
PARTITION f OFFSET g BLOCK l

SEE PROPRIETARY NOTICE ON COVER PAGE

- [12] COPY DIFF SRC MHD a FINAL SUMMARY
MHD a
MHD aa
MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
STIME hh:mm:ss ETIME hh:mm:ss
- [13] COPY DIFF SRC MHD a PARTITION BYPASSED
MHD a PARTITION f SIZE m
MHD aa PARTITION f SIZE m
PARTITION SIZES NOT EQUAL
STIME hh:mm:ss ETIME hh:mm:ss

2. REASON FOR OUTPUT

To report the result of executing a COPY:DIFF input message. STIME is the time the message was started. ETIME is used to indicate the elapsed time for a particular partition. The ETIME for the FINAL message is the total elapsed time.

3. VARIABLE FIELD DEFINITIONS

- a Member number of the source disk of the Moving Head Disk (MHD) drive.
- b Process step or reason code:
- f03 — Cannot open Equipment Configuration Database (ECD).
 - f06 — Cannot get Unit Control Block (UCB) of first unit by name.
 - f09 — Cannot get UCB of second unit by name.
 - f12 — Cannot get UCB of first unit's mate.
 - f15 — Cannot get UCB of first unit's mate.
 - f18 — Cannot reserve UCB of second unit.
 - f21 — Cannot assign special device file name of second unit.
 - f24 — Cannot open special device file of second unit.
 - f27 — Cannot enable message reception.
 - f30 — See accompanying DKDRV error report on the receive-only printer.
 - f36 — Failed to close special device file of second unit.
 - f39 — Failed to release special device file of second unit.
 - f42 — Message to port failure.
 - f45 — Message reception failure.
 - f48 — Message to port failure.
 - f51 — Message reception failure.
 - f54 — Process timed out.
 - f57 — Failed to close special device file of second unit.
 - f60 — Failed to release special device file of second unit.
 - f63 — Failed to unreserve UCB of second unit.
 - f66 — Failed to close ECD.
- c System error code number. See System Error Codes Output Appendix, APP:SYSERR.

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d	First disk block number (of a range) that mismatched while being compared.
e	Last disk block number (of a range) that mismatched while being compared.
f	Partition number in use when a mismatch was encountered.
g	Offset within partition when mismatch was detected.
h	Number of mismatches that were detected.
i	Number of corrections that were made.
j	Number of Input/Output jobs done.
k	Number of errors detected doing I/O.
STIME	The time the compare of the partition was started. For the FINAL SUMMARY report, STIME indicates the start time of the input message.
hh	Hours.
mm	Minutes.
ss	Seconds.
ETIME	Elapsed time for a partition to compare. For the FINAL SUMMARY report, the ETIME is the total elapsed time of all the partitions.
l	Disk block number that failed to read or write.
m	Size of the partition given in disk blocks.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

Appropriate mismatch messages will be generated indicating the range of disk blocks where the mismatch occurred. A maximum of eight mismatch error messages will be output per partition. More than eight mismatch messages will result in an early termination.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. REFERENCES

OMDB Keys

Formats 1,2,3,4,5, and 6 have OMDB keys of 119,120, and 121.

Format 7 has an OMDB key of 122.

Format 8 has OMDB keys of 124 and 125.

Formats 9 and 10 have OMDB keys of 126 and 127.

Format 11 has OMDB keys of 132 and 133.

Format 12 has OMDB keys of 130 and 131.

Format 13 has OMDB keys of 128 and 129.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Output Appendix
APP:SYSERR

Input Messages
DUMP:MHD-DEF
STOP:CMPR-MHD

Output Message
CMPR:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:F-CFILE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY FILESYS CFILE COMPLETED
- [2] COPY FILESYS CFILE STOPPED
a

2. REASON FOR OUTPUT

To report the result of executing a COPY:F-CFILE input message to move a file to a contiguous area.

3. VARIABLE FIELD DEFINITIONS

- a The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the command that was input is consistent with the COPY:F-CFILE input message. Use the OP:ST-LSTDIR input message to verify that the file exists with the appropriate permissions. If the message indicates that there is not enough space on the file system, use the CLR:F-FILE input message to remove some files to create the file space.

If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

CLR:F-FILE

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:F-FILE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY FILESYS FILE COMPLETED
- [2] COPY FILESYS FILE STOPPED
{Cannot access a | a and b are identical}

2. REASON FOR OUTPUT

To report the result of executing a COPY:F-FILE input message to copy a file to another place.

3. VARIABLE FIELD DEFINITIONS

- a Pathname specified in the input message as the source file.
- b Pathname specified in the input message as the destination file.

4. ACTION TO BE TAKEN

Refer to the input message for the correct format and reenter the message, or check the status of the file using the OP:ST-LSTDIR input message if a Format 2 message is printed.

Seek technical assistance if any other error message is printed.

5. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Input Messages
ALW:F-ACCESS
CLR:F-FILE
OP:ST-LSTDIR

Output Message
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:OOSDISK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY OOSDISK STOPPED WITH ERROR CODE {a|b|c|d}
- [2] COPY OOSDISK COMPLETED

2. REASON FOR OUTPUT

To report the result of executing a COPY:OOSDISK input message.

3. VARIABLE FIELD DEFINITIONS

- a Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module in which the error occurred. x is not provided. Errors associated with UNIX® system calls:
 - 01x — mkseg error.
 - 02x — Open error.
 - 03x — Read error.
 - 04x — Stat error.
 - 05x — Write error.
 - 06x — Close error.
 - 07x — Unlink error.
 - 08x — setio error.
 - 09x — mknod error.
 - 10x — msgenab error.
 - 11x — Send error.
 - 12x — msgport error.
 - 13x — Mount error.
 - 14x — umount error.
 - 15x — cp error.
- b Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module in which the error occurred. x is not provided. Errors associated with input message format:
 - 20x — Invalid arguments. The source or destination filename may not exist.
 - 22x — Process stopped by an interrupt or termination signal.
 - 25x — Bad pathname specified for source file.
 - 26x — Disk containing source file is active.

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- c Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module in which the error occurred. x is not provided. Errors associated with the System Integrity Monitor (SIM), the Maintenance Input Request Administrator (MIRA), and the disk driver:
- 30x — Message not what was expected.
 - 31x — Tried to reserve two disks.
 - 32x — Tried to release unreserved disk.
 - 33x — New disk state bad.
 - 36x — Timeout for MIRA message.
 - 37x — Timeout for disk driver message.
 - 38x — Bad MIRA return on message.
 - 39x — Bad disk driver return on message.
 - 40x — State result bad.
 - 41x — Timeout for SIM message.
- d Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module in which the error occurred. x is not provided. Errors associated with Equipment Configuration Database Manager (ECDMAN) user functions:
- 50x — ugetucb error.
 - 51x — ugmamirids error.
 - 52x — ursvucb error.
 - 53x — ugsdf error.
 - 54x — urelucb error.
 - 55x — ursdf error.
 - 56x — usettnum error.
 - 57x — usetucb error.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 188.

Input Message

COPY:OOSDISK

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ID COPY:P-ALL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY PTN ALL COMPLETED
a BLOCKS COPIED
.
.
.
- [2] COPY PTN ALL STOPPED
{INVALID SOURCE/DESTINATION SPECIFIED {b|c|d|e} |
PROCESS STOPPED {b|c|d|e} |
DISK ACCESS PROCEDURE ABORTED {b|c|d|e} |
CANNOT COPY PARTITION {b|c|d|e} |
DISK RESTORAL PROCEDURE ABORTED {b|c|d|e} |
CANNOT CONNECT TO SYSTEM UPDATE PORT}

2. REASON FOR OUTPUT

Format 1 indicates the input message completed and successfully invoked the process that copies partions. For each partition, the number of blocks copied is output.

Format 2 indicates the process that copies partitions did not complete successfully. The reason for stopping is indicated.

3. VARIABLE FIELD DEFINITIONS

- a Number of blocks copied (for each partition copied).
- b Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module of UNIX® RTR code in which the error occurred. Errors associated with UNIX® operating system calls:
- 1x — mkseg error.
 - 2x — Open error.
 - 3x — Read error.
 - 4x — Stat error.
 - 5x — Write error.
 - 6x — Close error.
 - 7x — unlink error.
 - 8x — setio error.
 - 9x — mknod error.
 - 10x — msgenab error.
 - 11x — Send error.
 - 12x — msgport error.

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- c
- Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module of UNIX® RTR code in which the error occurred. Errors associated with execution:
- 20x — Invalid arguments. The source or destination filename may not exist, or does not contain a valid list of partition names. The source/destination partition names specified may not be special devices, or they do not exist in the disk. Make sure that valid source/destination partition names are used.
 - 21x — Destination is small. Cannot copy to a partition that is smaller than the source partition. Make sure that the destination partition specified is not smaller than the source partition.
 - 22x — Process stopped by an interrupt or termination signal.
 - 23x — Cannot overwrite destination partition. The destination specified may be an active partition or currently in use. For example, if the system is running on primary, /dev/root is an active partition. A partition with no backup is considered an active partition. Make sure that the destination partition specified is not an active partition.
 - 24x — Disk is not duplexed. Need both disks active before attempting to do a partition copy.
- d
- Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module of UNIX® RTR code in which the error occurred. Errors associated with the System Integrity Monitor (SIM), the Maintenance Input Request Administrator (MIRA), and the disk driver:
- 30x — Message not what was expected.
 - 31x — Tried to reserve two disks.
 - 32x — Tried to release unreserved disk.
 - 33x — New disk state bad.
 - 36x — Timeout for MIRA message.
 - 37x — Timeout for disk driver message.
 - 38x — Bad MIRA return on message.
 - 39x — Bad disk driver return on message.
 - 40x — State result bad.
 - 41x — Timeout for SIM message.

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e Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module of UNIX® RTR code in which the error occurred. Errors associated with the Equipment Configuration Database Manager (ECDMAN) user functions:

50x — ugetucb error.
51x — ugmamirids error.
52x — ursvucb error.
53x — ugsdf error.
54x — urelucb error.
55x — ursdf error.
56x — usettnum error.
57x — usetucb error.
58x — ugetrec error.

4. ACTION TO BE TAKEN

For codes 20x-24x, correct the problem and reenter the input message. Seek technical assistance if any other error message is printed.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 288.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Input Message

COPY:P-ALL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:PID
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY PID a b c #d
- [2] COPY PID {PID|UID} NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS e
- [3] COPY PID {PID|UID} NOT STARTED
INVALID ID FIELD f
- [4] COPY PID {PID|UID} NOT STARTED
RETRY LATER g

2. REASON FOR OUTPUT

To report the completion of a COPY input message.

3. VARIABLE FIELD DEFINITIONS

- a Process ID.
- b Source of the data copied.
 - ADDR x — Virtual address.
 - PID y, ADDR x — Process ID of process and virtual address.
 - REG y — Register.
 - UID y, ADDR x — Utility ID of process and virtual address.
 - UVAR y — Utility variable.
- c Termination status of the operation:
 - COMPLETED — Request successfully completed.
 - NOT STARTED NGPID — The COPY was stopped because the process does not exist.
 - NOT STARTED NGUID — The COPY was stopped because no copies of the process exist.
 - STOPPED NGADDR — The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.

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	STOPPED NGPROT — The COPY was stopped because the destination address does not have write permission granted.
	STOPPED NGCOPY — The COPY was stopped because some other error occurred in moving the data.
d	Generic Access Package (GRASP) execution sequence number.
PID	Process Identification.
UID	Utility Identification.
e	Bad PID.
f	Test phrase: EXTRA KEYWORD (PID). INCONSISTENT KEYWORDS (NL-OFF). INPUT ERROR (OFF COUNT). INVALID KEYWORD. RANGE ERROR (L or NL). RANGE ERROR (PID). RANGE ERROR (UVAR).
g	The system is in an overload condition.

4. ACTION TO BE TAKEN

If the termination status is NOT STARTED NGPID, the process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.

If the termination status is NOT STARTED NGUID, the process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If the termination status is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY command in the action list. This will help control the exact circumstances under which the operation is performed.

If the termination status is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area.

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5. REFERENCES

OMDB Key

Formats 1 through 4 have an OMDB key of 494.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

COPY:ADDR

COPY:REG

COPY:UID

COPY:UVAR

DUMP:PID

OP:ST-PROC

WHEN:PID

WHEN:UID

Output Messages

COPY:ADDR

COPY:REG

COPY:UID

COPY:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:REG
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY REG a b #c
- [2] COPY REG {PID|UID} NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS d
- [3] COPY REG {PID|UID} NOT STARTED
INVALID ID FIELD e
- [4] COPY REG {PID|UID} NOT STARTED
RETRY LATER f

2. REASON FOR OUTPUT

To report the completion of a COPY input message.

3. VARIABLE FIELD DEFINITIONS

- a Valid register name (valid register names are listed in the COPY:REG input message).
- b Termination status of the operation:
 - COMPLETED — Request successfully completed.
 - NOT STARTED NGPID — The COPY was stopped because the process does not exist.
 - NOT STARTED NGUID — The COPY was stopped because no copies of the process exist.
 - STOPPED NGADDR — The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
 - STOPPED NGPROT — The COPY was stopped because the destination address does not have write permission granted.
 - STOPPED NGCOPY — The COPY was stopped because some other error occurred in moving the data.
- c Generic Access Package (GRASP) execution sequence number.
- PID Process Identification.
- UID Utility Identification.
- d Bad PID.

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- e Test phrase:
- INCONSISTENT KEYWORDS (NL-OFF) .
- INPUT ERROR (OFF COUNT) .
- INVALID KEYWORD .
- RANGE ERROR (L or NL) .
- RANGE ERROR (PID) .
- RANGE ERROR (UVAR) .
- f The system is in an overload condition.

4. ACTION TO BE TAKEN

If the termination status is NOT STARTED NGPID, the process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.

If the termination status is NOT STARTED NGUID, the process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If the termination status is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY command in the action list. This will help control the exact circumstances under which the operation is performed.

If the termination status is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area.

5. REFERENCES

OMDB Key

Formats 1 through 4 have an OMDB key of 494.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

COPY:ADDR

COPY:PID

COPY:UID

COPY:UVAR

DUMP:REG-A

LOAD:REG-A

OP:ST-PROC

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WHEN:PID
WHEN:UID

Output Messages

COPY:ADDR
COPY:PID
COPY:UID
COPY:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:SPDISK
WORK CENTER.. MOC
GENERIC 4AP17 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY SPDISK COPIED a BLOCKS
- [2] COPY SPDISK COMPLETED
- [3] COPY SPDISK STOPPED WITH ERROR CODE {b|c|d|e}

2. REASON FOR OUTPUT

To report the result of executing a COPY:SPDISK input message, and to provide status information.

3. VARIABLE FIELD DEFINITIONS

- a Number of blocks written for each partition copied.
- b Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module in which the error occurred. x is not provided. Errors associated with UNIX® system calls:
 - 01x — mkseg error.
 - 02x — Open error.
 - 03x — Read error.
 - 04x — Stat error.
 - 05x — Write error.
 - 06x — Close error.
 - 07x — unlink error.
 - 08x — setio error.
 - 09x — mknod error.
 - 10x — msgenab error.
 - 11x — send error.
 - 12x — msgport error.
 - 13x — mount error.
 - 14x — umount error.
- c Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module in which the error occurred. x is not provided. Errors associated with input message format:
 - 20x — Invalid arguments. The source or destination filename may not exist, or does not contain a valid list of partition names. The source/destination partition names specified may not be special devices, or they do not exist in the

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disk. Make sure that valid source/destination partition names are used.

- 21x — Destination is small. Cannot copy to a partition that is smaller than the source partition. Make sure that the destination partition specified is not smaller than the source partition.
- 22x — Process stopped by an interrupt or termination signal.
- 24x — Disk is not duplexed. Need both disks active before attempting to do a cpspdisk.

d Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module in which the error occurred. x is not provided. Errors associated with the System Integrity Monitor (SIM), the Maintenance Input Request Administrator (MIRA), and the disk driver:

- 30x — Message not what was expected.
- 31x — Tried to reserve two disks.
- 32x — Tried to release unreserved disk.
- 33x — New disk state bad.
- 36x — Timeout for MIRA message.
- 37x — Timeout for disk driver message.
- 38x — Bad MIRA return on message.
- 39x — Bad disk driver return on message.
- 40x — State result bad.
- 41x — Timeout for SIM message.

e Numeric code for the error that caused the process to terminate. The least significant digit (represented as x) indicates the module in which the error occurred. x is not provided. Errors associated with Equipment Configuration Database Manager (ECDMAN) user functions:

- 50x — ugetucb error.
- 51x — ugmamirids error.
- 52x — ursvucb error.
- 53x — ugsdf error.
- 54x — urelucb error.
- 55x — ursdf error.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, seek technical assistance.

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5. REFERENCES

OMDB Key

Formats 1, 2 and 3 have an OMDB key of 188.

Input Message

COPY:SPDISK

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ID COPY:T-EMERDMP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY TAPE EMERDMP COMPLETED
a + a RECORDS IN
a + a RECORDS OUT
- [2] COPY TAPE EMERDMP STOPPED
{DD:CANNOT OPEN /dev/mt b |
DD:CANNOT CREATE /dev/panic |
DD:NOT ENOUGH MEMORY |
DD READ ERROR
DD WRITE ERROR}

2. REASON FOR OUTPUT

To report the result of executing a COPY:T-EMERDMP input message to copy emergency dump data from a disk partition to a magnetic tape with a header block.

Format 1 is printed when the input message executed successfully.

Format 2 is printed when errors were encountered.

3. VARIABLE FIELD DEFINITIONS

- a Record counts.
- b Tape drive specified in the input message.

4. ACTION TO BE TAKEN

Refer to the input message for the correct format and reenter the input message if Cannot open /dev/mt... is printed. Seek technical assistance if any other Format 2 message is printed.

5. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

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Input Messages

CLR:EMERDMP
COPY:T-EMERDMP
OP:EMERSTAT
OP:ST-FILESYS

Output Messages

OP:EMERSTAT
OP:ST-FILESYS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:T-IN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY TAPE IN {STARTED|IN PROGRESS SEGMENT a|COMPLETED SEGMENT a}
b
- [2] COPY TAPE IN STOPPED CANNOT OPEN c FOR INPUT
- [3] COPY TAPE IN STOPPED CANNOT CHANGE DIRECTORY
TO BSDIR c
- [4] COPY TAPE IN STOPPED
d

2. REASON FOR OUTPUT

To report the result of executing a COPY:TAPE;IN input message to files from a magnetic tape.

Format 1 indicates successful execution.

Format 2 - 4 indicate failure.

3. VARIABLE FIELD DEFINITIONS

- a Output segment number.
- b List of files and/or the number of blocks read from the tape.
- c Pathname specified in the input message.
- d Explanation of the error encountered while reading the tape.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

If formats 2 or 3 are printed, correct any input message line errors. The existence of a directory can be confirmed using the OP:ST-LSTDIR input message.

If format 4 is printed and the text is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Formats 2 and 3 have an OMDB key of 286

Format 4 has an OMDB key of 288.

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Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

COPY:T-IN

COPY:T-OUT

OP:ST-LSTDIR

Output Message

COPY:T-OUT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:T-OUT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY TAPE OUT {STARTED|IN PROGRESS SEGMENT a|COMPLETED SEGMENT a}
b
- [2] COPY TAPE OUT STOPPED CANNOT OPEN c FOR INPUT
- [3] COPY TAPE OUT STOPPED CANNOT CHANGE DIRECTORY
TO BSDIR c
- [4] COPY TAPE OUT STOPPED
d

2. REASON FOR OUTPUT

To report the result of executing a COPY:TAPE;OUT input message to write one or more files on a magnetic tape.

Format 1 indicates successful execution. Formats 2 - 4 indicate failure.

3. VARIABLE FIELD DEFINITIONS

- a Output segment number.
- b List of files and/or the number of blocks written to the tape.
- c Pathname specified in the input message.
- d Explanation of the error encountered while writing the tape.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

If formats 2 or 3 are printed, correct any input message line errors. The existence of a file or directory can be confirmed using the OP:ST-LSTDIR input command.

If format 4 is printed and the text is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 286.

Format 4 has an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

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Input Messages
COPY:T-IN
COPY:T-OUT
OP:ST-LSTDIR

Output Message
COPY:T-IN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:T-TEST
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY TAPE TEST COMPLETED
a
- [2] COPY TAPE TEST STOPPED
CANNOT OPEN b |
CANNOT OPEN /DIAG/DATABL/TSTTAPE |
CANNOT CREATE /DIAG/DATABL/TSTTAPE |
NOT ENOUGH MEMORY |
DD WRITE ERROR |

2. REASON FOR OUTPUT

To report the result of executing a COPY:T-TEST input command to write a header block on a magnetic tape.

3. VARIABLE FIELD DEFINITIONS

- a Record counts.
- b Pathname specified in the input command for the tape drive.

4. ACTION TO BE TAKEN

Reenter the input command using the correct tape drive if the first message shown in Format 2 is printed.

Seek technical assistance if another Format 2 message or any other error message is printed.

5. REFERENCES

OMDB Key
There is an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Message
COPY:T-TEST

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:T-TOP
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY TAPE TOP COMPLETED
a + a records in
a + a records out
- [2] COPY TAPE TOP COMPLETED
a + a records in
a + a records out
a + a records in
a + a records out
- [3] COPY TAPE TOP STOPPED
{NO TOPFILE EXISTS |
UNKNOWN HARDWARE PLATFORM |
dd: cannot open b |
dd: cannot create c |
dd: not enough memory |
dd read error |
dd write error}

2. REASON FOR OUTPUT

To report the result of executing a COPY:TAPE;TOP input message to copy a Tape-Only Program (TOP) file from disk to tape.

Format 1 prints when the input message executes successfully, and the COM option is not used. This output prints when copying the Standard Main Memory (SMM) or Expanded Main Memory (EMM) TOP file, the Very Large Main Memory (VLMM) TOP file, or the 3B21D TOP file, based upon the hardware-platform type.

Format 2 prints when the input message executes successfully, and the COM option is used. This output prints when copying both the VLMM TOP file and the 3B21D TOP file. The first set of record counts indicates the VLMM TOP file, and the second set of record counts indicates the 3B21D TOP file.

Format 3 prints when errors are encountered.

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3. VARIABLE FIELD DEFINITIONS

- a Record counts.
- b The pathname of a TOP file:
 /etc/topfile
 /etc/topfile21
 /etc/topfile32
 /etc/topfile64
- c The pathname specified in the input command for the tape drive.

4. ACTION TO BE TAKEN

For Format 3, if NO TOPFILE EXISTS prints, be sure that the correct topfile is present in the /etc directory.

If dd: cannot create /dev/mt... prints, refer to the input message for the correct format and try the input message again.

Seek technical assistance for any other Format 3 message.

5. REFERENCES

OMDB Keys
Formats 1, 2, and 3 have an OMDB key of 288.

Input Message
COPY:T-TOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID COPY:UID
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY UID a b c #d
- [2] COPY UID {PID|UID} NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS e
- [3] COPY UID {PID|UID} NOT STARTED
INVALID ID FIELD f
- [4] COPY UID {PID|UID} NOT STARTED
RETRY LATER g

2. REASON FOR OUTPUT

To report the completion of a COPY input message.

3. VARIABLE FIELD DEFINITIONS

- a Utility ID.
- b Source of the data copied.
 - ADDR x — Virtual address.
 - PID y, ADDR x — Process ID of process and virtual address.
 - REG y — Register.
 - UID y, ADDR x — Utility ID of process and virtual address.
 - UVAR y — Utility variable.
- c Termination status of the operation:
 - COMPLETED — Request successfully completed.
 - NOT STARTED NGPID — The COPY was stopped because the process does not exist.
 - NOT STARTED NGUID — The COPY was stopped because no copies of the process exist.
 - STOPPED NGADDR — The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.

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	STOPPED NGPROT — The COPY was stopped because the destination address does not have write permission granted.
	STOPPED NGCOPY — The COPY was stopped because some other error occurred in moving the data.
d	Generic Access Package (GRASP) execution sequence number.
PID	Process Identification.
UID	Utility Identification.
e	Bad PID.
f	Test phrase: EXTRA KEYWORD (PID). INCONSISTENT KEYWORDS (NL-OFF). INPUT ERROR (OFF COUNT). INVALID KEYWORD. RANGE ERROR (L or NL). RANGE ERROR (PID). RANGE ERROR (UVAR).
g	The system is in an overload condition.

4. ACTION TO BE TAKEN

If the termination status is NOT STARTED NGPID, the process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.

If the termination status is NOT STARTED NGUID, the process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If the termination status is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY command in the action list. This will help control the exact circumstances under which the operation is performed.

If the termination status is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area.

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5. REFERENCES

OMDB Key

Formats 1 through 4 have an OMDB key of 494.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
DUMP:UID
OP:ST-PROC
WHEN:PID
WHEN:UID

Output Messages

COPY:ADDR
COPY:PID
COPY:REG
COPY:UVAR

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ID COPY:UPDATE
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] COPY UPDATE a from b FILE

c TAPE FILES WRITTEN

•
•
•

a TAPE WRITTEN

[2] COPY UPDATE TAPE NOT READY errno=d

[3] COPY UPDATE BAD OR CONFLICTING DATA FORMAT

[4] COPY UPDATE CAN'T OPEN TAPE FOR REWIND errno=d

[5] COPY UPDATE CANNOT ACCESS NWM DATA, TAPE WRITE FAILED errno=d

[6] COPY UPDATE ABORTED, MESSAGE SEND TO 1B FAILED

[7] COPY UPDATE ABORTED, 3B FOUND INVALID DATA IN MESSAGE FROM 1B

[8] COPY UPDATE ABORTED, MACP ABORTED 1B JOB

[9] COPY UPDATE ABORTED, SAWS LOCK CLIENT IN PROGRESS

[10] COPY UPDATE ABORTED, 1B SAWS LOCK FAILED - INPUT ERROR

[11] COPY UPDATE ABORTED, 1B FOUND INVALID DATA IN MESSAGE FROM 3B

[12] COPY UPDATE ABORTED, RECEIVING MESSAGE FROM 1B FAILED errno=d

[13] COPY UPDATE ABORTED, 1B TIMED OUT WAITING TO RELEASE SAWS LOCK

[14] COPY UPDATE ABORTED BY TIMEOUT WAITING FOR 1B SAWS LOCK

[15] COPY UPDATE ABORTED, RC ROLLBACK INIT FAILED

2. REASON FOR OUTPUT

To make a backup copy of a Generic (GEN), Library (LIB), Office Data Assembler (ODA), Network Management (NWM), or Traffic and Plant Measurements (TPM) tape.

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3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | Type of tape to be written:
GEN — Generic
LIB — Library
NWM — Network Management
ODA — Office Data Assembler
TPM — Traffic and Plant Measurements |
| b | 1B file to write from:
NORM — Normal file.
UPD — Update file. |
| c | Number of tape files written. |
| d | Error code. Error codes are found in the output System Error Code Appendix APP:SYSERR. |

4. ACTION TO BE TAKEN

Format [1] is a normal response and indicates all-is-well.

For format [2], ensure that:

1. The correct tape unit is specified (MT 0 or MT 1).
2. The tape unit is in service.
3. The tape drive is online.
4. The tape has a write ring or write protect tab.

If any of the other formats are displayed or printed, seek technical assistance.

5. REFERENCES

Output Appendix
APP:SYSERR

Input Message
COPY:UPDATE

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ID COPY:UVAR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] COPY UVAR a b #c
- [2] COPY UVAR {PID|UID} NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS d
- [3] COPY UVAR {PID|UID} NOT STARTED
INVALID ID FIELD e
- [4] COPY UVAR {PID|UID} NOT STARTED
RETRY LATER f

2. REASON FOR OUTPUT

To report the completion of a COPY input message.

3. VARIABLE FIELD DEFINITIONS

- a Utility variable number.
- b Termination status of the operation:
 - COMPLETED — Request successfully completed.
 - NOT STARTED NGPID — The COPY was stopped because the process does not exist.
 - NOT STARTED NGUID — The COPY was stopped because no copies of the process exist.
 - STOPPED NGADDR — The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
 - STOPPED NGPROT — The COPY was stopped because the destination address does not have write permission granted.
 - STOPPED NGCOPY — The COPY was stopped because some other error occurred in moving the data.
- c Generic Access Package (GRASP) execution sequence number.
- PID Process Identification.
- UID Utility Identification.
- d Bad PID.

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- e Test phrase:
- EXTRA KEYWORD (PID).
- INCONSISTENT KEYWORDS (NL-OFF).
- INPUT ERROR (OFF COUNT).
- INVALID KEYWORD.
- RANGE ERROR (L or NL).
- RANGE ERROR (PID).
- RANGE ERROR (UVAR).
- f The system is in an overload condition.

4. ACTION TO BE TAKEN

If the termination status is NOT STARTED NGPID, the process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.

If the termination status is NOT STARTED NGUID, the process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If the termination status is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY command in the action list. This will help control the exact circumstances under which the operation is performed.

If the termination status is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area.

5. REFERENCES

OMDB Key

Formats 1 through 4 have an OMDB key of 494.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
DUMP:UVAR
LOAD:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

OP:ST-PROC
WHEN:PID
WHEN:UID

Output Messages

COPY:ADDR
COPY:PID
COPY:REG
COPY:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DEACTV:DCC
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 4 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] DEACTV DCC APP c COMPLETE
APPDB DCC IS DEACTIVATED FOR c
- [2] DEACTV DCC APP c COMPLETE
APPDB DCC IS NOT ACTIVATED FOR c
- [3] DEACTV DCC APP c COMPLETE
APPDB DCC CANNOT BE DEACTIVATED -- DCC TASK d IS RUNNING
- [4] DEACTV DCC APP c COMPLETE
APPDB SID e DOES NOT MATCH CURRENT SID f -- DCC NOT DEACTIVATED
- [5] DEACTV DCC APP c COMPLETE
INPUT ERROR - e
- [6] DEACTV DCC APP c COMPLETE
ERROR a (LINE b) -- APPDB DCC FOR c CANNOT BE DEACTIVATED

2. REASON FOR OUTPUT

Response to the DEACTV:DCC input command. Format 1 prints if no errors were encountered when executing the deactivate command. Formats 2 thru 4 print if current conditions prevent the system from deactivating DCC. Format 5 prints if a syntax error was found in the DEACTV:DCC command that was input. Format 6 prints if internal errors are preventing the 4ESS™ Switch from deactivating DCC.

3. VARIABLE FIELD DEFINITIONS

- a Error number (TBD).
- b Source line number where error was found. (For NESAC troubleshooting.)
- c The name of the APPDB customer unit being deactivated. Currently, only IBGTT is supported by the DCC capability.
- d Transaction id of the DCC task that is executing. (DCC cannot be deactivated if a DCC task is in progress. A DCC task can be aborted via the STOP:DCC input command.)
- e English description of the syntax error found in the command input.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Format 5: Notify NESAC.

5. REFERENCES

Input Messages

ACTV:DCC
ALW:DCC
DEACTV:DCC
INH:DCC
OP:DCC
START:DCC
STOP:DCC
VER:DCC

Output Messages

INH:DCC
OP:DCC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DEL:LOG
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DEL LOG a b DELETED CORRUPT SEGMENT AT c
d
- [2] DEL LOG a CANNOT OPEN LOGFILE
- [3] DEL LOG FILE a DELETION COMPLETE e DELETED
- [4] DEL LOG CANNOT OPEN WORKFILE
- [5] DEL LOG a CANNOT OPEN TEMPORARY FILE
- [6] DEL LOG a PORT CONNECTION FAILURE

2. REASON FOR OUTPUT

Reports the results of a DEL : LOG input message. Formats 1, 2, 4, 5, and 6 are to report that an error occurred when executing the DEL : LOG input message.

3. VARIABLE FIELD DEFINITIONS

- a Name of logfile.
- b Pathname of the file in which corruption was discovered.
- c Position in file where corruption was discovered, expressed in characters.
- d Text containing the corrupted information which has been deleted.
- e Number of messages deleted.

4. ACTION TO BE TAKEN

If Format 1 is printed, the contents of the corrupt log file must be SAVED on paper for later reference.

If Format 2 is printed, check to see if the log file exists under the pathname specified in the device record.

If Format 5 is printed, check the /tmp file system to see if all the space is used up.

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5. REFERENCES

OMDB Keys

Formats 1, 2, 5, and 6 have an OMDB key of 277.

Format 3 has an OMDB key of 14.

Format 4 has an OMDB key of 13.

Input Messages

DEL : LOG

OP : LOG

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:API
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B-APS
TYPE Output

1. FORMAT

DGN API a b c [d]

TEST	MISMATCH	ACTUAL	MASK	EXPECTED
e	f	g	h	i

2. REASON FOR OUTPUT

To specify the diagnostic results and termination mode at the conclusion of the diagnostic executed on an attached processor interface (API) unit.

Format 2 indicates failing diagnostic results for an individual phase. This is the output if the diagnostic is output in the raw form.

3. VARIABLE FIELD DEFINITIONS

- a Member number of the API unit under diagnosis.
- b Termination mode for the diagnostic:
- COMPLETED — Diagnostic completed normally.
 - ABORTED — Diagnostic was abnormally stopped because of an interrupt or error in execution.
 - STOPPED — The diagnostic was terminated under program control since further testing would not improve resolution.
- c Results of the diagnostic:
- ATP — All tests passed.
 - CATP — All tests passed, however some tests were skipped because of the unavailability of a system resource which was needed to perform the test.
 - NTR — No tests were executed.
 - STF — Some tests failed.
- d The reason tests were skipped in this phase. The reasons are identified by their bit position in the 16-digit hexadecimal number that is printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

For example, if d = 00000000 00000006, tests were skipped for reasons 1 and 2. The reasons are as follows:

BIT REASON FOR TEST SKIPPED

0	Helper unit invalid or not specified
1	Helper unit cannot be reserved
2	Helper unit is not out of service
3	Helper control unit (CU) is not ATP
4-63	Unused

e	Test number of the failing test.
f	The bits that were in error. MISMATCH indicates that the response from the unit did not match the expected response in that bit.
g	N/A.
h	N/A.
i	N/A.

4. ACTION TO BE TAKEN

If c is CATP, restore the indicated system resource to service, if possible, so that all tests may be executed. If c is STF, repair the unit as quickly as possible. Otherwise, take no action.

5. REFERENCES

Input Message
DGN:API

Output Messages
DGN:AUDIT
REPT:DIAMON-A
REPT:DIAMON-B

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:AUDIT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN AUDIT a
R = b
DRIVER DATA
X = c C = q S = d R = e E = f I = g I = h
PHASE DATA
T = i A = j S = k I = l
- [2] DGN AUDIT a
R = b
DRIVER DATA
D = m
PHASE DATA
T = i A = j S = k I = l
- [3] DGN AUDIT a
R = b
SYSTEM DATA
D = n
PHASE DATA
T = i A = j S = k I = l
- [4] DGN AUDIT a
R = b
LEXEC DATA
D = o ERROR = p
PHASE DATA
T = i A = j S = k I = l

2. REASON FOR OUTPUT

Each of the formats has a separate purpose.

Format 1 is used to report an error encountered by Control Unit (CU) diagnostic programs.

Format 2 is used to report a peripheral driver error encountered by the peripheral diagnostic programs.

Format 3 is used to report an error encountered by the peripheral diagnostic programs.

Format 4 is used to report a LEXEC function failure encountered by the peripheral diagnostic programs.

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3. VARIABLE FIELD DEFINITIONS

- a Diagnostic reporting the error;
- CU Control Unit
- DFC Disk File Controller
- IOP Input/Output Processor

If a = CU,

- b Reason for audit, in hexadecimal notation:
- 41 — Test count specified in phase end does not agree with test executed.
 - 42 — Off-line microcode execution timed out.
 - 43 — Off-line Main Store (MAS) execution set argument error.
 - 44 — Excofl time-out - the function LEXEC did not terminate as planned.
 - 45 — Micro code pump failed.
 - 46 — Illegal object file for (off-line) mainstore code execution.
 - 47 — Cannot load off-line mainstore.
 - 48 — Cannot set (off-line) register.
 - 49 — Cannot set up stack for (off-line) mainstore code.
 - 4A — (Off-line) Mainstore code execution problem.
 - 4B — Execute on-line failure.
 - 4C — Cannot open Equipment Configuration Database (ECD) manager / dev/ecd or / dev/dgn/ecd.
 - 4D — Illegal or unspecified helper unit requested.
 - 4E — ECD failed or is incorrect.
 - 4F — Psetup fail to pass topucb ptr to pcpmd driver.
 - 50 — Incorrect input parameters in interactive mode.
 - 51 — Getucb cannot get UCB named.
 - 52 — Getucb cannot reserve helper unit UCB.
 - 53 — Getucb cannot release helper unit UCB.
 - 54 — Getucb find UCB for helper unit.
 - 55 — Helper unit specified on the input request was invalid.
 - 56 — Operating system signal illegal instruction.
 - 57 — Operating system signal illegal bus error.
 - 58 — Operating system signal segment violation.
 - 59 — Operating system signal error on system call.
 - 61 — Diagnostic Control (DIAGC) process failed to open diagnostic driver.
 - 62 — Write to maintenance driver failed.
 - 63 — Normal completion of a phase.
 - 64 — Cannot open data table file.
 - 65 — Cannot share the DCB from DIAMON (connseg failed).
 - 66 — Error in data table.
 - 67 — Invalid number of parameters from DIAMON.
 - 68 — Open function failed, open tty device.
 - 69 — Cannot open dgn format file.
 - 6A — Invalid command received while in interactive mode.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 6B — Cannot read (off-line) registers.
- 6C — Cannot open tlp file, -tlp option is denied.

If a = DFC or IOP,

- b Reason for audit, in hexadecimal notation.
 - 41 — Open special device file failed.
 - 42 — SETIO failed.
 - 43 — Makeseg failed.
 - 44 — Sendpw failed.
 - 45 — Read PC pump file failed.
 - 46 — Driver operation failed.
 - 47 — Open PC pump file failed.
 - 48 — Msgenab failure.
 - 49 — Msgdisab failure.
 - 4A — Open Processor Control Process Maintenance Driver (PCPMD) failed.
 - 4B — Write to PCPMD failed.
 - 4C — Excofl timed out.
 - 4D — Open ECD manager failed.
 - 4E — Function "ugucbn" failed.
 - 4F — PIC microstore size not in UCB.
 - 50 — Receive wait failed.
 - 51 — LEXEC function failed.
 - 52 — E_host of UCB not initialized.
 - 53 — Lseek function failure.
 - 54 — Drive size not 5 or 19 tracks.
 - 55 — Makeseg failed for disk read / write buffer.
 - 56 — Write/read segment too small.
 - 57 — Function ugetucb failed.
 - 58 — DFC not active.
 - 59 — IOP not active.
 - 64 — Cannot open data table file.
 - 65 — Cannot share DCB from DIAMON.
 - 66 — Error in the data table.
 - 67 — Invalid number of parameters from DIAMON.
 - 68 — Open spooler failed.
 - 6A — Invalid interactive mode command.
 - 6C — Open tlpfile failed.
 - 6D — Signal: illegal instruction.
 - 6E — Signal: bus error.
 - 6F — Signal: segment violation.
 - 70 — Signal: software termination.
- c Index into pcp table.
- d Central Control Input/Output (CCIO) bus simulator status register, in hexadecimal notation.
- e CCIO bus simulator error register, in hexadecimal notation.

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f	Error number returned from PCPMD specified in decimal notation. See System Error Codes Output Appendix, APP:SYSERR.
g	Left half of instruction to PCPMD, in hexadecimal notation.
h	Right half of instruction to PCPMD, in hexadecimal notation.
i	Last test executed, in decimal notation.
j	Data table address, in hexadecimal notation.
k	Data table statement number, in decimal notation.
l	Task routine index, in hexadecimal notation.
m	Peripheral driver error code, in hexadecimal notation. DFC error codes are in Output Appendix APP:DFC-F. IOP error codes are in Output Appendix APP:IOP-F.
n	Error code returned on a failing system call or ECD function call: in decimal notation. See System Error Codes Output Appendix, APP:SYSERR.
o	Error code returned by LEXEC function call, in decimal notation. See System Error Codes Output Appendix, APP:SYSERR.
p	Error code from a PCPMD (the CU maintenance driver) function call, in decimal notation. See System Error Codes Output Appendix, APP:SYSERR.
q	CCIO bus driver error code, in hexadecimal notation.

4. ACTION TO BE TAKEN

If variable b is:

44, the off-line CU has failed to complete execution of a mainstore program. A hardware fault may exist in the off-line CU. Make sure that the Central Control (CC), Main Store Controller Unit (MASC), and Store Address Translator (SAT) diagnostics run all tests pass before proceeding with any troubleshooting.

4D, 50, 55, or 6A. refer to the Input Message and reenter the associated input command if

if any other value is printed. seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 56.

Format 2 has an OMDB key of 56.

Format 3 has an OMDB key of 56.

Format 4 has an OMDB key of 56.

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System
System Maintenance Manual*

Practice 254-301-100 *Input/Output Interfaces - Description and Theory of Operation*

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-341-220 *System Diagnostic - Description*

Output Appendixes

APP:DFC-F

APP:IOP-F

APP:SYSERR

Input Messages

DGN:[unit]

Output Messages

DGN:[unit]

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:AUDIT-RING
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

- [1] DGN AUDIT RING
R = a
SYSTEM DATA
D = b
PHASE DATA
T = c A = d S = e I = f PH = g
- [2] DGN AUDIT RING
R = a
DRIVER DATA
D = h
PHASE DATA
T = c A = d S = e I = f PH = g

2. REASON FOR OUTPUT

Format 1 is used to report an error encountered by the IMS diagnostic programs. The diagnostic has been aborted.

Format 2 is used to report an IMS driver error encountered by the IMS diagnostic programs. The diagnostic has been aborted.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Reason for the audit, in hexadecimal notation. See Table in this document. |
| b | Error code returned on a failing system call or a failing function call, in decimal notation. See Table in this document. |
| c | Last test executed, in decimal notation. |
| d | Data table address, in hexadecimal notation. |
| e | Data table statement number, in decimal notation. |
| f | Task routine index, in hexadecimal notation. |
| g | Phase number of data table, in decimal notation. |
| h | IMS driver error code, in hexadecimal notation. See Table in this document. |

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4. ACTION TO BE TAKEN

Refer to the input message and re-enter the associated input command if a = 33, 37, 61, 76, or 7C.

If a = 77, 85, or 88, retry the diagnostic request. If the diagnostic repeatedly aborts with the same values for a, seek technical assistance.

If a = 7D, correct any problems in the isolated segment, include the isolated nodes into the active ring, and re-enter the diagnostic request.

If a = 96, retry the diagnostic after IMS system initialization has completed.

Seek technical assistance if any other value for a is printed.

5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*
Diagnostics User's Guide Section

Output Appendixes
APP:APPENDIX-2
APP:APPENDIX-6

Input Messages
DGN:LN
DGN:RPCN

Output Messages
DGN:LN
DGN:RPCN

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TABLE

a Value Reason for Abort	b or h Value Supplemental Data
30 - Node under test is not isolated.	Has no significance.
31 - Function call to _rgcntl() failed.	Return code from _rgcntl().
32 - File handling failed in writeifb()	3 - call to creat() failed 4 - call to write() failed 5 - call to close() failed
33 - The ring is down. (Dgn of LN not possible in this ring state).	Has no significance.
34 - After write of rac control msg, received a msg from node not being controlled.	The NODE_ID of the source node in the received message.
35 - _nplreset function call failed	Return code from _nplreset
36 - Received message of imm_type IM_NPDAT that was not control type _ONLY.	Control code in reply message to read np memory request.
37 - Received abort from ring.chng indicating the ring is being configured.	Has no significance.

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TABLE (cont'd)

a Value Reason for Abort	b or h Value Supplemental Data
38 - RAC control was not effective.	The following specify which RAC control failed. 1 - set inhibit input 2 - clear inhibit input 3 - set force read 4 - clear force read 5 - set force propagate 6 - clear force propagate 7 - program rac reset 8 - clear blockage 9 - disable error interrupt 10 - enable error interrupt
39 - Function call to _rgrelay() failed.	Return code from _rgrelay().
41 - Open special device file failed.	See Output APP:APPENDIX-2
42 - SETIO failed.	See Output APP:APPENDIX-2
43 - Makeseg failed.	See Output APP:APPENDIX-2
44 - Sendpw failed.	See Output APP:APPENDIX-2
45 - Execute diagnostic failed.	Return code from _nplexec
46 - IMS driver operation failed in msgtoport() function call.	See Output Output APP:APPENDIX-6
48 - Msgenab failure.	See Output APP:APPENDIX-2

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TABLE (cont'd)

a Value Reason for Abort	b or h Value Supplemental Data
49 - Msgdisab failure.	See Output APP:APPENDIX-2
4A - _nplread function call failed.	Return code from _nplread.
4B - _npltest function call failed.	Return code from _npltest.
4C - Excofl timed out.	See Output APP:APPENDIX-2
4D - Open ECD manager failed.	See Output APP:APPENDIX-2
4E - Function "ugucbn" failed.	See Output APP:APPENDIX-2
4F - PIC microstore size not in ucb.	See Output APP:APPENDIX-2
50 - Receive wait failed.	See Output APP:APPENDIX-2
51 - LEXEC function failed.	See Output APP:APPENDIX-2
52 - E_host of ucb not initialized.	See Output APP:APPENDIX-2
53 - Lseek function failure.	See Output APP:APPENDIX-2
54 - Call to _rlgcont failed.	Return code from _rglcont.
55 - Write hardware command to BISO or EISO denied because of an illegal hardware command.	Has no significance. This is a data table problem.
56 - Write/read segment too small.	See Output APP:APPENDIX-2

SEE PROPRIETARY NOTICE ON COVER PAGE

TABLE (cont'd)

a Value Reason for Abort	b or h Value Supplemental Data
57 - Function ugetucb failed.	See Output APP:APPENDIX-2
58 - Received maintenance message of unexpected type.	imm_type in received message.
59 - np insane after np reset.	Return code from driver.
61 - Timeout awaiting replay to recvw() function call.	No significance.
64 - Cannot open data table file.	See Output APP:APPENDIX-2
65 - Cannot share DCB from DIAMON	See Output APP:APPENDIX-2
66 - Error in the data table.	See Output APP:APPENDIX-2
67 - Invalid number of parameters from DIAMON.	See Output APP:APPENDIX-2
68 - Open spooler failed.	See Output APP:APPENDIX-2
6A - Invalid interactive mode command.	See Output APP:APPENDIX-2
6C - Open tlpfile failed.	See Output APP:APPENDIX-2
6D - Signal: illegal instruction.	See Output APP:APPENDIX-2
6E - Signal: bus error.	See Output APP:APPENDIX-2

SEE PROPRIETARY NOTICE ON COVER PAGE

TABLE (cont'd)

a Value Reason for Abort	b or h Value Supplemental Data
6F - Signal: segment violation.	See Output APP:APPENDIX-2
70 - Signal: software termination.	See Output APP:APPENDIX-2
71 - Open message switch failed.	Return code from _ims_open.
72 - ims_ioctl message switch failed.	Return code from _IMS_IOCTL.
73 - ims_write message switch failed.	Return code from _ims_write.
74 - ims_hdr message switch failed.	Return code from _ims_hdr.
75 - get_mbuf message switch failed.	Return code from _get_mbuf.
76 - ims_read message switch did not return _SUCCESS.	Return code from _ims_read.
77 - Timeout occurred. No reply message from message switch in event mode.	Has no significance.
78 - ucb name to node ID translation failed or data returned from ring_cnfg indicates more than DB_MAXNODE nodes in isolated segment.	0 - Bad node name to node ID translation. 1 - ring.cnfg indicates too many ring nodes.

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TABLE (cont'd)

a Value Reason for Abort	b or h Value Supplemental Data
79 - Open driver for rpc diagnostics failed.	Return code from driver.
7A - Lock process in memory from dgndmawt() left insufficient memory for swapping.	Has no significance.
7B - Least significant byte in ucb HV field is out of range, ie, at least one nibble $\geq$ DBIFBMAX. (see db_arrays.h)	The NODE_ID corresponding to the ucb containing data that is out of range.
7C - Imsdiag timed out while awaiting a GO event from DIAMON.	Has no significance.
7D - The node being diagnosed is an iun type and is neither isolated nor does it have an RI minor state of USBL.	The nodes RI minor state. 0 - UNTSTD 1 - FLTY 2 - USBL 3 - QUSBL
7E - An excessive number of messages were queued for the _DIAGC channel immediately after the channel was opened.	Has no significance.
80 - Reply messages to rg_query() were received out of sequence.	Next expected sequence number.
81 - Argument passed to qktst_qu() was out of range. Allowable are 1(BISO) and 2(EISO).	Argument actually passed.

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TABLE (cont'd)

a Value Reason for Abort	b or h Value Supplemental Data
82 - Request to update an RI minor state was not successful.	Node ID where update was not successful.
83 - An 8-byte message relayed from imsdia to itself via a double relay through the isolated segment was received from the proper relay node but the message was not the proper length.	Number of bytes in received message.
84 - Imsdiag received an unexpected node type from the driver in response to a node type query message.	Node type received: 128 - RPC Node. 0 - UNEQP node or unknown type.
85 - The driver rejected the diagnostic test job of the DLN dma.	The "result" field in the message returned from the driver: 4 - error found in request message. 8 - the software which handles the test DLN dma is busy.
86 - The message sequence number of the message for which the 2 bits pattern is going to be built exceeds the allowed limit.	Message sequence number of the message for which the 2 bits pattern is going to be built.
87 - The home RPC node ID for the home RPC of the relay node is not valid.	The home RPC node ID for the home RPC of the relay node.

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TABLE (cont'd)

a Value Reason for Abort	b or h Value Supplemental Data
88 - The capacity test is aborted by the home RPC of the relay node.	The why_abt code in the reply message from the home RPC of the relay node for the diagnostic capacity test.
89 - The dg_rcont function was passed an invalid 'cntlcode' argument.	The actual 'cntlcode' argument passed to the dg_rcont() function.
90 - The dg_rcont function was passed an invalid 'racrst' argument.	The actual 'racrst' argument passed to the dg_rcont() function.
91 - The dg_rcont function was passed an invalid 'ring' argument.	The actual 'ring' argument passed to the dg_rcont() function.
92 - The dg_rcont function was passed an invalid 'wrtcode' argument.	The actual 'wrtcode' argument passed to the dg_rcont() function.
93 - The _nplspatch routine returned a failure code.	The return code from the call to _nplspatch.
94 - The reply message received by the pmppatch routine contained other than _SUCCESS in the 'status' field.	The value of the 'status' field in the pmppatch reply message.
95 - The reply message received by the pmppatch routine contained other than NPPH_RPY in the 'type' field.	The value of the 'type' field in the pmppatch reply message.
96 - IMS is undergoing system initialization.	The return value of the IMS driver function_it_what().

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ID DGN:CU
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN CU a [b] [COMPLETED] d [({e|f})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN CU a [b] PH c d [({e|f})]
{MESSAGE IN PROGRESS|MSG IP}
- [3] DGN CU a [b] PH c STF ({e|f}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
g h [i|N/A] [j|N/A] [k|N/A]
- [4] DGN CU a [b] ABORTED AT PH c STMNT k d [({e|f})] MSG IP
- [5] DGN CU a [b] TERMINATED AT PH c STMNT l AFTER TEST m
- [6] DGN CU a [b] TASK n
{MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To report the result of executing a DGN:CU input message to diagnose the control unit, or one of its subunits.

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request cannot be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

- a Member number (0 or 1).
- b Unit type and member number of the subunit under the CU; for example, CC 0, MASC 0, MASC 1, SAT 0, etc.
- c Phase number.
- d The result of the diagnostic:
ATP — All tests passed.
CATP — All tests were ATP; some were not executed due to the unavailability of a system resource needed to perform the test.
NTR — No tests were run.
STF — Some tests failed.
- e If the result of the diagnostic is CATP or NTR, identifies the reasons tests were skipped by their bit position in a 16-digit hexadecimal number. For example, (00000000 00000018), tests were skipped for reasons 3 and 4. Codes:
Bit 0 — Unused.
Bit 1 — Unit under test is forced on-line.
Bit 2 — Sanity timers are disabled.
Bit 3 — Emergency Action Interface (EAI) forces on CU, disk, sanity timer are active.
Bit 4 — Peripheral unit controller is out of service.
Bit 5 — Helper unit not specified or invalid.
Bit 6 — Helper unit unavailable.
Bit 7 — Unit under test is forced off-line.
Bit 8 — EAI initialization parameter buffer data pending; EAI must be cleared.
Bit 9 — Helper unit not connected to sub-unit under test.
Bits 10-63 — Unused.
- f If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000018), seven tests failed, plus tests were skipped for reasons 3 and 4. See previous list of codes.
- g Test number of the failing test.
- h The bits that were in error. A 1 in a bit position indicates the response from the unit did not match the expected response in that bit.
- i The bits that were actually received from the hardware device.
- N/A Data is not available for the specified device.
- j Determines which bits are included in this test.
- k The value which the test expected.
- l Last statement successfully executed before the diagnostic terminated.

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m Current test number when diagnostic terminated.
n Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. See the *Corrective Maintenance Procedures* manual for the repair procedures.

5. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

ALW:DMQ-A
DGN:CU
INH:DMQ-A
OP:DMQ
RMV:CU
RST:CU
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-A
RMV:CU
RST:CU

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ID DGN:CU-MASC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

DGN CU a MASC b PH c MEMORY FAILURE RESULTS

FIRST FAULT DATA

FAILING ARRAY = d AT EQL e
FAILING ADDRESS = f
DATA MISMATCH = g
ACTUAL DATA = h
EXPECTED DATA = i
PARITY MISMATCH = j
ACTUAL PARITY = k
EXPECTED PARITY = l
MAS ERROR REG 2 = m
RAPPED ADDRESS REG = n
MAS ERROR REG = o
CC ERROR REG = p

NUMBER OF FAILING ADDRESSES = q

FIRST r FAILING ADDRESSES
s

MEMORY FAILURE HISTOGRAM

DATA/ADR BITS	DATA FAIL EXP=1 RTN=0	COUNT EXP=0 RTN=1	ADDRESS AS 0	FAIL AS 1	COUNT
00	t	u	v	w	
.	t	u	v	w	
.	t	u	v	w	
25	t	u	v	w	
26	t	u			
.	t	u			
.	t	u			
H0	t	u			
.	t	u			
.	t	u			
H3	t	u			
PX	t	u			
PY	t	u			
PZ	t	u			

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PA	t	u
MULTI	x	
LOGIC	y	

2. REASON FOR OUTPUT

To provide failure information when memory failures are detected by the Main Store Controller (MASC) diagnostic. The output contains detailed data on the first memory fault detected and histogram style summary data on all the faults in the sample, which is typically the first 100 faults detected. This information can be used to determine the faulty circuit pack and the faulty device on that circuit pack.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | Control unit (0 or 1). |
| b | Main store controller (0 or 1). |
| c | Phase number, in decimal notation. |
| d | Type of failing memory array. |
| e | Equipment Location (EQL) of the failing memory array, in decimal notation.
EQL equals distance from floor - distance from frame left. |
| f | Address of the first memory location to fail as a result of a mismatch between the expected memory contents and the actual memory contents or memory location under test when a mystore error became active (see address trapped indicator in n, in hexadecimal notation. |
| g | Data bit mismatch (bits 0-31) first failing memory location, in hexadecimal notation. |
| h | Actual data in memory, in hexadecimal notation. |
| i | Expected data (data that was written), in hexadecimal notation. |
| j | Parity bit mismatches in bits 31-24, and 2 error indicators in bits 23-22.

Bit 31 - H0.
Bit 30 - H1.
Bit 29 - H2.
Bit 28 - H3.
Bit 27 - PX.
Bit 26 - PY.
Bit 25 - PZ.
Bit 24 - PA.
Bit 23 - Multi-bit error is set when an error either
1) causes an address trap (TRAPPED ADDRESS REG bit 27 set) and an error C or D (bits 28 or 29 set) but the correctable parity failure (bit 0) is not set and the noncorrectable parity failure (bit 1) is set. |

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- 2) causes an address trap (bit 27 set) and error C or D active (bits 28 or 29 set) and the correctable parity failure (bit 0) is set, but more than one data and parity bits are mismatching.

Bit 22 - Logic error is set when an error either

- 1) does not cause an address trap (TRAPPED ADDRESS REG bit 27 not set) but there are data or parity mismatches.
- 2) causes an address trap (bit 27 set) but error C or D not active (bits 28 or 29 set).
- 3) causes an address trap (bit 27 set) and error C or D active (bit 28 or 29 not set) and correctable (single) bit error indicated (bit 0 set) but group failure bits (MAS ERROR REG 2 bits 6-0) contain a code not recognized as a single bit error.

- k Actual parity in memory, bits 31-24, same format as variable j.
- l Parity expected for the data written to memory in bits 31-24, same format as variable j.
- m Main store error register 2 after a read of the first failing memory location, in hexadecimal notation.

Bit 28 - HA parity group failure - (not available on UN39 type MASC).

Bit 23 - Trapped address bit 25 (UN618 type MASC). See main store trapped address error register.

Bit 21 - Trapped address parity byte 0 (UN59C and UN618 type MASC). See main store trapped address error register.

Bit 6 - PX parity group failure.

Bit 5 - PY parity group failure.

Bit 4 - PZ parity group failure.

Bit 3 - H0 parity group failure.

Bit 2 - H1 parity group failure.

Bit 1 - H2 parity group failure.

Bit 0 - H3 parity group failure.

- n Main store trapped address error register after a read of the first failing memory location, in hexadecimal notation. Trapped address parity for byte 0 (UN59C and UN618 type MASC) and trapped address bit 25 (UN618 type MASC) appear in main store error register 2.

Bit 31 - Trapped address bit 24 (UN59C type and UN618 type MASC).

Bit 30 - Trapped address bit 23 (not available on UN39 type MASC).

Bit 29 - Error C

Bit 28 - Error D

Bit 27 - Address trapped indicator.

Bit 23 - Read-write (1) or refresh (0) data parity error.

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- Bit 1 - Noncorrectable parity failure.
Bit 0 - Correctable (single-bit) parity failure.
- o Main store error register after a read of the first failing memory location in hexadecimal notation.
- Bit 22 - Block store go error A.
Bit 11 - No row select on refresh error A.
Bit 10 - Row or column selects on maint op error A.
Bit 9 - Double half plane select row error A.
Bit 8 - Double half plane select column error A.
Bit 7 - Select row and column error A.
Bit 6 - Array address parity error A.
Bit 5 - Command bit parity error A.
Bit 4 - Busy clear F/F state error A.
Bit 3 - Latched normal address parity error A.
Bit 2 - Refresh address counter mismatch error A.
Bit 1 - Write data parity error A.
Bit 0 - Address loop - around F/F error A.
- p Central Control Error Register (CC ER) after a read of the first failing memory location or after a store error is detected, in hexadecimal notation.
- Usually the under test CU CC ER with byte parities in bits 31-28 from the failing address.
- For MASC phases 39, 41, and 96, the ACTIVE CU CC ER with byte parities in bits 31-28 from a read of the under test CU MASC at the failing address.
- q Number of failing locations for which histogram information was collected, in decimal notation. The upper limit is usually 100.
- r Number of addresses listed in r, in decimal notation.
- s List of the first q failing addresses, in hexadecimal notation.
- t Number of times the specified data bit (0-31) or parity bit (H0, H1, H2, H3, PX, PY, PZ, PA) was read as 0 when it was expected to be 1, in decimal notation.
- u Number of times the specified data or parity bit was read as 1 when it was expected to be 0, in decimal notation.
- v Number of times the address bit was 0 when a memory failure was detected, in decimal notation.
- w Number of times the address bit was 1 when a memory failure was detected, in decimal notation.

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x	Number of times a multi-bit error occurred, in decimal notation. See explanation of item variable j, bit 23.
y	Number of times a logic error occurred, in decimal notation. See explanation of item variable j, bit 22.

4. ACTION TO BE TAKEN

Replace the memory array identified by the failing array information in the first fault data.

5. REFERENCES

OMDB Key

This message has an OMDB key of 53.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Input Messages

ALW:DMQ-A
DGN:CU
INH:DMQ-A
OP:DMQ
RMV:CU
RST:CU
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
DGN:CU
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-A
RMV:CU
RST:CU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:DCI
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN DCI a [COMPLETED] b [{c|d}]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN DCI a PH e b [{c|d}] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN DCI a PH e STF ({c|d}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
f g [h|N/A] [i|N/A] [j|N/A]
- [4] DGN DCI a ABORTED AT PH e STMNT k b [{c|d}] MSG IP
- [5] DGN DCI a TERMINATED AT PH e STMNT k AFTER TEST l
- [6] DGN DCI a TASK m {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Dual Serial Channel/Computer Interconnect (DCI).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test. NTR — No tests were run. STF — Some tests failed.
c	If results of the diagnostic isf4CATP or NTR, identifies the reasons tests were skipped by their position in a 16-digit hexadecimal number. For example, (00000000 00000018), tests were skipped for reasons 3 and 4. Code: Bits 0 — 63 — Unused.
d	If results of the diagnostic is STF it identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, (00000000 00000006), tests were skipped for reasons 1 and 2. Code: Bits 0 — 63 — Unused.
e	Phase number.
f	Test number of the failing test.
g	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
h	The bits which were actually received from the hardware device.
N/A	Data is not available for the specified device.
i	Determines what bits in the actual value are of interest to this test.
j	The value which the test expected.
k	Last statement successfully executed before the diagnostic terminated.
l	Current test number when diagnostic terminated.
m	Task number assigned to the request.

4. ACTION TO BE TAKEN

If results of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to *Corrective Maintenance Procedures* for repair procedures.

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5. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

ALW:DMQ-A
DGN:DCI
INH:DMQ-A
OP:DMQ
RMV:DCI
RST:DCI
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-B
RMV:DCI
RST:DCI

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:DFC
WORK CENTER.. MOC
GENERIC 4AP17 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN DFC a [COMPLETED] b [({c|d})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN DFC a PH e b [({c|d})] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN DFC a PH e STF ({c|d}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
f g [h|N/A] [i|N/A] [j|N/A]
- [4] DGN DFC a ABORTED AT PH e STMNT k b [({c|d})] MSG IP
- [5] DGN DFC a TERMINATED AT PH e STMNT k AFTER TEST l
- [6] DGN DFC a TASK m {MESSAGE STARTED|QUEUED|ABORTED}
- [7] DGN DFC a - FLASH MEMORY UPDATE PROCESS IN PROGRESS
DO NOT STOP THIS DIAGNOSTIC DURING FLASH MEMORY UPDATE
THIS PROCESS SHOULD RUN NO LONGER THAN 15 MINUTES
AND MAY RUN ONLY A FEW SECONDS IF NO UPDATE IS REQUIRED
- [8] DGN DFC a - FLASH MEMORY UPDATE PROCESS COMPLETE

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Disk File Controller (DFC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

Format 7 indicates that the Flash update process has started, warning the user against stopping the diagnostic until the Flash update process has completed.

Format 8 indicates that the Flash update process has completed.

3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b The result of the diagnostic:
 - ATP — All tests passed.
 - CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
 - NTR — No tests were executed.
 - STF — Some tests failed.
- c If the results of the diagnostic is CATP or NTR, identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, (00000000 00000006), tests were skipped for reasons 3 and 4. Codes:
 - Bit 0 — Helper unit invalid or not specified.
 - Bit 1 — Helper unit cannot be reserved.
 - Bit 2 — Helper unit is not out-of-service.
 - Bit 3 — Helper Control Unit (CU) is not ATP.
 - Bit 4 — Helper unit not connected to controller being diagnosed.
 - Bits 5 — 63 - Unused.

NOTE: To interpret CATP bits 32-46, the structure of the system must be understood. All device references are relative to the DFC under test, and may not correspond to "real" unit numbers. The down pointer of the DFC will point to the first SBUS. The side pointer of the first SBUS points to the second SBUS. Similarly, the down pointer of an SBUS points to the first MHD beneath it. The side pointer of an MHD points to the next MHD in the chain. These concepts are displayed graphically on display pages 120 and 122. The leftmost SBUS under a DFC is considered first SBUS, with the rightmost SBUS being second. MHD relative numbering for each SBUS is top-down, with the top MHD being first and the bottom being last. Currently only four MHDs per SBUS are supported.

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Bit	Reason
32	— First MHD on first SBUS of DFC did not respond correctly.
33	— Second MHD on first SBUS of DFC did not respond correctly.
34	— Third MHD on first SBUS of DFC did not respond correctly.
35	— Fourth MHD on first SBUS of DFC did not respond correctly.
36	— Reserved for fifth MHD on first SBUS of DFC.
37	— Reserved for sixth MHD on first SBUS of DFC.
38	— Reserved for seventh MHD on first SBUS of DFC.
40	— First MHD on second SBUS of DFC did not respond correctly.
41	— Second MHD on second SBUS of DFC did not respond correctly.
42	— Third MHD on second SBUS of DFC did not respond correctly.
43	— Fourth MHD on second SBUS of DFC did not respond correctly.
44	— Reserved for fifth MHD on second SBUS of DFC.
45	— Reserved for sixth MHD on second SBUS of DFC.
46	— Reserved for seventh MHD on second SBUS of DFC.
d	If the results of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. See previous list of codes.
e	Phase number.
f	Test number of the failing test.
g	The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.
h	The bits which were actually received from the hardware device.
N/A	Data is not available for the specified device.
i	Determines what bits in the actual value are of interest to this test.
j	The value which the test expected.
k	Last statement successfully executed before the diagnostic terminated.
l	Current test number when diagnostic terminated.

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m Task number assigned to the request.

4. ACTION TO BE TAKEN

If the results of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to the *Corrective Maintenance Procedures* manual for repair procedures.

5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.
- Format 7 has an OMDB key of 23.
- Format 8 has an OMDB key of 61.

Practice 235-105-220 *Corrective Maintenance Procedures*

Practice 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers*
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Input Messages

ALW:DMQ-A
DGN:DFC
INH:DMQ-A
OP:DMQ
RMV:DFC
RST:DFC
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-A
RMV:DFC
RST:DFC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:DUIC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN DUIC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN DUIC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN DUIC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f g h i
- [4] DGN DUIC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] DGN DUIC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] DGN DUIC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Direct User Interface Controller (DUIC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination) since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were run. STF — Some tests failed.
c	If the results of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
h	Determines what bits in the actual value are of interest to this test.
i	The value that the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to TOP 235-105-220 for repair procedures.

5. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

DGN:DUIC
INH:DMQ-A
OP:DMQ
RMV:DUIC
RMV:IOP
RST:DUIC
RST:IOP
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-B
RMV:DUIC
RMV:IOP
RST:DUIC
RST:IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:HSDC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN HSDC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN HSDC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN HSDC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] DGN HSDC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] DGN HSDC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] DGN HSDC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the High-Speed Synchronous Datalink Controller (HSDC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were run. STF — Some tests failed.
c	If the results of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data is not available for the specified device.
h	Determines what bits in the actual value are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to *Corrective Maintenance Procedures* for repair procedures.

5. REFERENCES

OMDB Key(s)

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

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Input Messages

ALW:DMQ-A
DGN:HSDC
INH:DMQ-A
OP:DMQ
RMV:HSDC
RST:HSDC
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-A
RMV:HSDC
RST:HSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:IOP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN IOP a [COMPLETED] b [({c|d})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN IOP a PH e b [({c|d})] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN IOP a PH e STF ({c|d}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
f g [h|N/A] [i|N/A] [j|N/A]
- [4] DGN IOP a ABORTED AT PH e STMNT k b [({c|d})] MSG IP
- [5] DGN IOP a TERMINATED AT PH e STMNT k AFTER TEST l
- [6] DGN IOP a TASK m {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Input/Output Processor (IOP).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test. NTR — No tests were run. STF — Some tests failed.
c	If the results of the diagnostic is CATP or NTR, identifies the reasons tests were skipped by their position in a 16-digit hexadecimal number. For example, (00000000 00000018), tests were skipped for reasons 3 and 4. Codes: Bit 0 — Helper unit not specified or invalid. Bit 1 — Helper unit cannot be reserved. Bit 2 — Helper unit not out-of-service. Bit 3 — Helper Control Unit (CU) is not ATP. Bit 4 — Helper unit not connected to controller being diagnosed. Bits 5-63 — Unused.
d	If the results of the diagnostic is STF it identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, (00000000 00000006), tests were skipped for reasons 1 and 2. See previous list of codes.
e	Phase number.
f	Test number of the failing test.
g	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
h	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
i	Determines what bits in the actual value are of interest to this test.
j	The value which the test expected.
k	Last statement successfully executed before the diagnostic terminated.
l	Current test number when diagnostic terminated.
m	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the results of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to *Corrective Maintenance Procedures* for repair procedures.

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5. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

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Input Messages

ALW:DMQ-A
DGN:IOP
INH:DMQ-A
OP:DMQ
RMV:IOP
RST:IOP
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-A
RMV:IOP
RST:IOP

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ID DGN:LN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

This message has two output formats:

- [1] DGN LN_x y b c [d]

[2] DGN LN_x y PH b c [d]
TEST MISMATCH
e f

2. REASON FOR OUTPUT

To print the results of a diagnostic run on a Link Node (LN).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 is printed whenever the diagnostic results are printed for an individual phase. This occurs in the case of partial diagnosis, a test failure, or whenever RAW was specified in the input message.

3. VARIABLE FIELD DEFINITIONS

In Format 1:

- x A Ring Node (RN) group number (00-63).
y The ring node member number (1-15).
b Termination mode of diagnostic.
COMPLETED — Diagnostic completed normally.
TERMINATED — Diagnostic terminated under program control (early termination), since further testing would not improve diagnostic resolution.
ABORTED — Diagnostic was abnormally stopped due to an external or internal error in execution, or a STOP:DMQ input request.

c Result of the diagnostic.
ATP — All tests passed
CATP — All tests that were executed were ATP. Some tests were not executed due to reasons identified by item d.
NTR — No tests run.
STF — Some tests failed.

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If c = CATP or NTR

d Identifies the reason that tests were skipped in this phase by their bit position in a 16-character hexadecimal number. For example, if d = 00000000 80000000, tests were skipped for reason 31. The reason codes are as follows:

- Bits 0 to 22 — Not used.
- Bit 23 — The equipage field of the UCB for the LID0 equipped node indicates a link interface connection is not equipped.
- Bit 24 — Not used.
- Bit 25 — The phase was not run because the UCB indicates that the node is not equipped with an EMSB (Enhanced Message Sampling Board).
- Bit 26 — Could not get the RPCD UCB for the RPCD - DLN UCB pair at a DLN.
- Bit 27 — Smart node memory board is not equipped.
- Bit 28 — Attached Processor state variable indicates that this phase need not be run.
- Bit 29 — Node under test is neither isolated nor in the RIUSBL minor state.
- Bit 30 — Node under test was not the only isolated node.
- Bit 31 — Node under test was not isolated.
- Bits 32 to 63 — Not used.

If c = STF

d Number of test failures in addition to the reasons that tests were skipped. For example, if d = 7 00000000 80000000, seven tests failed, plus tests were skipped for reason 31.

In Format 2:

- x A Ring Node (RN) group number (00-63).
- y The ring node member number (1-15).
- b Phase number.
- c Result of the phase.
 - ATP — All tests passed
 - CATP — All tests that were executed were ATP. Some tests were not executed due to reasons identified by item d.
 - NTR — No tests run.
 - STF — Some tests failed.

If c = STF

d Identifies the reason that some tests were skipped. This field is the same as the d field in Format 1 except that the result of only one phase is reflected.

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- | | |
|---|--|
| e | Test number of the failing test. |
| f | An 8-digit hexadecimal number that indicates the bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit. |

4. ACTION TO BE TAKEN

If c = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If c = STF, the unit should be repaired as quickly as possible.

5. REFERENCES

Input Messages

DGN:LN
OP:DMQ
RMV:LN
RST:LN
STOP:DMQ

Output Messages

DGN:AUDIT-RING
OP:DMQ
REPT:DIAMON-A
RMV:LN
RST:LN

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ID DGN:MHD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN MHD a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN MHD a PH d b [(c)]
{MESSAGE IN PROGRESS|MSG IP}
- [3] DGN MHD a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] DGN MHD a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] DGN MHD a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] DGN MHD a PH 6 DISK READ/WRITE FAILURES
ERROR CODE JOB TYPE SECTOR HEAD
l m n o
- [7] DGN MHD a TASK p {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Moving Head Disk (MHD).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input message.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6, a histogram-type printout of disk read/write test failures, is printed if MHD phase 6 fails the read/write tests.

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Format 7 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	If the results of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines what bits in the actual value are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Error code, in hexadecimal notation: 02 — disk read data all zeros 04 — disk read data mismatch 08 — disk read parity mismatch For other error codes, see DFC Output Appendix B APP:DFC-B.
m	Numeric code for the job in progress at the time of the error: 1 — maintenance sector write worst case data 2 — maintenance sector read worst case data 3 — maintenance sector write inverted worst case data 4 — maintenance sector read inverted worst case data 5 — maintenance sector ECC test write 6 — maintenance sector ECC test read 41 — head selection error for maintenance sector write worst case data 42 — head selection error for maintenance sector read worst case data

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- 43 — head selection error for maintenance sector write inverted worst case data
- 44 — head selection error for maintenance sector read inverted worst data case
- 45 — head selection error for maintenance sector ECC test write
- 46 — head selection error for maintenance sector ECC test read
- 81 — seek error for maintenance sector write worst case data
- 82 — seek error for maintenance sector read worst case data
- 83 — seek error for maintenance sector write inverted worst case data
- 84 — seek error for maintenance sector read inverted worst case data
- 85 — seek error for maintenance sector ECC test write
- 86 — seek error for maintenance sector ECC test read

n Sector number where the error occurred.

o Head number where the error occurred.

p Task number assigned to the request.

4. ACTION TO BE TAKEN

For Formats 1 and 5, take no action.

For Formats 2, 3, and 4, if the results of the diagnostic is STF, the unit should be repaired as quickly as possible. See the *Lucent Technologies 3B20D/3B21D Model 2 and Model 3 Computers - Common Systems, Routine Tasks* manual for repair procedures.

For Format 6, repair the unit as quickly as possible. Refer to the *Lucent Technologies 3B20D/3B21D Model 2 Computer - Common Systems, Trouble Clearing* manual for repair procedures.

5. REFERENCES

OMDB Key(s)

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has an OMDB key of 57.
- Format 7 has OMDB keys of 70 and 99.

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Practice 254-302-831 *Lucent Technologies 3B20D/3B21D Model 2 and Model 3 Computers -*
Common Systems, Routine Tasks

Practice 254-302-832 *Lucent Technologies 3B20D/3B21D Model 2 Computer Common Systems,*
Trouble Clearing

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Output Appendix
APP:DFC-B

Input Messages

ALW:DMQ-A
DGN:MHD
INH:DMQ-A
OP:DMQ
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-A
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD

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ID DGN:MT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN MT a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN MT a PH d b [(c)]
{MESSAGE IN PROGRESS|MSG IP}
- [3] DGN MT a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] DGN MT a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] DGN MT a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] DGN MT a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Magnetic Tape (MT).

Format 1 prints at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was stopped due to an external or internal error in execution, or an input message.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	If the results of the diagnostic is STF it identifies the number of test failures in addition to the number of tests skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines what bits in the actual value are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

For Formats 1 and 5, no action is needed.

For Formats 2, 3, and 4, if the results of the diagnostic is STF, the unit should be repaired as quickly as possible; seek technical assistance.

For Format 6, repair the unit as quickly as possible; seek technical assistance.

5. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.

Format 2 has OMDB keys of 99 and 111.

Format 3 has OMDB keys of 109 and 110.

Format 4 has OMDB keys of 106, 109, 110, and 111.

Format 5 has an OMDB key of 217.

Format 6 has OMDB keys of 70 and 99.

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Input Messages

ALW:DMQ-A
DGN:MT
INH:DMQ-A
OP:DMQ
RMV:DFC
RMV:MT
RST:DFC
RST:MT
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-A
RMV:DFC
RMV:MT
RST:DFC
RST:MT

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ID DGN:MTC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN MTC a [COMPLETED] b [({c|d})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN MTC a PH e b [({c|d})] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN MTC a PH e STF ({c|d}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
f g [h|N/A] [i|N/A] [j|N/A]
- [4] DGN MTC a ABORTED AT PH e STMNT k b [({c|d})] MSG IP
- [5] DGN MTC a TERMINATED AT PH e STMNT k AFTER TEST l
- [6] DGN MTC a TASK m {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Magnetic Tape Controller (MTC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b The result of the diagnostic:
- ATP — All tests passed.
 - CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
 - NTR — No tests were run.
 - STF — Some tests failed.
- c If the results of the diagnostic is CATP or NTR, identifies the reasons tests were skipped by their position in a 16-digit hexadecimal number. For example, (00000000 00000018), tests were skipped for reasons 3 and 4. Codes:
- Bit 0 — Helper unit not specified or invalid.
 - Bit 1 — Helper unit cannot be reserved.
 - Bit 2 — Helper unit not out-of-service.
 - Bit 3 — Helper unit is not ATP.
 - Bit 4 — Helper unit not connected to controller being tested.
 - Bit 17 — Helper MT tape not mounted and/or transport door open.
 - Bit 18 — Helper MT transport not in "on-line" mode.
 - Bit 19 — Helper MT tape reel has no Write Enable Ring (WER).
 - Bit 20 — Helper MT tape too long for diagnostic test tape.
 - Bit 21 — Helper MT tape has no header block at BOT or header block indicates not diagnostic test tape.
- d If the results of the diagnostic is STF it identifies the reasons tests failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. See previous list of codes.
- e Phase number.
- f Test number of the failing test.
- g The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
- h The bits which were actually received from the hardware device.
- N/A Data not available for the specified hardware device.
- i Determines what bits in the actual value are of interest to this test.
- j The value which the test expected.
- k Last statement successfully executed before the diagnostic terminated.
- l Current test number when diagnostic terminated.
- m Task number assigned to the request.

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4. ACTION TO BE TAKEN

If the results of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to TOP 235-105-220 for the repair procedures.

5. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.

Format 2 has OMDB keys of 99 and 111.

Format 3 has OMDB keys of 109 and 110.

Format 4 has OMDB keys of 106, 109, 110, and 111.

Format 5 has an OMDB key of 217.

Format 6 has OMDB keys of 70 and 99.

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Input Messages

ALW:DMQ-A

DGN:MTC

INH:DMQ-A

OP:DMQ

RMV:IOP

RMV:MTC

RST:IOP

RST:MTC

STOP:DMQ

Output Messages

DGN:AUDIT

OP:DMQ

REPT:DGN-AUDIT

REPT:DIAMON-A

RMV:IOP

RMV:MTC

RST:IOP

RST:MTC

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ID DGN:MTTYC
WORK CENTER.. MOC
GENERIC 4AP17 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN MTTYC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN MTTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN MTTYC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] DGN MTTYC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] DGN MTTYC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] DGN MTTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
- [7] DGN MTTYC a - FLASH MEMORY UPDATE PROCESS IN PROGRESS
DO NOT STOP THIS DIAGNOSTIC DURING FLASH MEMORY UPDATE
THIS PROCESS SHOULD RUN NO LONGER THAN 15 MINUTES
AND MAY RUN ONLY A FEW SECONDS IF NO UPDATE IS REQUIRED
- [8] DGN MTTYC a - FLASH MEMORY UPDATE PROCESS COMPLETE

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Maintenance Teletypewriter Controller (MTTYC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

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Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

Format 7 indicates that the Flash update process has started, warning the user against stopping the diagnostic until the Flash update process has completed.

Format 8 indicates that the Flash update process has completed.

3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were run. STF — Some tests failed.
c	If the results of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines what bits in the actual value are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, if the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.

Format 2 has OMDB keys of 99 and 111.

Format 3 has OMDB keys of 109 and 110.

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Format 4 has OMDB keys of 106, 109, 110, and 111.

Format 5 has an OMDB key of 217.

Format 6 has OMDB keys of 70 and 99.

Format 7 has an OMDB key of 23.

Format 8 has an OMDB key of 61.

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Input Messages

ALW:DMQ-A

DGN:MTTYC

INH:DMQ-A

OP:DMQ

RMV:MTTYC

RST:MTTYC

STOP:DMQ

Output Messages

ANALY:TLPFILE-B

DGN:AUDIT

OP:DMQ

REPT:DGN-AUDIT

REPT:DIAMON-A

RMV:MTTYC

RST:MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:RPCN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

[1] DGN RPCNx 0 b c [d]

[2] DGN RPCNx 0 PH b c [d]
TEST MISMATCH
e f

2. REASON FOR OUTPUT

To print the results of a diagnostic run on a Ring Peripheral Controller Node (RPCN).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 is printed whenever the diagnostic results are printed for an individual phase. This occurs in the case of partial diagnosis, a test failure, or whenever RAW was specified in the input message.

3. VARIABLE FIELD DEFINITIONS

In Format 1:

x A Ring Node (RN) group number (00-63) with explicit leading zero for group numbers less than 10.

b Termination mode of diagnostic.

COMPLETED — Diagnostic completed normally.
TERMINATED — Diagnostic terminated under program control (early termination), since further testing would not improve diagnostic resolution.
ABORTED — Diagnostic was abnormally stopped due to an external or internal error in execution, or a STOP:DMQ input request.

c Result of the diagnostic.

ATP — All tests passed.
CATP — All tests that were executed were ATP. Some tests were not executed due to the unavailability of a system resource that was needed to perform the test, or due to the inability to isolate, or to singly isolate, the node under test.
NTR — No tests run.
STF — Some tests failed.

if c = CATP or NTR

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d Identifies the reason that tests were skipped in this phase by their bit position in a 16-character hexadecimal number. For example, if d = 00000000 00000006, tests were skipped for reasons 1 and 2. The reason codes are as follows:

- Bit 0 — Helper unit invalid or not specified.
- Bit 1 — Helper unit cannot be reserved.
- Bit 2 — Helper unit not out-of- service.
- Bit 3 — Helper CU is not ATP.
- Bits 4 to 29 — Unused.
- Bit 30 — Node under test was not the only isolated node.
- Bit 31 — Node under test was not isolated.
- Bits 32 to 63 — Unused.

If c = STF

d Number of test failures in addition to the reasons that tests were skipped. For example, if d = 7 00000000 00000006, seven tests failed, plus tests were skipped for reasons 1 and 2.

In Format 2:

x A Ring Node (RN) group number (00-63) with explicit leading zero for group numbers less than 10.

b Phase number.

c Result of the phase.

- ATP — All tests passed
- CATP — All tests that were executed were ATP. Some tests were not executed due to the unavailability of a system resource that was needed to perform the test, or due to the inability to isolate, or to singly isolate, the node under test.
- NTR — No tests run.
- STF — Some tests failed.

If c = STF

d Identifies the reason that some tests were skipped. This field is the same as the d field in Format 1 except that the result of only one phase is reflected.

e Test number of the failing test.

f An 8-digit hexadecimal number that indicates the bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.

4. ACTION TO BE TAKEN

If c = CATP, the needed system resource should be made available if possible, so that all tests may be executed. If c = STF, the unit should be repaired as quickly as possible.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Input Messages

DGN:RPCN

OP:DMQ

RMV:RPCN

RST:RPCN

STOP:DMQ

Output Messages

ANALY:TLPFILE-RPCN

DGN:AUDIT-RING

OP:DMQ

REPT:DIAMON-A

REPT:DIAMON-B

RMV:RPCN

RST:RPCN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:SCSDC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN SCSDC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN SCSDC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN SCSDC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] DGN SCSDC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] DGN SCSDC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] DGN SCSDC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Scanner And Signal Distributor Controller (SCSDC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were run. STF — Some tests failed.
c	If the results of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines what bits in the actual value are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for repair procedures.

5. REFERENCES

OMDB Key(s)

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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Input Messages

ALW:DMQ-A
DGN:SCSDC
INH:DMQ-A
OP:DMQ
RMV:SCSDC
RST:SCSDC
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
DGN:AUDIT
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON-A

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:SDLC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN SDLC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN SDLC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN SDLC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] DGN SDLC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] DGN SDLC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] DGN SDLC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Synchronous Datalink Controller (SDLC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were run. STF — Some tests failed.
c	If the results of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines what bits in the actual value are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for repair procedures.

5. REFERENCES

OMDB Key(s)

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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Input Messages

ALW:DMQ-A
INH:DMQ-A
OP:DMQ
RMV:SDLC
RST:SDLC
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
OP:DMQ
REPT:DIAMON-A

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DGN:TTYC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DGN TTYC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] DGN TTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] DGN TTYC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] DGN TTYC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] DGN TTYC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] DGN TTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Teletypewriter Controller (TTYC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	If the results of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines what bits in the actual value are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the results of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for repair procedures.

5. REFERENCES

OMDB Key(s)

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110, and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

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Input Messages

ALW:DMQ-A
INH:DMQ-A
OP:DMQ
RMV:IOP
RMV:TTYC
RST:IOP
RST:TTYC
STOP:DMQ

Output Messages

ANALY:TLPFILE-B
OP:DMQ
REPT:DIAMON-A
RMV:IOP
RMV:TTYC
RST:IOP
RST:TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:ADDR-A
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

[1] DUMP ADDR a [OFF b] COMPLETED #c
ADDRESS (HEX): CONTENTS OF MEMORY (HEX):
d e

[2] DUMP ADDR a [OFF b] STOPPED NGADDR #c

2. REASON FOR OUTPUT

To report the result of executing the DUMP:ADDR input message to dump out the contents of an address or address range in main memory.

Format 2 indicates an error was encountered in the indirection addressing chain.

3. VARIABLE FIELD DEFINITIONS

a Virtual address specified in input message.
b Offset(s) used on input message line.
c Generic Access Package (GRASP) execution sequence number.
d Address label for line of data.
e Data as dumped from memory.

4. ACTION TO BE TAKEN

If Format 2 is printed, recheck the program listings. If an indirection chain was specified, try breaking the chain into several parts and printing the intermediate addresses.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 494 and 514.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Message

DUMP:ADDR-A

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:ADDR-B
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

DUMP ADDR ABT
ALLOWED ONLY IN A WHEN COMMAND

2. REASON FOR OUTPUT

Response to the DUMP:ADDR input command.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Input this command only inside a WHEN:RUTIL <action-list>.

5. REFERENCES

Input Messages
DUMP:ADDR-A
DUMP:ADDR-B
WHEN:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:AIM-PRM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] DUMP AIM PRM BUF PART n s
- [2] PRM_x EDde aopp xxyy zzww tmsp

2. REASON FOR OUTPUT

The formats are printed as a result of the DUMP:AIM;PRMBUF user command. Format 1 is the status report, and Format 2 is the format of the PRM output. The command DUMP:AIM;PRMBUF will dump the AIM PRM buffer to the ROP. PRMs will be printed out in segments of 20 each.

3. VARIABLE FIELD DEFINITIONS

n	Sequence number of each output segment.
s	STARTED, IN PROGRESS, or COMPLETED.
E	E for SUCCESS; F for FAILURE
D	Identifies AIM.
d	RTR initialization level.
e	Application initialization level.
a	E for SUCCESS; F for FAILURE
opp	Error code of the PRM.
xxyy zzww	PRM raw data.
tmsp	Time stamp when the PRM is created (time of day and date).

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
DUMP:AIM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:BKTAPE
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP BKTAPE TD a b [c]
[CANNOT CREATE TEMPORARY FILE FOR REPORT |
CANNOT OPEN INPUT DEVICE, ERROR d |
ECD ERROR e |
HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
INCOMPLETE READ FROM INPUT DEVICE |
INVALID MULTI VOLUME TAPE HEADER |
NO DATA ON TAPE |
READ FAILED FROM INPUT DEVICE, ERROR d |
SETIO FAILED ON INPUT DEVICE, ERROR d |
TAPE CONTAINS NONSEQUENTIAL SESSIONS |
TAPE CONTAINS VOLUMES NOT IN ASCENDING ORDER |
TAPE DEVICE IS NOT ACTIVE |
TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
TAPE HEADER CONTAINS INVALID SESSION |
TAPE HEADER CONTAINS INVALID VOLUME |
TAPE LIBRARY ERROR f |
TOO MANY TOP FILES ON INPUT TAPE]
- [2] DUMP BKTAPE TD a IN PROGRESS
SESSION VOLUME NAME BLOCKS SOURCE DATE
g h i {j|NAV} {k|NAV} {l|NAV}
.
.
.
[CUMULATIVE BLOCKS m]
[ESTIMATE n METER TAPE IS o% FULL]
- [3] DUMP BKTAPE TD a IN PROGRESS
SESSION VOLUME NAME BLOCKS SOURCE DATE
g h i {j|NAV} {k|NAV} {l|NAV}
- [4] DUMP BKTAPE TD a IN PROGRESS
[CUMULATIVE BLOCKS m]

2. REASON FOR OUTPUT

To display logical volume information for the multi-volume Digital Audio Tape (DAT) loaded in the user-specified tape drive. The logical volume information consists of the backup session number, logical volume number, logical volume name, size, source disk, and date written. The logical volume information will be displayed as a result of executing either the DUMP:BKTAPE command or the DUMP:BKTAPE command poke on the DFC

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Status Page. If the command was invoked via a command poke, a REPT:DKDIP message will precede the output message.

3. VARIABLE FIELD DEFINITIONS

- a Pathname of the tape special device file.
- b Request status:
- ABORTED — The dump failed and aborted .
 - COMPLETED — The dump completed with no errors.
 - IN PROGRESS — The dump is processing logical volume headers.
 - STARTED — The dump started processing logical volume headers.
 - STOPPED — The dump failed and stopped.
- c Error code output by the DUMP:BKTAPE command poke on the DFC Status Page:
- f01 — Failed to get ECD information for tape device.
 - f05 — Special device file is not for a DAT.
 - f09 — Tape device is not active.
 - f0d — Failed to allocate data buffer.
 - f11 — Invalid buffer address.
 - f15 — entry() call failed.
 - f19 — Failed to rewind tape.
 - f1d — Failed to open no-rewind tape device.
 - f21 — Failed to get tape header information.
 - f25 — Failed to close no-rewind tape device.
 - f29 — Failed to rewind tape.
 - f2d — Failed to get ECD logdev record for tape special device file.
 - f31 — Failed to get mdct record for tape special device file.
 - f35 — Invalid partition value for tape special device file.
 - f39 — Failed to get ucb record for tape device.
 - f3d — Failed to get tape device driver PID.
 - f41 — Failed to open rewind tape device.
 - f45 — Failed to close rewind tape device.
 - f49 — send_rcv() call failed.
 - f4d — Failed to open tape device.
 - f51 — send_rcv() call failed.
 - f55 — Failed to close tape device.
 - f59 — send_rcv() call failed.
 - f5d — Tape header read failed.
 - f61 — Invalid multi-volume tape.
 - f65 — Tape header read failed.
 - f69 — Tape header contains invalid session number.
 - f6d — Tape header contains invalid volume number.
 - f71 — Invalid multi-volume tape.
 - f75 — Sessions are not sequential.
 - f79 — Volumes are not in ascending order.
 - f7d — ioqueue() call failed.

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	f81 — <code>tio_ack()</code> call failed.
	f85 — Tape I/O message timed out.
d	System error code number (see the System Error Codes Output Appendix, APP:SYSERR).
e	Internal error code for failure of an Equipment Configuration Database (ECD) access function: 1 — <code>getdbseg()</code> failed, could not attach to the ECD. 2 — <code>lla_iatt()</code> failed, could not attach to the incore database. 3 — <code>lla_rdget()</code> failed, could not get the <code>ecdorg</code> record from the ECD. 4 — <code>lla_get()</code> failed, could not get the <code>logdev</code> record from the ECD. 5 — <code>lla_rdget()</code> failed, could not get the <code>mdct</code> record from the ECD. 6 — <code>lla_rdget()</code> failed, could not get the <code>ucb</code> record from the ECD. 10 — <code>rmovdbseg()</code> failed, could not remove incore database segments.
f	Error code returned by a failed tape library function (see the Tape Library Error Appendix, APP:TAPE-LIB).
g	Session number (1-9).
h	Logical volume number (0-9).
i	Logical volume name, AMTEXT, AMODD, SMTEXT, SMODD1, SMODD2, SMODD3, SMODD4, SMODD5, SMODD6, TOP
j	Size, in 512 byte blocks, of the logical volume.
NAV	Not Available (NAV) is output if the logical volume is a TOP volume.
k	Name of the source disk(s).
l	Date (mm/dd/yy) on which the logical volume was written.
m	Total size, in 512 byte blocks, of the data on the DAT. The total size does not include the TOP volume.
n	Length, in meters, of the DAT.
o	Estimated percentage of the DAT that is being used.

4. ACTION TO BE TAKEN

Errors will be accompanied by explanatory text or an error code. Verify that the command that was input is consistent with the DUMP:BKTAPE input message. If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

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5. REFERENCES

OMDB Key(s):

Format 1 has OMDB keys of 749, 760 or 761.

Format 2 has OMDB keys of 762 or 763.

Format 3 has an OMDB key of 750.

Format 4 has an OMDB key of 751.

Display / Menu Page Name

DFC STATUS PAGE

Output Appendixes

APP:SYSERR

APP:TAPE-LIB

Input Message

DUMP:BKTAPE

Output Message

REPT:DKDIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:BWM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has nine formats.

[1] DUMP BWM MSG STARTED

BWM NUMBER	DATE	APPLIED	BWM NUMBER	DATE	APPLIED
a		b	a		b
.		.	.		.
.		.	.		.
.		.	.		.

DUMP BWM MSG COMPLETED

[2] DUMP BWM MSG STARTED

**** NO BWMS APPLIED ****

DUMP BWM MSG COMPLETED

[3] DUMP BWM ERROR - COULD NOT CREATE c

[4] DUMP BWM ERROR - COULD NOT OPEN c FOR WRITING

[5] DUMP BWM ERROR - COULD NOT OPEN c FOR READING

[6] DUMP BWM ERROR - COULD NOT SEEK INTO c

[7] DUMP BWM ERROR - COULD NOT WRITE TO c

[8] DUMP BWM ERROR - COULD NOT READ FROM c

[9] DUMP BWM ERROR - COULD NOT STAT c

2. REASON FOR OUTPUT

To report the result of executing a DUMP:BWM command.

3. VARIABLE FIELD DEFINITIONS

a BWM number applied to the 3B APS.
b Date and time of BWM application.

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c Path name of the file that caused the error to print.

4. ACTION TO BE TAKEN

Formats 1 and 2 are normal output messages and no action is required.

Formats 3 through 9 indicate that there was a problem while performing an operation to a file. Re-execute the command. If errors persist, seek technical assistance.

5. REFERENCES

Input Message
DUMP : BWM

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ID DUMP:CACHE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP CACHE a b
- [2] DUMP CACHE NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS c

2. REASON FOR OUTPUT

To report the status of a request to dump the contents of cache in the off-line processor.

3. VARIABLE FIELD DEFINITIONS

- a Request status:
- COMPLETED — The off-line cache was dumped successfully.
- STOPPED — The cache dump could not be completed because of an error.
- b Reason the cache dump was stopped:
- 1 — Processor Control Process Maintenance Driver (PCPMD) could not open physical memory (/dev/pmem).
 - 2 — PCPMD could not set the position of the input stream after opening physical memory.
 - 3 — PCPMD reached an End Of File (EOF) when it tried to search for information located in physical memory.
 - 4 — PCPMD encountered an error in reading the contents of physical memory.
 - 5 — PCPMD could not set the contents of a register in the off-line processor.
 - 6 — PCPMD failed when it tried to copy data to the memory of the off-line processor.
 - 7 — PCMPD could not execute a program in the off-line processor.
 - 8 — The DUMP:CACHE message could not reserve the Unit Control Block (UCB) of the off-line processor.
- c Could not access or reserve the UCB record of the mate CU, or the mate CU was not out-of-service.

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4. ACTION TO BE TAKEN

If the reason the cache dump was stopped is 1 - 4, the indication is that a software error occurred. Collect all relevant Receive-Only Printer (ROP) data and seek technical assistance.

If the reason the cache dump was stopped is 5 - 7, the problem is most likely with the maintenance channel or the off-line processor. Diagnose the off-line processor.

If the reason the cache dump was stopped is 8, make sure that another process does not have control of the off-line processor (that is, diagnostics or a CU restore) since these reserve the off-line processor's UCB. If it appears that a diagnostic or CU restore was in progress, wait for its completion and try again. If the message still fails in the same manner, seek technical assistance.

5. REFERENCES

OMDB Key

Format 1 has an OMDB key of 416.

Input Message

DUMP: CACHE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:F-ALL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP FILE ALL {STARTED | IN PROGRESS | COMPLETED}
a
- [2] DUMP FILE ALL STOPPED
b

2. REASON FOR OUTPUT

To report the result of executing a DUMP:F;ALL input command to dump the contents of an ASCII file.

Format 1 indicates successful execution of the command.

Format 2 indicates failure.

NOTE: STARTED, IN PROGRESS, and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

- a Contents of the file.
- b Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success. No action is required.

If Format 2 is printed, refer to the input message for the correct command format, and correct any command line errors. If the explanatory text indicates that the file cannot be accessed, verify the file's existence using the OP:ST-LISTDIR command. If the text is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 288.

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Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

DUMP:F-ALL

DUMP:F-PARTL

OP:ST-LSTDIR

Output Messages

DUMP:F-PARTL

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:F-FORMAT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP FILE FORMAT {STARTED | IN PROGRESS | COMPLETED}
a
- [2] DUMP FILE FORMAT STOPPED
b

2. REASON FOR OUTPUT

To report the execution of a DUMP:FILE;FORMAT input message to dump the contents of a file.

Format 1 indicates successful execution of the command.

Format 2 indicates failure.

NOTE: STARTED, IN PROGRESS, and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

- a Contents of the file in ASCII, decimal, octal, or hexadecimal notation.
Default = octal notation. If the dump is in ASCII notation, the special
symbols are used to express nongraphic characters:
- \ 0 — null
 - \ b — backspace
 - \ f — form-feed
 - \ n — new-line
 - \ r — return
 - \ t — tab
- Other nongraphic characters appear as three-digit octal numbers.
- b Pathname specified in the input message.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Format 1 indicates success; no action needed.

For Format 2, refer to the input message for the correct command format, and correct any command line errors. If the explanatory text indicates that the file cannot be accessed, verify the file's existence using the OP:ST-LSTDIR input message. If the text is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

DUMP:F-ALL

DUMP:F-FORMAT

DUMP:F-PARTL

OP:ST-LSTDIR

Output Messages

DUMP:F-ALL

DUMP:F-PARTL

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:F-PARTL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP FILE PARTL {STARTED | IN PROGRESS | COMPLETED}
a
- [2] DUMP FILE PARTL STOPPED
b

2. REASON FOR OUTPUT

To print one or more lines of an ASCII file as the result of executing a DUMP:F-PARTL input message.

NOTE: STARTED, IN PROGRESS and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

- a Content of specified line(s).
- b Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the OP:ST-LSTDIR input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the command, use the OP:ST-FRDISK input message to verify that there is free space in the file system under which the file being edited resides.

Seek technical assistance if the message is not self-explanatory.

5. REFERENCES

OMDB Key
Formats 1 and 2 have an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

DUMP:F-ALL
DUMP:F-FORMAT
DUMP:F-PARTL
OP:ST-FRDISK
OP:ST-LSTDIR

Output Messages

DUMP:F-ALL
DUMP:F-FORMAT
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:FSA
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] DUMP:FSA COMPLETE
- FSA a, FILE b
- a c
- [2] DUMP:FSA ERROR, CANNOT OPEN OUTPUT FILE
- [3] DUMP:FSA ERROR, CANNOT GET 1AFILE STATUS
- [4] DUMP:FSA ERROR, CANNOT OPEN b
- [5] DUMP:FSA ABORTED, ADDRESS a NOT FOUND IN 1AFILE
- [6] DUMP:FSA ABORTED, BAD OR CONFLICTING DATA FORMAT

2. REASON FOR OUTPUT

To report the progress of a DUMP:FSA input message, or display the cause of an abnormal termination.

3. VARIABLE FIELD DEFINITIONS

- a Octal file store address.
- b Pathname for the specific file.
- c Dump of requested data from an octal address.

4. ACTION TO BE TAKEN

Format [1] is normal response and indicate all-is-well. If any of the other formats are displayed or printed, contact your technical support center for assistance.

5. REFERENCES

Input Messages
DUMP:FSA
DUMP:MMA

Output Message
DUMP:MMA

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:KERN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

[1] DUMP KERN a [OFF b] #e
ADDRESS (HEX): CONTENTS OF MEMORY (HEX):
c d

[2] DUMP KERN a [OFF b] STOPPED NGADDR #e

2. REASON FOR OUTPUT

To report the result of executing a DUMP:KERN input message to dump out the contents of an address or address range in the kernel.

Format 2 indicates the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were used.

3. VARIABLE FIELD DEFINITIONS

a Virtual address specified in input message.
b Offset(s) used on input command line.
c Address label for line of data.
d Data as dumped from memory.
e Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 2 is printed, recheck the program listings. If an indirection chain was specified, try breaking the chain into several parts and printing the intermediate addresses.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 494 and 514.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Message

DUMP:KERN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:MHD-BLK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP MHD a BLOCK { STARTED | IN PROGRESS }
[DATA FOR DISK BLOCK b
c]
- [2] DUMP MHD a BLOCK COMPLETED
- [3] DUMP MHD a BLOCK NOT STARTED d e
- [4] DUMP MHD a BLOCK STOPPED d e
- [5] DUMP MHD a BLOCK ERROR d e
- [6] DUMP MHD a BLOCK ABORTED d
- [7] DUMP MHD a BLOCK ABORTED d
ERROR DATA f g h i j

2. REASON FOR OUTPUT

To report the status of a request to display the contents of a disk block.

Format 7 provides additional error information when an explicit SCSI command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

- a Moving Head Disk (MHD) member number.
- b Identifies the disk block that is being dumped.
- c Data contained in the specified disk block. Printed in row major order, hexadecimal notation.
- d Process step or reason code:
 - f03 — failed to open ECD
 - f06 — failed to get UCB by name
 - f08 — failed to get UCB of controlling unit
 - f0a — controlling unit is not active
 - f12 — failed to reserve UCB
 - f15 — failed to assign special device file name
 - f18 — failed to open special device file
 - f20 — failed to set I/O mode of device file
 - f21 — failed to enable message reception

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- f22 — starting disk block exceeds disk boundary
 - f23 — ending disk block exceeds disk boundary
 - f24 — failed to fopen() output file
 - f25 — fseek() failed on output file
 - f27 — lseek() to start block failed
 - f30 — disk read failed
 - f33 — process timed out
 - f36 — failed to close special device file
 - f39 — failed to release special device file
 - f42 — failed to unreserve UCB
 - f45 — failed to close ECD
 - f48 — terminated externally with signal
 - f50 — diskinfo() library call failed
 - f53 — lseek() to "comb" defect table failed
 - f56 — read of "comb" defect table failed
 - f60 — failed to get the segment number
 - f63 — see DKDRV report on the ROP
 - f69 — SCSI "read capacity" command failed
 - f70 — message to port failure
 - f73 — message reception failure
- e System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- f Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.
- AAAA = SCSI Job Block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, APP:DFC-K.
 - BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, APP:DFC-K.
 - CC = Fill. Not used.
- g First word of Extended Sense Data (ESD). See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 0 of ESD.
 - BB = Byte 1 of ESD.
 - CC = Byte 2 of ESD.
 - DD = Byte 3 of ESD.
- h Second word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 4 of ESD.
 - BB = Byte 5 of ESD.

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- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.
- i Third word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.
- j Fourth word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports which provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the problem causing the resource limitation and retry the input request.

In some instances, other UNIX® RTR error messages may be printed which may provide information pertaining to the failure encountered.

If Format 7 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 247.

Formats 2 through 6 have an OMDB key of 246.

Format 7 has an OMDB key of 666.

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3B20D/3B21D Processor

Output Appendixes

APP:DFC-J

APP:DFC-K

APP:SYSERR

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Input Message
DUMP:MHD-BLK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:MHD-DEF
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP MHD a DEFECT TABLE b [c d]
[COMBINED DEFECT TABLE]
[CORRUPTED (NO FLAG WORD)]
[e ORIGINAL DEFECTS]
[f TOTAL DEFECTS]
[g MAXIMUM DEFECTS ALLOWED]
[CYL HEAD TYPE FAILS TRIES]
[h i j k l]

[MANUFACTURER'S DEFECT TABLE]
[e ORIGINAL DEFECTS]
[CYL HEAD SECT CYL HEAD SECT]
[h i m [h i m]]

[COMBINED (GROWN) DEFECT TABLE]
[e DEFECTS]
[CYL HEAD SECT]
[h i m]

[MANUFACTURER'S (PRIMARY) DEFECT TABLE]
[e DEFECTS]
[CYL HEAD SECT]
[h i m]
- [2] DUMP MHD a DEFECT TABLE COMPLETED
- [3] DUMP MHD a DEFECT TABLE COMPLETED
SCSI DEFECT COUNT CHECK { COMPLETED | ERROR [b c] }
[WARNING: NUMBER OF GROWN DEFECTS EXCEEDS THE AT&T
RECOMMENDATION]
[WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE AT&T
RECOMMENDATION]
[WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE
AT&T RECOMMENDATION]

SEE PROPRIETARY NOTICE ON COVER PAGE

- [4] DUMP MHD a DEFECT TABLE ABORTED c
ERROR DATA o p q r s
- [5] DUMP MHD a DEFECT TABLE COMPLETED
SCSI DEFECT COUNT CHECK ABORTED c
ERROR DATA o p q r s

2. REASON FOR OUTPUT

To report the results of executing a DUMP:MHD;DEFECT input message, from either the DUMP:MHD;DEFECT command or from the DUMP:DEFECT poke on the DFSA display page. If the command was invoked via the poke, a REPT:DKDIP message will precede the output message.

The output data represents defect management information pertaining to the specified Moving Head Disk (MHD). For a Small Computer System Interface (SCSI) MHD, the GROWN defect list is output as the COMBINED defect table. Similarly, the PRIMARY defect list is output as the MANUFACTURER'S defect table.

Formats 4 and 5 provide additional error information when an explicit SCSI command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

- a MHD member number.
- b Message status:
- ABORTED
- ERROR
- IN PROGRESS
- NOT STARTED
- STARTED
- STOPPED
- c Process step or reason code:
- f03 — failed to fopen() /tmp file
- f05 — fseek() failed on the output file
- f08 — failed to fopen() specfile
- f0b — failed to open the ECD
- f0d — failed to get UCB by name
- f0e — failed to get top UCB
- f0f — top UCB is not a DFC
- f10 — failed to get UCB of controlling unit
- f11 — controlling unit is not active
- f12 — unknown DFC type
- f13 — MHD size not recognized
- f14 — drive size not supported by defect management

SEE PROPRIETARY NOTICE ON COVER PAGE

f16 — failed to reserve the UCB
f21 — failed to assign special device file name
f23 — failed to open device file
f25 — failed to set I/O mode of device file
f28 — failed to enable message reception
f39 — lseek() to "mfgr" disk address failed
f40 — DKDIP virtual address translation failure
f42 — read of the "mfgr" defect table failed
f45 — lseek() to "comb" disk address failed
f46 — DKDIP virtual address translation failure
f48 — first read of "comb" defect table failed
f50 — DKDIP virtual address translation failure
f51 — lseek() to "comb" disk address failed
f54 — second read of the "comb" defect table failed
f57 — see DKDRV report on the ROP
f5a — read of the SCSI defect list header failed
f5c — see DKDRV report on the ROP
f5e — read of the SCSI defect list failed
f61 — failed to get the segment number
f63 — message to port failure
f65 — message reception failure
f68 — process timed out
f6a — failed to close special device file
f6c — failed to release special device file
f72 — failed to unreserve UCB
f75 — failed to close ECD
f78 — terminated externally with signal
f82 — see DKDRV report on the ROP
f84 — read of the SCSI defect list header failed
f86 — see DKDRV report on the ROP
f88 — read of the SCSI defect list failed
f92 — message to port failure
f93 — process timed out
f94 — message reception failure
f96 — failed to get the segment number
f98 — see DKDRV report on the ROP
f99 — SCSI "inquiry" command failed
f9a — SCSI "inquiry" command data underflow
f9b — drive not formatted with 512 bytes per logical block
f9c — data overflow - too many block descriptors
f9e — data overflow - too many block descriptors
fa2 — failed to get the segment number
fa4 — see DKDRV report on the ROP
fa6 — SCSI "read capacity" command failed
fb2 — failed to get the segment number
fb4 — see DKDRV report on the ROP
fb6 — SCSI "mode sense" command failed
fc2 — failed to get the segment number
fc4 — see DKDRV report on the ROP
fc6 — SCSI "mode sense" command failed

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- fc9 — diskinfo() library call failed
fcb — unknown defect limit type
fce — unexpected UCB equipage value
ffe — aborted due to phase 1
- d System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- e Number of defects on the disk drive up to the recommended limit.
- For a SCSI disk drive, the total number of defects in the table could exceed the recommended limit. However, no more than the recommended limit of defects will be displayed.
- f Total number of defects in "combined" defect table.
- g Maximum number of defects allowed. This variable field only applies for SMD disk drives.
- h Cylinder number of defect.
- i Head number of defect.
- j Type of defect:
M — Manufacturer specified.
N — New; found by DFC.
- k If type of defect is new, this is the number of tests failed.
- l If type of defect is new, this is the number of tests run.
- m Sector number of defect.
- n Number of newly-found but not yet tested defects.
- o Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.
- AAAA = SCSI Job Block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, APP:DFC-K.
- BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, APP:DFC-K.
- CC = Fill. Not used.
- p First word of Extended Sense Data (ESD). See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABCCDD.
- AA = Byte 0 of ESD.
- BB = Byte 1 of ESD.

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- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.
- q Second word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.
- r Third word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.
- s Fourth word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and input the request again.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk:

The number of GROWN defects on a disk drive should not exceed the recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a disk drive should not exceed the recommended limit. If the recommended limit is exceeded, the disk drive could become unreliable.

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The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the recommended limit is exceeded, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the system.

Lucent Technologies recommends that the SCSI disk drive should be replaced if there is any warning output related to the recommendations.

If Formats 4 and 5 print, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. REFERENCES

OMDB Keys

Formats 1 and 2 have OMDB keys of 144, 145, 250, 251, 252, and 573.

Format 3 has an OMDB key of 612.

Format 4 has an OMDB key of 666.

Format 5 has an OMDB key of 665.

Display / Menu Page Name

DISK FILE SYSTEM ACCESS

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Output Appendixes

APP:DFC-J

APP:DFC-K

APP:SYSERR

Input Message

DUMP:MHD-DEF

Output Message

REPT:DKDIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:MHD-VTO
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP MHD a VTOC STARTED
- [2] DUMP MHD a VTOC IN PROGRESS
- [3] DUMP MHD a VTOC COMPLETED
- [4] DUMP MHD a VTOC NOT STARTED b c
- [5] DUMP MHD a VTOC STOPPED b c
- [6] DUMP MHD a VTOC ERROR b c
- [7] DUMP MHD a VTOC ABORTED b
- [8] DUMP MHD a VTOC SEGMENT d OF e
 [PTN START END SIZE DESCRIPTION
 f g h i j [+k]]

2. REASON FOR OUTPUT

To report the status of a request, executing a DUMP:MHD input message, to display the Volume Table Of Contents (VTOC) on a Moving Head Disk (MHD). The output data represents information that is in the VTOC of the specified MHD.

3. VARIABLE FIELD DEFINITIONS

- a MHD member number.
- b Process step or reason code:
 - f03 — failed to open ECD
 - f06 — failed to get UCB by name
 - f07 — failed to get UCB of controlling unit
 - f08 — controlling unit is not active
 - f09 — failed to reserve UCB
 - f12 — failed to assign special device file name
 - f15 — failed to open special device file
 - f18 — failed to set I/O mode of device file
 - f24 — disk read failed
 - f28 — too many partitions in VTOC
 - f29 — no VTOC partition found - VTOC invalid
 - f30 — process timed out
 - f31 — failed to close special device file

SEE PROPRIETARY NOTICE ON COVER PAGE

	f33 — failed to release special device file
	f36 — failed to unreserve UCB
	f39 — failed to close ECD
	f42 — terminated externally with signal
c	System error code number. See System Error Codes Output Appendix, APP:SYSERR.
d	Segment number (32 partitions per segment).
e	Total number of segments.
f	Disk logical partition number.
g	Starting disk block number of the indicated partition.
h	Ending (inclusive) disk block number of the indicated partition, or NA (not applicable) for the diagnostic partition.
i	Size, in 512-byte blocks, of the indicated partition, or NA for the diagnostic partition.
j	Describes the partition. Unresolved values are printed in hexadecimal and indicate whether the partition is a UNIX® RTR-defined value or an application-defined value.
k	Indicates the modifier(s) applied to the specific partition definition.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the resource limitation problem and input the request again.

In some instances, other UNIX® RTR error messages may be printed that may provide information about the failure.

5. REFERENCES

OMDB Keys

Formats 1 through 7 have an OMDB key of 248.

Format 8 has an OMDB key of 249.

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Output Appendix

APP:SYSERR

Input Message

DUMP:MHD-VTO

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ID DUMP:MMA
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] DUMP:MMA COMPLETE
- FSA a, FILE b
- a c
- [2] DUMP:MMA ERROR, CANNOT OPEN OUTPUT FILE
- [3] DUMP:MMA ERROR, CANNOT GET 1AFILE STATUS
- [4] DUMP:MMA ERROR, CANNOT OPEN b
- [5] DUMP:MMA ABORTED, ADDRESS a NOT FOUND IN 1AFILE
- [6] DUMP:MMA ABORTED, ADDRESS d NOT FOUND IN CS2FS MAP

2. REASON FOR OUTPUT

To report the progress of a DUMP:MMA input message, or display the cause of an abnormal termination.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Octal file store address. |
| b | Pathname for the specific file. |
| c | Dump of requested data from an octal address. |
| d | Octal main memory address. |

4. ACTION TO BE TAKEN

Format [1] is normal response and indicates all-is-well. If any of the other formats are displayed or printed, contact your technical support center for assistance.

5. REFERENCES

Input Messages
DUMP:FSA
DUMP:MMA

Output Messages
DUMP:FSA

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ID DUMP:PID
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

[1] DUMP PID a ADDR b [OFF c] COMPLETED #
ADDRESS (HEX): CONTENTS OF MEMORY (HEX):
d e

[2] DUMP PID a ADDR b [OFF c] f #g

2. REASON FOR OUTPUT

To report the result of executing the DUMP:PID input message to dump out the contents of an address or address range in main memory.

3. VARIABLE FIELD DEFINITIONS

- a Process ID of the target process.
- b Virtual address specified in input message.
- c Offset(s) used on input command line.
- d Address label for line of data.
- e Data as dumped from memory.
- f Termination status:
- NOT STARTED NGPID — The DUMP was stopped because the specified process does not exist.
- STOPPED NGADDR — The DUMP was stopped because the address specified is not valid for the process; or invalid address values were encountered in the address chain, if offsets were specified.
- g Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the termination status is NOT STARTED NGPID, the process did not exist at the time the DUMP was attempted. If this happens repeatedly with the process IDs used because the process has a short lifetime, consider using the process Utility Identification (UID) instead of Process Identification (PID).

If the termination status is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the DUMP message in the action list.

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5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 494 and 514.

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3B20D/3B21D Processor

Input Messages

DUMP:ADDR-A

DUMP:PID

DUMP:UID

OP:ST-PROC

WHEN:PID

WHEN:UID

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ID DUMP:PMEM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

[1] DUMP PMEM a COMPLETED #b
ADDRESS (HEX): CONTENTS OF MEMORY (HEX):
c d

[2] DUMP PMEM a STOPPED NGADDR #b

2. REASON FOR OUTPUT

To report the result of executing the DUMP:PMEM input message to dump out the contents of a physical address or address range in main memory.

Format 2 indicates the specified address is not valid.

3. VARIABLE FIELD DEFINITIONS

a Physical address specified in input message.
b Generic Access Package (GRASP) execution sequence number.
c Address label for line of data.
d Data as dumped from memory.

4. ACTION TO BE TAKEN

If Format 2 is printed, verify that the desired address is correct.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 494 and 514.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Message

DUMP:PMEM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:REG-A
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP REG a COMPLETED #b
REGISTER: CONTENTS:
 c d
- [2] DUMP REG a OFF e COMPLETED #b
ADDRESS (HEX): CONTENTS OF MEMORY (HEX):
 f g
- [3] DUMP REG a OFF e STOPPED NGADDR #b

2. REASON FOR OUTPUT

To report the result of executing a DUMP:REG input message to dump the contents of a register or area of main memory.

Format 3 indicates an error was encountered in the indirection addressing chain.

3. VARIABLE FIELD DEFINITIONS

- a Name of register to be dumped.
- b Generic Access Package (GRASP) execution sequence number.
- c Name of register for line of data.
- d Data dumped from register.
- e Offset(s) used in input command line.
- f Address label for line of data.
- g Data dumped from memory.

4. ACTION TO BE TAKEN

If Format 3 is printed, recheck the program listings. Try printing the register contents and break the indirection chain into several parts, printing the intermediate results.

5. REFERENCES

OMDB Key
Format 1 has an OMDB key of 510.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message
DUMP:REG-A

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:REG-B
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two output formats.

- [1] DUMP REG ABT
ALLOWED ONLY IN A WHEN COMMAND
- [2] DUMP REG ABT
DUMP INV REG/UVAR VALUE

2. REASON FOR OUTPUT

Response to the DUMP:REG input command.

All formats indicate error conditions.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Input this command only inside a WHEN:RUTIL <action-list>.

See the DUMP:REG Input Message for valid register names.

5. REFERENCES

Input Messages
DUMP:REG-A
DUMP:REG-B
WHEN:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:RNA
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] DUMP RNA a b INACCESSIBLE ERRNO = c

[2] DUMP RNA a b COMPLETED

ADDRESS(X'):	CONTENTS OF MEMORY (X')
[e: f f f f]	
.	

2. REASON FOR OUTPUT

To report the result of executing the DUMP:RNA input message to dump out the contents of an address or address range from a node on the ring.

Format [1] indicates the error case; either the 3B could not communicate with the node (the node was OOS or nonexistent) or the input request could not be done.

Format [2] is the output format for a successful dump, giving the data requested. All data dumped is dumped in 3B word layout, with the most significant byte on the left. This is opposite the output that OP:NPMEM gives, which is in 8086 word layout.

DUMP RNA	OP NPMEM
bytes ABCD	bytes DCBA

3. VARIABLE FIELD DEFINITIONS

- a Ring Node Address (RNA) of the node that was dumped.
- b Type of node memory to be dumped:
- AP — Attached processor physical memory.
 - APACI — Attached processor ACI translation memory.
 - APPDB — Attached processor APPDB translation memory.
 - NP — Node processor physical memory.
- c Error number indicating the reason the dump could not be done:
- 3 — ESRCH — Internal error - no such process or CDP driver in unknown state.
 - 5 — EIO — Internal error - cannot lock or unlock data segment for DMA to/from ring.
 - 6 — ENXIO — Unknown error.
 - 7 — E2BIG — Internal error. Driver CDP set up with incorrect number of arguments.

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- 14 — EFAULT — Bad address - out of range.
- 19 — ENODEV — No such node (BAD RNA) or node OOS.
- 22 — EINVAL — Invalid size request.
- 23 — ENFILE — Internal error. Temporary mknod set up with bad partition number.
- 44 — EFUNC — Invalid request type.

- d Address label for line of data.
- e Data as dumped from memory.

4. ACTION TO BE TAKEN

If Format [1] occurs, determine the reason the output could not be made. Verify the hardware state of node using either OP:NODES or the 1105-1108 display pages. The DUMP:RNA command only works if the node is in the IMS hardware (ECD) ACT state. If the node is ACT, then reverify the address to be dumped. Only the legal physical address range of the node may be dumped.

5. REFERENCES

Input Messages

DUMP:RNA
DUMP:UID
LOAD:RNA

Output Messages

DUMP:UID
LOAD:RNA

SEE PROPRIETARY NOTICE ON COVER PAGE

1. FORMAT

```

[1]      DUMP RUTIL ABT
        LENGTH a INVALID

[2]      DUMP RUTIL ABT
        MKNOD() FAILURE b

[3]      DUMP RUTIL ABT
        OPEN() FAILURE b

[4]      DUMP RUTIL ABT
        READ() FAILURE c (ERRNO = b)

[5]      DUMP RUTIL STARTED
        RNA X' ddd
        ADDRESS CONTENTS
        eeeeeeee: ffffffff ffffffff ffffffff ... ffffffff
                    .
                    .
                    .
        eeeeeeee: ffffffff ffffffff ffffffff ... ffffffff

[6]      DUMP RUTIL INPROG
        RNA X' ddd
        ADDRESS CONTENTS
        eeeeeeee: ffffffff ffffffff ffffffff ... ffffffff
                    .
                    .
                    .
        eeeeeeee: ffffffff ffffffff ffffffff ... ffffffff

[7]      DUMP RUTIL COMPL

```

Formats 5, 6, and 7 indicate successful `DUMP-RUTIL` outputs.

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3. VARIABLE FIELD DEFINITIONS

a	The invalid length provided by user.
b	The value of the global variable errno.
c	The return code from the RGRASP kernel.
ddd	The node identifier of the concerned node.
eeeeeeee	Address in hexadecimal of data being dumped.
ffffffff	Contents in hexadecimal of data being dumped.

4. ACTION TO BE TAKEN

Seek technical assistance on error conditions.

5. REFERENCES

CNI Maintenance Manual - 256-090-122
Ring and Ring Node Maintenance Procedures Section

Input Message
DUMP:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:SCP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] DUMP SCP MSG STARTED

a FILE: b
1A GENERIC: c
BIG GULP LEVEL: d
DATE DETECTED: e

SCP	DATE	DETECTED	SCP	DATE	DETECTED	SCP	DATE	DETECTED
f		g	f		g	f		g
.		.	.		.	.		.
.		.	.		.	.		.
.		.	.		.	.		.

DUMP SCP MSG COMPLETED

[2] DUMP SCP MSG STARTED

a FILE: b
1A GENERIC: c
BIG GULP LEVEL: d
DATE DETECTED: e

**** NO SCPS APPLIED ****

DUMP SCP MSG COMPLETED

[3] DUMP SCP ERROR - COULD NOT CREATE h

[4] DUMP SCP ERROR - COULD NOT OPEN h FOR WRITING

[5] DUMP SCP ERROR - COULD NOT OPEN h FOR READING

[6] DUMP SCP ERROR - COULD NOT SEEK INTO h

[7] DUMP SCP ERROR - COULD NOT WRITE TO h

[8] DUMP SCP ERROR - COULD NOT READ FROM h

[9] DUMP SCP ERROR - COULD NOT STAT h

[10] DUMP SCP ERROR - CAN'T DETERMINE GENERIC FOR h

SEE PROPRIETARY NOTICE ON COVER PAGE

[11] DUMP SCP ERROR - FEATURE IS NOT ENABLED FOR 4Ei

2. REASON FOR OUTPUT

To report the result of executing a DUMP :SCP command.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Either NORMAL for 1B normal file or UPDATE for 1B update file. |
| b | Path name of the 1B normal or update file. |
| c | The generic version of the selected 1B file. |
| d | BIG GULP level applied to the selected 1B disk file. |
| e | Date and time the BIG GULP was detected in the selected 1B disk file. |
| f | Software Change Package (SCP) number. |
| g | Date and time the SCP was detected in the selected 1B disk file or value of "*** NO-TRACK ***". See Action To Be Taken section. |
| h | Path name of the file that caused the error to print. |
| i | Selected 1B generic that does not have this feature enabled. |

4. ACTION TO BE TAKEN

Formats 1 and 2 are normal output messages and no action is required unless "*** NO-TRACK ***" appears in the output. In this case, the 3B data file indicates that the SCP tracking was lost from the selected 1B file. Verify if the SCP listed should be in the selected 1B disk file. If the SCP should exist, contact technical support to correct the problem. If the SCP is not valid, execute the correction option on the input command.

Formats 3 through 10 indicate that there was a problem while performing an operation to a file. Re-execute the command. If errors persist, seek technical assistance.

Format 11 indicates that this feature is not available for the selected 1B disk file generic.

5. REFERENCES

Input Messages
DUMP :SCP
UPD :SCP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:SMEAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has nine formats.

[1] DUMP SMEAS COMPL
a b
a b
:
:
:
:

[2] DUMP SMEAS COMPL
id=c-d
sys=h
a b
a b
:
:
:
:

[3] DUMP SMEAS COMPL
rpc=c-d
a b
a b
:
:
iun=c-d
a b
a b
:
:
:
:

[4] DUMP SMEAS COMPL
channel=e
a b
a b
:
:
:
:

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- [5] DUMP SMEAS COMPL
linkset=f
a b
a b
:
:
:
:
- [6] DUMP SMEAS COMPL
cluster=g
a b
a b
:
:
:
:
- [7] DUMP SMEAS COMPL
NO MEASUREMENT INFORMATION WAS GENERATED
- [8] DUMP SMEAS ABT
i
- [9] DUMP SMEAS COMPL
Periodic Data Collection in Progress. Request denied.

2. REASON FOR OUTPUT

Prints in response to the user command, DUMP:SMEAS. The report will not be paginated.

Format 1 prints when no option is specified in the input command.

Format 2 prints when the SLK option is specified in the input command.

Format 3 prints when the NODE option is specified in the input command.

Format 4 prints when the CHN option is specified in the input command.

Format 5 prints when the LS option is specified in the input command.

Format 6 prints when the CLUSTER option is specified in the input command.

Format 7 prints if no nonzero measurements are encountered.

Format 8 prints in response to invalid input.

Format 9 prints when the dump is requested when the LPM data is being updated (just retry the command later).

SEE PROPRIETARY NOTICE ON COVER PAGE

Formats 1 through 6 print based on the option specified with the command.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | Name of measurement specified. |
| b | Measurement value. |
| c | Group number (0-63). |
| d | Member number (1-15). |
| e | Channel number (0-255). |
| f | Linkset number (1-255). |
| g | Cluster number (0-255). |
| h | Type of node (7, S, D) for (CCS 7, SADC, D Channel). |
| i | One of the following messages:

Measurement ID % is duplicated in the view
Cannot specify IDS % and % in the same view
Must provide SLK number
Must provide Cluster number
Must provide LS number
Must provide CHN number
Must provide Node number |

If a dump is made on a node's DLNBUSY measurement and a -1 is returned, this signifies that the measurement is not valid for this 5-minute collection period. This condition is caused by the 3B not collecting the node's measurements for one or more 5-minute collection periods and DLNBUSY becomes corrupted.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

CNI Operations Manual - 256-090-121
Analog Signaling Link Operating Procedures Section
Digital Signaling Link Operating Procedures Section
Measurements, Reports, and Critical Events Section
D-Channel and Special Access Data Channel Signaling
Link Operating Procedures Section
International Link Node Signaling Link Operating
Procedures Section

Input Message
DUMP:SMEAS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:TAPE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has five formats.

- [1] DUMP TAPE HDR ABORTED - CAN'T OPEN TAPE DRIVE a
- [2] DUMP TAPE HDR ABORTED - READ ERROR ON a
- [3] DUMP TAPE HDR ABORTED - SYNC ERROR ON a
- [4] DUMP TAPE HDR ABORTED - CAN'T OPEN TMP FILE b
- [5] DUMP TAPE HDR COMPLETED
GENERIC - VERSION c
TYPE OF TAPE: d
TAPE WRITTEN: e
FILE SYSTEM: f

2. REASON FOR OUTPUT

To report the result of executing a DUMP : TAPE command.

3. VARIABLE FIELD DEFINITIONS

- a The path to the tape drive.
- b The path to the temporary file used for output message.
- c The generic version of the tape.
- d The type of generic tape that is mounted on the tape drive.
- e The time stamp on the tape when the tape was written.
- f The file system that the tape was written from, either ROOT or BROOT.

4. ACTION TO BE TAKEN

If the command aborts due to an open failure, check if the tape drive is in-service and on-line. If the command aborts due to a read error, clean the drive and retry. If read errors persist, the tape or drive could be faulty. If the command aborts due to a sync error, the tape is not an APS generic tape or the tape is not in a readable format.

5. REFERENCES

Input Message
DUMP : TAPE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:TDAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] DUMP TDAS DATA NOT ACCESSIBLE
- [2] DUMP TDAS SUCCESS COMPLETION
- [3] DUMP TDAS UNABLE TO WRITE 1A FORMAT TAPE - a
- [4] DUMP TDAS UNABLE TO WRITE 1A FORMAT TAPE - a
FAILED ON FILE b
- [5] DUMP TDAS 1A FORMAT TAPE COMPLETE - c BLOCKS WRITTEN

2. REASON FOR OUTPUT

To report the disposition of a DUMP:TDAS input message. TDAS data can be dumped in either a 3B format (cpio format) or a 1B format (same as pre-4AP2 TDAS tape on 1B processor). Formats 1 and 2 apply to both 3B and 1B format tapes. Formats 3, 4, and 5 apply only to 1B format tapes. The format specification is done in the DUMP:TDAS input message.

All TDAS related messages are recorded in the log file TDASLOG and may be accessed using the input command OP:LOG;TDASLOG.

3. VARIABLE FIELD DEFINITIONS

- a Error number in 1B format dump process:
 - 1 — Unable to logically open tape drive.
 - 2 — Unable to write to tape drive.
 - 3 — Unable to open TDAS data file.
 - 4 — Unable to logically close tape drive.
- b Path name of bad TDAS file.
- c Number of 512 byte blocks of data written to tape.

4. ACTION TO BE TAKEN

A good TDAS tape is written if either formats 2 or 5 print out.

For format 1, either the TDAS data base is not accessible or the process that dumps data in 1B format is not accessible. Use command ALW FILESYS MOUNT, SFN "/dev/tdas", DN "/tdas" to see if the TDAS data base is accessible. If the response is ALW FILESYS MOUNT STOPPED Mount device busy, the TDAS data base was accessible and was not the

SEE PROPRIETARY NOTICE ON COVER PAGE

problem. If the response is ALW FILESYS MOUNT COMPLETED, this was the problem; retry DUMP:TDAS input message. Otherwise seek technical assistance.

For format 3, if the tape drive specified in the DUMP:TDAS input message could not be accessed, check to see if the right tape drive was specified, if the tape drive is equipped, and if the tape is on-line.

If an internal error was found in the TDAS data base for format 4, retry the DUMP:TDAS command after the AUD:TDAS output message appears on the printer. The TDAS audit will run automatically.

5. REFERENCES

Input Messages

ALW:F-MOUNT
DUMP:TDAS
OP:LOG

Output Messages

ALW:F-MOUNT
AUD:TDAS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:UID
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

[1] DUMP UID a ADDR b [OFF c] COMPLETED #d
ADDRESS (HEX): CONTENTS OF MEMORY (HEX):
e f

[2] DUMP UID a ADDR b [OFF c] g #d

2. REASON FOR OUTPUT

To report the result of executing the DUMP:UID input message to dump out the contents of an address or address range in main memory.

3. VARIABLE FIELD DEFINITIONS

- a Utility ID of the target process.
- b Virtual address specified in input message.
- c Offset(s) used on input command line.
- d Generic Access Package (GRASP) execution sequence number.
- e Address label for line of data.
- f Data as dumped from memory.
- g Termination status:
- NOT STARTED NGUID — The DUMP was stopped because no copies of the specified process exist.
- STOPPED NGADDR — The DUMP was stopped because the address specified is not valid for the process, or invalid address values were encountered in address chain, if offsets were specified.

4. ACTION TO BE TAKEN

If the termination status is NOT STARTED NGUID, the process did not exist at the time the DUMP was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.

If the termination status is STOPPED NGADDR, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses.

Another possibility is to define a breakpoint for that process and use the DUMP:UID message in the action list.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Key

Format 1 has an OMDB key of 514.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

DUMP:UID

WHEN:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:UVAR-A
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] DUMP UVAR a COMPLETED #b
 UVAR: CONTENTS:
 c d
- [2] DUMP UVAR a OFF e COMPLETED #b
 ADDRESS (HEX): CONTENTS OF MEMORY (HEX):
 f g
- [3] DUMP UVAR a STOPPED NGADDR #b

2. REASON FOR OUTPUT

To report the disposition of a DUMP:UVAR input message.

Format 3 indicates an error was encountered in the indirection addressing chain.

3. VARIABLE FIELD DEFINITIONS

- a Utility variable to be dumped.
- b Generic Access Package (GRASP) execution sequence number.
- c Name of utility variable for line of data.
- d Data as dumped from utility variable.
- e Offset(s) used on input command line.
- f Address label for line of data.
- g Data dumped from memory.

4. ACTION TO BE TAKEN

If Format 3 is printed, recheck the program listings. Try printing the utility variable contents and breaking the addressing chain into several parts, printing the intermediate results.

5. REFERENCES

OMDB Key
Format 1 has an OMDB key of 511.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message
DUMP:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID DUMP:UVAR-B
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two formats.

- [1] DUMP UVAR ABT
ALLOWED ONLY IN A WHEN COMMAND
- [2] DUMP UVAR ABT
DUMP INV REG/UVAR VALUE

2. REASON FOR OUTPUT

Response to the DUMP:UVAR input command.

All formats indicate error conditions.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Seek technical assistance on error conditions.

This command is only allowed inside a WHEN:RUTIL <action-list>.

5. REFERENCES

Input Messages
DUMP:UVAR
WHEN:RUTIL

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4ESS™/APS Input/Output Message Error Reporting Form

Use this form to report errors and make suggestions for improving the contents of the manual or quarterly release. If an error relates to a specific message, please write your comments on a TTY output or a photocopy of the message documentation and attach it to this form.

Manual: Input ☐ Output ☐

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Issue: 9.4

	Excellent	Good	Fair	Poor
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4ESS[™]/APS Switch

Output Messages

Volume 2

EX - REPT(A)

OM-4A001-01
Issue 9.4
July 2002

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IN REMOTE STARTED	IN:REM-START	4AP12	9.0
IN REMOTE STOPPED	IN:REM-STOP	4AP12	9.0
IN TDAS	IN:TDAS	4AP12	9.0
IN XFER	IN:XFER	4AP13	9.0
INH ADB	INH:ADB	4AP12	9.0
INH AMA SSPUNAS COMPLETED	INH:AMA-SSPUNAS	4AP12	9.0
INH AUD	INH:AUD	4AP12	9.0
INH CONFLOG	INH:CONFLOG	4AP12	9.0
INH DCC	INH:DCC	4AP12	9.0
INH DCNAUD	INH:DCNAUD	4AP14	9.0
INH DLNAUD	INH:DLNAUD	4AP13	9.0
INH DMQ	INH:DMQ	4AP12	9.0
INH EAIINT	INH:EAIINT	4AP12	9.0
INH ERRCHK	INH:ERRCHK	4AP12	9.0
INH ERRINT	INH:ERRINT	4AP12	9.0
INH ERRSRC	INH:ERRSRC	4AP12	9.0
INH FILESYS UMOUNT	INH:F-UMOUNT	4AP12	9.0
INH FTA	INH:FTA	4AP12R4	9.1
INH HDWCHK	INH:HDWCHK	4AP12	9.0
INH IMSMEAS COMPL	INH:IMSMEAS	4AP12	9.0
INH PSLT	INH:PSLT	4AP12	9.0
INH RCV	INH:RCV	4AP15	9.0
INH RCV APPDB	INH:RCV-APPDB	4AP12	9.0
INH REPORT	INH:REPORT	4AP12	9.0
INH REX	INH:REX	4AP12	9.0
INH RMV	INH:RMV	4AP12	9.0
INH RUTIL	INH:RUTIL	4AP12	9.1
INH SCSD	INH:SCSD	4AP12	9.0
INH SFTCHK	INH:SFTCHK	4AP12	9.0
INH SLK	INH:SLK	4AP12	9.0
INH TRACE	INH:TRACE	4AP12	9.0
INH TRAP	INH:TRAP	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
INH UMEM	INH:UMEM	4AP12	9.0
INH UTIL	INH:UTIL	4AP12	9.0
INH UTILFLAG	INH:UTILFLAG	4AP12	9.0
INIT APPDB	INIT:APPDB	4AP12	9.0
INIT ATPCM	INIT:ATPCM	4AP13	9.0
INIT DLNCM STREAM	INIT:DLNCM	4AP12	9.0
INIT GTT	INIT:GTT	4AP12	9.0
INIT LN	INIT:LN	4AP12	9.0
INIT MHD	INIT:MHD	4AP12	9.0
INIT TDAS	INIT:TDAS	4AP12	9.0
INIT ULARP	INIT:ULARP	4AP12	9.0
INIT UMEM	INIT:UMEM	4AP12	9.0
LOAD	LOAD:0	4AP12	9.0
LOAD ADDR	LOAD:ADDR	4AP12	9.0
LOAD:APPTAPE	LOAD:APPTAPE	4AP12	9.0
LOAD BYTE	LOAD:BYTE	4AP12	9.0
LOAD DFC PUMP	LOAD:DFC-PUMP	4AP14	9.1
LOAD DFC RAM	LOAD:DFC-RAM	4AP12	9.0
LOAD GULP	LOAD:GULP	4AP16	9.1
LOAD MHD	LOAD:MHD	4AP12	9.0
LOAD MHD DEFECT	LOAD:MHD-DEF	4AP12	9.0
LOAD MHD FIRMWARE	LOAD:MHD-FIRM	4AP12	9.0
LOAD PMEM	LOAD:PMEM	4AP12	9.0
LOAD REG	LOAD:REG-A	4AP12	9.0
LOAD REG	LOAD:REG-B	4AP12	9.0
LOAD RNA	LOAD:RNA	4AP12	9.0
LOAD RUTIL	LOAD:RUTIL	4AP12	9.1
LOAD SHORT	LOAD:SHORT	4AP12	9.0
LOAD:TLP	LOAD:TLP	4AP18	9.2
LOAD:UPDATE	LOAD:UPDATE	4AP16	9.2
LOAD:UPDATE:ABORT	LOAD:UPDATE-ABORT	4AP12	9.0
LOAD:UPDATE:CONT	LOAD:UPDATE-CONT	4AP16	9.0
LOAD:UPDATE:DIFF	LOAD:UPDATE-DIFF	4AP12	9.0
LOAD:UPDATE:GEN	LOAD:UPDATE-GEN	4AP16	9.0
LOAD:UPDATE:MAP	LOAD:UPDATE-MAP	4AP12	9.0
LOAD:UPDATE:NWM	LOAD:UPDATE-NWM	4AP16	9.0
LOAD:UPDATE:ODA	LOAD:UPDATE-ODA	4AP16	9.0
LOAD:UPDATE:SKIP	LOAD:UPDATE-SKIP	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
LOAD:UPDATE:SR	LOAD:UPDATE-SR	4AP16	9.2
LOAD UPNM	LOAD:UPNM	4AP12	9.0
LOAD UVAR	LOAD:UVAR-A	4AP12	9.0
LOAD UVAR	LOAD:UVAR-B	4AP12	9.0
LOAD WORD	LOAD:WORD	4AP12	9.0
MON SLK	MON:SLK	4AP12	9.0
NPMEM NPMEM	NPMEM:NPMEM	4AP12	9.0
OP ABD	OP:ABD	4AP17	9.1
OP ACT	OP:ACT	4AP12	9.0
OP ADB LOG	OP:ADB-LOG	4AP12	9.0
OP ADB PERM	OP:ADB-PERM	4AP12	9.0
OP AMA RECSRCH	OP:AMA-RECSRCH	4AP12	9.0
OP AMA SRCH	OP:AMA-SRCH	4AP12	9.0
OP APPFILE	OP:APPFILE	4AP12	9.0
OP APPLOAD	OP:APPLOAD	4AP16	9.0
OP ATPCM IMSCHAN COMPLETED	OP:ATPCM-IMSCHN	4AP13	9.0
OP ATPCM PROCS COMPLETED	OP:ATPCM-PROCS	4AP13	9.0
OP ATPCM TASKS COMPLETED	OP:ATPCM-TASKS	4AP13	9.0
OP AUD	OP:AUD	4AP12	9.0
OP AUDERR	OP:AUDERR	4AP12	9.0
OP C7NET	OP:C7NET-A	4AP12	9.0
OP C7NET	OP:C7NET-B	4AP14	9.0
OP CFGSTAT	OP:CFGSTAT	4AP12	9.0
OP CLK	OP:CLK	4AP12	9.0
OP DCC	OP:DCC	4AP12R4	9.1
OP DCNAUD	OP:DCNAUD	4AP14	9.0
OP DCNAUDERR	OP:DCNAUDERR	4AP14	9.0
OP DFC INFO	OP:DFC-INFO	4AP17	9.1
OP DFCELOG	OP:DFCELOG	4AP12	9.0
OP DLNAUD	OP:DLNAUD	4AP13	9.0
OP DLNCM BINKMAP COMPLETED	OP:DLNCM-BINKMP	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
OP DLNCM DLNMAP COMPLETED	OP:DLNCM-DLNMAP	4AP12	9.0
OP DLNCM IMSCHAN COMPLETED	OP:DLNCM-IMSCHN	4AP12	9.0
OP DLNCM STREAM COMPLETED	OP:DLNCM-STREAM	4AP12	9.0
OP DLNCM TASKS COMPLETED	OP:DLNCM-TASKS	4AP12	9.0
OP DLNESC	OP:DLNESC	4AP12	9.0
OP DMQ	OP:DMQ	4AP12	9.0
OP DMSORDERS	OP:DMSORDERS	4AP12	9.0
OP EMERSTAT	OP:EMERSTAT	4AP12	9.0
OP ERRCHK	OP:ERRCHK	4AP12	9.0
OP FNAME	OP:FNAME	4AP12	9.0
OP FTA	OP:FTA	4AP12	9.0
OP FTF	OP:FTF	4AP12	9.0
OP GEN READLOG	OP:G-READLOG	4AP12	9.0
OP GROW	OP:GROW	4AP12	9.0
OP INH APPDB	OP:INH-APPDB	4AP13	9.0
OP INIT	OP:INIT	4AP12	9.0
OP IODRV	OP:IODRV	4AP12	9.0
OP IOP INFO	OP:IOP-INFO	4AP17	9.1
OP LFS	OP:LFS	4AP12	9.0
OP LIBUF	OP:LIBUF	4AP12	9.0
OP LNSTAT	OP:LNSTAT	4AP14	9.0
OP LOG	OP:LOG	4AP12	9.0
OP MEMERRS	OP:MEMERRS	4AP12	9.0
OP MHD INFO	OP:MHD-INFO	4AP17	9.1
OP MT INFO	OP:MT-INFO	4AP12	9.0
OP NODES	OP:NODES	4AP16	9.1
OP NPMEM	OP:NPMEM	4AP12	9.0
OP OFL	OP:OFL	4AP12	9.0
OP OMDB	OP:OMDB	4AP12	9.0
OP OOS	OP:OOS	4AP12	9.0
OP:OUTCLS	OP:OUTCLS	4AP12	9.0
OP PMCR ERROR	OP:PMCR	4AP13	9.0
OP RCAS FILES COMPLETED	OP:RCAS-FILES	4AP13	9.0
OP RCAS MEAS COMPLETED	OP:RCAS-MEAS	4AP13	9.0
OP RCAS TASKS COMPLETED	OP:RCAS-TASKS	4AP13	9.0
OP REXINH	OP:REXINH	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
OP RING	OP:RING	4AP12	9.0
OP RUTIL	OP:RUTIL	4AP12	9.0
OP SCHD	OP:SCHD	4AP12	9.0
OP SCSD	OP:SCSD	4AP14	9.3
OP SDC	OP:SDC	4AP13	9.0
OP SLK	OP:SLK	4AP14	9.0
OP SMR	OP:SMR	4AP15	9.0
OP SNAT	OP:SNAT	4AP12	9.0
OP STATUS DISKUSE	OP:ST-DISKUSE	4AP12	9.0
OP STATUS FILESYS	OP:ST-FILESYS	4AP12	9.0
OP STATUS FREEDISK	OP:ST-FRDISK	4AP12	9.0
OP STATUS LISTDIR	OP:ST-LSTDIR	4AP12	9.0
OP STATUS NSC	OP:ST-NSC	4AP12	9.0
OP STATUS PORTS	OP:ST-PORTS	4AP12	9.0
OP STATUS PROCESS	OP:ST-PROC	4AP12	9.0
OP STATUS SUM	OP:ST-SUM	4AP12	9.0
OP STBY	OP:STBY	4AP12	9.0
OP T1M	OP:T1M	4AP15	9.0
OP:TDAS	OP:TDAS	4AP12	9.0
OP:TPC	OP:TPC	4AP12	9.0
OP TRACE	OP:TRACE	4AP12	9.0
OP TRAP	OP:TRAP	4AP12	9.0
OP TSC	OP:TSC	4AP12	9.0
OP ULARP COMMAND	OP:ULARP-COM	4AP12	9.0
OP ULARP EXECSEQ	OP:ULARP-EXEC	4AP12	9.0
OP ULARP PROCESS	OP:ULARP-PROC	4AP12	9.0
OP UMEM	OP:UMEM	4AP12	9.0
OP UNAV	OP:UNAV	4AP12	9.0
OP UNEQIP	OP:UNEQIP	4AP12	9.0
OP UPD	OP:UPD	4AP13	9.0
OP UTIL	OP:UTIL	4AP12	9.0
OP VERSION	OP:VERSION	4AP13	9.0
OP VTOP	OP:VTOP	4AP12	9.0
ORD SCSD	ORD:SCSD	4AP12	9.0
PRM	PRM:0	4AP12	9.0
PUMP:ATP	PUMP:ATP	4AP13	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
RC:GTT	RC:GTT	4AP12	9.0
RC MISC FHT FTA	RC:MISC-FHT-FTA	4AP12	9.0
RC ORNU	RC:ORNU	4AP12	9.0
RCV DMTECD VFY	RCV:DMTECD-VFY	4AP12	9.0
RCV DMTSG VFY	RCV:DMTSG-VFY	4AP12	9.0
RCV MENU	RCV:MENU	4AP12	9.0
RCVRY CU	RCVRY:CU	4AP12	9.0
RCVRY DUI	RCVRY:DUI	4AP12	9.0
RCVRY DUIC	RCVRY:DUIC	4AP12	9.0
RCVRY EAI	RCVRY:EAI	4AP12	9.0
RCVRY IOP	RCVRY:IOP	4AP12	9.0
RCVRY MT	RCVRY:MT	4AP12	9.0
RCVRY MTC	RCVRY:MTC	4AP12	9.0
RCVRY MTTY	RCVRY:MTTY	4AP12	9.0
RCVRY MTTYC	RCVRY:MTTYC	4AP12	9.0
RCVRY ROP	RCVRY:ROP	4AP12	9.0
RCVRY SCC	RCVRY:SCC	4AP12	9.0
RCVRY SCSDC	RCVRY:SCSDC	4AP12	9.0
RCVRY SDL	RCVRY:SDL	4AP12	9.0
RCVRY SDLC	RCVRY:SDLC	4AP12	9.0
RCVRY TTY	RCVRY:TTY	4AP12	9.0
RCVRY TTYC	RCVRY:TTYC	4AP12	9.0
REKEY SLK	REKEY:SLK	4AP12	9.0
REMACS AUD	REMACS:AUD	4AP12	9.0
REPT 3BN DMA RSTRT	REPT:3BN-DMA	4AP12	9.0
REPT ADB	REPT:ADB	4AP12	9.0
REPT ADP	REPT:ADP-AUTFAIL	4AP12	9.0
REPT ADP AUTORST	REPT:ADP-AUTHRESH	4AP12	9.0
REPT ADP INHIBIT ACTIVE	REPT:ADP-INHIBIT	4AP12	9.0
REPT ADP INTERFACE			
ERROR	REPT:ADP-INT	4AP12	9.0
REPT ADPAB	REPT:ADPAB	4AP12	9.0
REPT AIM KERNEL STACK	REPT:AIM	4AP12	9.0
REPT AIM ACTION TASK	REPT:AIM-ACTION	4AP12	9.0
REPT AIM AMA	REPT:AIM-AMA	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT AIM CNI INIT	REPT:AIM-CNI	4AP12	9.0
REPT AIM EVENT	REPT:AIM-EVENT	4AP12	9.0
REPT AIM FAULT CODE	REPT:AIM-FAULT	4AP12	9.0
REPT AIM KERNEL LOCKOUT	REPT:AIM-KERNEL	4AP12	9.0
REPT AIM PROC TASK	REPT:AIM-PROC	4AP12	9.0
REPT AIM PROCESS TASK	REPT:AIM-PROCESS	4AP12	9.0
REPT AIM RTR INIT	REPT:AIM-RTR	4AP12	9.0
REPT AIMCHK ERR	REPT:AIMCHK-ERR	4AP12	9.0
REPT AIMCHK-FILE SYSTEM	REPT:AIMCHK-FS	4AP12	9.0
REPT AIMCHK NON- HANDLED OVERLOAD	REPT:AIMCHK-NOFAU	4AP12	9.0
REPT AIMCHK STATUS	REPT:AIMCHK-ST	4AP12	9.0
REPT AIMCHK TASK	REPT:AIMCHK-TASK	4AP12	9.0
REPT AIMSTUB	REPT:AIMSTUB	4AP12	9.0
REPT AMA CRITICAL	REPT:AMA-C-ALM	4AP12	9.0
REPT AMA CDR FIFO	REPT:AMA-CDR-FIFO	4AP12	9.0
REPT AMA CDR SESSION	REPT:AMA-CDR-SESS	4AP12	9.0
REPT AMA CONFIG	REPT:AMA-CONFIG	4AP21	9.4
REPT AMA CONTROL	REPT:AMA-CONT	4AP12	9.0
REPT AMA CONTROL	REPT:AMA-CONTL	4AP12	9.0
REPT AMA CRIT ALARM	REPT:AMA-CRIT	4AP12	9.0
REPT AMA DISK ALARM	REPT:AMA-D-ALM	4AP12	9.0
REPT AMA DISK MAPS	REPT:AMA-D-MAPS	4AP12	9.0
REPT AMA DISK READER	REPT:AMA-D-READ	4AP12	9.0
REPT AMA DISK STORAGE	REPT:AMA-D-STO	4AP12	9.0
REPT AMA DISK SUMMARY	REPT:AMA-D-SUM	4AP12	9.0
REPT AMA DISK WRITER	REPT:AMA-D-WRIT	4AP12	9.0
REPT AMA FORMATTER	REPT:AMA-FORM	4AP13	9.0
REPT AMA /ICDR TRANSFER	REPT:AMA-ICDR-TRN	4AP12	9.0
REPT AMA MAJOR ALARM	REPT:AMA-MAJOR	4AP12	9.0
REPT AMA MINOR ALARM	REPT:AMA-MINOR	4AP12	9.0
REPT AMA MONITOR	REPT:AMA-MON	4AP12	9.0
REPT AMA SESSION	REPT:AMA-S-CON	4AP12	9.0
REPT AMA SESSION	REPT:AMA-S-EST	4AP12	9.0
REPT AMA SESSION	REPT:AMA-S-TER	4AP12	9.0
REPT AMA SESSIONS	REPT:AMA-SESS	4AP12	9.0
REPT AMA SSPUNAS IS	REPT:AMA-SSPUNAS	4AP12	9.0
REPT AMA STREAM	REPT:AMA-STR-FILE	4AP12	9.0
REPT AMA STREAM	REPT:AMA-STREAM	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT AMA TAPE SESSION	REPT:AMA-TA-SE	4AP12	9.0
REPT AMA TAPE SUMMARY	REPT:AMA-TA-SU	4AP12	9.0
REPT AMA TELEPROCESSING	REPT:AMA-TELE	4AP12	9.0
REPT AMA TELEPROCESSING	REPT:AMA-TELE-SE	4AP12	9.0
REPT AMA TELEPROCESSING	REPT:AMA-TELE-SU	4AP12	9.0
REPT AMA TAPE WRITING	REPT:AMA-TP-WR	4AP12	9.0
REPT AMA TRANSFER	REPT:AMA-TRANS	4AP12	9.0
REPT AMATAPE COMPLETE	REPT:AMATAP-CO	4AP12	9.0
REPT AMATAPE ERROR	REPT:AMATAP-ER	4AP12	9.0
REPT AMATAPE VERIFY	REPT:AMATAP-VF	4AP12	9.0
REPT AMcniopen: cHioctl	REPT:AMCNI-CHI	4AP12	9.0
REPT AMcniopen: cHkopen	REPT:AMCNI-CHK	4AP12	9.0
REPT ANALY TLP	REPT:ANL-TLP	4AP12	9.0
REPT:APDRV ERR X'436	REPT:APDRV-ER-436	4AP12	9.0
REPT:APDRV ERR X'437	REPT:APDRV-ER-437	4AP12	9.0
REPT:APDRV ERR 4aa	REPT:APDRV-ER-4aa	4AP12	9.0
REPT:APDRV ERR 5aa	REPT:APDRV-ER-5aa	4AP12	9.0
REPT:APDRV ERR 5cc	REPT:APDRV-ER-5cc	4AP12	9.0
REPT:APDRV ERR 5dd	REPT:APDRV-ER-5dd	4AP12	9.0
REPT:APDRV ERR	REPT:APDRV-ERR	4AP12	9.0
REPT:APDRV FAULT	REPT:APDRV-FAU	4AP12	9.0
REPT:APDRV INIT	REPT:APDRV-INIT	4AP12	9.0
REPT:APDRV IPC	REPT:APDRV-IPC	4AP12	9.0
REPT:APDRV MEMORY DUMP	REPT:APDRV-MEM	4AP12	9.0
REPT:API DGN AUDIT	REPT:API-DGN	4AP12	9.0
REPT:API DUMP	REPT:API-DUMP	4AP12	9.0
REPT:API ERR	REPT:API-ERR	4AP12	9.0
REPT:APLUPD	REPT:APLUPD	4AP12	9.0
REPT APPDB	REPT:APPDB-DA	4AP12	9.0
REPT APPDB	REPT:APPDB-FR	4AP12	9.0
REPT APPDB	REPT:APPDB-IR	4AP12	9.0
REPT:APRMVRST	REPT:APRMVRST	4AP12	9.0
REPT:APS DELAY	REPT:APS-DELAY	4AP12	9.0
REPT:APSMEAS COUNTS	REPT:APSM-CNTS	4AP12	9.0
REPT:APSMEAS FAILED	REPT:APSM-FAIL	4AP12	9.0
REPT:APSMMSG ERR	REPT:APSMMSG-ERR	4AP12	9.0

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MESSAGE NAME	MESSAGE ID	START GENERIC	ISSUE
REPT:APSMMSG FAULT	REPT:APSMMSG-FAU	4AP12	9.0
REPT ARR AUTORST	REPT:ARR-AUTORST	4AP12	9.0
REPT ARTS	REPT:ARTS	4AP12	9.0
REPT ATPCM	REPT:ATPCM	4AP13	9.0
REPT ATPN	REPT:ATPN	4AP13	9.1
REPT AUDSTAT	REPT:AUDSTAT	4AP12	9.0
REPT AUTORST FAILURE	REPT:AUTORST	4AP12	9.0

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ID EX:CU
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX CU a [b] [COMPLETED] d [({e|f})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX CU a [b] PH c d [({e|f})]
{MESSAGE IN PROGRESS|MSG IP}
- [3] EX CU a [b] PH c STF ({e|f}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
g h [i|N/A] [j|N/A] [k|N/A]
- [4] EX CU a [b] ABORTED AT PH c STMNT l d [({e|f})] MSG IP
- [5] EX CU a [b] TERMINATED AT PH c STMNT l AFTER TEST m
- [6] EX CU a [b] TASK n
{MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To report the result of executing an EX:CU input message to diagnose the Control Unit (CU) or one of its subunits in the interactive mode.

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

- a Member number (0 or 1).
- b Unit type and member number of the subunit under the CU which has been diagnosed; for example, CC 0, MASC 0, MASC 1, SAT 0, etc.
- c Phase number.
- d The result of the diagnostic:
 - ATP — All tests pass.
 - CATP — All tests run were ATP; some were not executed due to the unavailability of a system resource needed to perform the test.
 - NTR — No tests were run.
 - STF — Some tests fail.
- e If the result of the diagnostic is CATP or NTR, identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, (00000000 00000018), tests were skipped for reasons 3 and 4. Codes:
 - Bit 0 — Unused.
 - Bit 1 — Unit under test is forced on-line.
 - Bit 2 — Sanity timers are disabled.
 - Bit 3 — Emergency Action Interface (EAI) forces on CU, disk, sanity timer are active.
 - Bit 4 — Peripheral unit controller is out of service.
 - Bit 5 — Helper unit not specified or invalid.
 - Bit 6 — Helper unit unavailable.
 - Bit 7 — Unit under test is forced off-line.
 - Bit 8 — EAI initialization parameter buffer data pending; EAI must be cleared.
 - Bit 9 — Helper unit not connected to sub-unit under test.
 - Bits 10 — 63 - Unused.
- f If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000018), seven tests failed, plus tests were skipped for reasons 3 and 4. See previous list of codes.
- g Test number of the failing test.
- h The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
- i The bits which were actually received from the hardware device.
- N/A Data not available for the specified hardware device.
- j Determines which bits are of interest to this test.
- k The value which the test expected.
- l Last statement successfully executed before the diagnostic terminated.

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m Current test number when diagnostic terminated.
n Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. See the *Corrective Maintenance Manual* for repair procedures.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.
Format 2 has OMDB keys of 99 and 111.
Format 3 has OMDB keys of 109 and 110.
Format 4 has OMDB keys of 106, 109, 110 and 111.
Format 5 has an OMDB key of 217.
Format 6 has OMDB keys of 70 and 99.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual, Volume 6*

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX:CU
STOP:DMQ

Output Message

DGN:CU

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ID EX:DCI
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX DCI a [COMPLETED] b [({c|d})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX DCI a PH e b [({c|d})] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX DCI a PH e STF ({c|d}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
f g [h|N/A] [i|N/A] [j|N/A]
- [4] EX DCI a ABORTED AT PH e STMT k b [({c|d})] MSG IP
- [5] EX DCI a TERMINATED AT PH e STMT k AFTER TEST l
- [6] EX DCI a TASK m {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Dual Serial Channel/Computer Interconnect (DCI) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test. NTR — No tests were executed. STF — Some tests failed.
c	If the result of the diagnostic is CATP or NTR, identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, (00000000 00000018), tests were skipped for reasons 3 and 4. Code: Bits 0 — 63 — Unused.
d	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. Code: Bits 0 — 63 — Unused.
e	Phase number.
f	Test number of the failing test.
g	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
h	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
i	Determines which bits are of interest to this test.
j	The value which the test expected.
k	Last statement successfully executed before the diagnostic terminated.
l	Current test number when diagnostic terminated.
m	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. See Practice 235-105-220 for the repair procedures.

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5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX:DCI
STOP:DMQ

Output Message

DGN:DCI

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ID EX:DFC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX DFC a [COMPLETED] b [({c|d})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX DFC a PH e b [({c|d})] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX DFC a PH e STF ({c|d}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
f g [h|N/A] [i|N/A] [j|N/A]
- [4] EX DFC a ABORTED AT PH e STMT k b [({c|d})] MSG IP
- [5] EX DFC a TERMINATED AT PH e STMT k AFTER TEST l
- [6] EX DFC a TASK m {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Disk File Controller (DFC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b The result of the diagnostic:
- ATP All tests passed.
 - CATP All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
 - NTR No tests were executed.
 - STF Some tests failed.
- c If the result of the diagnostic is CATP or NTR, identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, (00000000 00000018), tests were skipped for reasons 3 and 4. Codes:
- Bit 0 — Helper unit not specified or invalid.
 - Bit 1 — Helper unit cannot be reserved.
 - Bit 2 — Helper unit is not out-of-service.
 - Bit 3 — Helper unit is not ATP.
 - Bit 4 — Helper unit not connected to controller being diagnosed.

NOTE: To interpret CATP bits 32-46, the structure of the system must be understood. All device references are relative to the DFC under test, and may not correspond to "real" unit numbers. The down pointer of the DFC will point to the first Small Computer System Interface Bus (SBUS). The side pointer of the first SBUS points to the second SBUS. Similarly, the down pointer of an SBUS points to the first Moving Head Disk (MHD) beneath it. The side pointer of an MHD points to the next MHD in the chain. These concepts are displayed graphically on display pages 120 and 122. The leftmost SBUS under a DFC is considered first SBUS, with the rightmost SBUS being second. MHD relative numbering for each SBUS is top-down, with the top MHD being first and the bottom being last. Currently only four MHDs per SBUS are supported.

Additional CATP bits for the SCSI-DFC:

- Bit 32 — First MHD on first SBUS of DFC did not respond correctly.
- Bit 33 — Second MHD on first SBUS of DFC did not respond correctly.
- Bit 34 — Third MHD on first SBUS of DFC did not respond correctly.
- Bit 35 — Fourth MHD on first SBUS of DFC did not respond correctly.
- Bit 36 — Reserved for fifth MHD on first SBUS of DFC.
- Bit 37 — Reserved for sixth MHD on first SBUS of DFC.
- Bit 38 — Reserved for seventh MHD on first SBUS of DFC.

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	Bit 40 — First MHD on second SBUS of DFC did not respond correctly.
	Bit 41 — Second MHD on second SBUS of DFC did not respond correctly.
	Bit 42 — Third MHD on second SBUS of DFC did not respond correctly.
	Bit 43 — Fourth MHD on second SBUS of DFC did not respond correctly.
	Bit 44 — Reserved for fifth MHD on second SBUS of DFC.
	Bit 45 — Reserved for sixth MHD on second SBUS of DFC.
	Bit 46 — Reserved for seventh MHD on second SBUS of DFC.
d	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. See previous list of codes.
e	Phase number.
f	Test number of the failing test.
g	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
h	The bits that were received from the device.
N/A	Data not available for the specified hardware device.
i	Determines which bits are of interest to this test.
j	The value that the test expected.
k	Last statement successfully executed before the diagnostic terminated.
l	Current test number when diagnostic terminated.
m	Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, If the result of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

For Formats 2, 3, and 4, If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. See the *Corrective Maintenance Manual* for the repair procedures.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.

Format 2 has OMDB keys of 99 and 111.

Format 3 has OMDB keys of 109 and 110.

Format 4 has OMDB keys of 106, 109, 110, and 111.

Format 5 has an OMDB key of 217.

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Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX:DFC

STOP:DMQ

Output Message

DGN:DFC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EX:DUIC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX DUIC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX DUIC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX DUIC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f {g|N/A} {h|N/A} {i|N/A}
- [4] EX DUIC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] EX DUIC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] EX DUIC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Direct User Interface Controller (DUIC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

NOTE: If STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data is not available for the specified device.
h	Determines which bits in are included in this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.

Format 2 has OMDB keys of 99 and 111.

Format 3 has OMDB keys of 109 and 110.

Format 4 has OMDB keys of 106, 109, 110, and 111.

Format 5 has an OMDB key of 217.

Format 6 has OMDB keys of 70 and 99.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Practice 235-105-220 *Corrective Maintenance Procedures*

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Input Messages
EX:DUIC
STOP:DMQ

Output Message
DGN:DUIC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EX:HSDC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX HSDC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX HSDC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX HSDC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] EX HSDC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] EX HSDC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] EX HSDC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the High-Speed Synchronous Datalink Controller (HSDC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines which bits are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX:HSDC

STOP:DMQ

Output Message

DGN:SDLC

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ID EX:IOP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX IOP a [COMPLETED] b [({c|d})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX IOP a PH e b [({c|d})] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX IOP a PH e STF ({c|d}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
f g [h|N/A] [i|N/A] [j|N/A]
- [4] EX IOP a ABORTED AT PH e STMT k b [({c|d})] MSG IP
- [5] EX IOP a TERMINATED AT PH e STMT k AFTER TEST l
- [6] EX IOP a TASK m {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Input/Output Processor (IOP) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test. NTR — No tests were executed. STF — Some tests failed.
c	If the result of the diagnostic is CATP or NTR, identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, (00000000 00000018), tests were skipped for reasons 3 and 4. Codes: Bit 0 — Helper unit not specified or invalid. Bit 1 — Helper unit cannot be reserved. Bit 2 — Helper unit not out-of-service. Bit 3 — Helper unit is not ATP. Bit 4 — Helper unit not connected to controller being diagnosed.
d	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. See previous list of codes.
e	Phase number.
f	Test number of the failing test.
g	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
h	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
i	Determines which bits are of interest to this test.
j	The value which the test expected.
k	Last statement successfully executed before the diagnostic terminated.
l	Current test number when diagnostic terminated.
m	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. See Practice 235-105-220 for the repair procedures.

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5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX: IOP
STOP: DMQ

Output Message

DGN: IOP

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ID EX:LDPARM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX LDPARM MASC MEM TEST INPUT VALUES
START ADDRESS = a
[ERROR: b]
END ADDRESS = c
[ERROR: b]
REFRESH RATE = d MS
[ERROR: b]
NUMBER OF FAILURES = e
[DATA PATTERN = f]
[ERROR: b]
- [2] EX LDPARM MASC UPD TEST INPUT VALUES
START ADDRESS = a
[ERROR: b]
END ADDRESS = c
[ERROR: b]
REFRESH RATE = d MS
[ERROR: b]
NUMBER OF FAILURES = e
WORDS PER ARRAY TO COPY = g
[ERROR: b]
REFRESH DATA PARITY CHECK TIME = h SEC

2. REASON FOR OUTPUT

To echo the memory test parameters input manually as part of the Control Unit (CU) interactive diagnostic mode using the EX:CU input message in conjunction with EX:LDPARM input message. This output comes from main store diagnostic phases 95 or 96.

Format 1 is printed when Main Store Controller (MASC) phase 95 is executed. Format 2 is printed when MASC phase 96 is executed.

3. VARIABLE FIELD DEFINITIONS

- a First or lowest address in the address range of memory to be tested, in hexadecimal notation.
- b Error message explaining why previous line was not accepted:
ADDRESS MUST BE GREATER THAN 0
ADDRESS MUST BE ON FULLWORD BOUNDARY

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- START ADDRESS GREATER THAN END ADDRESS
- END ADDRESS TOO LARGE
- NOT POSSIBLE REFRESH RATE
- ERROR VALID REFRESH RATES ARE 2, 4, 6, 8, 10, 12,
14, 16, 32, 36, 40, 44, 48, 52, 56, 60 (3B20D)
- ERROR VALID REFRESH RATES ARE 16, 18, 20, 22, 24,
26, 28, 30 (3B21D)
- c Last or highest address in the address range of memory to be tested, in hexadecimal notation.
- d Rate at which the memory is refreshed by the main store controller, in decimal notation.
- e Number of addresses for which failing information is to be collected, in decimal notation.
- f Data to be written into each memory location in the address range under test, in hexadecimal notation. (MASC phase 95.)
- g Words per memory array to copy from the online to the off-line memory, in hexadecimal notation. (MASC phase 96.)
- h Duration of time, in seconds, for which refresh data parity checks are allowed as a mechanism to scan for errors, in decimal notation. (MASC phase 96.)
For 3B21D, the value printed for this variable field is always zero.

4. ACTION TO BE TAKEN

Reenter the memory test parameters using the EX:CU and then EX:LDPARM input messages if the values are not as desired.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 39, 40, 41, and 42.

Format 2 has OMDB keys of 39, 40, 41, 43, and 44.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Input Messages

EX:CU

EX:LDPARM

Output Message

DGN CU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EX:LN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

[1] EX LNa b c {ATP|CATP|NTR|STF} [d]

[2] EX LNa b PH e {ATP|CATP|NTR|STF} [d]
[TEST MISMATCH
f g]

2. REASON FOR OUTPUT

To print the results of a diagnostic run on a Link Node (LN) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 is printed whenever the diagnostic results are printed for an individual phase.

3. VARIABLE FIELD DEFINITIONS

a A Ring Node (RN) group number (00-63).
b The ring node member number (1-15).
c Termination mode of diagnostic.
ABORTED — Diagnostic was abnormally stopped due to an external or internal error in execution, or a STOP:DMQ input request.
COMPLETED — Diagnostic passed normally.
TERMINATED — Diagnostic terminated under program control (early termination).

ATP All tests passed
CATP All tests that were executed were ATP. Some tests were not executed due to the inability to isolate, or to singularly isolate, the node under test.

NTR No tests run.
STF Some tests failed.

d If CATP or NTR, identifies the reason that tests were skipped in this phase by their bit position in a 16-character hexadecimal number. For example, if d = 00000000 80000000, tests were skipped for reason 31.

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The reason codes are as follows:

Bits 0 to 26 — Not used.

Bit 27 — Smart node memory board is not equipped.

Bit 28 — Attached Processor state variable indicates that this phase need not be run.

Bit 29 — Node under test is neither isolated nor in the RIUSBL minor state.

Bit 30 — Node under test was not the only isolated node.

Bit 31 — Node under test was not isolated.

Bits 32 to 63 — Not used.

If STF, Number of test failures in addition to the reasons that tests were skipped. For example, if d = 7 00000000 80000000, seven tests failed, plus tests were skipped for reason 31.

For Format 2, identifies the reason that some tests were skipped. This field is the same as in Format 1 except that the result of only one phase is reflected.

e Phase number.

f Test number of the failing test.

g An 8-digit hexadecimal number that indicates the bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.

4. ACTION TO BE TAKEN

If CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If STF, the unit should be repaired as quickly as possible.

5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Diagnostics User's Guide Section

Input Messages

EX:LN

STOP:DMQ

Output Message

RMV:LN

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ID EX:LOOP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX LOOP a [b] INVALID BEGIN
- [2] EX LOOP a [b] INVALID END d
- [3] EX LOOP a [b] BETWEEN ST c-d
- [4] EX LOOP REQUEST NOT YET ACTIVE NO ACTION TAKEN
- [5] EX LOOP REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN
- [6] EX LOOP ILLEGAL REQUEST TYPE NO ACTION TAKEN

2. REASON FOR OUTPUT

To report the result of executing an EX:LOOP interactive diagnostic command as part of an interactive diagnostic procedure.

Format 1 prints if the specified loop start data table statement number cannot be found.

Format 2 prints if the specified loop end data table statement number cannot be found by searching forward in the data table from the loop start statement.

Format 3 prints if a diagnostic program loop has been established as specified in the input command.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 5 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 6 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

- a Unit type and member number of unit under test.
- b Unit type and member number of the subunit under the unit under test.

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- c Starting data table statement number.
- d Ending data table statement number.

4. ACTION TO BE TAKEN

For formats 1 and 2, reenter the input command using a valid start or end statement number.

For format 3, no action is needed.

For formats 4, 5, and 6, reenter the input command after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input command. Use the **OP:DMQ** input command to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the **STOP:DMQ** input command to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. REFERENCES

OMDB Keys

Formats 1, 2, and 3 have an OMDB key of 46.

Formats 4, 5, and 6 have an OMDB key of 77.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Input Messages

EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:IOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
OP:DMQ
STOP:DMQ

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ID EX:MHD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX MHD a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX MHD a PH d b [(c)]
{MESSAGE IN PROGRESS|MSG IP}
- [3] EX MHD a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] EX MHD a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] EX MHD a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] EX MHD a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Moving Head Disk (MHD) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number (0 or 1).
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines which bits are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, if the result of the diagnostic is STF, the unit should be repaired as quickly as possible. See the *Corrective Maintenance Manual* for the repair procedures.

5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX:MHD

STOP:DMQ

Output Message

DGN:MHD

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ID EX:MT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX MT a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX MT a PH d b [(c)]
{MESSAGE IN PROGRESS|MSG IP}
- [3] EX MT a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] EX MT a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] EX MT a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] EX MT a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

Prints the results of the diagnostic executed on the Magnetic Tape (MT) in interactive mode.

Format 1 prints at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnostic or RAW data was specified on the diagnostic request.

Format 3 indicates the diagnostic results for an individual failing phase.

Format 4 indicates the diagnostic was stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number (0 or 1).
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	If the result of the diagnostic is STF it identifies the number of test failures in addition to the number of tests skipped. For example, (7 00000000 00000000), seven tests failed and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines which bits are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, if the result of the diagnostic is STF, the unit should be repaired as quickly as possible; seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.

Format 2 has OMDB keys of 99 and 111.

Format 3 has OMDB keys of 109 and 110.

Format 4 has OMDB keys of 106, 109, 110, and 111.

Format 5 has an OMDB key of 217.

Format 6 has OMDB keys of 70 and 99.

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Input Messages
EX:MT
STOP:DMQ

Output Message
DGN:MT

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ID EX:MTC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX MTC a [COMPLETED] b [({c|d})]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX MTC a PH e b [({c|d})] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX MTC a PH e STF ({c|d}) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
f g [h|N/A] [i|N/A] [j|N/A]
- [4] EX MTC a ABORTED AT PH e STMNT k b [({c|d})] MSG IP
- [5] EX MTC a TERMINATED AT PH e STMNT k AFTER TEST l
- [6] EX MTC a TASK m {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Magnetic Tape Controller (MTC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. CATP — All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test. NTR — No tests were run. STF — Some tests failed.
c	If the result of the diagnostic is CATP or NTR, identifies the reasons tests were skipped by their bit position in a 16-digit hexadecimal number. For example, (00000000 0000018), tests were skipped for reasons 3 and 4. Codes: Bit 0 — Helper unit not specified or invalid. Bit 1 — Helper unit cannot be reserved. Bit 2 — Helper unit not out-of-service. Bit 3 — Helper unit is not ATP. Bit 4 — Helper unit not connected to controller under test. Bit 17 — Helper MT tape not mounted and/or transport door open. Bit 18 — Helper MT transport not in on-line mode. Bit 19 — Helper MT tape reel has no Write Enable Ring (WER). Bit 20 — Helper MT tape too long for diagnostic test tape. Bit 21 — Helper MT tape has no header block at BOT or header block indicates not diagnostic test tape.
d	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons tests were skipped. For example, (7 00000000 0000006), seven tests failed, plus tests were skipped for reasons 1 and 2. See previous list of codes.
e	Phase number.
f	Test number of the failing test.
g	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
h	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
i	Determines which bits are of interest to this test.
j	The value which the test expected.
k	Last statement successfully executed before the diagnostic terminated.
l	Current test number when diagnostic terminated.
m	Task number assigned to the request.

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4. ACTION TO BE TAKEN

If the result of the diagnostic is CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 96 and 103.

Format 2 has OMDB keys of 99 and 111.

Format 3 has OMDB keys of 109 and 110.

Format 4 has OMDB keys of 106, 109, 110, and 111.

Format 5 has an OMDB key of 217.

Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX:MTC

STOP:DMQ

Output Message

DGN:MTC

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ID EX:MTTYC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX MTTYC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX MTTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX MTTYC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] EX MTTYC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] EX MTTYC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] EX MTTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Maintenance Teletypewriter Controller (MTTYC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines which bits are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX:MTTYC

STOP:DMQ

Output Message

DGN:MTTYC

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ID EX:PAUSE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX PAUSE a [b] SUSPENDED AT ST c
- [2] EX PAUSE REQUEST NOT YET ACTIVE NO ACTION TAKEN
- [3] EX PAUSE REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN
- [4] EX PAUSE ILLEGAL REQUEST TYPE NO ACTION TAKEN

2. REASON FOR OUTPUT

To report the result of executing an EX:PAUSE interactive diagnostic command as part of an interactive diagnostic procedure.

Format 1 prints when the interactive diagnostic is suspended.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

- a Unit type and member number of unit under test.
- b Unit type and member number of the subunit under the unit under test.
- c Data table statement number.

4. ACTION TO BE TAKEN

For format 1, after the possible hardware troubleshooting, advance through the data table by issuing the EX:PAUSE command again or by issuing the EX:STEP command.

For formats 2, 3, and 4, reenter the input command after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input command. Use the OP:DMQ input command to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the

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queue. Wait until the desired interactive diagnostic request becomes active, or use the STOP:DMQ input command to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. REFERENCES

OMDB Key

Format 1 has an OMDB key of 46.

Formats 2, 3, and 4 have an OMDB key of 77.

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Input Messages

EX:CU

EX:DCI

EX:DFC

EX:DUIC

EX:IOP

EX:MHD

EX:MTC

EX:MTTYC

EX:PAUSE

EX:SDLC

EX:STEP

EX:TTYC

OP:DMQ

STOP:DMQ

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ID EX:RPCN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

- [1] EX:RPCNa 0 b {ATP|CATP|NTR|STF} [c]

[2] EX:RPCNa 0 PH d {ATP|CATP|NTR|STF} [c]
[TEST MISMATCH
e f]

2. REASON FOR OUTPUT

To print the results of a diagnostic run on a Ring Peripheral Controller Node (RPCN) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 is printed whenever the diagnostic results are printed for an individual phase.

3. VARIABLE FIELD DEFINITIONS

- a A Ring Node (RN) group number (00-63).
b Termination mode of diagnostic.
ABORTED — Diagnostic was abnormally stopped due to an external or internal error in execution, or a STOP:DMQ input request.
COMPLETED — Diagnostic completed normally.
TERMINATED — Diagnostic terminated under program control (early termination), since further testing would not improve diagnostic resolution.

ATP All tests passed
CATP All tests that were executed were ATP. Some tests were not executed due to the unavailability of a system resource that was needed to perform the test, or due to the inability to isolate, or to singularly isolate, the node under test.

NTR No tests run.
STF Some tests failed.

c If CATP or NTR, Identifies the reason that tests were skipped in this phase by their bit position in a 16-character hexadecimal number. For example, if c = 00000000 00000006, tests were skipped for reasons 1 and 2.

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The reason codes are as follows:

- Bit 0 — Helper unit invalid or not specified.
- Bit 1 — Helper unit cannot be reserved.
- Bit 2 — Helper unit not out-of- service.
- Bit 3 — Helper CU is not ATP.
- Bits 4 to 29 — Unused.
- Bit 30 — Node under test was the only isolated node.
- Bit 31 — Node under test was not isolated.
- Bits 32 to 63 — Unused.

If STF, number of test failures in addition to the reasons that tests were skipped. For example, if c = 7 00000000 00000006, seven tests failed, plus tests were skipped for reasons 1 and 2.

If STF for Format 2, identifies the reason that some tests were skipped. This field is the same as the field in Format 1 except that the result of only one phase is reflected.

- d Phase number.
- e Test number of the failing test.
- f An 8-digit hexadecimal number that indicates the bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.

4. ACTION TO BE TAKEN

If CATP, the needed system resource should be made available if possible, so that all tests may be executed.

If STF, the unit should be repaired as quickly as possible.

5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*
Diagnostics User's Guide Section

Input Messages
EX:RPCN
STOP:DMQ

Output Message
RMV:RPCN

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ID EX:SCSDC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX SCSDC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX SCSDC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX SCSDC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] EX SCSDC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] EX SCSDC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] EX SCSDC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To report the results of an interactive mode diagnostic run on the Scanner and Signal Distributor Controller (SCSDC).

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number (0 or 1).
b	The result of the diagnostic: ATP — All tests pass. NTR — No tests were run. STF — Some tests failed.
c	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines which bits are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Message
EX:TTYC

Output Messages
DGN:TTYC
STOP:DMQ

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ID EX:SDLC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX SDLC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX SDLC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX SDLC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] EX SDLC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] EX SDLC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] EX SDLC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To report the results of an interactive mode diagnostic run on the Synchronous Datalink Controller (SDLC).

Format 1 specifies the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number (0 or 1).
b	The result of the diagnostic: ATP — ALL tests pass. NTR — No tests were run. STF — Some tests failed.
c	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines which bits are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Message
EX:TTYC

Output Message
DGN:TTYC

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ID EX:STARTED
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

EX:STARTED AT STATEMENT 1

2. REASON FOR OUTPUT

To report the system has responded to an initial EX:LN or EX:RPCN interactive diagnostic input command, and is ready to accept further interactive input commands.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Advance through the data table by issuing the EX:PAUSE command or by issuing the EX:STEP command.

5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Diagnostics User's
Guide Section

Input Messages

EX:LN
EX:PAUSE
EX:RPCN
EX:STEP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EX:STEP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX STEP a [b] SUSPENDED AT ST c
- [2] EX STEP REQUEST NOT YET ACTIVE NO ACTION TAKEN
- [3] EX STEP REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN
- [4] EX STEP ILLEGAL REQUEST TYPE NO ACTION TAKEN

2. REASON FOR OUTPUT

To report the result of executing an EX:STEP interactive diagnostic command as part of an interactive diagnostic procedure.

Format 1 prints when the interactive diagnostic is suspended.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

- a Unit type and member number of unit under test.
- b Unit type and member number of the subunit under the unit under test.
- c Data table statement number.

4. ACTION TO BE TAKEN

For format 1, after the possible hardware troubleshooting, advance through the data table by issuing the EX:STEP command again or by issuing the EX:PAUSE command.

For formats 2, 3, and 4, reenter the input command after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input command. Use the OP:DMQ input command to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the

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queue. Wait until the desired interactive diagnostic request becomes active, or use the STOP:DMQ input command to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. REFERENCES

OMDB Key

Format 1 has an OMDB key of 46.

Formats 2, 3, and 4 have an OMDB key of 77.

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Input Messages

EX:CU

EX:DCI

EX:DFC

EX:DUIC

EX:IOP

EX:MHD

EX:MTC

EX:MTTYC

EX:PAUSE

EX:SDLC

EX:SCSDC

EX:STEP

EX:TTYC

OP:DMQ

STOP:DMQ

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ID EX:STOP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX STOP REQUEST NOT YET ACTIVE NO ACTION TAKEN
- [2] EX STOP REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN
- [3] EX STOP ILLEGAL REQUEST TYPE NO ACTION TAKEN

2. REASON FOR OUTPUT

To report the result of executing an EX:STOP interactive diagnostic command but the appropriate interactive request could not be found.

Format 1 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

4. ACTION TO BE TAKEN

For formats 1, 2, and 3, reenter the input command after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input command. Use the OP:DMQ input command to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the STOP:DMQ input command to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. REFERENCES

OMDB Keys

Formats 1, 2, and 3 have an OMDB key of 77.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
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Input Messages

EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:IOP
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SDLC
EX:SCSDC
EX:STEP
EX:TTYC
OP:DMQ
STOP:DMQ

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EX:TTYC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EX TTYC a [COMPLETED] b [(c)]
{MESSAGE|MSG} {IN PROGRESS|COMPLETE}
- [2] EX TTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}
- [3] EX TTYC a PH d STF (c) MSG IP
TEST MISMATCH ACTUAL MASK EXPECTED
e f [g|N/A] [h|N/A] [i|N/A]
- [4] EX TTYC a ABORTED AT PH d STMNT j b [(c)] MSG IP
- [5] EX TTYC a TERMINATED AT PH d STMNT j AFTER TEST k
- [6] EX TTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

2. REASON FOR OUTPUT

To print results of a diagnostic run on the Teletypewriter Controller (TTYC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active Deferred Maintenance Queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

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3. VARIABLE FIELD DEFINITIONS

a	Member number.
b	The result of the diagnostic: ATP — All tests passed. NTR — No tests were executed. STF — Some tests failed.
c	If the result of the diagnostic is STF it identifies the number of test failures in addition to the reasons that tests were skipped. For example, (7 00000000 00000000), seven tests failed, and no tests were skipped.
d	Phase number.
e	Test number of the failing test.
f	The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.
g	The bits which were actually received from the hardware device.
N/A	Data not available for the specified hardware device.
h	Determines which bits are of interest to this test.
i	The value which the test expected.
j	Last statement successfully executed before the diagnostic terminated.
k	Current test number when diagnostic terminated.
l	Task number assigned to the request.

4. ACTION TO BE TAKEN

If the result of the diagnostic is STF, the unit should be repaired as quickly as possible. Refer to Practice 235-105-220 for the repair procedures.

5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 96 and 103.
- Format 2 has OMDB keys of 99 and 111.
- Format 3 has OMDB keys of 109 and 110.
- Format 4 has OMDB keys of 106, 109, 110, and 111.
- Format 5 has an OMDB key of 217.
- Format 6 has OMDB keys of 70 and 99.

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Practice 235-105-220 *Corrective Maintenance Procedures*

Input Messages

EX: TTYC

STOP: DMQ

Output Message

DGN: TTYC

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ID EXC:E-PROC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EXC ENVIR PROC a {STARTED|IN PROGRESS|COMPLETED}
b
- [2] EXC ENVIR PROC a STOPPED
{CAN'T EXECUTE PROCESS a | ERRNO=c | NO CHILD PROCESS}

2. REASON FOR OUTPUT

To report the execution of a kernel or supervisor process.

Format 1 is printed if the process was run in the foreground.

Format 2 is printed if the process was run in the background.

NOTE: STARTED, IN PROGRESS, and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

- a Pathname specified in the input command.
- b Result of the process executed.
- c System error code number. See System Error Codes Output Appendix, APP:SYSERR.

4. ACTION TO BE TAKEN

Refer to the input message for the correct format, and reenter the input message or check the status of the file using the OP:ST-LSTDIR input message if either of the first two Format 2 messages is printed.

Use the ALW:F-ACCESS input message to make the file executable, if necessary.

Seek technical assistance if the third Format 2 message or any other error message is printed.

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5. REFERENCES

OMDB Key

This message has an OMDB key of 288.

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description*
3B20D/3B21D Processor

Output Appendix

APP:SYSERR

Input Messages

ALW:F-ACCESS

EXC:E-PROC

EXC:E-UPROC

OP:ST-LSTDIR

Output Message

OP:ST-LSTDIR

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ID EXC:E-UPROC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EXC ENVIR UPROC {STARTED | IN PROGRESS SEGMENT a |
COMPLETED [SEGMENT a] | STOPPED}
- [2] EXC ENVIR UPROC a STOPPED {[b] |
CANNOT EXEC c, ERRNO d | CANNOT CREATE A NEW PROCESS}
- [3] EXC ENVIR UPROC - PID = e

2. REASON FOR OUTPUT

Prints in response to a EXC:E-UPROC input message.

Format 1 is printed to report the result of executing a user process.

Format 2 is printed to report the reason the process was STOPPED.

Format 3 is printed to give the Process Identification (PID) if the process was executed in the background.

NOTE: STARTED, IN PROGRESS, and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

The STOPPED message appears when an error occurs in the executed pathname.

The SEGMENT information appears with IN PROGRESS and optionally with COMPLETED messages for segments 2 or greater.

3. VARIABLE FIELD DEFINITIONS

- a The number of segments output.
- b Result of the process executed. (Output will be zero, one, or multiple lines depending on the process executed.)
- c Pathname specified in the input message.
- d System error code. See System Error Codes Output Appendix, APP:SYSERR.

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e User Process Identification (PID).

4. ACTION TO BE TAKEN

Refer to the input messages for the correct format, and reenter the input message or check the status of the file using the OP:ST-LSTDIR input message if the CAN'T EXEC message is printed.

Use the ALW:F-ACCESS input message to make the file executable, if necessary.

Seek technical assistance if CAN'T CREATE or any other error message appears.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 280.

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description*
3B20D/3B21D Processor

Output Appendix

APP:SYSERR

Input Messages

ALW:F-ACCESS

EXC:E-PROC

EXC:E-UPROC

OP:ST-LSTDIR

Output Message

OP:ST-LSTDIR

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ID EXC:LFS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two output formats:

[1] EXC LFS STARTED
LFS a b c [NEAR|FAR] d LBK ATTRIBUTES

LPBK CMPT	TEST PATTERN	MEAS DUR	ERROR TYPE	THR VALUE	NLST SYNC	NER BITS
-----	-----	-----	-----	-----	-----	-----
e	f	g	h	i	j	k
.	.	.	.	.	.	.
.	.	.	.	.	.	.

[2] EXC LFS COMPL
LFS a b REQUEST DENIED
l

2. REASON FOR OUTPUT

Format 1 is used in acknowledgment of an input EXC:LFS request.

Format 2 is used when an link fault sectionalization (LFS) request is rejected.

3. VARIABLE FIELD DEFINITIONS

- a Link group number (0-63).
- b Link member number (1-15).
- c Number of loopback components specified in the EXC:LFS command line.

TEST sequence progression specifier:

NEAR — Indicates LFS test started from the nearest specified loopback component to the farthest.

FAR — Indicates LFS test started from the farthest specified loopback component to the nearest.

- d Repetitive (>1) or single (1) operation. Must be a value in the range: (1-99).

1 — Indicates 1st operation of the loopback component.

2 — Indicates the 2nd operation of a unique loopback component.

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- e Specific loopback component (LC). Must be one of the following:
CSUL, CSUN, DSUL, DSUN, NEI, REM, RPT1 and RPT2 DPuu, where uu is a number in the range: (01 through 99 inclusive).
- f Test pattern type for LBK component.
- g Measurement duration of the test in hours, minutes, seconds respectively specified for the designated LC.
- h Errored threshold type specified for the designated LC.
- i Error threshold value specified for the designated LC.
- j Maximum number of lost synchronization specified for the indicated LC.
- k Maximum number of errored bits indicated for the designated LC.
- l Reason for rejecting the EXC:LFS input message. Possible reasons include the following:
Composite clock failure.
Invalid major state, valid state = AVL/UNA.
Invalid minor state, valid state = MOOS.
Invalid minor state, valid state = TEST.
LFS test in progress.
LFS test not in progress.
LID0 hardware failure.
LID0 software malfunction.
Link not in proper state to execute LFS.
Link not out of service.
Local loopback currently operated.
Manual near-end initiated LFS test in progress.
Manual remote initiated LFS test in progress.
Maximum LFS sessions exceeded, Retry later.
Near-end not equipped with a DS0-A SS7 link interface.
Network loopback currently operated.
Network loopback not operated.
Node cannot open LID0 channel.
Node out of service.
Overall test sequence exceeds 48 hours.
Remote loopback currently operated.
Remote loopback set in NEI mode.
Remote loopback set in OCU mode.
SLM is not in Proper state to execute LFS.
Timed out awaiting node response.

4. ACTION TO BE TAKEN

None.

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5. REFERENCES

Input Message
EXC:LFS

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ID EXC:LID0
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has four output formats:

- [1] EXC LID0 COMPL
LFS a b STATUS
NETWORK-INITIATED REMOTE LOOPBACK {RELEASED|OPERATED}
COMMAND-INITIATED REMOTE LOOPBACK {RELEASED|OPERATED}
LOOPBACK SELECT CODE: c
LFS TEST STATE: d
- [2] EXC LID0 COMPL
e
- [3] EXC LID0 COMPL
LFS a b IDLE
- [4] EXC LID0 COMPL
REQUEST DENIED
NO EXC:LID0(a,b):{NEI or EXC:LID0 (a,b) OCU - IN EFFECT

2. REASON FOR OUTPUT

- Format 1: Used in response to the command EXC:LID0 (with STATUS parameter).
- Format 2: In response to the command EXC:LID0 (with OPERATE|RELEASE parameters).
In response to the command EXC:LID0 (with OCUL|NEI parameters).
- Format 3: In response to the command EXC:LID0 (with IDLE parameter).
- Format 4: Rejects the command EXC:LID0 (with OPERATE|RELEASE parameters).
Rejects the command EXC:LID0 (with OCUL|NEI parameters).

3. VARIABLE FIELD DEFINITIONS

- a Link group number (0-63).
- b Link member number (1-15).
- c Current loopback select code (LSC) value for the network loopback device, if applicable. Must be one of the following:

NEI — Network element interface latching loopback.

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OCU — Office channel unit latching loopback.

NOT APPLICABLE

d Current link fault sectionalization (LFS) TEST STATE. Must be one of the following:

MLFS — Indicates manual LFS testing in progress.

RLFS — Indicates remote LFS test in progress.

e Disposition of link interface DS0-A (LID0) loopback. Must be one of the following:

Loopback operated.

Loopback released.

Loopback select code set to network element interface (NEI).

Loopback select code set to office channel unit latching loopback (OCUL).

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
EXC:LFS
EXC:LID0

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ID EXC:MRVT
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 3 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] EXC:MRVT PC a STPS b NO TRACE e n SUCCESS
- [2] EXC:MRVT PC a STPS b TRACE e n SUCCESS
STPS CROSSED c
- [3] EXC:MRVT PC a STPS b d e n f
MRVA MESSAGES RECEIVED j k l
STPS CROSSED [c]
ERRORS DETECTED
g h
i
- [4] EXC:MRVT PC a STPS b FAILURE, m

2. REASON FOR OUTPUT

Prints in response to an MRVT request. The output will be directed to the standard output associated with the initiator of the test, and also to the maintenance class. If they are the same device, only one printout will occur.

Format 1 prints when the MRVT is successful and the MRVT user did not request a trace.

Format 2 prints when the MRVT is successful and the user requested a trace.

Format 3 prints when either a partial success or failure occurs.

Format 4 prints by the initiating Signaling Point (SP) if the MRVT message cannot be sent due to local conditions.

3. VARIABLE FIELD DEFINITIONS

- a The point code of the terminating node for the test:
1) ANSI® Standard- nnnccmmm, 2) AT&T- nnnrrcmmm
Where:
 - c The cluster identifier
 - m The member identifier
 - n The network identifier
 - r The region identifier

NOTE: Non-local network point codes always use ANSI® standard format.

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- b Value of the parameter N, which is the maximum number of STPs the MRVT is allowed to cross.
- c The list of STP point codes in the trace of a received MRVR message indicating success. If multiple success-indicating MRVR messages were received, this line would be printed for each such message (three success-indicating MRVR messages result in three lists of point codes).
- NOTE:** In Format 3, if f = FAILURE, item c will not be present in the output.
- d NO TRACE — If the user did not request a trace of all the STPs crossed. TRACE — If the user requested a trace of all the STPs crossed.
- e NO SRC — If the user requested NO SRC.
SRC — If the user requested an SRC, or made no entry for SRC.
- f FAILURE
PARTIAL SUCCESS
SUCCESS
- g Text phrase that describes the problem found:
ASYMMETRICAL ROUTE
EXCESSIVE LENGTH ROUTE
INACCESSIBLE SIGNALING POINT
LOOP
SUCCESS TO GATEWAY
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS
TIMER EXPIRED
UNKNOWN ERROR CODE
UNKNOWN INITIATOR POINT CODE
UNKNOWN TERMINATOR POINT CODE
WRONG SIGNALING POINT
- n ASTN — User requested ASTN only.
SS7 — User requested SS7 only.
SS7 ASTN — User requested both.
- h Error number:
1 — Detected loop.
2 — Excessive length route.
3 — Unknown resource instance.

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- 4 — Route inaccessible.
- 5 — Processing failure.
- 6 — Unknown initiating SP.
- 7 — Timer expired.
- 8 — Wrong signaling point.
- 9 — Asymmetrical route.
- 10 — Success to gateway.

i

Point code(s) associated with the failure being reported.

Value of g Explanation of i

ASYMMETRICAL ROUTE — The point code of the SP that detected the asymmetrical route followed by the point code of the SP that sent the MRVT message causing the asymmetrical route.

EXCESSIVE LENGTH ROUTE — Point code of the SP detecting the excessive length route, followed by the point codes paired with the route priorities that were in the route up to the detecting SP.

INACCESSIBLE SIGNALING POINT — Point code of the SP that cannot access the inaccessible SP, followed by the point code of the inaccessible SP.

LOOP — Point code of the Signaling Point (SP) detecting the loop, followed by the point codes paired with the routing priorities used to get to the point codes enclosed in parentheses.

1 — Primary route.

2 — F-links.

3 — Alternate route.

SUCCESS TO GATEWAY — The point code of the gateway followed by the point codes paired with routing priorities used to get to the gateway and the nonlocal gateway point code.

TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS — Point code of the SP that cannot run the test.

TIMER EXPIRED — Point code of the SP where the timer expired, followed by the list of point codes from which expected MRVA messages were not received.

UNKNOWN ERROR CODE — The error number received that is not on the preceding list.

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UNKNOWN INITIATOR POINT CODE— Point code of the reporting SP, followed by the point code of the SP that does not know the initiator.

UNKNOWN TERMINATOR POINT CODE— Point code of the SP that doesn't know the terminator, followed by the unknown terminator point code.

WRONG SIGNALING POINT— Point code of the SP that detected the error followed by the list of point codes in the TRACE.

NOTE: If multiple errors were detected, items g, h, and i will be printed for each error received.

j Point code of the SP from which the MRVA message was received.

k FAILURE

PARTIAL SUCCESS

SUCCESS

l The failure type in hexadecimal notation. At an intermediate SP, the failure types from the MRVAs received are logically ORed together. The initiating SP then prints the aggregate of failure types received in its MRVAs. MRVA failure types and the bits that represent them:

Asymmetrical route	— 0000 0000 1000 0000
Detected loop	— 1000 0000 0000 0000
Excessive length route	— 0100 0000 0000 0000
Processing failure	— 0000 1000 0000 0000
Route inaccessible	— 0001 0000 0000 0000
Success	— 0000 0000 0000 0000
Success to gateway	— 0000 0000 0100 0000
Timer expired	— 0000 0010 0000 0000
Unknown initiating SP	— 0000 0100 0000 0000
Unknown resource instance	— 0010 0000 0000 0000
Wrong signaling point	— 0000 0001 0000 0000

Example: MRVA MESSAGES RECEIVED
254999000 FAILURE 0x8200

The preceding MRVA had two errors:

- 1) detected loop - 0x8000
- 2) timer expired - 0x0200

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m Text phrase that describe the problem found:
MAXIMUM MRVTS ALREADY IN PROGRESS
MRVT ALREADY IN PROGRESS WITH TERMINATOR
NO NEW TRANSACTIONS ALLOWED
SRC SHOULD BE 0 FOR ASTN
STPS NOT IN 0 - 15 RANGE
TERMINATOR IS UNKNOWN
TERMINATOR IS UNKNOWN VIA ASTN
TERMINATOR IS DCIS6 POINT CODE
TERMINATOR IS ALIAS FOR LOCAL PC
TERMINATOR SAME AS ORIGINATOR
UNABLE TO GET ASTN ROUTING

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages

CHG:MRVT

EXC:MRVT

Output Messages

CHG:MRVT

REPT:MRVR

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ID EXC:OFLBOOT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] EXC OFLBOOT {STARTED|IN PROGRESS|ABORTED|STOPPED|TERMINATED}
- [2] EXC OFLBOOT a
b
OLBSTATE LASTATE FUNCTION LINE
c d e f
- [3] EXC OFLBOOT a
b g h
OLBSTATE LASTATE FUNCTION LINE
c d e f
- [4] EXC OFLBOOT a
g h [i] b
OLBSTATE LASTATE FUNCTION LINE
c d e f
- [5] EXC OFLBOOT a
b [j | k]

2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

- a Message type:
- ABORTED — Application request to stop the offline boot procedure; devices moved to the off-line side will be restored.
- COMPLETED — Indicates off-line side boot has completed.
- INFO — For information only.
- STOPPED — Manual request to stop the offline boot procedure. If the RST option was specified, devices moved to the off-line side will be restored.
- TERMINATED — UNIX® RTR software-initiated termination of the offline boot procedure; devices moved to the off-line side will not be restored.

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b

Text Line:

A CU IS FORCED — Printed by EXC:OFLBOOT if either CU 0 or CU 1 is forced on-line.

AIM REPORTED CHECKS FAILURE — AIM pre-offboot checks have failed.

AND NEITHER OOS NOR UCL WAS SPECIFIED — The specified unit is in the OOS state. For units in this state either the OOS or UCL options must be specified on the command line.

BOOT IN PROGRESS — Indicates the off-line side is booting.

BOTH IOP 0 AND IOP 1 CANNOT BE MOVED TO OFFLINE SIDE — Printed if both IOP 0 and IOP 1 were selected to move to the off-line side.

CANNOT ACCESS ECD — EXC:OFLBOOT encountered problems accessing ECD device information.

CANNOT BOOT FROM THIS DEVICE — It is not possible to boot from a device that is off-line for initialization level 2.

CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR j — A message requesting AIM to perform offline boot prechecks cannot be sent to the AIM process. Reason for failure is given in variable j.

CANNOT UPDATE ECD — The RC/V ECD cannot be updated. The reason is dependent on the function e printed:

DFS	Could not reserve a unit's UCB record as part of EXC:OFLBOOT pre-checks.
-----	--

UNRESERVE	Could not unreserve a UCB record while stopping offline boot. Some units' UCB records may remain reserved.
-----------	--

CANNOT VERIFY IF RC/V ECD SESSION IS IN PROGRESS — The timer for verifying if a disk RC/V ECD session is in progress has expired before the process that checks this responds.

CORRUPT ECD UCB RECORD FOR g h — EXC:OFLBOOT encountered inconsistent information about a device from RC/V ECD. For example, EXC:OFLBOOT accessed the RC/V ECD UCB record for a DFC and the device type in the UCB record is not DFC.

COULD NOT BUILD TABLE FOR UNKNOWN DEVICE — Indicates an illegal instruction inside EIH. Offline boot will be terminated.

SEE PROPRIETARY NOTICE ON COVER PAGE

DFC 2 OOS DFC 3 ACT AND UCL WAS NOT SPECIFIED — When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If DFC 2 is in the OOS state and DFC 3 is in the ACT state, the UCL option is required. Offline boot will be terminated.

DFC 2 OOS DFC 3 OOS AND UCL WAS NOT SPECIFIED — When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If both DFC 2 and DFC 3 are in the OOS state, the UCL option is required. Offline boot will be terminated.

DFC 3 OOS DFC 2 ACT AND UCL WAS NOT SPECIFIED — When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If DFC 3 is in the OOS state and DFC 2 is in the ACT state, the UCL option is required. Offline boot will be terminated.

DIAGNOSTICS IN PROGRESS — Indicates the specified device's RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

EXCEEDED STORAGE CAPACITY FOR STORING DEVICE INFORMATION — Indicates overflow in internal tables holding device information for offline boot.

HAS CORRUPT UNIT NUMBER — The unit number for the MTTYC is greater than or equal to 2 and this is invalid.

HAS DEVICE TYPE ROP — A UCB record with device type ROP was found whose parent controller was not MTTYC or TTYC.

IN DISK INDEPENDENT OPERATION MODE — Printed if the system is in disk independent operation mode.

INITLVL 2 INCOMPATIBLE WITH ANY MHD IN OFL STATE — Invoking offline boot with initialization level 2 will be rejected if any MHD is in the OFL state. Offline boot will be terminated.

MODE MUST BE OLBIDLE TO BOOT OFFLINE — This message indicates that either offline boot is already in progress or offline boot is not supported.

MUST BE ACT OR OOS FOR SPLITTING — When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

SEE PROPRIETARY NOTICE ON COVER PAGE

MUST BE ACT FOR INITLEVEL 2 — The TTY device selected to be the off-line pseudo-ROP is OOS. Also selected was an initialization level 2. Because devices are not automatically restored during this level of initialization, the TTY would have remained OOS in the off-line side after the initialization, that is, there would not have been a pseudo-ROP in the off-line side. This condition cannot be overridden with the OOS or UCL options.

MUST BE STBY FOR INITLEVEL 2 — Boot level 2 was selected and the off-line CU is not in the STBY state. The incorrect state is given in variable j.

NO DISK FORCED — Indicates a DFC is not forced.

NO EXC OFLBOOT IN PROGRESS MESSAGE WILL PRINT — Printed when all internal timer slots have been used and a new timer cannot be obtained to print the EXC-OFLBOOT, IN PROGRESS messages.

NO TIMER SLOTS AVAILABLE — Printed when all internal timer slots have been used. Timer slots are freed at this point.

NOT ACTIVE — Printed if the specified device is not in the ACT state. The incorrect state is given in variable j.

NOT SPLITTING - DFC 2 UNEQIP — When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

NOT SPLITTING - DFC 3 UNEQIP — When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

OFFLINE SIDE BOOT COMPLETED — The offline side boot sequence completed successfully.

OFFLINE SIDE BOOT COMPLETED WITH ERRORS — The offline side boot sequence completed with errors. A REPT:OFLBOOT message was printed to explain the error.

OLBSTATE c NOT EXC_LCKECD — Printed if offline boot is not in the EXC_LCKECD state when EXC:OFLBOOT expects it to be. OLBSTATE is corrupt or an internal timer was not cleared correctly.

SEE PROPRIETARY NOTICE ON COVER PAGE

OLBSTATE c NOT EXC_PRCK — Printed if offline boot is not in the EXC_PRCK state when EXC:OFLBOOT expects it to be. OLBSTATE is corrupt or an internal timer was not cleared correctly.

OLBSTATE MUST BE OLBIDLE TO BOOT OFFLINE — This message indicates that either an offline boot is already in progress or the value stored in OLBSTATE is corrupted.

ONLY ONE BOOT DEVICE — Only one boot device is installed. Minimally, both MHD 0 and MHD 1 need to be installed for a system to be considered fully duplex.

SPECIFIED TTY DOES NOT EXIST — The TTY device specified in the command line is invalid.

STATE UNACCEPTABLE FOR OFFLINE BOOT — The major state of a device is not in the state needed while attempting to boot off-line. The incorrect state is given in variable j.

SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS — Printed if command line options do not match system status. This message will be output if any of the conditions are true:

- required unit is OOS and neither OOS nor UCL was specified
- specified TTY does not exist
- specified IOP does not exist
- both IOP 0 and IOP 1 are selected for moving
- a primary disk was not forced
- a CU is forced
- only one bootable disk is available or one of the bootable disks is not equipped
- mate CU state is not STBY or OOS
- if any RC/V ECD UCB record is reserved.

This list is not exhaustive. Additional information is provided in a previous output message. Refer to it for a description of the problem.

TIME OUT -- AIM OFLBOOT PRECHECKS — Printed when the timer for AIM offline boot prechecks expires.

TIME OUT -- CANNOT SPAWN USER PROCESS — Printed when a timer expires for creating a process to verify if a disk RC/V ECD session is in progress.

UCL PASSWD FILE CANNOT BE OPENED FOR WRITING — See action to be taken.

SEE PROPRIETARY NOTICE ON COVER PAGE

UCL PASSWD FILE DOES NOT EXIST, SET TO k—The password file does not exist when the UCL option is used for the first time. A new encrypted password k is generated automatically.

UCL PASSWD FILE HAD BAD FORMAT, RESET TO k—Either the file was empty or its contents was damaged. A new encrypted password k is generated automatically.

UCL PASSWD IS INVALID, RESET TO k—The password supplied by the user is incorrect. A new encrypted password k is generated automatically.

UNEXPECTED MESSAGE FROM AIM—Indicates a message was received unexpectedly from AIM.

UP POINTER IS INVALID—Printed when the RC/V ECD UCB record for a device (containing the up pointer) has been corrupted.

WILL BE MOVED TO OFFLINE SIDE—Printed when an IOP has not been selected to be moved to the off-line side, but offline boot selected it to be moved. It was selected because one of its TTYs was listed on the command line.

- c Current offline boot state.
- d Previous offline boot state.
- e Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.
- f Line number in the function e from which the output message originated. This field is used by UNIX® RTR, in conjunction with field e, to diagnose offline boot problems.
- g String giving device type information; CU, DFC, IOP, MHD, TTY, TTYC, and DSCH, for example. Unit names are listed in the Input Member Numbers Appendix, APP:MEM-NUM-C.
- h Device number. A value of zero, when used with g, could form DFC 0, for example.
- i Device state.
- j Reason message could not be sent.
 - 0 — Process is not attached to its port or port is invalid.
 - 8192 — Process cannot queue more messages.
 - 1 — Cannot allocate system message buffer.
- k To obtain a legal password for using the UCL option, seek technical assistance, and provide the encrypted password k. The value k will change every time the UCL option is entered; thus, using the UCL option always requires contacting technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

For Format 1, no action needs to be taken.

For Formats 2, 3, 4, and 5, the action to be taken depends on text line:

A CU IS FORCED — Clear the forced on-line CU and try offline boot again.

AIM REPORTED CHECKS FAILURE — Clear problem with application; try offline boot again.

AND NEITHER OOS NOR UCL WAS SPECIFIED — Either restore the device or add OOS or UCL to the EXC:OFLBOOT command line.

BOOT IN PROGRESS — This message is for information only; no action is needed.

BOTH IOP 0 AND IOP 1 CANNOT BE MOVED TO OFFLINE SIDE — Specify only one primary IOP (IOP 0 or IOP 1) in addition to any other IOPs (IOP 2, IOP 3, etc.). Try offline boot again.

CANNOT ACCESS ECD — Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.

CANNOT BOOT FROM THIS DEVICE — Restore boot device and try offline boot again. If the device cannot be restored, try offline boot again with initialization level 3 or 4.

CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR j — Seek technical assistance.

CANNOT UPDATE ECD — The action to be taken depends on the function e output with the message:

DFS Run RC/V ECD audits. If the audits pass, try offline boot again.

UNRESERVE If diagnostics are not running, then the RC/V ECD UCB record is corrupted; in this case, the UCB record needs to be unreserved manually or through the ECDOWN audit.

CANNOT VERIFY IF RC/V ECD SESSION IS IN PROGRESS — Try offline boot again.

CORRUPT ECD UCB RECORD FOR g h — Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.

COULD NOT BUILD TABLE FOR UNKNOWN DEVICE — Save the ROP output and seek technical assistance.

DFC 2 OOS DFC 3 ACT AND UCL WAS NOT SPECIFIED — Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the EXC:OFLBOOT input message for more information on UCL.

DFC 2 OOS DFC 3 OOS AND UCL WAS NOT SPECIFIED — Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the EXC:OFLBOOT input message for more information on UCL.

SEE PROPRIETARY NOTICE ON COVER PAGE

DFC 3 OOS DFC 2 ACT AND UCL WAS NOT SPECIFIED — Try offline boot again specifying the UCL option.

NOTE: The UCL option inhibits application-initiated aborts during offline boot. See the EXC:OFLBOOT input message for more information on UCL.

DIAGNOSTICS IN PROGRESS — Wait for diagnostics to complete, fix any problems, and then try offline boot again. If diagnostics are not running, the RC/V ECD UCB record is corrupt. In this case, the UCB needs to be unreserved manually or through the ECDOWN audit.

EXCEEDED STORAGE CAPACITY FOR STORING DEVICE INFORMATION — Save the ROP output and seek technical assistance.

HAS CORRUPT UNIT NUMBER — Run audits ECD 1 and ECD 3. If the audits pass, verify RC/V ECD UCB record for this MTTYC; the unit value should be 0 or 1. Try offline boot again.

HAS DEVICE TYPE ROP — Run audits ECD 1 and ECD 3. If the audits pass, verify RC/V ECD UCB record for this unit. The device type of the ROP controller must be MTTYC or TTYC. Try offline boot again.

IN DISK INDEPENDENT OPERATION MODE — This message is for information only; no action is needed.

INITLVL 2 INCOMPATIBLE WITH ANY MHD IN OFL STATE — Either change the state of affected devices from OFL or specify INITLVL 3 or 4; then try offline boot again.

MODE MUST BE OLBIDLE TO BOOT OFFLINE — Allow the existing offline boot process to complete or seek technical assistance.

MUST BE ACT OR OOS FOR SPLITTING — This message is for information only; no action is needed.

MUST BE ACT FOR INITLEVEL 2 — Restore the specified TTY, or select another TTY that is ACT, or do not specify the TTY option, or use initialization level 3 or 4.

MUST BE STBY FOR INITLEVEL 2 — Change the state of this device to the state needed by EXC:OFLBOOT; try offline boot again.

NO DISK FORCED — Force a DFC; try offline boot again.

NO EXC OFLBOOT IN PROGRESS MESSAGE WILL PRINT — This message is for information only; no action is needed.

NO TIMER SLOTS AVAILABLE — This message is for information only; no action is needed.

NOT ACTIVE — Change the state of this device to the state needed by EXC:OFLBOOT; try offline boot again.

NOT SPLITTING - DFC 2 UNEQIP — This message is for information only; no action is needed.

NOT SPLITTING - DFC 3 UNEQIP — This message is for information only; no action is needed.

SEE PROPRIETARY NOTICE ON COVER PAGE

OFFLINE SIDE BOOT COMPLETED — This message is for information only; no action is needed

OFFLINE SIDE BOOT COMPLETED WITH ERRORS — See associated REPT:OFLBOOT message for explanation of error. Do NOT start a side switch without first seeking technical assistance.

OLBSTATE c NOT EXC_LCKECD — Seek technical assistance.

OLBSTATE c NOT EXC_PRCK — Seek technical assistance.

OLBSTATE MUST BE OLBIDLE TO BOOT OFFLINE — Allow the existing offline boot process to complete or seek technical assistance.

ONLY ONE BOOT DEVICE — Add another boot disk; try offline boot again.

SPECIFIED TTY DOES NOT EXIST — Choose a valid TTY and try offline boot again.

STATE UNACCEPTABLE FOR OFFLINE BOOT — Change the state of this device to the state needed by EXC:OFLBOOT; try offline boot again.

SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS — No action is needed.

TIME OUT -- AIM OFLBOOT PRECHECKS — Try offline boot again.

TIME OUT -- CANNOT SPAWN USER PROCESS — Try offline boot again.

UCL PASSWD FILE CANNOT BE OPENED FOR WRITING — The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance to manually construct a valid password file.

UCL PASSWD FILE DOES NOT EXIST, SET TO k — The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password k to obtain a legal password, and try offline boot again.

UCL PASSWD FILE HAD BAD FORMAT, RESET TO k — The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password k to obtain a legal password, and try offline boot again.

UCL PASSWD IS INVALID, RESET TO k — The use of the UCL option is not recommended; please, try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, seek technical assistance, provide the encrypted password k to obtain a legal password, and try offline boot again.

UNEXPECTED MESSAGE FROM AIM — Seek technical assistance.

UP POINTER IS INVALID — Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.

WILL BE MOVED TO OFFLINE SIDE — This message is for information only; no action is needed.

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5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 690.
Format 2 has an OMDB key of 704 or 707.
Format 3 has an OMDB key of 705.
Format 4 has an OMDB key of 706.
Format 5 has an OMDB key of 699 or 708.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Input Appendix

APP:MEM-NUM-C

Input Messages

EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT

Output Messages

REPT:OFFLINE
REPT:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EXC:SRVT
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 4 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] EXC:SRVT TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
[,TPC e],NTSP f,n
SRVA MESSAGES RECEIVED
k m

- [2] EXC:SRVT TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
[,TPC e],NTSP f,TRACE n
SRVA MESSAGES RECEIVED
k m
TSPs CROSSED
h

- [3] EXC:SRVT TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
[,TPC e],NTSP f,TRACE g
SRVA MESSAGES RECEIVED
k m
i
TSPs CROSSED
h
ERRORS DETECTED
i j

- [4] EXC:SRVT1 TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
[,TPC e],NTSP f,n
EXC:SRVT2 TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
[,TPC e],NTSP f,n
SRVA MESSAGES RECEIVED
k m

- [5] EXC:SRVT1 TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
[,TPC e],NTSP f,TRACE n
EXC:SRVT2 TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
[,TPC e],NTSP f,TRACE n
SRVA MESSAGES RECEIVED
k m
TSPs CROSSED
h

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```
[6]    EXC:SRVT1 TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
      [,TPC e],NTSP f,TRACE g
      EXC:SRVT2 TYPE a[,PLAN b,SCHEME c],DIGITS d [,CCC cccc]
      [,TPC e],NTSP f,TRACE g
      SRVA MESSAGES RECEIVED
      k m
      i
      TSPs CROSSED
      h
      ERRORS DETECTED
      i j
```

2. REASON FOR OUTPUT

If no Translation Point Code (TPC) is specified in the SCCP Routing Verification Test (SRVT) initiation command and the initiating Signaling Point (SP) does not know how to obtain the Global Title Translation (GTT) for the specified Global Title (GT), the SP responds with **UNABLE TO DERIVE TPC**. In case of error in data entered in the initiation command, this message is followed by an appropriate indication identifying parameter(s) in the initiation command found to be in error by the SP. Otherwise one of the preceding formats is possible.

Prints out in response to the SRVT. The output will be directed to the standard output device associated with the initiator of the test, and to the maintenance class. If they are the same device, only one printout will occur.

Prints when one SRVT Request or Verify message was sent. The SRVT was successful and the SRVT user did not request a trace.

Prints when one SRVT Request or Verify message was sent. The SRVT was successful and the SRVT user requested a trace.

Prints when one SRVT Request or Verify message was sent. Either a partial success or a failure occurred on the SRVT.

Prints when two messages were sent for a single SRVT initiation request. The SRVT was successful and the SRVT user did not request a trace.

Prints when two messages were sent for a single SRVT initiation request. The SRVT was successful and the SRVT user requested a trace.

Prints when two messages were sent for a single SRVT initiation request. Either a partial success or a failure occurred on the SRVT.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Translation type (0 - 254). |
| b | Numbering plan from SCCP protocol, not included unless specified in the initiation command. Currently not used by the STP, may cause an error. |
| c | Encoding scheme from SCCP protocol, not included unless specified in the initiation command. Currently not used by the STP, may cause an error. |

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- d Digits in global title, 19 digits maximum (e.g., an 800 number).
- cccc Country code padded with zeros, up to 4 digits (0001 - 9999).
- e Translation point code to which the initiator should address and send an SRVT message. Not included unless specified in the initiation command. Printed in decimal notation (i.e., 254062001).
- f The maximum number of Translation Signaling Points (TSPs) allowed to be crossed.
- g The word(s) PARTIAL SUCCESS, or FAILURE depending upon the SRVT responses received.
- h The list of TSP point codes of a received SRVR message indicating success. If multiple success - indicating SRVR messages were received, this line would be printed for each such message.
- NOTE:** In Format 3, if g is FAILURE, item h will NOT be present in the output.
- i One of the following text phrases that describes the problem found.

LOOP 1
EXCESSIVE LENGTH ROUTE 2
NO TRANSLATION FOR GLOBAL TITLE 3
INACCESSIBLE SIGNALING POINT 4
INACCESSIBLE SIGNALING POINT 4X
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS 5
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS 5Y
UNKNOWN INITIATOR POINT CODE 6
TIMER EXPIRED 7
MESSAGE ARRIVED AT WRONG SIGNALING POINT 8
INCORRECT TRANSLATION FOR PRIMARY DESTINATION 9
INCORRECT TRANSLATION FOR SECONDARY DESTINATION 10
INCORRECT TRANSLATION FOR INTERMEDIATE TSP 11
NOT PRIMARY DESTINATION 12
NOT SECONDARY DESTINATION 13
PRIMARY DESTINATION NOT RECOGNIZED 14
SECONDARY DESTINATION NOT RECOGNIZED 15
UNRECOGNIZED POINT CODE FROM TRANSLATION 16
UNKNOWN ERROR CODE ZZ

Explanation of 4X values:

- 4A — Congestion
- 4B — Blockage
- 4C — Crossing Network Boundaries
- 4D — Not SS7 Equipped
- 4E — Subsystems Prohibited
- 4F — Received Unitdata Service Message

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Explanation of 5Y values:

- 5A — Processor Overload
- 5B — Test Pertains To GT Which Is Already Under Test
- 5C — Tests Limit Threshold Exceeded

Explanation of ZZ values:

The ZZ can be any code aside from the previous listed codes. ZZ is an invalid error code.

j

Point code(s) associated with the failure being reported.

Value of i	Explanation of j
LOOP 1	Point code of TSP detecting the loop followed by the list of point codes in the loop.
EXCESSIVE LENGTH ROUTE 2	Point code of the TSP detecting the excessive length route followed by the point codes that were in the route up to the detecting TSP.
NO TRANSLATION FOR GLOBAL TITLE 3	Point code of the TSP that does not recognize the global title. If the numbering plan or the encoding scheme were included, this error may occur.
INACCESSIBLE SIGNALING POINT 4	Point code of the SP that cannot access the inaccessible SP followed by the point code of the inaccessible SP.
INACCESSIBLE SIGNALING POINT 4X	Point code of the SP that cannot access the inaccessible SP followed by the point code of the inaccessible SP. Detected at initiating SP.
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS 5	Point code of the SP that cannot run the test.
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS 5Y	Point code of the SP that cannot run the test. Detected at initiating SP.

SEE PROPRIETARY NOTICE ON COVER PAGE

Value of i	Explanation of j
UNKNOWN INITIATOR POINT CODE 6	Point code of the reporting SP followed by the point code of the SP that does not know the initiator.
TIMER EXPIRED 7	Point code of the SP where the timer expired followed by the list of point codes from which expected SRVAs were not received.
MESSAGE ARRIVED AT WRONG SIGNALING POINT 8	Point code of the wrong SP followed by a list of point codes that were in the route prior to the wrong SP.
INCORRECT TRANSLATION FOR PRIMARY DESTINATION 9	Point code of the TSP reporting the error in comparison followed by the complete list of TPCS traversed.
INCORRECT TRANSLATION FOR SECONDARY DESTINATION 10	Point code of the TSP reporting the error in comparison followed by the complete list of TPCS traversed.
INCORRECT TRANSLATION FOR INTERMEDIATE TSP 11	Point code of the TSP reporting the error in comparison followed by the complete list of TPCS traversed.
NOT PRIMARY DESTINATION 12	Point code of the incorrect primary destination followed by the list of point codes that were in the route prior to the error.
NOT SECONDARY DESTINATION 13	Point code of the incorrect secondary destination followed by the list of point codes that were in the route prior to the error.
PRIMARY DESTINATION NOT RECOGNIZED 14	Point code of the secondary destination that does not recognize the primary destination followed by the list of point codes that were in the route prior to the error.

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Value of i	Explanation of j
SECONDARY DESTINATION NOT RECOGNIZED 15	Point code of the primary destination that does not recognize the secondary destination followed by the list of point codes that were in the route prior to the error.
UNRECOGNIZED POINT CODE FROM TRANSLATION 16	Point code of the TSP that does not recognize the translation result followed by the list of point codes that were in the route prior to the translating SP.
UNKNOWN ERROR CODE ZZ	Point code of the signaling point reporting the error followed by the list of point codes that were in the route prior to the reporting SP.

NOTE: If multiple errors were detected, items i and j will be printed for each error received.

k	The point code from which the SRVA message was received. Printed in decimal notation.
m	The word(s) SUCCESS, PARTIAL SUCCESS, or FAILURE as encoded in the message received.
n	The word SUCCESS.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Practice 256-090-122, *CNI Maintenance Manual* - SRVT Section

Practice 256-090-187, *CNI Feature Description Manual* - SRVT Section

Input Messages

CHG:SRVT

EXC:SRVT

OP:TPC

Output Messages

CHG:SRVT

OP:TPC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID EXC:T1M
WORK CENTER.. MOC
GENERIC 4AP15 Rel. 2 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] RING EXC T1M COMPL
T1M a b c d e
AT f NETWORK TIME

- [2] RING EXC T1M STOPPED
T1M a b REQUEST DENIED
SLMK FAILED THE (IT) REQ WITH THE REASON OF g

- [3] RING EXC T1M STOPPED
T1M a b (IT) SESSION TERMINATED T1 RETURNED TO NORMAL

- [4] RING EXC T1M STOPPED
T1M a b d REQUEST FAILED
THE c (IT) REQ TIMED OUT WAITING FOR ULN RESPONSE

- [5] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
UNABLE TO SEND (IT) REQ TO SLMK

- [6] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
NEAR END - d - (IT) ALREADY IN PROGRESS

- [7] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
FAR END - d - (IT) ALREADY IN PROGRESS

- [8] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
NO FAR END (IT) ALREADY IN PROGRESS

- [9] RING EXC T1M STOPPED
T1M a b c h d REQUEST DENIED
SLMK (IT) GUARD TIMER TIMEOUT,
T1M CAN'T PROCEED WITHOUT SLMK PERMISSION

- [10] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
NO FAR END YELLOW SIGNAL IN PROGRESS

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- [11] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
NO NEAR END YELLOW SIGNAL IN PROGRESS
- [12] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
NO (IT) IN PROGRESS
- [13] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
NO NEAR END (IT) IN PROGRESS
- [14] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
MAXIMUM (IT) ALREADY IN PROGRESS
- [15] RING EXC T1M STOPPED
T1M REQUEST FAILED
THE c (IT) REQ. AT NODE a b FAILED WITH REASON -
g
- [16] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
NEAR END - d - (IT) REQUEST IN PROGRESS, TRY AGAIN LATER
- [17] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
FAR END - d - (IT) REQUEST IN PROGRESS, TRY AGAIN LATER
- [18] RING EXC T1M STOPPED
T1M a b d REQUEST DENIED
WAITING LNC RESPONSE FOR RNA a b, TRY AGAIN LATER
- [19] RING EXC T1M STOPPED
T1M a b REQUEST DENIED
c (IT) REQ NOT COMPATIBLE WITH CURRENT STATUS
AT f NETWORK TIME
- [20] RING ATR T1M STOPPED
T1M a b s REQUEST DENIED
ATR (IT) ALREADY IN PROGRESS
ACT FE LLB SEQ FLD; LB'S DEACT'D CK INC
ACT FE LLB SEQ FLD; LLB DEACT'D CK FLD
ACT FE LLB SEQ FLD; PLB DEACT'D CK FLD
ACT FE LLB SEQ FLD; LB'S DEACT'D CK OK
DEA FE LLB SEQ FLD; LB'S DEACT'D CK INC
DEA FE LLB SEQ FLD; LLB DEACT'D CK FLD
DEA FE LLB SEQ FLD; PLB DEACT'D CK FLD
DEA FE LLB SEQ FLD; LB'S DEACT'D CK OK
FE CBNMTCE GRD TMR T.O. AWAIT OMAP RESP

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

Prints in response to the EXC:T1M input message.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | The group number of the link node (00-63). |
| b | The member number of the link node (1-15). |
| c | FAR END

NEAR END |
| d | ALL ZERO TEST SIGNAL

HIGH DENSITY TEST SIGNAL

HIGH-DENSITY, LOW-DENSITY, ALL ZERO, OR QUASI-RANDOM SIGNAL

HIGH OR LOW DENSITY OR ALL ZERO SIGNAL

LOW DENSITY TEST SIGNAL

PAYLOAD LOOPBACK

QUASI-RANDOM TEST SIGNAL

YELLOW TEST SIGNAL |
| e | ACTIVATED

DEACTIVATED

UNCONDITIONALLY DEACTIVATED |
| f | Twenty-four hour current network time. |
| g | (IT) REQUEST IN PROGRESS, TRY AGAIN LATER

CBNMTCE GRD TMR T.O. AWAIT T1DH RESP

CBNMTCE MTCE MODE NOT ENAB FOR ITR TST

FE CBNMTCE GRD TMR T.O. AWAIT T1DH RESP

INVALID LINK TYPE FOR T1 TESTING

LNC STOPS T1M TESTING

NODE DOES NOT ACK TO 3B

MAJOR STATE ISN'T AVL/UNA

MINOR STATE ISN'T MOOS

MINOR STATE ISN'T TEST

NODE IS OOS

REQ NOT COMPATIBLE WITH CURRENT STATUS |

SEE PROPRIETARY NOTICE ON COVER PAGE

h SLM ISN'T IN A GOOD STATE TO DO LM
WAITING LNC REPOSE, TRY AGAIN LATER
ACTIVATE
ACTIVATE OR DEACTIVATE
DEACTIVATE

4. ACTION TO BE TAKEN

Formats 1,6,8,10,11,12,13,16,17,18,19,20 None.

Format 2, where g = one of the following states:

INVALID LINK TYPE FOR T1 TESTING
MAJOR STATE ISN'T AVL/UNA
MINOR STATE ISN'T MOOS
MINOR STATE ISN'T TEST

the node must be a Universal Link Node (ULN) or High Speed Link and the link must be in the AVL,MOOS or UNA,TEST state. Put the link in one of the previous mentioned states.

For all other values of g, if the action to be taken is not self explanatory, seek technical assistance.

g = [ACT | DEA] FE LLB SEQ FLD; LB'S DEACT'D CK INC

This message indicates that the request to activate or deactivate a FE LLB failed partially or completely, or partial T1 Facility failure (i.e. facility failure in only one direction) results in the FE LLB status being uncertain.

NOTE: See Appendix 16 for a description of FE LLB activation/deactivation sequences, and differences between Payload Loopback (PLB) and Line Loopback (LLB) capabilities and operation).

If the ACT FE LLB sequence fails (or the FE LLB status becomes unknown) at a step in the sequence beyond which an ACT FE LLB signal was sent toward the FE ULN, then an attempt is automatically made to execute parts of the Deactivate FE LLB sequence, so as not to leave a LLB activated, whenever possible, in an uncertain situation.

Whenever the ...; LB'S DEACT'D CK INC (complete or inconclusive) response is reported, the OSWF/tester should use the OP:T1M,ST...;RAW input message (near-end ULN access) to verify the activated/deactivated status of loopbacks in the Near-End (NE) ULN (and where possible, also in the FE ULN).

SEE PROPRIETARY NOTICE ON COVER PAGE

If the NE ULN's and the FE ULN's loopback status indications get out of agreement (due to directional facility failure, etc), then use the EXC:T1M commands to first clear any out-of-agreement loopback status indications, and then proceed to again activate the loopback from a condition where the loopback status indications are cleared (i.e. and are consistent between the NE and the FE ULN).

Format 3, restart the test session if desired.

Format 4, where c = NEAR END,

1. Verify that the ULN node is restored and that the ULN link state is AVL,MOOS or UNA,TEST.
2. Try the command again. If this second try also fails, then
3. Remove and restore the node, verify the ULN's link is in the proper link state, and try the command again. If this third try also fails, then
4. Enter the `OP:T1M,ST,...;NEULN:RAW` input command to collect information about the status of the ULN and seek technical assistance.

Format 4, where c = FAR END,

- A. Determine whether the T1 facility has failed.
Enter the `OP:T1M,ST,...;NEULN:RAW` input command to get the status of the ULN and the T1 facility. Examine the `OP:T1M,ST` output and verify That the T1 facility has not failed. If the `RSP_STAT UFRYATLO` field is not all zeroes, then use the `OP:T1M` output message to interpret the non-zero indications to determine whether a T1 facility failure has occurred.

If a T1 facility failure has occurred, and if the tester has direct access to the far-end ULN via its far-end STP (i.e., NOT via the failed T1 path), then the tester should be able to start/stop the test signal with the `EXC:T1M,...;NEULN;{START|STOP}` form of the input command on the far-end ULN.

- B. If the T1 facility has NOT failed, and the previous test attempts fail, then:
 1. Remove/restore the near-end ULN, ensure the ULN is restored and its link is in the AVL,MOOS or UNA,TEST link state, and retry the intended test procedure. If it still fails,
 2. Remove, restore the far-end ULN, ensure that the ULN is restored and its link is in the AVL,MOOS or UNA,TEST link state, and retry the intended test procedure. If it still fails, then seek technical assistance.

Format 5, try the command again. If the problem persists, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 7, determine whether the denial might be due to the near-end T1 intrusive test status and the far-end T1 intrusive test status being out of agreement because of a previous/current T1 path failure.

Enter the `OP:T1M,ST,...;NEULN:RAW` input command for the near-end and the far-end ULNs, and examine the output to see whether the intrusive test statuses are consistent. If the near-end and the far-end status disagree, then use the `EXC:T1M,...;STOP` command to bring the statuses into agreement, then restart/resume testing.

Format 9, try the command again. If the problem persists, seek technical assistance.

Format 14, none, or Stop a test so that the desired test can be started.

Format 15, where `g = CBNMTCE GRD TMR T.O. AWAIT T1DH RESP`, (CBNMTCE Guard Timer Timeout Awaiting T1DH Response. CBNMTCE is a CNI process in the ULN.), or `FE CBNMTCE GRD TMR T.O. AWAIT T1DH RESP`, (Far End CBNMTCE Guard Timer Timeout Awaiting T1DH Response. CBNMTCE is a CNI process in the ULN.), try the command again, ensuring the node is fully restored. If the problem persists, seek technical assistance.

Format 15, where `g = CBNMTCE MTCE MODE NOT ENAB FOR ITR TST` (CBNMTCE Maintenance Mode Not Enabled For Intrusive Test. CBNMTCE is a CNI process in the ULN.), ensure that the link state is either AVL,MOOS or UNA,TEST, then try the command again. If the problem persists, seek technical assistance.

5. REFERENCES

Practice 256-090-182, *CNI Maintenance Manual*, T1 Maintenance Procedures Section

Output Appendix
APP:APPENDIX-16

Input Messages

ATR:T1M
CLR:T1M
EXC:T1M
OP:T1M
SET:T1M

Output Messages

ATR:T1M
CLR:T1M
OP:T1M
SET:T1M

SEE PROPRIETARY NOTICE ON COVER PAGE

ID FLUSH:NVTSESS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

The following variations of the format describe the ways in which information can be represented in the output message.

- [1] FLUSH NVTSESS STOPPED CREATE TEMP
FILE FAILED ERROR NUMBER = n
- [2] FLUSH NVTSESS STOPPED OPEN tmp/NVT
FAILED ERROR NUMBER = n
- [3] FLUSH NVTSESS STOPPED MATCHED RECORD
FILE NOT FOUND ERROR NUMBER = n
- [4] FLUSH NVTSESS STOPPED MATCHED RECORD
FILE EMPTY ERROR NUMBER = n
- [5] FLUSH NVTSESS STOPPED MEMORY
ALLOCATION FAILED ERROR NUMBER = n
- [6] FLUSH NVTSESS STOPPED READ tmp/NVT
FAILED ERROR NUMBER = n
- [7] FLUSH NVTSESS FAILED
ERROR IN TERMINATION STATUS
- [8] FLUSH NVTSESS FAILED ERROR
IN AVAILABLE RECORDS FLAG
- [9] FLUSH NVTSESS COMPLETE
NO RECORDS ARE AVAILABLE
- [10] FLUSH NVTSESS COMPLETE
NO RECORDS: STILL SEARCHING
- [11] FLUSH NVTSESS FAILED
ERROR IN STREAM
- [12] FLUSH NVTSESS FAILED
INVALID PARAMETER TYPE ON OUTPUT
- [13] FLUSH NVTSESS IN PROGRESS

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

To request the user to output all matched records that satisfied the search criteria in the input message.

To verify the correctness of a message, acknowledge receipt of a message, and to communicate with the user technician.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Formats 1 through 8, and 11 through 13 - Seek technical assistance.

Format 9 - Retry later.

Format 10 - None. May retry for later flush.

5. REFERENCES

Input Message
FLUSH:NVTREC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID FRMV:LN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

This message has three output formats:

- [1] FRMV a COMPL
 AT b
- [2] FRMV a NOT STARTED
 AT b
 c
- [3] FRMV a STOPPED
 AT b

2. REASON FOR OUTPUT

To report the results from an FRMV:LN input command, which requests removal of a node from service.

3. VARIABLE FIELD DEFINITIONS

- a LNx y
 - LN Indicates a link node.
 - x A ring node (RN) group number (00-63) with explicit leading zero for group numbers less than 10.
 - y The node's position in the RN group (1-15).
- b The contents of the 3B CU real time clock register (ms) when the request was received by the IMS driver process.
- c Reason the command was NOT STARTED:
 - RING NODE NOT IN ACT STATE
 - RING CONFIGURATION NOT STABLE
 - CONFLICT WITH IMS SYSTEM INITIALIZATION

4. ACTION TO BE TAKEN

Format 1: None. This message is for information only. The RMV:LN output message may also be printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 2: If **c** indicates the node was not in the ACT state, then either there is nothing to do or the **RMV:LN** command can do it. For other values of **c**, wait until the condition indicated by **c** changes and try again, if appropriate.

Format 3: This case is not expected. It indicates a failure return from the `_unrmv_iun` function in the `imsdrv.p` process.

5. REFERENCES

Input Messages

FRMV:LN

RMV:LN

Output Message

RMV:LN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID FROM:0
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

FROM:a b:c

2. REASON FOR OUTPUT

To print an output message from an intelligent frame complex.

3. VARIABLE FIELD DEFINITIONS

a Frame complex name.
b Frame complex number.
c First line of output message from the complex.

4. ACTION TO BE TAKEN

Consult the output message of the frame complex to determine the action to be taken.

5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:ACTOW
WORK CENTER.. MOC
GENERIC 4AP15 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

IN:ACTOW COMPLETED

MM	ADR	FS	ADR	ID	OLD DATA	NEW DATA
	a		b	c	d	e

READY FOR OVERWRITE DATA

2. REASON FOR OUTPUT

In response to the IN:ACTOW input message. Prints the address of the overwrite, the data currently at that address, and the data to be placed there. This enables the user to verify that the overwrite is in the correct location.

3. VARIABLE FIELD DEFINITIONS

a	Main memory address.
b	File store address.
c	Identification (ID) tag number.
d	Current data.
e	New data.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
IN:ACTOW
IN:OSOW

Output Messages
IN:OSOW

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:F-APND
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] IN FILE APND COMPLETED
a
- [2] IN FILE APND STOPPED
b

2. REASON FOR OUTPUT

To report the result of executing an IN:F-APND input message to read and append text to a specified line of a file.

3. VARIABLE FIELD DEFINITIONS

- a The lines previous and following the line appended.
- b Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the OP:ST-LSTDIR input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the command, use the OP:ST-FRDISK input message to verify that there is free space in the file system under which the file being edited resides.

Seek technical assistance if the message is not self-explanatory.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*
RMV 3, Part 1 - PDSed

Input Messages

IN:F-APND
IN:F-DEL
IN:F-REPL
OP:ST-FRDISK
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:F-DEL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] IN FILE DEL COMPLETED
a
- [2] IN FILE DEL STOPPED
b

2. REASON FOR OUTPUT

To report the result of executing an IN:F-DEL input message to delete one or more lines of an ASCII file.

3. VARIABLE FIELD DEFINITIONS

- a The lines before and after the line deleted.
- b Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the OP:ST-LSTDIR input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the command, use the OP:ST-FRDISK input message to verify that there is free space in the file system under which the file being edited resides.

Seek technical assistance if the message is not self-explanatory.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*
RMV 3, Part 1 - PDSed

Input Messages

DUMP:F-PARTL
IN:F-DEL
IN:F-REPL
OP:ST-FRDISK
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:F-REPL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] IN FILE REPL COMPLETED
a
- [2] IN FILE REPL STOPPED
b

2. REASON FOR OUTPUT

To report the result of executing an IN:F-REPL input message to replace one or more lines of a file.

3. VARIABLE FIELD DEFINITIONS

- a The lines previous and following the line replaced.
- b Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the OP:ST-LSTDIR input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the command, use the OP:ST-FRDISK input message to verify that there is free space in the file system under which the file being edited resides.

Seek technical assistance if the message is not self-explanatory.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*
RMV 3, Part 1 - PDSed

Input Messages

IN:F-DEL

IN:F-REPL

OP:ST-FRDISK

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:FI-DIR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] IN FILESYS DIR COMPLETED
- [2] IN FILESYS DIR STOPPED
{CANNOT ACCESS a |
CANNOT MAKE DIRECTORY a |
CANNOT LINK a |
CANNOT CHANGE OWNER a}

2. REASON FOR OUTPUT

To report the result of executing an IN:FI-DIR input message to create a directory.

3. VARIABLE FIELD DEFINITIONS

a Pathname specified in the message.

4. ACTION TO BE TAKEN

If CANNOT ACCESS prints, the pathname is not valid. If CANNOT MAKE DIRECTORY prints, there is a directory with that name. Use the OP:ST-LSTDIR input message to verify the situation.

The CANNOT LINK and CANNOT CHANGE OWNER messages are system-related errors. Seek technical assistance if either of these two messages is printed.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Practice 5D5-105-210 *Routine Operations and Maintenance*

Input Messages

CLR:F-DIR

CLR:F-FILE

IN:FI-DIR

OP:ST-LSTDIR

Output Message

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:OSOW
WORK CENTER.. MOC
GENERIC 4AP15 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

IN:OSOW COMPLETED

MM	ADR	FS	ADR	ID	OLD DATA	NEW DATA
	a		b	c	d	e

READY FOR OVERWRITE DATA

2. REASON FOR OUTPUT

In response to the IN:OSOW input message. Prints the address of the overwrite, the data currently at that address, and the data to be placed there. This enables the user to verify that the overwrite is in the correct location.

3. VARIABLE FIELD DEFINITIONS

a	Main memory address.
b	File store address.
c	Identification (ID) tag number.
d	Current data.
e	New data.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
IN:ACTOW
IN:OSOW

Output Message
IN:ACTOW

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:REM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] IN REMOTE WAITING
- [2] IN REMOTE IN PROGRESS
FILES RECEIVED: a IN PROGRESS
ELAPSED TIME b SPACE REMAINING c [IN PROGRESS]
INODES REMAINING d [IN PROGRESS]
[e ERROR f [IN PROGRESS]]
[CREAT ERRNO = g]

2. REASON FOR OUTPUT

Format 1 reports that the file-receive process is waiting for a session connect message from a remote sending site.

Format 2 reports totals for files successfully and unsuccessfully received from the Software Change Administration and Notification System (SCANS-2).

3. VARIABLE FIELD DEFINITIONS

- a Number of successfully received files.
- b Elapsed time in the form hours:minutes.
- c Number of blocks (512 bytes per block) remaining in the base directory on the receiving machine.
- d Number of inodes remaining in the base directory on the receiving machine.
- e Pathname of a file issued by the sending end which was not received by the file-receive process.
- f Error code specifying the reason why the file was not received by the file-receive process:
- 01 — Insufficient space on disk to store the file.
 - 02 — File length exceeds the maximum length permitted (2,500,000 bytes).
 - 03 — The pathname being processed matches that of a file already on disk.
 - 04 — Could not create incoming file on disk.
 - 05 — File transmission was interrupted.
 - 06 — The system command `mkdir ( )` failed.

SEE PROPRIETARY NOTICE ON COVER PAGE

g If the system command `creat()` failed (error code is 4), then this is the value of the error number set by `creat()`. For error number definitions, see the Appendix System Error, APP:SYSERR.

4. ACTION TO BE TAKEN

Seek technical assistance.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 540.

Output Appendix

APP:SYSERR

Input Messages

IN:REM-REPT

IN:REM-START

IN:REM-STOP

UPD:CLR

UPD:VFY

Output Messages

IN:REM-ERROR

IN:REM-INIT

IN:REM-START

IN:REM-STOP

UPD:CLR

UPD:VFY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:REM-ERROR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

IN REMOTE ERROR a[b][, ERRNO = c]
[INVALID TRANSACTION ID: d]
[NO TRANSACTION ID]
[READ FAILED]

2. REASON FOR OUTPUT

To report the termination of the file-receive process due to an error that is unrelated to the actual transmission of files. This message may occur either before, during, or after the transmission of files. `inremote` refers to the process created when `IN:REMOTE;START` input command is entered.

3. VARIABLE FIELD DEFINITIONS

- a Codes indicating the reason for termination:
- 01 — The file-receive process could not be executed.
 - 02 — A bad argument was passed to the file-receive process.
 - 03 — Time limit to establish the dial-up link has expired.
 - 04 — Non-positive number of blocks was specified on the command line.
 - 05 — Failed to connect to system port.
 - 06 — Failed `stat` call on base directory.
 - 07 — Failed `ustat` call on base directory.
 - 08 — Insufficient disk space in base directory.
 - 09 — Failed to read connect message, or received invalid connect message from the remote sending system. This message may be followed by a message indicating that `READ FAILED`, `NO TRANSACTION ID` was sent, or an `INVALID TRANSACTION ID` was sent. The latter will include the invalid Identification (ID) which was sent, as noted.
 - 10 — An error occurred in the printing of file-receive output messages.
 - 11 — An `IN:REMOTE;START` request was denied because a file-receive process already exists. Try the request again later.
 - 12 — An `IN:REMOTE;REPT` or `IN:REMOTE;STOP` request failed because a message could not be sent to `inremote` or file-receive process.
 - 13 — An `IN:REMOTE;REPT` or `IN:REMOTE;STOP` request failed because a message could not be sent to file-receive process or `inremote`.
 - 14 — Could not enable reception of messages.

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- 15 — Could not send message from file-receive process to inremote.
 - 16 — Bad message received by inremote.
 - 17 — Bad message received by file-receive process.
 - 18 — Unable to open Software Change And Notification System (SCANS) data link.
 - 19 — Unable to open Equipment Configuration Database (ECD).
 - 20 — Unable to get Unit Control Block (UCB) record for SDL0.
- b Error code indicating an ECD access problem or database inconsistencies:
- 100 — SDL is not active
 - 101 — no unit name listed as active in mdct record
 - 102 — stat() failed
 - 103 — lla_rdget() failed
 - 104 — lla_get() failed
 - 105 — lla_iatt() failed
 - 106 — getdbseg() failed
- c The system error number. See the system error code output appendix, APP:SYSERR. The system error number prints if the error code is 1, 5, 6, 7, 10, 14, or 15.
- d The invalid transaction ID received by the file-receive process.

4. ACTION TO BE TAKEN

Seek technical assistance. If required, cancel Broadcast Warning Message (BWM) order and reorder later.

5. REFERENCES

OMDB Key

This message has an OMDB key of 23.

Output Appendix

APP:SYSERR

Input Messages

IN:REM-REPT
IN:REM-START
IN:REM-STOP
UPD:CLR
UPD:VFY

Output Messages

IN:REM-INIT
IN:REM-START
IN:REM-STOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:REM-INIT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

IN REMOTE INITIALIZED IP
TRANSACTION ID: a TIME: bb:bb

2. REASON FOR OUTPUT

To report initialization of the Software Change Administration and Notification System (SCANS-2) interface and to provide a transaction Identification (ID) to be used when ordering Broadcast Warning Messages (BWMs) from SCANS-2 within the next 24 hours.

3. VARIABLE FIELD DEFINITIONS

- a A transaction ID, from one to ten decimal digits and uppercase letters. This ID is supplied to SCANS-2 when BWMs are ordered. It is valid only for the next dial-in transmission of files, at which time SCANS-2 must present the transaction ID. If the ID time limit (24 hours) expires, the caller presents an invalid ID, or no ID, an IN:REM-ERROR output message will be displayed.
- b The time at which a 24-hour timer began, in the form hours:minutes.

4. ACTION TO BE TAKEN

Provide the transaction ID to SCANS-2 when ordering the next delivery of BWMs. The order must be placed and SCANS-2 must dial in to the computer within 24 hours of the appearance of this message.

5. REFERENCES

Input Messages

IN:REM-REPT
IN:REM-START
IN:REM-STOP
UPD:CLR
UPD:VFY

Output Messages

IN:REM-ERROR
IN:REM-START
IN:REM-STOP
UPD:CLR
UPD:VFY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:REM-START
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

IN REMOTE STARTED IP
FILES STORED IN a IP
AVAILABLE SPACE b

2. REASON FOR OUTPUT

To report link establishment and the start of the receipt of remote-input files.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|--|
| a | The full pathname of the directory where the incoming files will be stored. |
| b | The current number of free blocks (512 bytes) of space in the directory on disk. |

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages

IN:REM-REPT
IN:REM-START
IN:REM-STOP
UPD:CLR
UPD:VFY

Output Messages

IN:REM-ERROR
IN:REM-INIT
IN:REM-STOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:REM-STOP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

IN REMOTE STOPPED a
[FILES MAY BE LOST]

2. REASON FOR OUTPUT

To report the reason for termination of the file receiving process.

3. VARIABLE FIELD DEFINITIONS

- a Reason for termination:
- 0 — Successful completion of the file transfer session.
 - 1 — Time limit to receive messages from the remote system has expired.
 - 2 — Unable to resynchronize messages with the remote sender.
 - 3 — Unable to resynchronize files with the remote sender.
 - 4 — Bad file sequence number.
 - 5 — Insufficient disk space to store incoming files.
 - 6 — Too many files interrupted.
 - 7 — An internal error occurred in the process.
 - 8 — The file receive process was terminated in response to the IN:REM-STOP input message.
 - 9 — An I/O error occurred in writing a file to disk.
 - 10 — The remote sender aborted transmission.
 - 11 — The file receive process terminated for an unknown reason. This message is followed by the FILES MAY BE LOST output line indicating that the file receive session died in an unknown state.
 - 12 — A bad disconnect message was received from the sender.
 - 13 — The system command mkdir() failed.

4. ACTION TO BE TAKEN

Verify that all files have been received. If the reason for termination is 11, this message may be ignored if preceded by an IN:REM-STOP or IN:REM-ERROR output message.

5. REFERENCES

OMDB Keys
There are OMDB keys of 540 and 556.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

IN:REM-REPT
IN:REM-START
IN:REM-STOP
UPD:CLR
UPD:VFY

Output Messages

IN:REM-ERROR
IN:REM-INIT
IN:REM-START

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:TDAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

IN TDAS USER a b

2. REASON FOR OUTPUT

To report the disposition of the IN:TDAS input message.

All TDAS related messages are recorded in the log file TDASLOG and may be accessed using OP:LOG;TDASLOG. To get IN TDAS messages from the log, use OP:LOG;TDASLOG:KW IN!

3. VARIABLE FIELD DEFINITIONS

a User ID:

B — Traffic data concentrator unit (TDCU).
D — Machine Administration Center (MAC).
E — AT&T Communications southern region collection.

b Status:

INSERTED — The user identified in variable a has been inserted and has access to the TDAS data base via datalink.

ALREADY EXISTS — PASSWORD CHANGED — The user identified in variable a already has a user ID for TDAS data collection via datalink and the password has been changed for user ID in variable a.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
CLR:TDAS
IN:TDAS
OP:LOG

Output Messages
CLR:TDAS
OP:LOG

SEE PROPRIETARY NOTICE ON COVER PAGE

ID IN:XFER
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

IN XFER - a
 b [c]

2. REASON FOR OUTPUT

To report the current state of the file transfer system, in response to an IN:XFER input command.

3. VARIABLE FIELD DEFINITIONS

- a Status of file transfer system:
- COMPLETED — The file transfer session has ended.
- IN PROGRESS — The file transfer session is running.
- b Additional status information:
- DATA LINK ERRORS — The file transfer session was stopped due to errors from the data link.
- MANUALLY TERMINATED — The file transfer session was stopped by an IN:XFER STOP input command.
- NO ERRORS — The file transfer session was stopped by the normal end of the session with a computer.
- NO PASSWORD — A session was attempted from the remote end, but the IN:XFER START input command was not entered.
- PASSWORD-NO GOOD — The file transfer session was stopped because an incorrect password was entered at the remote end.
- RECEIVING — A session is in progress and is currently receiving the file named.
- RUNNING SHELL — A session is in progress and is currently executing shell commands.
- SENDING — A session is in progress and is currently sending the file named.
- WAITING — A session is in progress and is currently waiting for a support computer to respond.
- c Filename.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Inform the support person who requested the execution of IN:XFER of this output.

5. REFERENCES

Input Message
IN:XFER

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:ADB
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has two formats.

[1] INH ADB COMPLETED, FOR b

[2] INH ADB COULD NOT LOCK a COMPLETED, FOR b

2. REASON FOR OUTPUT

Response to the INH:ADB input command.

3. VARIABLE FIELD DEFINITIONS

a Lock number.

b Customer name, only IBGTT is supported currently.

4. ACTION TO BE TAKEN

Format 2: Rerun the INH:ADB command.

5. REFERENCES

Input Messages

INH:ADB

OP:ADB

Output Messages

ALW:ADB

OP:ADB-PERM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:AMA-SSPUNAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

INH AMA SSPUNAS COMPLETED

2. REASON FOR OUTPUT

To print in response to an Automatic Message Accounting (AMA) input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages

ALW:AMA-SSPUNAS

INH:AMA-SSPUNAS

OP:AMA-SSPUNAS

Output Messages

INH:AMA-SSPUNAS

REPT:AMA-SSPUNAS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:AUD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH AUD COMPLETED
- [2] INH AUD NOT STARTED
{CONFLICT WITH CURRENT SYSTEM STATUS a|RETRY LATER b|
UNABLE TO IDENTIFY ERROR INPUT ERROR}

2. REASON FOR OUTPUT

To report the termination status of the INH:AUD input message.

3. VARIABLE FIELD DEFINITIONS

- a Explanation of error. See Output Audit Appendix C, APP:AUD-C.
- b Explanation of error. See Output Audit Appendix D, APP:AUD-D.

NOTE: See Output Audit Appendix A, APP:AUD-A and Output Audit Appendix B, APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

For Format 2, use the OP:AUD input message to determine the current system status.

5. REFERENCES

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*
UNIX® RTR Operating System System Maintenance Manual

Output Appendixes

APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D

Input Messages

INH:AUD
OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:CONFLOG
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH CONFLOG COMPLETED
- [2] INH CONFLOG NOT STARTED
INVALID ID FIELD a
- [3] INH CONFLOG NOT STARTED
RETRY LATER

2. REASON FOR OUTPUT

To report the termination status of the INH:CONFLOG input message.

3. VARIABLE FIELD DEFINITIONS

- a Message syntax is invalid or the unit name or number does not exist in the Equipment Configuration Database (ECD).

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
ALW:CONFLOG
INH:CONFLOG

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:DCC
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 4 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] INH DCC APP a COMPLETE
APPDB DCC IS INHIBITED FOR a
- [2] INH DCC APP a COMPLETE
DCC TASK d RUNNING, DCC CANNOT BE INHIBITED
- [3] INH DCC APP a COMPLETE
DCC CAPABILITY IS ACTIVATED FOR a, DCC CANNOT BE INHIBITED
- [4] INH DCC APP a COMPLETE
REMOTE EXECUTION OF THIS COMMAND NOT ALLOWED
- [5] INH DCC APP a COMPLETE
INPUT ERROR - e
- [6] INH DCC APP a COMPLETE
ERROR b (LINE c) -- APPDB DCC CANNOT BE INHIBITED FOR a

2. REASON FOR OUTPUT

Response to the INH:DCC input command. Format 2 prints if a DCC task is in progress (DCC cannot be inhibited until any outstanding DCC tasks end and DCC is deactivated). Format 3 prints if the DCC task is activated (DCC must be deactivated via DEACTV:DCC before it can be inhibited). Format 4 prints if the INH:DCC command is requested via a remote login connection (eg. via IRAS PINET session). Format 5 prints if a syntax error was found in the INH:DCC command that was input. Format 6 prints if internal errors are preventing the 4ESS™ Switch from inhibiting DCC.

3. VARIABLE FIELD DEFINITIONS

- a The customer unit name specified in the INH:DCC input message. Currently only IBGTT is supported.
- b Error number (TBD).
- c Source line number where error was found. (For NESAC trouble-shooting.)
- d Transaction ID of the DCC task that is executing. The Transaction ID is specified with the START:DCC.
- e English description of the syntax error found in the command input.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Format 6: Notify NESAC.

5. REFERENCES

Input Messages

DEACTV:DCC

INH:DCC

OP:DCC

START:DCC

STOP:DCC

Output Messages

ALW:DCC

OP:DCC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:DCNAUD
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has seven formats.

- [1] INH DCNAUD LNb c COMPLETED
AUDIT INHIBIT
NUMBER STATUS
a d
- [2] INH DCNAUD a LNb c FAILED
REASON: ACM AT INITIALIZATION
- [3] INH DCNAUD a LNb c FAILED
REASON: INVALID AUDIT NUMBER
- [4] INH DCNAUD a LNb c FAILED
REASON: NODE IS NOT DCHAN
- [5] INH DCNAUD a LNb c FAILED
REASON: NODE IS NOT ACTIVE
- [6] INH DCNAUD a {LNb c | ALL} FAILED
REASON: SEND MSG TO DCHAN FAILED
- [7] INH DCNAUD a LNb c FAILED
REASON: RECEIVED _RTNMSG OR _SRCMATCH MSG

2. REASON FOR OUTPUT

To report the termination status of the INH:DCNAUD input message.

3. VARIABLE FIELD DEFINITIONS

- a Audit member. One of the following:
 - 1 — Data Blocks audit.
 - 2 — User call reference value (CRV) Table audit.
 - 3 — Network CRV Table audit.
 - 4 — Channel ID Table audit.
 - 5 — Idle Data Blocks List audit.
 - ALL — All D-Channel Node (DCN) audits.
- b DCN group number.
- c DCN member number.

SEE PROPRIETARY NOTICE ON COVER PAGE

ALL	All DCN nodes.
d	Audit inhibit status for all audits controlled by DCN. One of the following: ALREADY INHIBITED INHIBITED

4. ACTION TO BE TAKEN

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that the Audit Control Mechanism on the DCN is under initialization. Wait until the DCN finishes initialization and retry.

Format 3 indicates that the audit number is not valid. Retry with a correct audit number.

Format 4 indicates that the requested node is not a DCN. Retry with a correct group and member number for the DCN.

Format 5 indicates that the DCN is not active. Wait until DCN is active and retry.

Format 6 indicates that DCNAP can not send message to the DCN. Retry. If you get the same error multiple times, seek technical assistance.

Format 7 indicates that DCNAP received a returned or source matched message. Either the IMS channel is not open on the DCN or the DCN is not active.

5. REFERENCES

Input Messages

OP:DCNAUD

INH:DCNAUD

Output Message

OP:DCNAUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:DLNAUD
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] INH DLNAUD
REHCAL AUDIT IS ALLOWED FOR APP a
- [2] INH DLNAUD
CANNOT CHANGE INHIBIT STATUS OF INVALID APP b
- [3] INH DLNAUD
CANNOT CHANGE INHIBIT STATUS OF INVALID AUDIT TYPE c

2. REASON FOR OUTPUT

To print the results of an inhibit of application database audit.

3. VARIABLE FIELD DEFINITIONS

- a Application database that is affected. Valid values are:
 - IBGTT — Inbound global title translation
 - PCPGTT — Positive call processing global title translation
 - ATP — AT&T Trigger Platform (ATP) data tables
- b Invalid application database. Valid values are 0 (for IBGTT), 2 (for PCPGTT), or 3 (for ATP).
- c Audit type that the request was for. This message is printed whenever the value is not 128 or 129.

4. ACTION TO BE TAKEN

Allow or inhibit the audit when appropriate via the ALW:DLNAUD or INH:DLNAUD command.

5. REFERENCES

Input Messages
ALW:DLNAUD
INH:DLNAUD
OP:DLNAUD

Output Messages
ALW:DLNAUD
OP:DLNAUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:DMQ
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH DMQ COMPLETED
- [2] INH DMQ CANNOT INHIBIT A MANUAL SOURCE a
- [3] INH DMQ SOURCE ALL IS ALREADY INHIBITED
- [4] INH DMQ TOO MANY ACTIVE INHIBITS
- [5] INH DMQ CANNOT LCALL INHTIMER PROCESS a
FOR INHIBIT ERRNO = b

2. REASON FOR OUTPUT

Format 1 reports Maintenance Input Request Administrator (MIRA) has completed a request to inhibit a source of automatic maintenance requests.

Format 2 indicates MIRA does not inhibit manual source of maintenance requests listed.

Format 3 indicates source ALL is already inhibited.

Format 4 reports there are too many active inhibits. Cannot inhibit any more.

Format 5 reports MIRA could not start inhibit timer for automatic maintenance request source specified.

3. VARIABLE FIELD DEFINITIONS

- a Three-character name of the source specified in the INH:DMQ input message. ALL indicates all automatic maintenance requests are inhibited.
- b System error number returned for the failing system call. See System Error Codes Output Appendix, APP:SYSERR.

4. ACTION TO BE TAKEN

Use the OP:DMQ input message to determine which maintenance sources are inhibited.

For Formats 1 and 3, no action is required.

For Format 2, check syntax of source specified.

For Format 4, use ALW:DMQ to allow some of the inhibited sources and retry message.

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For Format 5, retry the input message. If retry is unsuccessful, an operating system function call is failing; seek technical assistance to clear the trouble.

5. REFERENCES

OMDB Keys

Formats 1 and 2 have an OMDB key of 62.

Formats 3 and 4 have an OMDB key of 63.

Format 5 has an OMDB key of 65.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Output Appendix
APP:SYSERR

Input Messages

ALW:DMQ-A

INH:DMQ-A

OP:DMQ

Output Messages

ALW:DMQ

OP:DMQ

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:EAIINT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH EAIINT a COMPLETED
- [2] INH EAIINT a COMPLETED WITH c
- [3] INH EAIINT a ABORTED b

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit Emergency Action Interface (EAI) error interrupts on a specified 3B21D computer Control Unit (CU), or on both 3B21D computer CUs.

NOTE: The 3B20D/3B21D computer CUs do not have EAI error interrupts.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

3. VARIABLE FIELD DEFINITIONS

- a CU 0
CU 1
CU 0, CU 1.
- b Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.
- c Port problems:
 - AN INVALID SYSTEM PORT SPECIFIED
 - AN INVALID SYSTEM PORT SPECIFIED FOR AIM — Application Integrity Monitor (AIM).

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NO PROCESS ATTACHED TO THE SPECIFIED PORT
NO PROCESS ATTACHED TO THE AIM PORT

4. ACTION TO BE TAKEN

For Format 1, no action is necessary.

For Format 2, seek technical assistance.

For Format 3, use the **OP:ERRCHK** input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. REFERENCES

OMDB Key(s)

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:EAIINT

ALW:ERRCHK

INH:EAIINT

INH:ERRCHK

OP:ERRCHK

Output Messages

ALW:EAIINT

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:ERRCHK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH ERRCHK COMPLETED
- [2] INH ERRCHK COMPLETED WITH b
- [3] INH ERRCHK ABORTED a
- [4] INH ERRCHK NOT STARTED
INVALID ID FIELD

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit all computer error sources.

3. VARIABLE FIELD DEFINITIONS

- a Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.
- b Port problems:
 - Invalid system port specified.
 - Invalid system port specified for Application Integrity Monitor (AIM).
 - No process attached to the specified port.
 - No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

If the process completes with a port problem, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:ERRINT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH ERRINT COMPLETED
- [2] INH ERRINT COMPLETED WITH b
- [3] INH ERRINT ABORTED a
- [4] INH ERRINT NOT STARTED
INVALID ID FIELD - INPUT ERROR
- [5] ALW ERRINT NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS - UNEQUIPPED UNIT

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit error interrupts on a particular hardware unit/complex, or on all hardware units.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

Format 4 indicates an error in the identification field of the input. Possibly, the unit name and number specified cannot be found in the database.

Format 5 indicates unit name and number specified was found in the database, but is unequipped.

3. VARIABLE FIELD DEFINITIONS

- a Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.

SEE PROPRIETARY NOTICE ON COVER PAGE

- b Port problems:
- AN INVALID SYSTEM PORT SPECIFIED
 - AN INVALID SYSTEM PORT SPECIFIED FOR AIM — Application Integrity Monitor (AIM)
 - NO PROCESS ATTACHED TO THE SPECIFIED PORT
 - NO PROCESS ATTACHED TO THE AIM PORT

4. ACTION TO BE TAKEN

For Formats 1, 4, and 5, no action is necessary.

For Format 2, seek technical assistance.

For Format 3, use the **OP:ERRCHK** input message to learn the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. REFERENCES

OMDB Key(s)

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:ERRSRC
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH ERRSRC COMPLETED
- [2] INH ERRSRC COMPLETED WITH b
- [3] INH ERRSRC ABORTED a
- [4] INH ERRSRC NOT STARTED
INVALID ID FIELD

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit the processing of errors under a Control Unit (CU) pseudo-node.

3. VARIABLE FIELD DEFINITIONS

- a Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.
- b Port problems:
 - Invalid system port specified.
 - Invalid system port specified for Application Integrity Monitor (AIM).
 - No process attached to the specified port.
 - No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

If the process completes with a port problem, the user should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:F-UMOUNT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH FILESYS UMOUNT COMPLETED
- [2] INH FILESYS UMOUNT STOPPED
a

2. REASON FOR OUTPUT

To report the result of executing an INH:F-UMOUNT input message to unmount a previously mounted file system.

Format 1 indicates that the action was completed.

Format 2 indicates that the action was terminated.

3. VARIABLE FIELD DEFINITIONS

- a Description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and requires no action.

Format 2 indicates the command has failed. The explanatory text will indicate the error encountered. Refer to the input message for the correct format and reenter the command, or check the status of the file using the OP:ST-LISTDIR input message.

Seek technical assistance if any other error message is printed.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

ALW:F-MOUNT

INH:F-UMOUNT

OP:ST-FILESYS

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
OP:ST-FILESYS
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:FTA
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 4 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] INH FTA APP a COMPLETE
FTA IS INHIBITED FOR a
- [2] INH FTA APP a COMPLETE
FTA IS INHIBITED FOR a - TRANSFER STILL IN PROGRESS
- [3] INH FTA APP a COMPLETE
FTA IS INHIBITED FOR a - ACTIVATION STILL IN PROGRESS
- [4] INH FTA APP a COMPLETE
FTA IS INHIBITED FOR a - TRANSFER AND ACTIVATION STILL IN PROGRESS
- [5] INH FTA APP a COMPLETE
REMOTE EXECUTION OF THIS COMMAND NOT ALLOWED
- [6] INH FTA APP a COMPLETE
INPUT ERROR - d
- [7] INH FTA APP a COMPLETE
ERROR b (LINE c) -- FTA CANNOT BE INHIBITED FOR a

2. REASON FOR OUTPUT

Response to the File Transfer and Activation (FTA) INH:FTA input command. Formats 1 through 4 are the normal responses and indicate that FTA has been inhibited. Formats 2 through 4 indicate as well that current FTA activity (either a file transfer or activation) is in progress. Format 5 prints if the INH:FTA command is requested via a remote login connection (e.g., via IRAS PINET session). Format 6 prints if a syntax error was found in the INH:FTA command that was input. Format 7 prints if internal errors are preventing the 4ESS™ Switch from inhibiting FTA.

NOTE: If the APP keyword argument was not specified in the corresponding IM message, the preceding formats will be slightly different. An Output Message will print, with "IN PROGRESS" on the first line instead of "COMPLETE", for each application programmed for FTA. A final "COMPLETE" message will print concluding the Output Message sequence. For example, instead of format 1 preceding, the output will be:

INH FTA IN PROGRESS
APPDB FTA IS ALLOWED FOR IBGTT

INH FTA IN PROGRESS

SEE PROPRIETARY NOTICE ON COVER PAGE

APPDB FTA IS ALLOWED FOR OBGTT

INH FTA IN PROGRESS
APPDB FTA IS ALLOWED FOR CORE

INH FTA COMPLETE

3. VARIABLE FIELD DEFINITIONS

- a The customer application specified in the INH:FTA input message.
 Either:
 IBGTT
 OBGTT (Refers to the PCP customer)
 CORE
- b Error number (TBD).
- c Source line number where error was found. (For NESAC trouble-shooting.)
- d English description of the syntax error found in the command input.

4. ACTION TO BE TAKEN

Formats 2 through 4: No action is necessary. In the case of a current file transfer, subsequent requests to enter or retrieve more data will not be allowed. In the case of a current file activation, the activation will "pause" until the "FTA inhibit" condition is removed. If the "FTA inhibit" condition is not removed after one hour, the activation will be stopped. (Note that while FTA is inhibited, requests to start new FTA activity - transfers or activations - will be denied.)

Format 7: Notify NESAC.

5. REFERENCES

Input Messages

INH:FTA
OP:FTA
START:FTA
STOP:FTA

Output Messages

ALW:FTA
INH:FTA
OP:FTA
START:FTA
STOP:FTA

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:HDWCHK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH HDWCHK COMPLETED
- [2] INH HDWCHK COMPLETED WITH b
- [3] INH HDWCHK ABORTED a
- [4] INH HDWCHK NOT STARTED
INVALID ID FIELD

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit hardware checks.

3. VARIABLE FIELD DEFINITIONS

- a Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.
- b Port problems:
 - Invalid system port specified.
 - Invalid system port specified for Application Integrity Monitor (AIM).
 - No process attached to the specified port.
 - No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

If the process completes with a port problem, the user should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:IMSMEAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

INH IMSMEAS COMPL
IMS MEASUREMENTS INHIBIT a

2. REASON FOR OUTPUT

Response to INH:IMSMEAS input request.

3. VARIABLE FIELD DEFINITIONS

a Inhibit state:

ON — Collection and accumulation of certain IMS measurements is
NOT allowed at this time.

OFF — Collection and accumulation of all IMS measurements is
allowed.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
INH:IMSMEAS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:PSLT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] INH PSLTa b COMPL
PSLT FOR NODE a-b IS INHIBITED
- [2] INH PSLTa b COMPL
PSLT FOR NODE a-b IS NOT INHIBITED
- [3] INH PSLT ALL COMPL
NO NODES HAVE PSLT INHIBITED
- [4] INH PSLT
PSLT IS INHIBITED ON THE FOLLOWING NODES:
a-b a-b a-b a-b a-b a-b a-b a-b a-b a-b a-b a-b a-b a-b a-b

NOTE: A maximum of ten (10) nodes (represented by an "a-b" couplet) will be printed per line for as many lines as needed.

2. REASON FOR OUTPUT

Response to INH:PSLT input request.

3. VARIABLE FIELD DEFINITIONS

- a Group number (0-63).
- b Member number (1-15).

4. ACTION TO BE TAKEN

If the status of the Periodic Signaling Link Test (PSLT) for a given node is not in the expected state, use the INH:PSLT input command to change its state.

5. REFERENCES

- Practice 235-151-120 *Trouble Clearing and Maintenance Procedures* -
Analog Signaling Link Maintenance Procedures Section
Digital Signaling Link Maintenance Procedures Section
- Practice 256-090-121 *CNI Operations Manual* -
Analog Signaling Link Operating Procedures Section
Digital Signaling Link Operating Procedures Section
- Practice 256-090-122 *CNI Maintenance Manual* -
Analog Signaling Link Maintenance Procedures Section
Digital Signaling Link Maintenance Procedures Section

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message
INH:PSLT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:RCV
WORK CENTER.. MOC
GENERIC 4AP15 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] 4ESS INH RCV COMPL
RECENT CHANGE INHIBIT a

[2] INH RCV COMPLETED

4ESS INH RCV COMPL
RECENT CHANGE INHIBIT a

2. REASON FOR OUTPUT

Prints in response to an INH:RCV input request.

3. VARIABLE FIELD DEFINITIONS

a	Status:
OFF	— Recent change activity is permitted.
ON	— Recent change activity is prohibited.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
INH:RCV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:RCV-APPDB
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has four formats.

- [1] INH RCV APPDB ACTIVE
- [2] INH RCV APPDB CANNOT SET LOCK - REASON a
- [3] INH RCV APPDB RETRY LATER - CANNOT CONNECT TO DATABASE
- [4] INH RCV APPDB CANNOT TALK TO DATABASE

2. REASON FOR OUTPUT

These output messages are printed as a direct result of the INH:RCV-APPDB input message. Format 1 prints if the "DLN Inhibit" feature has been activated with no problems. GTT10D RCV is inhibited.

Format 2 prints if a system error is encountered while trying to activate the inhibit. The "DLN Inhibit" feature is NOT activated.

3. VARIABLE FIELD DEFINITIONS

- a System error code. See Output Appendix APP:SYSERR.

4. ACTION TO BE TAKEN

No action required for Format 1.

If Format 2 prints, determine if system conditions indicate that trouble with 3B disk access is expected. NESAC should be notified if this trouble is not expected.

If Format 3 prints, the input message cannot establish a communication link with the RCV process. Probable cause: the RCV process does not exist or insufficient system resources are available for the operation. Wait and retry later.

If Format 4 prints, the input message has established a communication link with the RCV process, however, no data can be sent or received. Probable cause: the RCV process has a software problem or insufficient system resources are available for the operation. Wait and retry later. If the problem does not clear, notify NESAC.

5. REFERENCES

Output Appendix
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW: RCV-APPDB

INH: RCV-APPDB

OP: INH-APPDB

Output Messages

ALW: RCV-APPDB

OP: INH-APPDB

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:REPORT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

INH REPORT COMPL
REPORT INHIBIT a

2. REASON FOR OUTPUT

Response to INH:REPORT input request.

3. VARIABLE FIELD DEFINITIONS

a Inhibit state:

 ON — Measurement reports NOT allowed at this time.
 OFF — Measurement reports allowed.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
INH:REPORT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:REX
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH REX COMPLETED
- [2] INH REX NOT STARTED
{ CONFLICT WITH CURRENT SYSTEM STATUS | RETRY LATER }

2. REASON FOR OUTPUT

To report the termination status of the INH:REX input message.

3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

4. ACTION TO BE TAKEN

For Format 1, no action is needed.

For Format 2, CONFLICT WITH CURRENT SYSTEM STATUS indicates that temporary Routine Exercise (REX) inhibits are not available for the unit specified, or all the units specified due to active permanent REX inhibit(s). Use the OP:REXINH input message with the PERM option to determine the current permanent REX inhibits.

RETRY LATER indicates that the database manager or a database record could not be opened; try again at a later time. If this persists, seek technical assistance.

5. REFERENCES

Input Messages
INH:REX
OP:REXINH

Output Message
OP:REXINH

SEE PROPRIETARY NOTICE ON COVER PAGE

1. FORMAT

2. REASON FOR OUTPUT

3. VARIABLE FIELD DEFINITIONS

4. ACTION TO BE TAKEN

5. REFERENCES

Input Message
INH:RMV

Issue 9.4
September 2001

ID INH:RUTIL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has 14 formats.

- [1] INH RUTIL COMPL
LNaa b
- [2] INH RUTILFLAG COMPL
LNaa b BP = c
- [3] INH RUTILFLAG COMPL
LNaa b INVALID BP = c
- [4] INH RUTILFLAG COMPL
LNaa b BP = c NOT SETUP COMPL
- [5] INH RUTILFLAG COMPL
LNaa b BP = c ILLEGAL BP STATUS = e
- [6] INH RUTILFLAG COMPL
LNaa b BP = c MEMORY PROTECTION ERROR = f
- [7] INH RUTIL ABT
SEND2KERN MKNODE() FAILED d
- [8] INH RUTILFLAG ABT
SEND2KERN MKNODE() FAILED d
- [9] INH RUTIL ABT
SEND2KERN OPEN() FAILED d
- [10] INH RUTILFLAG ABT
SEND2KERN OPEN() FAILED d
- [11] INH RUTIL ABT
SEND2KERN KERNEL RETURNED ERROR d
- [12] INH RUTILFLAG ABT
SEND2KERN KERNEL RETURNED ERROR d
- [13] INH RUTIL ABT
KERNEL RESPONSE TIMEOUT d

SEE PROPRIETARY NOTICE ON COVER PAGE

[14] INH RUTILFLAG ABT
KERNEL RESPONSE TIMEOUT d

2. REASON FOR OUTPUT

Response to an INH:RUTIL input command.

Formats 1 and 2 indicate a successful completion of the INH:RUTIL input command.

Format 3 indicates that the breakpoint specified is invalid.

Format 4 indicates that the specified breakpoint is not set up.

Format 5 indicates that the breakpoint has an illegal status.

Format 6 indicates that a memory protection error has occurred.

Formats 7 and 8 indicate that creating the special file for the kernel has failed.

Formats 9 and 10 indicate that attempting to open the file for kernel processing has failed.

Formats 11 and 12 indicate that the kernel has returned a failing return code.

Formats 13 and 14 indicate that the kernel has not responded to the craft process.

3. VARIABLE FIELD DEFINITIONS

aa	The group number of the concerned node.
b	The member number of the concerned node.
c	The specified breakpoint number.
d	The value of the global variable errno.
e	Illegal breakpoint status value.
f	Memory protection error return.

4. ACTION TO BE TAKEN

For Formats 3 and 4, check the specified breakpoint number.

Otherwise seek technical assistance for Formats 5 through 14.

5. REFERENCES

CNI Maintenance Manual - 256-090-122
Ring and Ring Node Maintenance Procedures Section

Input Messages
INH:RUTIL
OP:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:SCSD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH SCSD UNIT a PT b[bbbbbbb] f
- [2] INH SCSD GRPN c DUPID d PT e[eeeeee] f
- [3] INH SCSD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS

2. REASON FOR OUTPUT

To indicate whether a scan point was disabled as a result of executing an INH:SCSD input message. This prevents the reporting of a scan point's transitions.

Format 1 is used when a scan point is identified by physical location.

Format 2 is used when a scan point is identified by logical address.

Format 3 indicates the Scanner And Signal Distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

- a Member number of Scanner And Signal Distributor (SCSD) unit.
- b Physical scan point number on an SCSD (0-47).
- c Name of the logical group.
- d Duplex group ID (0-1).
- e Number of a point within a logical group.
- f Termination status:
 - COMPLETED — Action completed.
 - FAILED — Action could not be completed by SCSD administrator:
 - SCSD unit number is invalid.
 - Point number is invalid for the logical group.
 - Logical group name is invalid and either the SCSD unit is Out Of Service (OOS) or is in an inactive state to the SCSD administrator.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

Issue the OP:00S input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter Recent Change and Verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the results are negative, seek technical assistance.

5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 229.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory
of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Input Messages

INH:SCSD

OP:00S

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:SFTCHK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INH SFTCHK COMPLETED
- [2] INH SFTCHK COMPLETED WITH b
- [3] INH SFTCHK ABORTED a
- [4] INH SFTCHK NOT STARTED
INVALID ID FIELD

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit computer software checks.

3. VARIABLE FIELD DEFINITIONS

- a Error codes:
 - 50 — Message could not be sent to a driver or Real Time Status (RTS) report.
 - 51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.
 - 52 — Error in message communication.
 - 53 — Error internal to the inhibit administrator.
- b Port problems:
 - Invalid system port specified.
 - Invalid system port specified for Application Integrity Monitor (AIM).
 - No process attached to the specified port.
 - No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a technical representative.

If the process completes with a port problem, the user should seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 406.

Format 2 has an OMDB key of 658.

Format 3 has an OMDB key of 414.

Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

Output Messages

INH:ERRCHK

OP:ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:SLK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two output formats:

- [1] INH SLK a b COMPL
SLK a b c ALARM INHIBIT = {ON| OFF}
- [2] INH SLK a b COMPL
SLK a b c ALARM INHIBIT {SET(ON) | RESET(OFF)}

2. REASON FOR OUTPUT

Format 1: Response to a request to set or reset the Alarm Inhibit flag of a Signaling Link (SLK).

Format 2: Response to a request for the current status of the Alarm Inhibit flag of a Signaling Link (SLK).

3. VARIABLE FIELD DEFINITIONS

- a Group number (0-63).
- b Member number (1-15).
- c Far end CLLI®.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

CNI Operations Manual - 256-090-121
Analog Signaling Link Operating Procedures Section
Digital Signaling Link Operating Procedures Section

Input Messages
INH:SLK
REPT:SLK-INHALM

Output Message
REPT:SLK-INHALM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:TRACE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

INH TRACE a
b

2. REASON FOR OUTPUT

This message is in response to the INH:TRACE input command.

3. VARIABLE FIELD DEFINITIONS

Where:

a Termination status of the input command.

{ COMPL | ABT | STOPPED }

b Reason command was ABT.

TIMEOUT SIGNAL RECEIVED
SOFTWARE TERMINATION SIGNAL RECEIVED
HANGUP SIGNAL RECEIVED
INTERRUPT SIGNAL RECEIVED
UNEXPECTED SIGNAL RECEIVED

or reason command was STOPPED.

IMS SUBSYSTEM DOWN.
IMS MESSAGE SWITCH CHANNEL BUSY.
IMS SUBSYSTEM OVERLOAD.
PROGRAM MALFUNCTION.

4. ACTION TO BE TAKEN

None or if ABT or STOPPED retry ALW:TRACE input message.

5. REFERENCES

Input Messages
ALW:TRACE
INH:TRACE
OP:TRACE
SET:TRACE

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
ALW: TRACE
OP: TRACE
REPT: TRACE
SET: TRACE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:TRAP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has five formats.

- [1] INH TRAP
MTRP: INH TRAP ID ALL COMPL; NO ACT TRAP
- [2] INH TRAP
MTRP: INH TRAP ID ALL COMPL; ID(S) = a a a
- [3] INH TRAP
MTRP: INH TRAP ID ALL FAILED; b
- [4] INH TRAP
MTRP: INH TRAP ID COMPL; ID = a
- [5] INH TRAP
MTRP: INH TRAP ID FAILED; [b | c]; ID = a

2. REASON FOR OUTPUT

This output message is in response to the input message INH:TRAP.

Format 1: Prints when ID ALL is specified and there are no active traps in the Message Trap system.

Format 2: Prints when ID ALL is specified and there is one or more active traps to be inhibited. A list of the trap IDs that have been inhibited will be displayed.

Format 3: Prints when ID ALL is specified and there is one or more active traps to be inhibited. However, the processing of the INH:TRAP input message has failed due to the reason being printed.

Format 4: When one or a list of trap IDs is given, each trap specified will be inhibited in the given order. This format will be printed for the traps that have been successfully inhibited. One message per trap ID inhibited will be printed.

Format 5: When one or a list of trap IDs is given, each trap specified will be inhibited in the given order. Prints when the processing of a trap has failed due to the reason being printed. One message per ID failed will be printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Trap Identification Number |
| b | Reason INH:TRAP input message failed (internal error condition)

CAN'T GET INDEX
NO TRAP INHIBITED
INVALID TRAP STATE |
| c | Reason INH:TRAP input message failed

NOT ACT TRAP can only inhibit active traps

INVALID ID ID does not belong to any trap |

4. ACTION TO BE TAKEN

For Formats 1, 2 and 4, no action need be taken.

For Format 3, seek technical assistance.

For Format 5, if any of the reasons in category b are printed, seek technical assistance; otherwise, the reasons in category c are self-explanatory.

5. REFERENCES

Input Message
INH:TRAP

Output Message
REPT:MON-TRAP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:UMEM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

INH UMEM a WAS b NOW c #d

2. REASON FOR OUTPUT

To report that the transfer trace entered the STOPPED state either as the result of an INH:UMEM input message or the STOP FULL directive of the INIT:UMEM input message. The two cases can be distinguished by the 'priority of action' field which will be either M or A, respectively.

3. VARIABLE FIELD DEFINITIONS

- a Status of the operation:
- COMPLETED — The trace has stopped monitoring the flow of execution.
- NOT STARTED — The operation was ignored because the trace was not running.
- STOPPED UCERR — The utility circuit either does not respond or does not match the circuit present when the trace was defined.
- b State of the trace before the operation was attempted:
- DUMPED — The trace was not running and its data had already been dumped.
- NEW — The trace was not running and did not have data.
- RUNNING — The trace was collecting data.
- STOPPED — The trace was not running and did have data.
- UNDEF — No trace was defined.
- c State of the trace after the operation was attempted:
- DUMPED — The trace is not running and its data had already been dumped.
- NEW — The trace is not running and does not contain data.
- STOPPED — The trace is stopped and does contain data.
- UNDEF — No trace is defined.
- d Generic Access Package (GRASP) execution sequence number.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If status of operation is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. REFERENCES

OMDB Key

This message has an OMDB key of 498.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

ALW:UMEM

INH:UMEM

INIT:UC

INIT:UMEM

OP:UTIL

Output Message

OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:UTIL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

INH UTIL a #b

2. REASON FOR OUTPUT

To indicate the disposition of an INH:UTIL input message or report Generic Access Package (GRASP) dynamic time overload.

3. VARIABLE FIELD DEFINITIONS

- a Termination status.
- COMPLETED — The action associated with breakpoints will not be executed when the breakpoint conditions occur.
- COMPLETED EAI — All defined breakpoints were inhibited by a request from Application Integrity Monitor (AIM).
- COMPLETED OVERLOAD — All defined breakpoints were automatically inhibited because of GRASP overload (due to breakpoints or trace processing). This message will appear when an overload condition occurs, even if no breakpoints are currently defined.
- STOPPED UCERR — The operation was completed successfully for software breakpoints but the utility circuit either does not respond or does not match the circuit present when the hardware breakpoints were defined.
- b GRASP execution sequence number.

4. ACTION TO BE TAKEN

If termination status is COMPLETED OVERLOAD, re-enable selected breakpoints and clear the others, or increase the dynamic time limit.

If termination status is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. REFERENCES

OMDB Key
There is an OMDB key of 497.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW:UTIL
ALW:UTILFLAG
CLR:UTILFLAG
IN:DTIME
INH:UTIL
INH:UTILFLAG
INIT:UC
OP:UTIL

Output Message

OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INH:UTILFLAG
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

INH UTILFLAG a b #c

2. REASON FOR OUTPUT

To indicate the disposition of an INH:UTILFLAG input message.

3. VARIABLE FIELD DEFINITIONS

- a Numeric identifier (one or more decimal digits) for the breakpoint that was inhibited.
- b Termination status.
- COMPLETED — The actions associated with the breakpoint will not be executed when the breakpoint conditions occur.
- STOPPED UCERR — The utility circuit either does not match the circuit present or does not respond when the breakpoint is defined.
- c Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If termination status is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. REFERENCES

OMDB Key
There is an OMDB key of 494.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages
ALW:UTIL
ALW:UTILFLAG
INH:UTILFLAG
INIT:UC
OP:UTIL

Output Message
OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:APPDB
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] INIT APPDB a IN PROGRESS
- [2] INIT APPDB a COMPLETE
customer unit b/c (byte offset in db file = d)
.
.
.
- [3] INIT APPDB a COMPLETE
ACTIVE DATABASE HAS APPDB FORMAT - VALID SID REQUIRED
- [4] INIT APPDB a COMPLETE
ACTIVE DATABASE HAS 4E16 FORMAT - VALID SID REQUIRED
- [5] INIT APPDB a COMPLETE
RETRY LATER - APPDB DATABASE IS CURRENTLY LOCKED
- [6] INIT APPDB a COMPLETE
[e]

2. REASON FOR OUTPUT

Formats 1 through 6 are output as a result of the execution of the INIT:APPDB input message.

Format 1 is output to indicate that the APPDB database format has begun (this process may take a while.)

Format 2 is the normal response for the INIT:APPDB input message. It indicates that the initialization has terminated with no errors.

Formats 3 through 6 are error indications.

3. VARIABLE FIELD DEFINITIONS

- a APPDB file name:
 - /dev/appdb0 — For ACTIVE file.
 - /dev/appdb1 — For SHADOW file.
 - /dev/appdb2 — For SCRATCH file.
- b Customer unit code.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Position of CU in database file.
- d Byte offset in database for the specified CU.
- e Error message.
 - mkappdb: cannot create segment -- errno is f
 - mkappdb: cannot create segment -- errno is f
 - mkappdb: dbname a does not exist
 - mkappdb: cannot open db a -- errno is f
 - mkappdb: cannot setio for db a -- errno is f
 - mkappdb: cannot lseek through a -- errno is f
 - mkappdb: cannot write a -- errno is f
- f UNIX system error code (see output Appendix APP:SYSERR).

4. ACTION TO BE TAKEN

Formats 3 and 4 indicate that the database requested in the INIT:APPDB input message has a valid APPDB format and either an invalid SID parameter or no SID parameter was specified in the INIT:APPDB input message. The input message should be retried with a valid SID parameter.

Format 5 indicates that some other action is being performed on the specified database. Retry the command later.

Format 6 indicates that a system error is preventing the APPDB file from being initialized. Try again later. If the system condition persists, notify NESAC.

5. REFERENCES

Output Appendix
APP:SYSERR

Input Message
INIT:APPDB

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:ATPCM
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] INIT ATPCM COMPLETE
- [2] INIT ATPCM SWITCH DENY
- [3] INIT ATPCM SWITCH ABORTED
- [4] INIT ATPCM SWITCH FAILED
- [5] INIT ATPCM RING INIT IN PROGRESS
- [6] INIT ATPCM BAD OST CALL
- [7] INIT ATPCM NODE RESTORAL FAILED
- [8] INIT ATPCM UNKNOWN RESPONSE
- [9] INIT ATPCM NODE RESTORE TIMEOUT
- [10] INIT ATPCM MESSAGE TIMEOUT
- [11] INIT ATPCM GETMSG() FAILED

2. REASON FOR OUTPUT

To report the status of AT&T Trigger Platform (ATP) node initialization for field updates. Format 1 indicates a successful initialization. The other formats indicate that one or both ATP nodes were not initialized for the stated reason.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Seek technical assistance if an error occurs.

5. REFERENCES

Input Message
INIT:ATPCM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:DLNCM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

INIT DLNCM STREAM IN UNKNOWN STATE
DIR: a

INIT DLNCM STREAM COMPLETE
DIR: a

INIT DLNCM STREAM FAILED
DIR: a REASON: b

2. REASON FOR OUTPUT

To report the termination status of the start stream request.

3. VARIABLE FIELD DEFINITIONS

a Direction:
1AIN — 1B incoming.
1AOUT — 1B outgoing.
BOTH — Both 1B incoming or outgoing.

b Error code. (See Output Appendix APP:DLNCM-13 - UNABLE TO INITIALIZE STREAM).

4. ACTION TO BE TAKEN

Seek technical assistance if errors occur.

5. REFERENCES

Output Appendix
APP:DLNCM-13

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:GTT
WORK CENTER.. MOC
GENERIC 4AP12 Rel. 2 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] INIT GTT TT 252 ccccccccc COMPLETE
?I - COMMAND NOT RECOGNIZED
- [2] INIT GTT TT 252 ccccccccc COMPLETE
?I - INVALID OR MISSING TT OPTION
- [3] INIT GTT TT 252 ccccccccc COMPLETE
RL - NOT GETTING ACK FROM DLN SUPPLEMENTARY a
- [4] INIT GTT TT 252 ccccccccc COMPLETE
RL - ERROR CODE b

2. REASON FOR OUTPUT

Format 1. Command not recognized.

Format 2. Missing the keyword TT or using an invalid TT.

Format 3. Internal error, the request to init was sent to the DLN to purge the process, however, the DLN did not acknowledge that the message was received.

Format 4. Encountered errors when attempting to send the init request to the DLN.

3. VARIABLE FIELD DEFINITIONS

- a Supplementary data to indicate the result of attempting to delete the database:
 - 4 — Timed out while waiting for the ring node address (RNA) to reply
 - 101 — General database failure, unsuccessful completion
 - 141 — File descriptor is out of range
 - 143 — Error on reading from the database
 - 144 — Error on writing to the database
 - 154 — Database inconsistencies have been detected
 - 155 — Cache inconsistencies have been detected
 - 156 — The ADMINTOC or DBTOC magic number is invalid
 - 157 — Invalid database type for this application

SEE PROPRIETARY NOTICE ON COVER PAGE

- 160 — Clump number is out of range for application
 - 190 — The application database value is invalid
 - 192 — The specified access mode is invalid
 - 193 — The specified customer identification number is invalid
 - 194 — The compaction table search chain exceeded maximum length
 - 196 — The DLN user buffer address is invalid
- b
- DLNCM Failures:
- 15 — Failed to get port to DLNCM
 - 16 — Failed to find home DLN
 - 17 — RNA specified is not a valid DLN
- Failure to open IMS channel:
- 1 — Cannot open because message switch is down
 - 7 — Out of read queues to allocate
 - 8 — Out of old write queues to allocate
 - 103 — Maximum open channels
 - 104 — Bad function name in the argument
 - 109 — Channel already open, wait 2 minutes then retry
- Failure to set IMS channel controls:
- 3 — Not your channel
 - 6 — Out of read queues to allocate
 - 8 — No read lists available
 - 9 — No new message lists available
 - 17 — No block read lists available
 - 101 — Bad channel number
 - 102 — Channel is closed
 - 106 — Could not make open request
- Failure to send message to DLN:
- 198 — Channel is closed
 - 199 — Bad channel number
 - 247 — Channel number out of range
 - 296 — Bad length of the message
 - 294 — Not enough space to satisfy the request

SEE PROPRIETARY NOTICE ON COVER PAGE

299 — Cannot open because message switch is down

343 — Internal error, retry

4. ACTION TO BE TAKEN

Formats 1 and 2. Check the input message and re-enter the message.

Formats 3 and 4. Wait a few minutes and retry the message again; if it fails, seek technical assistance.

5. REFERENCES

Input Message
INIT:GTT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:LN
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,IMS
TYPE Output

1. FORMAT

- [1] INIT LNa b COMPL
START c END d
- [2] INIT LNa b NOT STARTED
START c END d
e
- [3] INIT LNa b STOPPED
START c END d
f

2. REASON FOR OUTPUT

To report the results from an INIT:LN input command, which requests removal from service and restart of a node.

3. VARIABLE FIELD DEFINITIONS

- | | |
|----|---|
| LN | Indicates a link node. |
| a | A Ring Node (RN) group number (00-63) with explicit leading zero for group numbers less than 10. |
| b | The node's position in the RN group (1-15). |
| c | The contents of the 3B Control Unit (CU) real time clock register (milliseconds) when the request was received by the Interprocess Message Switch (IMS) driver process. |
| d | The contents of the 3B CU real time clock register (milliseconds) when the request was completed or stopped by the IMS driver process. |
| e | Reason the command was NOT STARTED:

ANOTHER MANUAL RESTART IS IN PROGRESS

CONFLICT WITH IMS SYSTEM INITIALIZATION

RING CONFIGURATION NOT STABLE

RING NODE ALREADY BEING RESTARTED

RING NODE NOT IN ACT STATE

SOFTWARE IN THIS RING NODE NOT RESTARTABLE |

SEE PROPRIETARY NOTICE ON COVER PAGE

f Reason the command was STOPPED:

ABORTED -- DETAILS IN REPT IUN RESTRT

FAILED -- DETAILS IN REPT IUN RESTRT

FAILED, NO FAULT -- DETAILS IN REPT IUN RESTRT

RESOURCE PROBLEM -- _UNRESTRT RETURNED _FAIL

RESOURCE PROBLEM -- FAILED TO SEND NP RESTART
MESSAGE TO RING NODE

PROGRAM ERROR -- _UNRESTRT RETURNED _DENIED

PROGRAM ERROR -- _UNRESTRT RETURNED _RETRY

PROGRAM ERROR -- FAILED TO CHANGE RING NODE STATE TO
OOS

4. ACTION TO BE TAKEN

Format 1: None. This message is for information only. The RMV-LN and RST-LN output messages may also have been printed.

Format 2: If the reason the command was not started indicates the node was not in the Active (ACT) state, then it cannot be restarted. If the reason the command was not started indicates the software is not restartable, then the software in the node reported when it last entered the ACT state that it was not designed to be restartable. For these cases, if manual recovery is necessary, use the RST:LN input command. For other values of the reason the command was not started, wait until the condition indicated by the reason the command was not started changes and, if appropriate, try again.

Format 3: The ring node was removed from service but not successfully restarted, so it is no longer eligible to be restarted. The user should use the RST:LN input command to recover it. The RMV:LN and REPT:IUN-RESTRT output messages may also have been printed. Usually, the reason the command was stopped will be FAILED -- DETAILS IN REPT IUN RESTRT, the node will have been marked faulty, and the separately printed REPT:IUN-RESTRT output message will provide more details. The FAILED, NO FAULT ... case indicates the node was not marked faulty, but this case is not known to occur in the initial release of this command. A restart can be ABORTED by some systemwide initializations, by 3B20D/3B21D DMA faults or by automatic recovery. Values of the reason the command was stopped containing RESOURCE PROBLEM should seldom occur. Values of the reason the command was stopped containing PROGRAM ERROR should never occur -- they indicate software bugs.

5. REFERENCES

Input Messages
INIT:LN
RST:LN

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages
REPT: IUN-RESTR
RMV: LN
RST: LN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:MHD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INIT MHD a { b c d | e}
- [2] INIT MHD a EARLY TERM VFY FAILED f
TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC
g h i j [g h i j] [g h i j] [g h i j]
- [3] INIT MHD a EARLY TERM VFY FAILED d
BLOCKS BLOCKS BLOCKS BLOCKS
k [k] [k] [k]
- [4] INIT MHD ABORTED b
ERROR DATA l m n o p

2. REASON FOR OUTPUT

To report the status of a request to format a Moving Head Disk (MHD).

This report may be invoked by either executing an INIT:MHD input message or by poking INIT MHD.

If the format process was invoked via the INIT MHD poke on the Data File System Access (DFSA) display page during Disk Independent Operation (DIOP) mode, a REPT:DKDIP message will precede the output message.

Format 4 provides additional error information when an explicit Small Computer System Interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

- a MHD member number.
- b ABORTED
ERROR
NOT STARTED
STOPPED
- c Process step or reason code:
f01 — Failed to fopen() /tmp file.
f03 — fseek() failed on the output file.

SEE PROPRIETARY NOTICE ON COVER PAGE

- f04 — Failed to open Equipment Configuration Database (ECD).
- f05 — Failed to get UCB by name.
- f06 — Failed to get Unit Control Block (UCB) of controlling unit.
- f07 — Controlling unit is not active.
- f09 — MHD size not recognized.
- f0a — TRACK, BLOCK, or NEW are not valid for SCSI MHD.
- f0c — TRACK is not valid for SCSI MHD.
- f42 — BLOCK is not valid for Storage Module Device (SMD) MHD.
- f13 — Failed to get top UCB.
- f14 — Top UCB is not a Disk File Controller (DFC).
- f15 — Unknown DFC type.
- f18 — Failed to reserve UCB.
- f1b — Failed to assign special device file name.
- f1d — Failed to open device file.
- f21 — Failed to set Input / Output (I/O) mode of device file.
- f24 — Failed to enable message reception.
- f27 — See Disk Driver (DKDRV) report on the Read Only Printer (ROP).
- f30 — Head UPT address is not available.
- f36 — See DKDRV report on the ROP.
- f37 — DKDIP virtual address translation failure.
- f39 — See DKDRV report on the ROP.
- f42 — DFC Random Access Memory (RAM) read failed.
- f45 — Verify (VFY) data overwritten - repeat input request starting from track number.
- f46 — Start block greater than the LBA.
- f47 — See DKDRV report on the ROP.
- f48 — DKDIP virtual address translation failure.
- f49 — See DKDRV report on the ROP.
- f4c — Read of the DFC head Universal Pointer Table (UPT) failed.
- f4e — See DKDRV report on the ROP.
- f52 — Read of the DFC firmware UPT failed.
- f55 — Failed to get UCB of the MHD's SBUS by Record Identification (RID).

SEE PROPRIETARY NOTICE ON COVER PAGE

f58 — See DKDRV report on the ROP.
f5b — Read of the verify failure data failed.
f5e — Invalid verify data.
f63 — lseek() to "comb" defect table failed.
f64 — DKDIP virtual address translation failure.
f66 — First read of defect table failed.
f69 — lseek() to "comb" defect table failed.
f6a — DKDIP virtual address translation failure.
f6c — Second read of defect table failed.
f6e — Message to port failure.
f71 — Message reception failure.
f72 — Manual abort requested.
f73 — Manual abort requested.
f74 — Process timed out.
f78 — Failed to close special device file.
f7c — Failed to release special device file.
f7f — Failed to unreserve UCB.
f83 — Failed to close ECD.
f86 — Terminated externally with signal.
f94 — See DKDRV report on the ROP.
f99 — Message to port failure.
f9c — Message reception failure.
f9f — See DKDRV report on the ROP.
fa1 — Failed to get the segment number.
fa5 — SCSI "inquiry" command failed.
fa7 — SCSI "inquiry" command data underflow.
fa9 — Failed to get the segment number.
fb1 — SCSI "mode sense" command failed.
fb2 — Data overflow - too many block descriptors.
fb5 — Failed to get the segment number.
fb9 — SCSI "mode select" command failed.
fc1 — See DKDRV report on the ROP.
fc6 — Failed to get the segment number.

SEE PROPRIETARY NOTICE ON COVER PAGE

	fc9 — SCSI "read capacity" command failed.
	ffe — Aborted due to phase 1.
d	System error code number. See System Error Codes Output Appendix, APP:SYSERR.
e	COMPLETED IN PROGRESS STARTED
f	Number of failures (bad sectors for SMD MHD or bad blocks for SCSI MHD) found during the verify step.
g	Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field only applies to an SMD MHD.
h	Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.
i	Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.
j	Sector number in use when the failure occurred. It is a relative number from 0 to 31. This variable field only applies to an SMD MHD.
k	Logical disk block number of the bad disk block found on the SCSI disk driver during the verify operation.
l	Command completion word. The command completion word is eight hexadecimal digits in the form AAAABBCC. AAAA = SCSI Job Block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, APP:DFC-K. BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, APP:DFC-K. CC = Fill. Not used.
m	First word of Extended Sense Data (ESD). See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits in the form AABBCDD. AA = Byte 0 of ESD. BB = Byte 1 of ESD.

SEE PROPRIETARY NOTICE ON COVER PAGE

- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.
- n Second word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits in the form AABBCDD.
- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.
- o Third word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits in the form AABBCDD.
- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.
- p Fourth word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits in the form AABBCDD.
- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying a verification failure indicates that format information on the disk media could not be read, or is incorrect and could not be corrected. This disk media should not be used until the problem is corrected. For an SMD MHD, the HEAD and TRACK information is output to help determine if the problem is with the MHD (head alignment) or in the disk media (bad surface).

If Format 4 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 147, 148 and 149.

Format 2 has an OMDB key of 146.

Format 3 has an OMDB key of 569.

Format 4 has an OMDB key of 666.

Display / Menu Page Name

DISK FILE SYSTEM ACCESS

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Output Appendixes

APP:DFC-J

APP:DFC-K

APP:SYSERR

Input Messages

INIT:MHD

LOAD:MHD-DEFECT

LOAD:MHD-FIRM

VFY:MHD

Output Messages

REPT:DKDIP

VFY:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:TDAS
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

INIT TDAS a COMPLETED

2. REASON FOR OUTPUT

To report the disposition of the INIT:TDAS input command.

3. VARIABLE FIELD DEFINITIONS

a MC x, where x equals the traffic data administration system (TDAS)
measurement class removed.

ALL — All TDAS data has been removed.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:ULARP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INIT ULARP COMPLETED
- [2] INIT ULARP NOT STARTED
RETRY LATER

2. REASON FOR OUTPUT

To report the termination status of the INIT:ULARP input message.

3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

4. ACTION TO BE TAKEN

None. This message is for information only.

5. REFERENCES

CIC Select Code 303-007 *Lucent Technologies 3B20D/3B21D Computer UNIX®
RTR Operating System Processor Recovery Messages User's Guide*

Input Message
INIT:ULARP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID INIT:UMEM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] INIT UMEM a WAS UNDEF NOW b #c
- [2] INIT UMEM NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS
- [3] INIT UMEM NOT STARTED
INVALID ACTION FIELD
- [4] INIT UMEM NOT STARTED
INVALID ID FIELD
- [5] INIT UMEM NOT STARTED
RETRY LATER
- [6] INIT UMEM COULD NOT CREATE d e file f #g

2. REASON FOR OUTPUT

To report the disposition of an INIT:UMEM input message.

3. VARIABLE FIELD DEFINITIONS

- a Status of the operation:
 - COMPLETED — The trace is ready as specified.
 - STOPPED UCERR — The utility circuit either does not respond or does not match the circuit present at the beginning of the debugging session.
- b The state of the trace after the operation was attempted.
 - NEW — The trace is ready to be used.
 - UNDEF — No trace is defined.
- c Generic Access Package (GRASP) execution sequence number.
- d Create, Open, or Read. Indicates which file operation failed.
- e Diagnostics or trace information indicates what type of file operation failed for.
- f File name indicates file operation failed for.
- g GRASP sequence number.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If the status of the operation is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 498.

Format 6 has an OMDB key of 567.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

Input Messages

CLR:UMEM

INIT:UC

INIT:UMEM

OP:UTIL

Output Message

OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:0
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

[1] LOAD a [,OFF b] c #d

[2] LOAD PMEM c # d
 ADDRESS (HEX) OLD VALUE (HEX) <- NEW VALUE (HEX)
 [e f g]

2. REASON FOR OUTPUT

To report the completion status of a LOAD: input message.

3. VARIABLE FIELD DEFINITIONS

a Destination of the LOAD:

 UVAR x — Utility variable.
 REG x — Register.
 ADDR x — Virtual address, in hexadecimal notation.

b Offset information from input message.

c Termination status:

 COMPLETED — LOAD operation has been successfully completed.

 STOPPED NGADDR — The LOAD command was stopped because the address specified is not valid.

 STOPPED NGPROT — The LOAD operation was stopped because the destination address does not have write permission granted.

 STOPPED NGLoad — The LOAD command was stopped because some other error occurred.

d Generic Access Package (GRASP) execution sequence number.

e Address of word of physical memory that was modified.

f Original value of specified word of physical memory.

g New value of specified word of physical memory.

4. ACTION TO BE TAKEN

If variable c is:

STOPPED NGADDR, recheck the program listings.

STOPPED NGPROT, recheck the destination to verify that it indicates a writable area. To change program text, use the LOAD:UPNM input message.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 494.

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System
System Maintenance Manual*

Practice 254-341-115 *Generic Access Package (GRASP) - Description*

Input Messages

LOAD:ADDR-A

LOAD:ADDR-B

LOAD:PMEM

LOAD:REG-A

LOAD:REG-B

LOAD:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:ADDR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

LOAD ADDR a [,OFF b] c #d

2. REASON FOR OUTPUT

To report the completion status of a LOAD:ADDR input message.

3. VARIABLE FIELD DEFINITIONS

- a Virtual address, in hexadecimal notation (destination of the load).
- b Offset information from input message.
- c Termination report:
- COMPLETED — The LOAD operation has been successfully completed.
 - STOPPED NGADDR — The LOAD message was stopped because the address specified is not valid.
 - STOPPED NGLOAD — The LOAD message was stopped because some other error occurred.
 - STOPPED NGPROT — The LOAD operation was stopped because the destination address does not have write permission granted.
- d Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the termination status is STOPPED NGADDR, recheck the program listings.

If the termination status is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area. To change program text, use the LOAD:UPNM input message.

5. REFERENCES

OMDB Key

This message has an OMDB key of 494.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages
LOAD:ADDR-A
LOAD:PMEM
LOAD:REG-A
LOAD:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:APPTAPE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] APPTAPE ADDRESS RANGE a - b STARTED, FILE c
- [2] APPTAPE COMPLETED

2. REASON FOR OUTPUT

In response to the LOAD:APPTAPE command to restore LTS, TOSL, ERAP, or ODIL data from an archive tape.

3. VARIABLE FIELD DEFINITIONS

- a Starting file store address of data block
- b Ending file store address of data block
- c Absolute path name of destination 1BFILE.

4. ACTION TO BE TAKEN

Format 1 is the expected output. It may be repeated with different address ranges, as needed to cover the data areas being restored.

Format 2 announces task completion.

5. REFERENCES

Input Messages
LOAD:APPTAPE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:BYTE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

LOAD BYTE ABT
ALLOWED ONLY IN A WHEN COMMAND

2. REASON FOR OUTPUT

Response to the LOAD:BYTE input command.

The output message indicates an error condition.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Input this command only inside a WHEN:RUTIL <action-list>.

5. REFERENCES

Input Messages
LOAD:BYTE
WHEN:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:DFC-PUMP
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] LOAD DFC a PUMP [CHECKSUM] FU NOT STARTED b c
- [2] LOAD DFC a PUMP [CHECKSUM] FU STARTED
- [3] LOAD DFC a PUMP [CHECKSUM] FU STOPPED b c
- [4] LOAD DFC a PUMP [CHECKSUM] FU ERROR b c
- [5] LOAD DFC a PUMP [CHECKSUM] FU ABORTED b
- [6] LOAD DFC a PUMP [CHECKSUM] FU COMPLETED d

2. REASON FOR OUTPUT

To report the result of executing a LOAD:DFC;PUMP input command.

3. VARIABLE FIELD DEFINITIONS

- a Member number of the Disk File Controller (DFC).
- b Process step or reason code:
 - f03 —Failed to open the Equipment Configuration Database (ECD).
 - f06 —Failed to get Unit Control Block (UCB) by name.
 - f07 —DFC is not an Small Computer System Interface (SCSI) device.
 - f09 —Failed to open the pump file.
 - f0a —Pump file is zero length (bytes) in size.
 - f0c —Failed to allocate buffer.
 - f0e —Failed to read the pump file header.
 - f13 —Failed to reserve the UCB.
 - f16 —Failed to assign special device file name for DFC.
 - f19 —Failed to open special device file for DFC.
 - f1b —Failed to enable message reception.
 - f1d —See Disk Driver (DKDRV) report on the Read Only Printer (ROP).
 - f1f —DFC is not active.

SEE PROPRIETARY NOTICE ON COVER PAGE

- f22 —See DKDRV report on the ROP.
 - f25 —Failed to close special device file.
 - f28 —Failed to re-open special device file for DFC.
 - f2a —DFC auto pump failed.
 - f2c —Failed to allocate a segment for buffer.
 - f2e —DFC pump failed.
 - f31 —Failed to notify DKDRV of the pump procedure completion.
 - f34 —Process timed out.
 - f37 —Failed to close special device file.
 - f3a —Failed to release special device file.
 - f3c —Failed to unreserve UCB.
 - f3e —Failed to close ECD.
 - f3f —Failed to close the pump file.
 - f41 —Read of the pump file failed.
 - f44 —Message to port failure.
 - f47 —Message reception failure.
 - f4c —Terminated externally with signal.
 - f4e —Invalid magic number in pump file header .
 - f51 —Invalid pump file header.
 - f54 —Unused portion of the pump file header is not zero.
- c System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- d INVALID PUMPCODE — Pumpcode failed the hashsum check.
 VALID PUMPCODE — Pumpcode has passed the hashsum check.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. The pump failure can also be caused by the incompatibility between the pumpcode and firmware. The pump can also fail due to a corrupted pumpfile. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. REFERENCES

Output Appendix
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

LOAD:DFC-PUMP
LOAD:DFC-RAM

Output Messages

LOAD:DFC-RAM
REPT:DFC-PUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:DFC-RAM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] LOAD DFC a RAM [CHECKSUM] NOT STARTED b c
- [2] LOAD DFC a RAM [CHECKSUM] STOPPED b c
- [3] LOAD DFC a RAM [CHECKSUM] ERROR b c
- [4] LOAD DFC a RAM [CHECKSUM] ABORTED b
- [5] LOAD DFC a RAM [CHECKSUM] COMPLETED d

2. REASON FOR OUTPUT

To report the result of executing a LOAD:DFC-RAM input message.

3. VARIABLE FIELD DEFINITIONS

- a Member number of the Disk File Controller (DFC).
- b Process step or reason code:
 - f03 —Failed to open the Equipment Configuration Database (ECD).
 - f06 —Failed to get Unit Control Block (UCB) by name.
 - f07 —DFC is not an Small Computer System Interface (SCSI) device.
 - f09 —Failed to open the pump file.
 - f0a —Pump file is zero length (bytes) in size.
 - f0c —Failed to allocate buffer.
 - f0e —Failed to read the pump file header.
 - f13 —Failed to reserve the UCB.
 - f16 —Failed to assign special device file name for DFC.
 - f19 —Failed to open special device file for DFC.
 - f1b —Failed to enable message reception.
 - f1d —See Disk Driver (DKDRV) report on the Read Only Printer (ROP).
 - f1f —DFC is not active.
 - f22 —See DKDRV report on the ROP.

SEE PROPRIETARY NOTICE ON COVER PAGE

	f25 —Failed to close special device file.
	f28 —Failed to re-open special device file for DFC.
	f2a —DFC auto pump failed.
	f2c —Failed to allocate a segment for buffer.
	f2e —DFC pump failed.
	f31 —Failed to notify DKDRV of the pump procedure completion.
	f34 —Process timed out.
	f37 —Failed to close special device file.
	f3a —Failed to release special device file.
	f3c —Failed to unreserve UCB.
	f3e —Failed to close ECD.
	f3f —Failed to close the pump file.
	f41 —Read of the pump file failed.
	f44 —Message to port failure.
	f47 —Message reception failure.
	f4c —Terminated externally with signal.
	f4e —Invalid magic number in pump file header .
	f51 —Invalid pump file header.
	f54 —Unused portion of the pump file header is not zero.
c	System error code number. See System Error Codes Output Appendix, APP:SYSERR.
d	INVALID PUMPCODE — pumPCODE failed the hashsum check. VALID PUMPCODE — pumPCODE has passed the hashsum check.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. REFERENCES

Output Appendix
APP:SYSERR

Input Messages
LOAD:DFC-PUMP
LOAD:DFC-RAM

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
LOAD:DFC-PUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:GULP
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] LOAD:GULP:GENERIC "a"!
 BUILDING OW BUFFER - OW BLOCK b
 .
 .
 .
 DATABASE UPDATED WITH OVERWRITES
- [2] LOAD:GULP:GENERIC "a"!
 OVERWRITES FOR BLOCK b ALREADY APPLIED
 .
 .
 .
 DATABASE UPDATED WITH OVERWRITES

2. REASON FOR OUTPUT

To report the result of executing a LOAD:GULP input message.

3. VARIABLE FIELD DEFINITIONS

- a Path of the overwrite file read.
b Number of overwrite blocks.

4. ACTION TO BE TAKEN

Format 1 is the normal response and indicates all is well.

Format 2 indicates overwrite block has been applied previously.

5. REFERENCES

Input Message
LOAD:GULP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:MHD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] LOAD MHD a FROM TD b c [d]

[2] LOAD MHD a FROM TD b c [d]
 SESSION e VOLUME f

2. REASON FOR OUTPUT

To report the status of a request to load a disk from tape during Disk Independent Operation (DIOP) mode in response to the LOAD MHD poke on the DFC Status Page.

3. VARIABLE FIELD DEFINITIONS

- a MHD member number to be loaded.
- b Pathname used to access tape unit.
- c Status of request:
- ABORTED — Process aborted due to error.
 COMPLETED — Process completed successfully.
 ERROR — Process encountered an error.
 IN PROGRESS — Message indicating normal progress.
 MOUNT NEXT TAPE — Directive to mount next tape.
 STARTED — Poke parameters accepted.
 STOPPED — Process stopped by a poke request.
- d Messages:
- f03 —entry() call failed.
- f06 —Equipment Configuration Database (ECD) access failed.
- f07 —Multi-volume tape not supported on hardware platform
- f08 —Special device file is not for a Digital Audio Tape (DAT).
- f09 —Tape device is not active.
- f0a —Failed to open the disk unit.
- f11 —Invalid segsize or buffer address.
- f12 —vol_openrd() call failed.
- f13 —Failed to open the tape device.
- f14 —Failed to close the tape device.
- f15 —Failed to open the tape device.

SEE PROPRIETARY NOTICE ON COVER PAGE

- f16 —Read of tape header failed.
- f17 —Failed to close the tape device.
- f18 —Read of tape header failed.
- f19 —Tape header check failed.
- f20 —Failed to close the tape device.
- f21 —Tape header check failed.
- f22 —Wrong tape mounted.
- f23 —Failed to close the tape device.
- f24 —Wrong tape mounted.
- f25 —Tape is out of sequence.
- f26 —Failed to close the tape device.
- f27 —Tape is out of sequence.
- f28 —Tape sequence Identification (ID) is incorrect.
- f29 —Failed to close the tape device.
- f30 —Tape sequence ID is incorrect.
- f31 —Tape sequence ID is incorrect.
- f32 —Failed to close the tape device.
- f33 —Tape sequence ID is incorrect.
- f34 —Boot flags do not match.
- f35 —Failed to close the tape device.
- f36 —Boot flags do not match.
- f37 —Tape sequence ID is incorrect.
- f38 —Failed to close the tape device.
- f39 —Tape sequence ID is incorrect.
- f40 —GENERIC and Database (DB) tapes not made with same generic.
- f41 —Failed to close the tape device.
- f42 —GENERIC and DB tapes not made with same generic.
- f43 —Service Group (SG) DB IDs do not match.
- f45 —First tape read failed.
- f48 —First disk seek failed.
- f51 —First disk write failed.
- f54 —Second tape read failed.

SEE PROPRIETARY NOTICE ON COVER PAGE

f57 —Second disk seek failed.
f60 —Second disk write failed.
f63 —Tape block size invalid.
f66 —Read of tape header failed.
f69 —Tape header check failed.
f72 —Tape close failed.
f75 —Tape header is inconsistent.
f81 —Mount tape timeout.
f85 —opcltape() called with invalid flag.
f89 —ioqueue() call failed.
f8d —waitack() call failed.
f91 —Failed to open tape device.
f95 —Failed to close tape device.
f99 —ioqueue() call failed.
f9d —waitack() call failed.
fa1 —Tape header read failed.
fa5 —Read of tape header exceeded retry count.
fa9 —Bufsize or tpblksize invalid.
fad —ioqueue() call failed.
fb1 —waitack() call failed.
fb5 —Data read failed.
fb9 —Read of tape exceeded retry count.
fbd —readtape() tpblocks problem.
fc1 —Tape I/O message timed out.
fc3 —Failed to close tape device.
fc5 —Failed to close disk device.
fc7 —Failed to open rewind tape device.
fc9 —Failed to close rewind tape device.
fca —Tape header session number does not match command line
parameter.
fcb —Tape header volume number does not match command line
parameter.
fcc —Invalid common generic tape syncword.

SEE PROPRIETARY NOTICE ON COVER PAGE

	fc d —Tape syncword invalid for 3B21D platform.
	fc e —Tape syncword invalid for 3B20D platform.
	fc f —Invalid ecdorg model field.
	fd 1 —Header hash sum check failed.
	fd 5 —Data hash sum check failed.
	fd 9 —Failed to get tape logdev record.
	fd d —Failed to get tape Minor Device Chain Table (MDCT) record.
	fd e —Invalid partition value for tape special device file.
	fe 1 —Failed to get tape Unit Control Block (UCB) record.
	fe 5 —Failed to get tape device driver Process Identification (PID).
	fe 9 —Failed to get Moving Head Disk (MHD) UCB record by name.
	fe a —Failed to open the tape device.
	fe b —Read of tape header failed.
	fe c —Invalid multi-volume tape.
	fe d —Failed to close no-rewind tape device.
	fe e —Failed to open rewind tape device.
	fe f —Failed to close rewind tape device.
	ff 0 —Failed to open no-rewind tape device.
	ff 1 —Failed to close no-rewind tape device.
	ff 2 —Valid logical volume did not precede End Of Dialing (EOD).
	ff 3 —Specified logical volume not found on tape.
	ff 4 —Specified logical volume not found on tape.
	ff 5 —Specified session not found on tape.
	ff 6 —Read of tape header failed.
	ff 7 —Invalid multi-volume tape.
	ff 8 —Sessions are not sequential.
	ff 9 —Volumes are not in ascending order.
	ff a —Specified logical volume not found on tape.
	ff b —Specified logical volume not found on tape.
	ff c —Failed to close no-rewind tape device.
	ff e —Aborted due to phase 1.
e	Multi-volume Digital Audio Tape (DAT) session number.
f	Multi-volume Digital Audio Tape (DAT) volume number.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Key

This message has an OMDB keys of 270.

Display / Menu Page Name

DFC STATUS PAGE

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:MHD-DEF
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] LOAD MHD a DEFECT TABLE NOT STARTED b c
- [2] LOAD MHD a DEFECT TABLE STOPPED b c
- [3] LOAD MHD a DEFECT TABLE ERROR b c
- [4] LOAD MHD a DEFECT TABLE ABORTED b
- [5] LOAD MHD a DEFECT TABLE COMPLETED
d DEFECTS LOADED
- [6] LOAD MHD a DEFECT TABLE COMPLETED
d DEFECTS LOADED
SCSI DEFECT COUNT CHECK {COMPLETED | ERROR [b c] }
[WARNING: NUMBER OF GROWTH DEFECTS EXCEEDS THE AT&T
RECOMMENDATION]
[WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE AT&T
RECOMMENDATION]
[WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE
AT&T RECOMMENDATION]
- [7] LOAD MHD a DEFECT TABLE ABORTED b
ERROR DATA e f g h i
- [8] LOAD MHD a DEFECT TABLE COMPLETED
d DEFECTS LOADED
SCSI DEFECT COUNT CHECK ABORTED b
ERROR DATA e f g h i

2. REASON FOR OUTPUT

To report the result of executing a LOAD:MHD-DEF input message.

Formats 7 and 8 provide additional error information when an explicit Small Computer System Interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a Moving Head Disk (MHD) member number.

SEE PROPRIETARY NOTICE ON COVER PAGE

b

Process step or reason code:

- f03 — Failed to fopen() input file.
- f06 — Failed to open the Equipment Configuration Database (ECD).
- f09 — Failed to get Unit Control Block (UCB) by name.
- f0a — Failed to get top UCB.
- f0b — Failed to get UCB of controlling unit.
- f0c — Controlling unit is not active.
- f10 — Top UCB is not a Disk File Controller (DFC).
- f12 — Unknown DFC type.
- f13 — MHD size not recognized.
- f14 — Drive size not supported by defect management.
- f15 — Failed to reserve the UCB.
- f16 — Failed to assign special device file name.
- f18 — Failed to open special device file.
- f21 — Failed to set Input / Output (I/O) mode of device file.
- f24 — Failed to enable message reception.
- f26 — Clear of MHD media access error counter failed.
- f27 — See Disk Driver (DKDRV) report on the Read Only Printer (ROP).
- f30 — Firmware version is not available.
- f39 — lseek() to "mfgr" disk address failed.
- f42 — Disk write failed.
- f44 — Clear of MHD media access error counter failed.
- f46 — Too many defect blocks specified.
- f48 — Incorrect defect spec file format.
- f4a — Block number not sorted in ascending order.
- f4b — Block number is out of range.
- f4c — Failed to get the segment number.
- f53 — See DKDRV report on the ROP.
- f56 — SCSI "reassign block" command failed.
- f59 — Too many defects specified.
- f6c — Incorrect defect spec file format.
- f6e — Cylinder number out of range.

SEE PROPRIETARY NOTICE ON COVER PAGE

f71 — Head number out of range.
f73 — Sector number out of range.
f76 — Head number not sorted in ascending order.
f79 — Cylinder number not sorted in ascending order.
f82 — Message to port failure.
f85 — Message reception failure.
f88 — Process timed out.
f8c — Failed to close special device file.
f8e — Failed to release special device file.
f91 — Failed to unreserve UCB.
f93 — Failed to close ECD.
f96 — Terminated externally with signal.
f99 — See DKDRV report on the ROP.
f9c — Read of the SCSI defect list header failed.
f9f — See DKDRV report on the ROP.
fa2 — Read of the SCSI defect list failed.
fa5 — Failed to get the segment number.
fa8 — Message to port failure.
fab — Message reception failure.
fae — Failed to get the segment number.
fb1 — See DKDRV report on the ROP.
fb3 — SCSI "inquiry" command failed.
fb5 — SCSI "inquiry" command data underflow.
fb9 — Drive not formatted with 512 bytes per logical block.
fba — Data overflow - too many block descriptors.
fbd — Data overflow - too many block descriptors.
fc2 — Failed to get the segment number.
fc4 — See DKDRV report on the ROP.
fc6 — SCSI "read capacity" command failed.
fc9 — Failed to get the segment number.
fcb — See DKDRV report on the ROP.
fce — SCSI "mode sense" command failed.
fd2 — Failed to get the segment number.

SEE PROPRIETARY NOTICE ON COVER PAGE

- fd4 — See DKDRV report on the ROP.
- fd6 — SCSI "mode sense" command failed.
- fd9 — diskinfo() library call failed.
- fdb — Unknown defect limit type.
- fde — Unexpected UCB equipage value..
- c System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- d Number of defects written.
- e Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.
- AAAA = SCSI Job Block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, APP:DFC-K.
- BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, APP:DFC-K.
- CC = Fill. Not used.
- f First word of Extended Sense Data (ESD). See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 0 of ESD.
- BB = Byte 1 of ESD.
- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.
- g Second word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.
- h Third word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.

SEE PROPRIETARY NOTICE ON COVER PAGE

- i Fourth word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.

AA = Byte 12 of ESD.

BB = Byte 13 of ESD.

CC = Byte 14 of ESD.

DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against:

The number of GROWN defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) should not exceed the Lucent Technologies specification for the disk drive. If the disk has more than the number of defects allowed, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the 3B20D or 3B21D system.

Lucent Technologies recommends that the SCSI disk should be replaced if there is any warning output related to the recommendations.

NOTE: For SCSI disk, after new defect blocks are loaded, all the previous information about bad blocks (defects) becomes invalid. For example, bad logical block number 3 is not physically the same block after being loaded; in fact, it is now a good block number 3. Therefore, only a new defect (or defects) detected since the previous LOAD:MHD;DEFECT command should be included in the specfile used for loading new defects into the GROWN defect list.

If Format 7 or Format 8 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

OMDB Keys

Formats 1 through 5 have an OMDB key of 123.

Format 6 has OMDB keys of 610 and 611.

Format 7 has an OMDB key of 666.

Format 8 has an OMDB key of 663.

Output Appendixes

APP:DFC-J

APP:DFC-K

APP:SYSERR

Input Messages

LOAD:MHD-DEFECT

LOAD:MHD-FIRM

Output Message

DUMP:MHD-DEF

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:MHD-FIRM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] LOAD MHD a FIRMWARE STARTED
- [2] LOAD MHD a FIRMWARE NOT STARTED b c
- [3] LOAD MHD a FIRMWARE STOPPED b c
- [4] LOAD MHD a FIRMWARE ERROR b c
- [5] LOAD MHD a FIRMWARE ABORTED b
- [6] LOAD MHD a FIRMWARE IN PROGRESS
- [7] LOAD MHD a FIRMWARE COMPLETED

2. REASON FOR OUTPUT

To report the result of executing a LOAD:MHD;FIRMWARE input command.

3. VARIABLE FIELD DEFINITIONS

- a Moving Head Disk (MHD) member number.
- b Process step or reason code.
 - f03 — Failed to open firmware file.
 - f05 — Firmware file is zero bytes in size.
 - f06 — No firmware in firmware file.
 - f07 — Failed to determine size of firmware file.
 - f09 — Failed to open Equipment Configuration Database (ECD).
 - f0b — Failed to get Unit Control Block (UCB) by name.
 - f0d — Unit must not be Active (ACT).
 - f0e — Failed to get top UCB.
 - f0f — Top UCB is not a Disk File Controller (DFC).
 - f10 — Failed to get UCB of Small Computer System Interface Bus (SBUS).
 - f13 — Controlling unit is not active.
 - f15 — Not an Small Computer System Interface (SCSI) MHD.

SEE PROPRIETARY NOTICE ON COVER PAGE

- f17 — Could not reserve MHD UCB.
- f19 — Failed to assign special device filename for MHD.
- f1a — Failed to open special device file for MHD.
- f1c — Failed to set Input / Output (I/O) mode of device file.
- f1f — Failed to enable message reception.
- f21 — Failed to read expected number of blocks.
- f27 — Process timed out.
- f2a — Failed to close special device file.
- f2c — Failed to release special device file.
- f2f — Failed to unreserve UCB.
- f31 — Failed to close ECD.
- f33 — Failed to close firmware file.
- f37 — Failed to read firmware file.
- f39 — Terminated externally with signal.
- f40 — Unable to determine capacity of the drive.
- f43 — Drive capacity must be 600 MB.
- f46 — Failed to get the segment number.
- f49 — See Disk Driver (DKDRV) report on Read Only Printer (ROP).
- f4b — SCSI "inquiry" command failed.
- f4d — Firmware incompatible with device (product identification).
- f50 — Failed to get the segment number.
- f53 — See DKDRV report on the ROP.
- f56 — SCSI "write buffer" command failed.
- f59 — Failed to get the segment number.
- f5d — SCSI "format" command failed.
- f60 — Failed to get the segment number.
- f63 — See DKDRV report on the ROP.
- f66 — SCSI "read capacity" command failed.
- f99 — Message to port failure.
- f9c — Message reception failure.
- f9f — See DKDRV report on the ROP.
- fa9 — Failed to get the segment number.
- fb1 — SCSI "mode sense" command failed.

SEE PROPRIETARY NOTICE ON COVER PAGE

	fb2 — Data overflow, too many block descriptors.
	fb5 — Failed to get the segment number.
	fb9 — SCSI "mode select" command failed.
	fc1 — Failed to read firmware header (start).
	fc3 — Invalid firmware header (start).
	fc8 — malloc() of firmware header length failed.
	fca — Failed to read firmware header (length).
	fcc — Failed to parse firmware header (length).
	fd0 — malloc() of firmware body failed.
	fd4 — Failed to read firmware header (body).
	fd7 — Failed to parse firmware header.
	fdc — Invalid firmware header (End Of Header [EOH]).
	fe4 — Firmware too big to download.
	fe7 — Invalid number of data fields in firmware header.
	fe9 — No device information in firmware header.
c	System error code number. See System Error Codes Output Appendix, APP:SYSERR.

4. ACTION TO BE TAKEN

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. REFERENCES

OMDB Key

Formats 1 through 5 have an OMDB key of 694.

Output Appendix

APP:SYSERR

Input Message

LOAD:MHD-FIRM

SEE PROPRIETARY NOTICE ON COVER PAGE

1. FORMAT

2. REASON FOR OUTPUT

3. VARIABLE FIELD DEFINITIONS

4. ACTION TO BE TAKEN

5. REFERENCES

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages
LOAD:ADDR-A
LOAD:PMEM
LOAD:REG-A
LOAD:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:REG-A
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

LOAD REG a [,OFF b] c #d

2. REASON FOR OUTPUT

To report the completion status of a LOAD:REG input message.

3. VARIABLE FIELD DEFINITIONS

- a Register (destination of the load).
- b Offset information from input message.
- c Termination report.
- COMPLETED — The LOAD operation has been successfully completed.
- STOPPED NGADDR — The LOAD message was stopped because the address specified is not valid.
- STOPPED NGLOAD — The LOAD message was stopped because some other error occurred.
- STOPPED NGPROT — The LOAD operation was stopped because the destination address does not have write permission granted.
- d Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the termination status' is STOPPED NGADDR, recheck the program listings.

If the termination status' is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area. To change program text, use the LOAD:UPNM input message.

5. REFERENCES

OMDB Key

This message has an OMDB key of 494.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages
LOAD:ADDR-A
LOAD:PMEM
LOAD:REG-A
LOAD:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:REG-B
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two formats.

- [1] LOAD REG ABT
 ALLOWED ONLY IN A WHEN COMMAND
- [2] LOAD REG ABT
 LOAD INV REG/UVAR VALUE

2. REASON FOR OUTPUT

Response to the LOAD:REG input command.

All formats indicate error conditions.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Input this command only inside a WHEN:RUTIL <action-list>.

See the LOAD:REG Input Message for valid register names.

5. REFERENCES

Input Messages
 LOAD:REG-A
 LOAD:REG-B
 WHEN:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:RNA
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] LOAD RNA a x INACCESSIBLE ERRNO = b

[2] LOAD RNA a x COMPLETED

2. REASON FOR OUTPUT

To report the result of executing the LOAD:RNA input message to load immediate data into the contents of an address of a node on the ring.

Format [1] indicates the error case; either the 3B could not communicate with the node (the node was OOS or nonexistent) or the input request could not be done.

Format [2] is the output format for a successful load operation.

3. VARIABLE FIELD DEFINITIONS

a	Ring Node Address (RNA) of the node that was dumped.
ERRNO = b	Error number indicating the reason the dump could not be done.
3	— ESRCH - Internal error - no such process or cdp driver in unknown state.
5	— EIO - Internal error - cannot lock or unlock data segment for DMA to/from ring.
6	— ENXIO - Unknown error.
7	— E2BIG - Internal error. Driver cdp set up with incorrect number of arguments.
14	— EFAULT - Bad address - out of range.
19	— ENODEV - No such node (BAD RNA) or node OOS.
22	— EINVAL - Invalid size request.
23	— ENFILE - Internal error. Temporary mknod set up with bad partition number.
44	— EFUNC - Invalid request type.
NP	Node processor physical memory.
AP	Attached processor physical memory.
APACI	Attached processor ACI translation memory.
APPDB	Attached processor APPDB translation memory.

4. ACTION TO BE TAKEN

If Format [1] occurs, determine the reason the output could not be made. Verify the hardware state of node using either OP:NODES or the 1105-1108 display pages. The

SEE PROPRIETARY NOTICE ON COVER PAGE

DUMP-RNA command only works if the node is in the IMS hardware (ECD) ACT state. If the node is ACT, then reverify the address to be loaded. Only the legal physical address range of the node may be loaded.

If the node goes OOS due to the act of this load, then the node will be restored from the disk version.

5. REFERENCES

Input Messages

DUMP:RNA

DUMP:UID

LOAD:RNA

OP:NODES

Output Messages

DUMP:RNA

DUMP:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:RUTIL
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has six formats.

- [1] LOAD RUTIL ABT
 LENGTH a NUM DATA BYTES b MISMATCH
- [2] LOAD RUTIL ABT
 MKNOD() FAILURE c
- [3] LOAD RUTIL ABT
 OPEN() FAILURE c
- [4] LOAD RUTIL ABT
 READ() FAILURE d (ERRNO = c)
- [5] LOAD RUTIL ABT
 LOAD LENGTH a INVALID
- [6] LOAD RUTIL COMPL
 RNA X'eee

2. REASON FOR OUTPUT

Response to the LOAD:RUTIL input command.

Formats [1], [2], [3], [4], and [5] indicate error conditions.

Format [6] indicates a successful LOAD-RUTIL output.

3. VARIABLE FIELD DEFINITIONS

- a The length specified.
- b The number of data items provided.
- c Value of the global variable errno.
- d The return code from the RGRASP kernel.
- eee The node identifier of the concerned node.

4. ACTION TO BE TAKEN

Seek technical assistance on error conditions.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

CNI Maintenance Manual - 256-090-122
Ring and Ring Node Maintenance Procedures Section

Input Message
LOAD:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:SHORT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

LOAD SHORT ABT
ALLOWED ONLY IN A WHEN COMMAND

2. REASON FOR OUTPUT

Response to the LOAD:SHORT input command.

The output message indicates an error condition.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Input this command only inside a WHEN:RUTIL <action-list>.

5. REFERENCES

Input Messages
LOAD:SHORT
WHEN:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:TLP
WORK CENTER.. MOC
GENERIC 4AP18 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:TLP JOB COMPLETED

2. REASON FOR OUTPUT

Completed response to the LOAD:TLP input command.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Information only.

5. REFERENCES

Input Messages
LOAD:TLP
VER:UPDATE

Output Message
VER:UPDATE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] LOAD:UPDATE:GEN "a",MT b

GENERIC RETROFIT

TAPE HEADER

TAPE TYPE: GEN

GENERIC a

MOST RECENT OFL GENERATION: YR c,MON d,DAY e AT f:g

THIS TAPE WRITTEN: YR c,MON d,DAY e AT f:g

FS IDS: h,TAPE IDS: i

PARTL UPD FLG: j,PHASE REQD: k

TAPE FILE l LOADED TO FS

•
•
•

GENERIC COMPLETE - READY FOR ODA

[2] LOAD:UPDATE:CONT "m",MT b

TAPE HEADER

TAPE TYPE: ODA

BASE n,CONTROL o

ORIGINAL GENERIC a

MOST RECENT OFL GENERATION: YR c,MON d,DAY e AT f:g

THIS TAPE WRITTEN: YR c,MON d,DAY e AT f:g

FS IDS: h,TAPE IDS: i

PARTL UPD FLG: j,PHASE REQD: k

TAPE FILE l LOADED TO FS

•
•
•

ODA COMPLETE - READY FOR NWM

SEE PROPRIETARY NOTICE ON COVER PAGE

[3] LOAD:UPDATE:SKIP

NWM SKIPPED

WRITE MERGE DATA AND ZERO FS AREAS

MAPPING DYNAMIC DATA FROM NORMAL FILE

DATABASE COMPLETE - READY FOR GENERIC RETROFIT

2. REASON FOR OUTPUT

LOAD:UPDATE is a family of messages that perform various functions related to retrofitting and updating the 4ESS™ Switch. The output sequence shown illustrates the output sequence from the LOAD:UPDATE-GEN message showing the complete progress through a retrofit or update.

3. VARIABLE FIELD DEFINITIONS

a	The generic identification string output by the VER:UPDATE-TAPE command for a generic tape.
b	The tape unit number (0 1) where the tape is mounted.
c	The year of Off Line (OFL) generation or that the tape was written.
d	The month of OFL generation or that the tape was written.
e	The day of OFL generation or that the tape was written.
f	The hours of OFL generation or tape writing.
g	The minutes of OFL generation or tape writing.
h	File Store (FS) IDs on the Tape.
i	Tape IDs on the Tape.
j	Partial Update Flag.
k	Phase Required.
l	Count, by 10s, of the number of data files loaded to file store.
m	The six character ODA Identification (ID) formed by combining the base and control fields output by the VER:UPDATE message. The BASE field is 4 characters long. Spaces appear after the BASE number if it is not 4 characters long. The CONTROL field is 2 characters long. A space is inserted after the CONTROL number if it is not 2 characters long.
n	The BASE (building) identification for this tape.
o	The CONTROL (machine number) identification for this tape.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages

LOAD:UPDATE
LOAD:UPDATE-ABORT
LOAD:UPDATE-CONT
LOAD:UPDATE-DIFF
LOAD:UPDATE-GEN
LOAD:UPDATE-MAP
LOAD:UPDATE-NWM
LOAD:UPDATE-ODA
LOAD:UPDATE-SKIP
LOAD:UPDATE-SR
VER:UPDATE

Output Messages

LOAD:UPDATE-ABORT
LOAD:UPDATE-CONT
LOAD:UPDATE-DIFF
LOAD:UPDATE-GEN
LOAD:UPDATE-MAP
LOAD:UPDATE-NWM
LOAD:UPDATE-ODA
LOAD:UPDATE-SKIP
LOAD:UPDATE-SR
VER:UPDATE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-ABORT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:UPDATE:ABORT
JOB ABORTED PER REQUEST

2. REASON FOR OUTPUT

In response to LOAD:UPDATE-ABORT input message to terminate a generic retrofit or ODA update.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Proceed according to 4ESS™ Retrofit and Update TOPS or seek technical assistance.

5. REFERENCES

Input Messages
LOAD:UPDATE
LOAD:UPDATE-CONT
LOAD:UPDATE-GEN
LOAD:UPDATE-ODA
LOAD:UPDATE-SKIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-CONT
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] LOAD:UPDATE:CONT "a",MT b

TAPE HEADER
TAPE TYPE: ODA
BASE c, CONTROL d
ORIGINAL GENERIC e
MOST RECENT OFL GENERATION: YR f,MON g, DAY h AT i:j
THIS TAPE WRITTEN: YR f,MON g, DAY h AT i:j
FSIDS: k,TAPE IDS: l
PARTL UPD FLG: m, PHASE REQD n

TAPE FILE o LOADED TO FS

•
•
•

ODA COMPLETE - READY FOR NWM

[2] LOAD:UPDATE:CONT NWM, MT b

TAPE HEADER
TAPE TYPE: NWM
ORIGINAL GENERIC e
MOST RECENT OFL GENERATION: YR f,MON g, DAY h AT i:j
THIS TAPE WRITTEN: YR f,MON g, DAY h AT i:j
FSIDS: k,TAPE IDS: l
PARTL UPD FLG: m, PHASE REQD n

TAPE FILE o LOADED TO FS

•
•
•

NWM COMPLETE

WRITE MERGE DATA AND ZERO FS AREAS

DATABASE COMPLETE - READY FOR p RETROFIT

SEE PROPRIETARY NOTICE ON COVER PAGE

2. REASON FOR OUTPUT

In response to LOAD:UPDATE:CONT input message to continue a generic retrofit or Office Data Assembler (ODA) update.

Format 1 is used to load an ODA tape during a generic retrofit process.

Format 2 is to load an Network Management (NWM) tape during a generic retrofit or ODA update. The output sequences shown assume normal, successful completion of the process.

3. VARIABLE FIELD DEFINITIONS

a	The six character ODA Identification (ID) formed by combining the base and control fields output by the VER:UPDATE message. The BASE field is 4 characters long. Spaces appear after the BASE number if it is not 4 characters long. The CONTROL field is 2 characters long. A space is inserted after the CONTROL number if it is not 2 characters long.
b	Tape unit number (0 1) where the tape is mounted.
c	The BASE (building) identification for this tape.
d	The CONTROL (machine number) identification for this tape.
e	The generic release of the information on the tape.
f	The year on which the tape information was generated / written to tape.
g	The month on which the tape information was generated / written to tape.
h	The day on which the tape information was generated / written to tape.
i	The hour at which the tape information was generated / written to tape.
j	The minute at which the tape information was generated / written to tape.
k	File Store (FS) IDs stored on this tape.
l	Tape IDs stored on this tape.
m	Partial Update Flag, = 1 if this is a partial update tape, otherwise 0.
n	Phase Required.
o	Count, by 10s, of the number of data files loaded to file store.
p	Indicates the type of retrofit being performed: GENERIC ODA

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages

LOAD:UPDATE
LOAD:UPDATE-CONT
LOAD:UPDATE-GEN
LOAD:UPDATE-ODA
VER:UPDATE

Output Messages

LOAD:UPDATE
LOAD:UPDATE-ABORT
LOAD:UPDATE-GEN
LOAD:UPDATE-ODA
VER:UPDATE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-DIFF
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:UPDATE:DIFF

DETERMINING DIFFERENCES FOR ADDRESS a

.
.
.

DETERMINING HASH DIFFERENCES

2. REASON FOR OUTPUT

In response to LOAD:UPDATE-DIFF command to determine differences between NORM and UPDATE 1BFILES.

3. VARIABLE FIELD DEFINITIONS

a Address that is being compared between 1BFILES.

4. ACTION TO BE TAKEN

On successful completion proceed according to 4ESS™ Retrofit and Update TOPS.

5. REFERENCES

Input Message
LOAD:UPDATE-DIFF

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-GEN
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:UPDATE:GEN "a",MT b

GENERIC RETROFIT

TAPE HEADER

TAPE TYPE: GEN

GENERIC a

MOST RECENT OFL GENERATION: YR c,MON d,DAY e AT f:g

THIS TAPE WRITTEN: YR c,MON d,DAY e AT f:g

FS IDS: h TAPE IDS i

PARTL UPD FLG: j,PHASE REQD: k

TAPE FILE l LOADED TO FS

•
•
•

GENERIC COMPLETE - READY FOR ODA

2. REASON FOR OUTPUT

LOAD:UPDATE:GEN initiates a generic retrofit procedure.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Generic Identification (ID) string. |
| b | Tape unit number (0 1) where the tape is mounted. |
| c | The year in which the tape was generated / written. |
| d | The month in which the tape was generated / written. |
| e | The day in which the tape was generated / written. |
| f | The hours at which the tape was generated / written. |
| g | The minutes at which the tape was generated / written. |
| h | File Store (FS) ID tags on the tape. This value is a binary output, where file store ID tag 0 is the leftmost {0 1} in the string, ID tag 1 is the next, etc. |
| i | Tape ID tags on the tape. This value is a binary output, where Tape ID tag 0 is the leftmost {0 1} in the string, ID tag 1 is the next, etc. |

SEE PROPRIETARY NOTICE ON COVER PAGE

j	Partial update flag: 0 — Indicates it is not a partial update. 1 — Indicates it is a partial update
k	Phase required to install the retrofit / update after the tapes have been loaded.
l	Count, by 10s, of the number of data files loaded to file store.

4. ACTION TO BE TAKEN

The VER:UPDATE:TAPE input command may be used, if necessary, to obtain the base and control fields from the ODA tape.

To continue with the retrofit procedure, enter the LOAD:UPDATE:CONT "base control",MT b input command.

To abort the retrofit procedure, enter the LOAD:UPDATE:ABORT input command.

5. REFERENCES

Input Messages

LOAD:UPDATE
LOAD:UPDATE-ABORT
LOAD:UPDATE-CONT
LOAD:UPDATE-GEN
LOAD:UPDATE-MAP
LOAD:UPDATE-SKIP
VER:UPDATE

Output Messages

LOAD:UPDATE
LOAD:UPDATE-ABORT
LOAD:UPDATE-CONT
LOAD:UPDATE-MAP
LOAD:UPDATE-SKIP
VER:UPDATE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-MAP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:UPDATE:MAP

MAPPING DYNAMIC DATA FROM NORMAL FILE

DATABASE COMPLETE - READY FOR UPDATE

2. REASON FOR OUTPUT

In response to LOAD:UPDATE-DIFF message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Proceed according to 4ESS™ Retrofit and Update TOPS.

5. REFERENCES

Input Message
LOAD:UPDATE-DIFF
LOAD:UPDATE-MAP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-NWM
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:UPDATE:NWM UPD,MT a

NWM UPDATE

TAPE HEADER
TAPE TYPE: NWM
ORIGINAL GENERIC b
MOST RECENT OFL GENERATION: YR c,MON d,DAY e AT f:g
THIS TAPE WRITTEN: YR c,MON d,DAY e AT f:g
FS IDS: h, TAPE IDS: i
PARTL UPD FLG: j,PHASE REQD: k

TAPE FILE l LOADED TO FS

-
-
-

NWM COMPLETE

WRITE MERGE DATA AND ZERO FS AREAS

DATABASE COMPLETE - READY FOR NWM UPDATE

2. REASON FOR OUTPUT

In response to LOAD:UPDATE:NWM input message.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | Tape unit number (0 1) where the tape is mounted. |
| b | Generic Identification (ID) string. |
| c | The year in which the tape was generated / written. |
| d | The month in which the tape was generated / written. |
| e | The day in which the tape was generated / written. |
| f | The hours at which the tape was generated / written. |
| g | The minutes at which the tape was generated / written. |
| h | File Store (FS) ID tags on the tape. This value is a binary output, where file store ID tag 0 is the leftmost {0 1} in the string, ID tag 1 is the next, etc. |

SEE PROPRIETARY NOTICE ON COVER PAGE

- | | |
|---|--|
| i | Tape ID tags on the tape. This value is a binary output, where Tape ID tag 0 is the leftmost {0 1} in the string, ID tag 1 is the next, etc. |
| j | Partial update flag:

0 — Indicates it is not a partial update.

1 — Indicates it is a partial update. |
| k | Phase required to install the retrofit / update after the tapes have been loaded. |
| l | Count, by 10s, of the number of data files loaded to file store. |

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message

LOAD:UPDATE
LOAD:UPDATE-MAP
LOAD:UPDATE-NWM
VER:UPDATE

Output Message

LOAD:UPDATE
LOAD:UPDATE-MAP
VER:UPDATE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-ODA
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:UPDATE:ODA "a",MT b

ODA UPDATE

TAPE HEADER

TAPE TYPE: ODA

BASE c,CONTROL d

ORIGINAL GENERIC e

MOST RECENT OFL GENERATION: YR f,MON g,DAY h AT i:j

THIS TAPE WRITTEN: YR f,MON g,DAY h AT i:j

FSIDS: k,TAPE IDS: l

PARTIAL UPD FLG: m,PHASE REQD: n

TAPE FILE o LOADED TO FS

•
•
•

ODA COMPLETE - READY FOR NWM

2. REASON FOR OUTPUT

In response to LOAD:UPDATE:ODA, to perform an Office Data Assembler (ODA) update.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | The six character ODA Identification (ID) formed by combining the base and control fields output by the VER:UPDATE message. The BASE field is 4 characters long. Spaces appear after the BASE number if it is not 4 characters long. The CONTROL field is 2 characters long. A space is inserted after the CONTROL number if it is not 2 characters long. |
| b | Tape unit number (0 1) where the tape is mounted. |
| c | The BASE (building) identification for this tape. |
| d | The CONTROL (machine number) identification for this tape. |
| e | The generic release of the information on the tape. |
| f | The year on which the tape information was generated / written to tape. |
| g | The month on which the tape information was generated / written to tape. |

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h	The day on which the tape information was generated / written to tape.
i	The hour at which the tape information was generated / written to tape.
j	The minute at which the tape information was generated / written to tape.
k	File Store (FS) Identifications (IDS) stored on this tape.
l	Tape IDs stored on this tape.
m	Partial update flag: 0 — Indicates this is not a partial update tape. 1 — Indicates this is a partial update tape.
n	Phase required.
o	Count, by 10s, of the number of data files loaded to file store.

4. ACTION TO BE TAKEN

To load a Network Management Tape (NWM), as part of the ODA update process, use the LOAD:UPDATE-CONT input message with the NWM option.

To skip loading a Network Management Tape (NWM) at this time, enter the LOAD:UPDATE-SKIP input message.

To abort the process, enter the LOAD:UPDATE-ABORT input message.

5. REFERENCES

Input Messages

LOAD:UPDATE
LOAD:UPDATE-ABORT
LOAD:UPDATE-CONT
LOAD:UPDATE-ODA
LOAD:UPDATE-SKIP
VER:UPDATE

Output Messages

LOAD:UPDATE
LOAD:UPDATE-ABORT
LOAD:UPDATE-CONT
LOAD:UPDATE-SKIP
VER:UPDATE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-SKIP
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:UPDATE:SKIP

LOADING NWM TAPE SKIPPED

WRITE MERGE DATA AND ZERO FS AREAS

MAPPING DYNAMIC DATA FROM NORMAL FILE

2. REASON FOR OUTPUT

In response to LOAD:UPDATE-SKIP command entered following the output of ODA COMPLETE - READY FOR NWM message during a generic retrofit or ODA update. This command skips loading an NWM tape.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

On successful completion of the retrofit / update process, proceed according to 4ESS™ Retrofit and Update TOPS.

5. REFERENCES

Input Message
LOAD:UPDATE-SKIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPDATE-SR
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

LOAD:UPDATE:SR [FILE0|FILE1],MT a

1B SYSTEM REINITIALIZATION

TAPE HEADER

TAPE TYPE: GEN

GENERIC b

MOST RECENT OFL GENERATION: YR c,MON d,DAY e AT f:g

THIS TAPE WRITTEN: YR c,MON d,DAY e AT f:g

FS IDS: h,TAPE IDS: i

PARTL UPD FLG: j,PHASE REQD: k

TAPE FILE l LOADED TO FS

•
•
•

GENERIC COMPLETE - READY FOR ODA

NWM SKIPPED

WRITE MERGE DATA AND ZERO FS AREAS

DATABASE COMPLETE - READY FOR 1B SYSTEM REINITIALIZATION

2. REASON FOR OUTPUT

LOAD:UPDATE:SR starts a System Reinitialization (SR) process and loads the generic tape. After the LOAD:UPDATE:SR message prints the GENERIC COMPLETE - READY FOR ODA line you must use a LOAD:UPDATE:CONT input command to start the Office Data Assembler (ODA) tape being loaded. Network Management (NWM) tape is automatically skipped.

3. VARIABLE FIELD DEFINITIONS

- | | |
|---|---|
| a | The tape unit number (0 1) where the tape is mounted. |
| b | The generic identification string output by the VER:UPDATE-TAPE command for a generic tape. |
| c | The year of Off Line (OFL) generation or that the tape was written. |
| d | The month of OFL generation or that the tape was written. |

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e	The day of OFL generation or that the tape was written.
f	The hours of OFL generation or tape writing.
g	The minutes of OFL generation or tape writing.
h	File Store (FS) IDs on the Tape.
i	Tape IDs on the Tape.
j	Partial Update Flag.
k	Phase Required.
l	Count, by 10s, of the number of data files loaded to file store.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages

LOAD:UPDATE
LOAD:UPDATE-ABORT
LOAD:UPDATE-CONT
LOAD:UPDATE-GEN
LOAD:UPDATE-NWM
LOAD:UPDATE-ODA
LOAD:UPDATE-SKIP
LOAD:UPDATE-SR
VER:UPDATE

Output Messages

LOAD:UPDATE-ABORT
LOAD:UPDATE-CONT
LOAD:UPDATE-GEN
LOAD:UPDATE-NWM
LOAD:UPDATE-ODA
LOAD:UPDATE-SKIP
VER:UPDATE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UPNM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

LOAD UPNM {BWM | CFT | TMP} a-b; c d

2. REASON FOR OUTPUT

To report the execution of the LOAD:UPNM input message.

3. VARIABLE FIELD DEFINITIONS

BWM	Indicates off-site originated update.
CFT	Indicates on-site originated update.
TMP	Indicates that this update must never be made permanent.
a	Last two digits of the year in which the update is applied.
b	Unique four-digit number identifying the update.
c	Termination status: ABORTED — Update was abnormally terminated due to a system error or an error in execution. This message is preceded by a UPD:SYSERR output message that identifies the specific system error. COMPLETED — Update completed normally. STOPPED — Update was halted because of a user error. This message is preceded by a UPD:USRERR output message that identifies the specific user error.
d	Type of process updated: K — Killable process. NK — Nonkillable process.

4. ACTION TO BE TAKEN

If variable c is:

ABORTED, Otherwise, no action is needed.

STOPPED, the error specified in the output message should be corrected and the LOAD:UPNM input message retried.

5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System
System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message
UPD:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UVAR-A
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

LOAD UVAR a [,OFF b] c #d

2. REASON FOR OUTPUT

To report the completion status of a LOAD:UVAR input message.

3. VARIABLE FIELD DEFINITIONS

- a Utility variable (destination of the load).
- b Offset information from input message.
- c Termination report:
- COMPLETED — The LOAD operation has been successfully completed.
- STOPPED NGADDR — The LOAD message was stopped because the address specified is not valid.
- STOPPED NGLOAD — The LOAD message was stopped because some other error occurred.
- STOPPED NGPROT — The LOAD operation was stopped because the destination address does not have write permission granted.
- d Generic Access Package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If the termination status is STOPPED NGADDR, recheck the program listings.

If the termination status is STOPPED NGPROT, recheck the destination to verify that it indicates a writable area.

5. REFERENCES

OMDB Key

This message has an OMDB key of 494.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*
3B20D/3B21D Processor

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Input Messages
LOAD:ADDR-A
LOAD:PMEM
LOAD:REG-A
LOAD:UVAR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:UVAR-B
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

This message has two formats.

- [1] LOAD UVAR ABT
 ALLOWED ONLY IN A WHEN COMMAND
- [2] LOAD UVAR ABT
 LOAD INV REG/UVAR VALUE

2. REASON FOR OUTPUT

Response to the LOAD:UVAR input command.

All formats indicate error conditions.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Seek technical assistance on error conditions.

This command is only allowed inside a WHEN:RUTIL <action-list>.

5. REFERENCES

Input Messages
 LOAD:UVAR
 WHEN:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID LOAD:WORD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

LOAD WORD ABT
ALLOWED ONLY IN A WHEN COMMAND

2. REASON FOR OUTPUT

Response to the LOAD:WORD input command.

The output message indicates an error condition.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Input this command only inside a WHEN:RUTIL <action-list>.

5. REFERENCES

Input Messages
LOAD:WORD
WHEN:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID MON:SLK
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] MON SLK a b COMPL
LINK a b c MONITOR d, EVENTS e
- [2] MON SLK ALL COMPL
ALL MONITORS OFF
- [3] MON SLK ALL COMPL
MONITORS ON:
a-b[-f-g]
- [4] MON SLK a b COMPL
DLN a b MONITOR d, EVENTS e
- [5] MON SLK a b f g COMPL
LINK a b f g MONITOR d, EVENTS e

2. REASON FOR OUTPUT

Response to MON:SLK input request.

NOTE: For Format 3, there may be from one (1) to ten (10) nodes or links listed.

3. VARIABLE FIELD DEFINITIONS

- a Group number (0-63).
- b Member number (1-15).
- c Far end CLLI® code.
- d Monitor state:
OFF
ON
- e Events mask, see Output APP:APPENDIX-10.
- f Circuit pack number (0-1).
- g Port number (0-3).

4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

5. REFERENCES

Practice 256-090-121 *CNI Operations Manual* -
Analog Signaling Link Operating Procedures Section
Digital Signaling Link Operating Procedures Section
D-Channel and Special Access Data Channel Signaling Link
Operating Procedures Section
International Link Node Signaling Link Operating
Procedures Section

Practice 256-090-122 *CNI Maintenance Manual* -
Analog Signaling Link Maintenance Procedures Section
Digital Signaling Link Maintenance Procedures Section
D-Channel and Special Access Data Channel Signaling Link
Maintenance Procedures Section
International Link Node Signaling Link Maintenance
Procedures Section

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* -
Analog Signaling Link Maintenance Procedures Section
Digital Signaling Link Maintenance Procedures Section

Output Appendix
APP:APPENDIX-10

Input Message
MON:SLK

Output Message
REPT:MON-SLK

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c	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d
c	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d
c	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d
c	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d
c	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d
c	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d

Output format when FILE is specified on the command line.

Rop data output format.

The rop format when FILE is the argument to the NPMEM keyword follows:

[2] NPMEM NPMEM FILE {RPCNx 0 | LNx y} a
n BYTES OUTPUT IN FILE - p f

File data output format

The file memory or port data dump is blocked by request. All data pertaining to that request will be contained within a single block. The block of data will be preceded by a date time stamp and the type, group, and position of the node. All data dump requests for a node are appended to one file (provided that the directory for file placement doesn't change). Therefore, a file can contain multiple dump requests. The maximum number of bytes per line of data dump is 16.

The format of the file produced when FILE is the argument to the NPMEM keyword follows:

t
[AP] {RPCNx 0 | LNx y}

b
c d

Output format when FILEROP is specified on the command line.

Rop data output format.

The memory data dump is blocked into 432 or smaller byte blocks for memory or port dumps. Dumps greater than 432 bytes will result in multiple blocks of output data.

Data that crosses the node processor segment boundaries will be split at the segment boundaries.

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[3] NPMEM NPMEM FILEROP {RPCNx 0 | LNx y} a
[AP] { RPCNx 0 | LNx y }

```
NPMEM NPMEM FILEROP {RPCNx 0 | LNX y} a
n BYTES OUTPUT IN FILE - p f
```

Rop data output format.

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The rop format when RAW3B or RAW80 is the argument to the NPMEM keyword follows:

```
[4]    NPMEM NPMEM r {RPCNx 0 | LNx y} a  
      n BYTES OUTPUT IN FILE - p g
```

File data output format

The file memory or port data dump is grouped by request. All data pertaining to that request is contained within a single grouping.

The data part of the dump is preceded by a header containing a date time stamp; the type, group, and position of the node; the start address of the data dumped and the total number of bytes dumped.

The date time stamp and node type, group and position will be in ASCII. The start address, total bytes dumped and the dumped data will be in binary.

The data portion of the dump is byte ordered according to the target machine's byte ordering.

All data dump requests for a node are appended to one file (provided that the directory for file placement doesn't change). Therefore, a file can contain multiple dump requests.

The format of the file when RAW3B or RAW80 is the argument to the NPMEM keyword follows:

```
t  
[AP] {RPCNx 0 | LNx y}  
hqk
```

No data output format.

This format may be output by itself or accompany Format {1 | 2 | 3 | 4}.

```
[5]    NPMEM NPMEM STOPPED  
      e
```

2. REASON FOR OUTPUT

The NPMEM NPMEM output message is in response to the execution of the NPMEM process and provides the data dump of memory or port locations from a Node Processor (NP) or an Attached Processor (AP).

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

Where:

- a Termination code. {STARTED | IN PROG | COMPL}
- b MADDR — Node Processor memory
BPORT — Byte port
APADDR — Attached Processor memory
- x The Ring Node (RN) group number (00-63).
- y The node position in the RN group (0-15).
- c Start address in hex of the first byte of NP memory or port represented on this line.
- d Contents of the indicated byte in node memory / port in hex.
- e One of several explanations that can appear in describing the reason for stopping. Most reasons are self-explanatory. Example error output and their meaning follow:

?E — The basic format of the message appears correct, however, further checks have revealed an inconsistency and the fields in error cannot be identified. This acknowledgment is used only when system design limitations make further error isolation impractical. Additional output that can accompany the ?E output - CFTSHL UNABLE TO MATCH COMMAND X.

?I — The message contains an error in the identification field of the message. This could mean that an improper character(s) or out-of-range numeric was entered or that a field, sub-field or keyword delimiter was omitted. It may also result from an invalid association of the identification field contents with the action field.

Additional output that can accompany the ?I output - INVALID
KEYWORD: X VALID KEYWORDS: AA BB CC

- MISSING DATA FOR KEYWORD: X
- RANGE ERROR IN X; RANGE(0-X'FFFFF)
- RANGE ERROR IN X; RANGE(1-1024)
- RANGE ERROR IN X; RANGE(1 - 60)
- RANGE ERROR IN X; RANGE(0 - 15)
- RANGE ERROR IN X; RANGE NEGATIVE
- RANGE ERROR IN X; MADDR PLUS NBYTES
EXCEEDS NP MEMORY
- INPUT ERROR; BAD NODE NAME < X >
- INPUT ERROR; < X > UNEXPECTED HERE
- INPUT ERROR; GROUP NAME < X > MISSING
- INPUT ERROR; GROUP NAME < X > TOO LONG

SEE PROPRIETARY NOTICE ON COVER PAGE

PF — The request was received and will be processed. A printout will follow giving either a termination report or termination report and results of the work initiated by the input message.

Additional output that can accompany the PF output - NPMEM
NPMEM X STOPPED BAD NODE NAME < X >

- NPMEM NPMEM X STOPPED
NODE CAN'T BE UNQUARANTINED - IN
NP FLTY STATE
- NPMEM NPMEM X STOPPED
NODE CAN'T BE UNQUARANTINED - IN
RI QUSBL STATE
- NPMEM NPMEM X STOPPED
REQUESTED NODE DOES NOT HAVE A KNOWN AP
- NPMEM NPMEM X STOPPED
REQUESTED NODE DOES NOT HAVE A KNOWN NP
- NPMEM NPMEM X STOPPED
REQUESTED AP CAN NOT DUMP WHEN NOT ACTIVE
- NPMEM NPMEM X STOPPED
CAN'T DUMP PORT ON ACTIVE NODE
- NPMEM NPMEM X STOPPED
RANGE ERROR: APADDR WITH NBYTES > 63488
- NPMEM NPMEM X STOPPED
RANGE ERROR: MADDR PLUS NBYTES
EXCEEDS MEMORY
- NPMEM NPMEM X STOPPED
RANGE ERROR: APADDR PLUS NBYTES
EXCEEDS MEMORY
- NPMEM NPMEM X STOPPED
RANGE ERROR: APADDR = X EXCEEDS MEMORY
- NPMEM NPMEM X STOPPED
X : MJ=UNEQ
- NPMEM NPMEM X STOPPED
TIME OUT WHILE AWAITING REPLY FROM
NODE READ

- n The total number of bytes dumped to the file.
- p The path to the file data was placed. The default path for file placement is /etc/log/.
- f The file name where data is placed D.{RPCN | LN}x_y .
- g The file name where data is placed DR.{RPCN | LN}x_y .
- r RAW3B or RAW80 depending on the request made.
- t The date time stamp when data was dumped to the file. The RTR ctime() interface was used to format the date time stamp.
- h Start address of the first byte of memory or port represented in this group of data.

SEE PROPRIETARY NOTICE ON COVER PAGE

q	The total number of data bytes contained in that grouping.
k	Contents of the indicated byte in node memory / port in binary.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
OP : NPMEM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ABD
WORK CENTER.. MOC
GENERIC 4AP17 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] OP ABD STOPPED
{HARDWARE PLATFORM NOT VALID FOR ALTERNATE BOOT DISK |
ALTERNATE BOOT DISK FEATURE UNAVAILABLE |
CANNOT CREATE BOOTDISKCHK PROCESS |
CANNOT SEND MESSAGE TO BOOTDISKCHK PROCESS |
DID NOT RECEIVE MESSAGE FROM BOOTDISKCHK PROCESS |
CANNOT GET ECD DATA SEGMENTS |
CANNOT ATTACH TO ECD DATA SEGMENTS |
CANNOT GET ECDORG RID |
NO UCB RID FOUND FOR DEVICE WITHIN THE ECD |
CANNOT CREATE DATA FILE FOR REPORT |
DID NOT RECEIVE USER EVENT FROM BOOTDISKCHK PROCESS |
BOOTDISKCHK PROCESS TERMINATED WITH EXIT VALUE a}
- [2] OP ABD IN PROGRESS
- [3] OP ABD COMPLETED
MHD STATUS REASON DATE
b c [d [e]] [f]

2. REASON FOR OUTPUT

To display a list of available Alternate Boot Disk units and specify whether or not the unit may be used as a boot disk. If a unit is determined to be a valid boot disk, the date of the last update to the disk will be output if applicable. Otherwise, a special code will be output to explain why the unit cannot be used as a boot disk or why a determination could not be made.

NOTE: Only data from the primary partitions is used to determine if a unit is a valid boot disk. No checking is done on the backup partitions.

3. VARIABLE FIELD DEFINITIONS

- a Exit value of /unixutil/disk/bootdiskchk process. See Bootdiskchk Codes Appendix, APP:BOOTDISKCHK, Exit Codes.
- b Unit number. See Input Member Numbers Appendix, APP:MEM-NUM-C.
- c Boot status.
- | | |
|-----|---|
| YES | — The unit is bootable from its primary partitions. |
| NO | — The unit is not bootable from its primary partitions. |

SEE PROPRIETARY NOTICE ON COVER PAGE

- d A code to indicate why the unit was not marked as a valid boot disk. See Bootdiskchk Codes Appendix, APP:BOOTDISKCHK, Result Codes.
- e System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- f Date when the boot disk was last updated.

4. ACTION TO BE TAKEN

If the description of the error is not self-explanatory, seek technical assistance.

5. REFERENCES

OMDB Keys

Formats 1 and 2 have an OMDB key of 769.

Format 3 has an OMDB key of 770.

Output Appendix

APP:BOOTDISKCHK

Input Message

OP:ABD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ACT
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] OP ACT MESSAGE STARTED
UNIT MTCE INH DGN
a b [c d] e f g
- [2] OP ACT COMPLETED
- [3] OP ACT INTERFACE ERROR,
ERRNO = h
- [4] OP ACT NOT STARTED
INVALID DATA FIELD
- [5] OP ACT NOT STARTED
RETRY LATER
- [6] OP ACT IN PROGRESS
a b [c d] e f g
- [7] OP ACT RETRY LATER i
- [8] OP ACT WRITE TO j
FAILED ON KEY #k

2. REASON FOR OUTPUT

This report contains device information specific to hardware units on communities requested via the OP:ACT input message. The format is consistent with related maintenance commands.

The exit status of this report is indicated by either the successful COMPLETED message, or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

- a Unit name. See Member Numbers Input Appendix, APP:MEM-NUM-C.
- b Unit number. See Member Numbers Input Appendix, APP:MEM-NUM-C.
- c Subunit name, if subunit name is CU, CU subunit names are listed in the Member Numbers Input Appendix, APP:MEM-NUM-D.
- d Subunit number. See Member Numbers Input Appendix, APP:MEM-NUM-C.

SEE PROPRIETARY NOTICE ON COVER PAGE

- e The current maintenance state of the unit is indicated by the identifiers:
- ACT — Active units.
 - OOS — Out-of-service units.
 - STBY — Standby units.
 - GROW — Units being grown.
 - UNAV — Unavailable units.
 - INIT — Initializing units.
 - OFL — Off-line units.
 - UNEQIP — Unequipped units.
- f Current inhibit status of the associated error source:
- ALW
 - INH
- g The results of the last diagnostic on the unit is indicated by the identifiers:
- ATP — All tests pass.
 - STF — Some test failing.
 - NTR — No tests run.
 - CATP — Conditional all tests pass.
 - ABT — Aborted diagnostics.
- h Error number:
- 9 — Cannot attach to plant measurement library.
 - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
 - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i Retry the command later for the reasons:
- CANNOT CREATE FILE IN /tmp
 - CANNOT GET DATABASE RECORD ID
 - CANNOT SEQUENCE DATABASE
- j Temporary output file name.
- k Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. REFERENCES

OMDB Keys

- Format 1 has OMDB keys of 49 and 477.
- Format 2 has OMDB keys of 50 and 478.
- Format 3 has OMDB keys of 51 and 479.
- Format 6 has OMDB keys of 580 and 582.

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Format 7 has OMDB keys of 588 and 589.
Format 8 has an OMDB key of 656.

Input Appendixes
APP:MEM-NUM-C
APP:MEM-NUM-D

Input Messages
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ADB-LOG
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has three formats.

- [1] OP ADB LOG COMPLETED, FOR a
- [2] OP ADB LOG COULD NOT READ FROM LOG FILE COMPLETED, FOR a
- [3] OP ADB LOG COULD NOT OPEN LOG FILE COMPLETED, FOR a

2. REASON FOR OUTPUT

Response to the OP:ADB input command.

3. VARIABLE FIELD DEFINITIONS

a Customer name, only IBGTT is supported currently.

4. ACTION TO BE TAKEN

Formats 2 and 3: Rerun the OP:ADB input command.

5. REFERENCES

Input Message
OP:ADB

Output Messages
INH:DLNAUD
INH:RCV-APPDB

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ADB-PERM
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

This message has two formats.

- [1] OP ADB PERM IS ALLOWED COMPLETED, FOR a
- [2] OP ADB PERM IS INHIBITED COMPLETED, FOR a

2. REASON FOR OUTPUT

Response to the OP:ADB input command.

3. VARIABLE FIELD DEFINITIONS

- a Customer name, only IBGTT is supported currently.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
ALW:ADB
INH:ADB
OP:ADB

Output Messages
ALW:ADB
INH:ADB

SEE PROPRIETARY NOTICE ON COVER PAGE

1. FORMAT

- ## 2. REASON FOR OUTPUT

3. VARIABLE FIELD DEFINITIONS

- NOTE:** j is the error number returned from close.

OP:AMA-RECSRCH-1

- b String that must be one of the following:
- Cannot find data block.
 - Data block not readable.
 - Bad AMA block size.
 - Bad AMA record size.
 - Too many bad AMA records in block.
- c Block number where error occurred.
- d A string that is one of the following:
- RDW chars 5-8 not zero
RDW: k.
- NOTE:** k is the record descriptor word from raw AMA record.
- hexid not AA,AB or BE HEXID:m
- NOTE:** m is the hex id from raw AMA record.
- First character in structure code not 0 or 4.
 - Structure code not numeric.
 - Invalid sign character in structure code.
 - Unknown structure code.
SC: n
- NOTE:** n is structure code from raw AMA data.
- e Block number where record was found.
- f Raw data from AMA record.
- g Data reprinted with labels to identify each field.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Messages
OP:AMA-RECSRCH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:AMA-SRCH
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] OP AMA SRCH AMA a DFC b NOT STARTED REASON c d
- [2] OP AMA SRCH AMA a DFC b NOT STARTED. ERROR
FINDING PARTITION
- [3] OP AMA SRCH AMA a DFC b STOPPED REASON c d
- [4] OP AMA SRCH AMA a DFC b ERROR REASON c d
- [5] OP AMA SRCH AMA a DFC b ABORTED REASON c
- [6] OP AMA SRCH AMA a DFC b ABORTED. CANNOT SEEK TO
SEQUENCE BLOCK e
- [7] OP AMA SRCH AMA a DFC b ABORTED. CANNOT READ
IN DISK BLOCK e
- [8] OP AMA SRCH AMA a DFC b ABORTED. CANNOT FIND
RANGE FOR SEQUENCE NUMBER
- [9] OP AMA SRCH AMA a DFC b SEQUENCE NUMBER SHOULD
BE IN BLOCK e
- [10] OP AMA SRCH AMA a DFC b SEQUENCE NUMBER IN BLOCK e
- [11] OP AMA SRCH AMA a DFC b FIRST NUMBER IN BLOCK e MATCHES
- [12] OP AMA SRCH AMA a DFC b SEQUENCE NUMBER f NOT
FOUND IN RANGE

2. REASON FOR OUTPUT

To report the result of executing an OP:AMA-SRCH message that has been successfully parsed.

3. VARIABLE FIELD DEFINITIONS

- a AMA partition number.
- b DFC number identifying which disk to read from.

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- c Process step or reason code. One of the following:
- 903 — Cannot open Equipment Configuration Database (ECD).
 - 906 — Cannot get Unit Control Block (UCB) by name.
 - 909 — Cannot reserve UCB.
 - 912 — Cannot assign special device file name.
 - 918 — Cannot set input/output mode of the device.
 - 924 — Disk read failed.
 - 925 — Invalid VTOC.
 - 930 — Failed to close special device file.
 - 933 — Failed to release special device file.
 - 936 — Failed to un-reserve UCB.
 - 939 — Failed to close ECD.
 - 942 — External signal terminated process.
- d System Error Code: see System Error Codes Appendix, APP:SYSERR.
- e Disk block number where searching for sequence number.
- f Sequence number being searched for.

4. ACTION TO BE TAKEN

Messages [1] - [7] usually indicate that a system resource was not available or became unavailable to perform the task. The problem causing the resource limitation should be cleared and the input request retried. In some instances, other UNIX® RTR error messages may be printed which may provide information pertaining to the failure encountered.

Message [8] indicates that the sequence number cannot be located using the maps. Some other method of locating the sequence number must be used. This program will not function.

Messages [9] - [12] provide information on the search.

5. REFERENCES

Output Appendix
APP:SYSERR

Input Message
OP:AMA-SRCH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:APPFILE
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

[1] OP:APPFILE a STARTED

OP:APPFILE STARTED, FSMAPS

IDTAG	DSTART	DEND	NWDS	CORESTART	COREEND (by idtag)
ID b	c	d	e	f	g

OP:APPFILE a COMPLETED

[2] OP:APPFILE MAP ERROR

	ID	SIZE	DISK START	DISK END	CORE START	CORE END
CS2FS:	b	e	c	d	f	g
ID2FS:	b	e	c	d		

2. REASON FOR OUTPUT

In response to the OP:APPFILE command.

Format 1 is the expected memory map of the system, sorted by ID tag.

Format 2 is a diagnostic indicating a discrepancy between the CS2FS and ID2FS maps.

3. VARIABLE FIELD DEFINITIONS

- a The file being analyzed.
- b The ID tag for this memory range.
- c File Store (Disk) starting address of the memory range.
- d File Store (Disk) ending address of the memory range.
- e Size (in words) of the memory range.
- f Main Memory (Core) starting address of the range. (Blank if this is DISK-ONLY memory).
- g Main Memory (Core) ending address of the range. (Blank if this is DISK-ONLY memory).

4. ACTION TO BE TAKEN

If any format 2 messages are output, indicating inconsistencies in the maps, seek technical assistance.

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5. REFERENCES

Input Message
OP:APPFILE
VER:APPFILE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:APPLOAD
WORK CENTER.. MOC
GENERIC 4AP16 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

OP APpload STARTED

4ESS DATA BASE LOADED IN a IS:

GENERIC b
OFFICE c

LAST ODA TAPE WRITTEN d

2. REASON FOR OUTPUT

To print out the generic issue, office name, and date and time of last Office Database Administrator (ODA) written in the specified 1B File.

3. VARIABLE FIELD DEFINITIONS

a The pathname of the 1B File being displayed.
b The 4ESS™ generic issue.
c The name of the office.
d Date and time of last ODA written.

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
OP:APPLOAD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ATPCM-IMSCHN
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

OP ATPCM IMSCHAN COMPLETED

IMS CHANNEL STATUS

CHAN NAME	NUMBER	STATUS	COUNT
a	b	c	d

2. REASON FOR OUTPUT

To report the status of the AT&T Trigger Platform (ATP) Interprocess Message Switch (IMS) channels.

3. VARIABLE FIELD DEFINITIONS

a	IMS channel name. Possible values: ATPSIMCHAN — ATP System Integrity Monitor channel. ATPDBACHAN — ATP Data Base Manager channel. ATPAUDCHAN — ATP Audits channel.
b	IMS channel number
c	Status of channel. OPEN — Channel is open. CLOSE — Channel is closed.
d	Number of messages received.

4. ACTION TO BE TAKEN

If channels are not open and ring initialization is not in progress, request Common Network Interface (CNI) phase 1.

5. REFERENCES

Input Message
OP:ATPCM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ATPCM-PROCS
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

OP ATPCM PROCS COMPLETED

ATP NODE RTX PROCESS STATUS

NUM	NAME	%LCPU	%SCPU	LSWTCH	SSWTCH
a	b	c	d	e	f

2. REASON FOR OUTPUT

To report the status of AT&T Trigger Platform (ATP) node processes.

3. VARIABLE FIELD DEFINITIONS

a	RTX process number.
b	RTX process name.
c	Percent of CPU used by process (long average).
d	Percent of CPU used by process (short average).
e	Number of times the process was switched to (long average per second).
f	Number of times the process was switched to (short average per second).

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
OP:ATPCM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:ATPCM-TASKS
WORK CENTER.. MOC
GENERIC 4AP13 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

OP ATPCM TASKS COMPLETED

TASK CONTROL BLOCK (TCB) STATUS

TCB	STATUS	PROCID	NAME	STACK	PARENT
a	X'b	X'c	X'd	X'e	X'f

2. REASON FOR OUTPUT

To report the status of ATPCM tasks.

3. VARIABLE FIELD DEFINITIONS

a Task control block (tcb) number. Possible values: 0 through 7.

b Task status. Representation of bits:

0x0	—	tcb slot is available.
0x1	—	tcb slot is in use.
0x2	—	tcb is ready to run.
0x4	—	tcb is currently running.
0x8	—	tcb is to be torn down.
0x10	—	tcb is timing.
0x20	—	tcb is starting.
0x40	—	tcb is expecting an RTR msg stimulus.
0x80	—	tcb is expecting an IMS msg stimulus.
0x100	—	tcb is expecting an INT msg stimulus.
0x200	—	tcb is expecting an ACK msg stimulus.
0x400	—	tcb is expecting user event 1.
0x800	—	tcb is expecting user event 2.
0x1000	—	tcb is expecting user event 3.
0x2000	—	tcb is waiting for death of a child task.
0x4000	—	tcb is waiting for an audit to be dispatched.

c Procedure ID. Byte representation:

First byte (leftmost) — Zero value.
Second byte — Procedure number.
Third byte — tcb number.
Fourth byte (rightmost) — Incarnation bit.

Procedure ID equal to zero implies null procedure.

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d	Procedure name.
e	Stack address.
f	Procedure ID of the parent task. (Same as c).

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
OP:ATPCM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:AUD
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] OP AUD a
ROUTINE AUDIT SCHEDULING IS b
- | AUDIT
NAME
[c] | AUDIT
MBR
[d] | AUDIT
RID
[e] | AUDIT
INH
[f] | MODE
PERM
[ghij] | INSTANCE
RID
k | NAME
[l] | INS
INH
[m] | MODE
ACT
[n] | RTN
SCH
[o] | BLK
[p] |
|----------------------|---------------------|---------------------|---------------------|------------------------|----------------------|-------------|-------------------|--------------------|-------------------|------------|
| . | . | . | . | | . | . | . | . | . | . |
| . | . | . | . | | . | . | . | . | . | . |
| . | . | . | . | | . | . | . | . | . | . |
- [2] OP AUD ABORTED ECD INTERFACE ERROR q [AUDIT RID r]
- [3] OP AUD ABORTED CANNOT OPEN OUTPUT FILE s
- [4] OP AUD ABORTED CANNOT WRITE OUTPUT FILE s
- [5] OP AUD ABORTED CANNOT CREATE TEMPORARY FILE
- [6] OP AUD NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS t
RETRY LATER u

2. REASON FOR OUTPUT

Prints status of the audits.

Format 1 prints the status of the audits controlled by the System Integrity Monitor (SIM).

Format 2 reports an Equipment Configuration Database (ECD) database interface error.

Format 3 reports an error when trying to create a temporary output file.

Format 4 reports an error when writing to a temporary output file.

Format 5 reports an error when unable to create a uniquely named temporary file.

Format 6 reports the termination status of the OP:AUD input message.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

- a Output message status:
COMPLETED — Final or only message segment.
COMPLETED NO AUDIT RECORDS IN ECD
COMPLETED NO AUDITS RUNNING
IN PROGRESS — Second or subsequent message segment.
STARTED — First of several message segments.
- b Master audit inhibit status for all audits controlled by SIM:
ALLOWED — Not inhibited.
AUTOMATICALLY INHIBITED
IN UNKNOWN STATE
MANUALLY INHIBITED
- c Audit name. This field is blank for all instances after the first.
- d Member number. This field is blank for all instances after the first.
- e Record Identification (RID) of the audit record from the ECD. This field is blank for all instances after the first.
- f Source of the inhibit; blank if the audit is not inhibited. This field is blank for all instances after the first:
AUTO — Automatic action.
MAN — Manual request.
??? — Unrecognized reason.
- If the inhibit source is enclosed by parentheses, it indicates that the inhibit state for the audit is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permission fields). This inhibit will not cause the audit to appear in the REPT:AUDSTAT report.
- g R if routine mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.
- h M if manual mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.
- i S if software mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.
- j D if demand mode is allowed for audit; otherwise, this field is blank. This field is blank for all instances after the first.
- k RID of the instance record from ECD.
- l Instance name. This field may be blank.

SEE PROPRIETARY NOTICE ON COVER PAGE

m Inhibit state of a given instance of the audit; blank if the audit is not inhibited:

AUTO — Automatic action.
MAN — Manual request.
??? — Unrecognized reason.

If the inhibit state is enclosed by parentheses, it indicates that the inhibit state for the instance is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permissions fields). This inhibit will not cause the audit to appear in the REPT:AUDSTAT report.

n Mode in which the given instance of the audit is running, or blank if the instance is not running:

DEM — Part of a recovery sequence.
MAN — Manually requested.
RTN — Routine scheduling.
SFT — Software request.
??? — Unrecognized mode.

o Scheduling frequency of the audit:

A - H — Frequency group of audit.
T — Timed audit.
(blank) — Audit is neither timed nor routine.

p Y — This instance of the audit is blocked.

(blank) — this instance of the audit is not blocked.

If Y is enclosed in parentheses, it indicates that the audit is blocked, but the block has no meaning because the audit is not permitted to run in any mode (see description for mode permission fields). This block will not cause the audit to appear in the REPT:AUDSTAT report.

q ECD interface error number:

10 — cannot open audit record sequence
11 — cannot sequence through audit records
12 — cannot get audit record
20 — cannot open audit instance record sequence
21 — cannot sequence through instance records

r Audit RID.

s Name of temporary file.

t Explanation of error. See Audit Output Appendix C, APP:AUD-C.

u Explanation of error. See Audit Output Appendix D, APP:AUD-D.

NOTE: See Audit Output Appendixes A and B, APP:AUD-A and APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

SEE PROPRIETARY NOTICE ON COVER PAGE

4. ACTION TO BE TAKEN

If Formats 1, 2, or 6 prints, use the ALW:AUD input message to allow audits which should be allowed. Use the INH:AUD input message to inhibit audits which should be inhibited. Use the STOP:AUD input message to stop audits which should be stopped.

Format 3 indicates all of the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using the CLR:FILESYS;FILE input command.

Format 4 indicates all tmp file system space has been used. Clean up unused files in the tmp file system using the CLR:FILESYS;FILE input command.

Format 5 indicates system resources do not permit the running of this command at this time; retry later. If command continues to fail, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has OMDB keys of 439, 437, and 668.

Format 2 has an OMDB key of 435.

Format 3 has an OMDB key of 438.

Format 4 has an OMDB key of 628.

Format 5 has an OMDB key of 667.

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UNIX® RTR Operating System System Maintenance Manual

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System*

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Output Appendixes

APP:AUD-A

APP:AUD-B

APP:AUD-C

APP:AUD-D

Input Messages

ALW:AUD

INH:AUD

OP:AUD

CLR:F-FILE

STOP:AUD

Output Message

REPT:AUDSTAT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID OP:AUDERR
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E,3B
TYPE Output

1. FORMAT

- [1] OP AUDERR a
AUDIT
NAME MBR INSTANCE ERRORS ERROR ERROR
FOUND CORRECTED CAT COUNT
b c d e f g h
. .
. .
. .
- [2] OP AUDERR ABORTED ECD INTERFACE ERROR i [AUDIT RID j]
- [3] OP AUDERR ABORTED CANNOT OPEN OUTPUT FILE k
- [4] OP AUDERR ABORTED CANNOT WRITE OUTPUT FILE k
- [5] OP AUDERR ABORTED CANNOT CREATE TEMPORARY FILE
- [6] OP AUDERR NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS l
RETRY LATER m

2. REASON FOR OUTPUT

Prints the status of the audits.

Format 1 prints the status of the audits controlled by the System Integrity Monitor (SIM).

Format 2 reports an Equipment Configuration Database (ECD) interface error.

Format 3 reports an error when creating a temporary output file.

Format 4 reports an error when writing to a temporary output file.

Format 5 reports an error when unable to create a uniquely named temporary file.

Format 6 reports the termination status of OP :AUDERR input message.

SEE PROPRIETARY NOTICE ON COVER PAGE

3. VARIABLE FIELD DEFINITIONS

- a Output message status:
COMPLETED — last or only segment of message
COMPLETED NO AUDIT RECORDS IN ECD
IN PROGRESS — intermediate segment(s) of message
STARTED — first segment of message
- b Name of the audit. This field is blank for all instances after the first.
- c Member number of the audit. This field is blank for all instances after the first.
- d Instance name which may be blank.
- e Total errors found by audit since the last bootstrap. This will be blank for all error categories after the first.
- f Total errors corrected by the audit since the last bootstrap. This will be blank for all error categories after the first.
- g Error category (0-5). The error categories used by an audit are specified in its equipment configuration database ECD record. Each error category represents a different level of severity and type of recovery action. For examples, look at any of the audits and their associated Audit Error Table in the *System Maintenance Manual*.
- h Error count of the category.
- i ECD interface error number:
10 — cannot open audit record sequence
11 — cannot sequence through audit records
12 — cannot get audit record
20 — cannot open audit instance record sequence
21 — Cannot sequence through instance records.
- j Associated audit Record Identification (RID).
- k Name of temporary file.
- l Explanation of error. See Audit Output Appendix C, APP:AUD-C.
- m Explanation of error. See Audit Output Appendix D, APP:AUD-D.

NOTE: See Audit Output Appendixes A and B, APP:AUD-A and APP:AUD-B, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If Formats 1, 2, or 6 prints, use the ALW:AUD input message to allow audits which should be allowed. Use INH:AUD input message to inhibit audits which should be inhibited. Use the STOP:AUD input message to stop audits which should be stopped.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 3 indicates all of the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using input message CLR:F-FILE.

Format 4 indicates all tmp file system space has been used. Clean up unused files in the tmp file system using input message CLR:F-FILE.

Format 5 indicates system resources do not permit the running of this command at this time; retry later. If command continues to fail, seek technical assistance.

5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 434.
Format 2 has an OMDB key of 435.
Format 3 has an OMDB key of 438.
Format 4 has an OMDB key of 628.
Format 5 has an OMDB key of 667.

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Output Appendixes

APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D

Input Messages

ALW:AUD
AUD:CUMEM
AUD:CUSTAT
AUD:ECD
AUD:ECDOWN
AUD:FMGR
AUD:FSBLK
AUD:FSCMPT
AUD:FSLINK
AUD:MMGR
AUD:MSGBUF
AUD:PMS
AUD:PROAD-1
CLR:F-FILE
INH:AUD
OP:AUD
OP:AUDERR
STOP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

AUD:CUMEM
AUD:CUSTAT
AUD:ECD
AUD:ECDOWN
AUD:FMGR1
AUD:FMGR2
AUD:FMGR3
AUD:FMGR4
AUD:FMGR5
AUD:FMGR6
AUD:FMGR7
AUD:FMGR8
AUD:FMGR9
AUD:FSBLK
AUD:FSCMPT
AUD:FSLINK
AUD:MMGR
AUD:MSGBUF
AUD:PMS
AUD:PROAD
OP:AUD

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ID OP:C7NET-A
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output

1. FORMAT

- [1] OP:C7NET;SSINFO a - PRINT SUBSYSTEM INFORMATION
- SUBSYSTEM 3 (TBL INDEX 3) IS EQUIPPED AND IS ALLOWED
MGT INDICATIONS GO TO LADD_3B CHAN 127
UPAUSE/URESUME INDICATIONS WANTED
SIGNALLING CHANNEL INFORMATION
PADDR X'b CHAN c FINDX d ACTINDX e
- [2] OP:C7NET;SSSTATES f - PRINT THE SUBSYSTEM STATES FOR A PC
- POINT CODE IS ACCESSIBLE
- SUBSYSTEMS MARKED PROHIBITED:
{g-h g-h g-h g-h g-h g-h g-h g-h | NONE}.
ALL SUBSYSTEMS ARE MARKED ALLOWED.
- [3] OP:C7NET;GTXTAB - PRINT THE CH7GTX_TAB TABLE
- | TYPE | PC[0] | PC[1] | SELECTOR |
|---------------|-----------|-----------|----------|
| GPAIR STATIC | 254250000 | 254251000 | 1 |
| GPAIR DYNAMIC | 254250000 | 254251000 | 0 |
- [4] OP:C7NET;RIND - PRINT ROUTING INDICATORS FOR BOTH ADJ STPS
- STP[0]: 254250000 IS ACCESSIBLE
STP[1]: 254251000 IS INACCESSIBLE
SUBSYSTEMS RECEIVING BACKUP TRAFFIC FROM STP [0]:
{a-i a-i a-i a-i a-i a-i a-i a-i | NONE.}
- SUBSYSTEMS RECEIVING BACKUP TRAFFIC FROM STP [1]:
{a-i a-i a-i a-i a-i a-i a-i a-i | NONE.}
- [5] OP:C7NET;RELATE - PRINT THE PERMANENT RELATIONS
- POINT CODE ON SCCP PERMANENT RELATIONS LIST:
f
.
.
.
a-i a-i a-i a-i a-i a-i a-i a-i

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[6] OP:C7NET;BRDCST - PRINT THE BROADCAST LIST

POINT CODES ON SCCP BROADCAST LIST:
NONE

[7] OP:C7NET;LNKSET j - PRINT LINK SET DATA
LS k l - m (n)
TYPE: o, FEPC: p, R: q C: r M: s
REMOTE OF SET k:

R: q, C: r
R: q, C: r
RNA(S) IN LINKSET: t, t

.
.
.
SLS-u GP-v MEM-s RNA wRAW X'x

[8] OP:C7NET;ROUTING - PRINT ROUTING INFORMATION

```
-----
|POINT|  |  |  |ROUTE|PREF|ACT|  STATUS  | |MEM|ABNM|
|CODE |NID|REG|CLU|FLAG |RTE |RTE|PRE|ALT1|ALT2|C|IDX|CNT |
-----
|  y  | z  | q  | r  | a1 | b1 | c1| d1| e1| f1|g1|h1| i1|
-----
M 35 OP C7NET COMPLETED
```

LOCAL NID=254; LOCAL PC=0xfecc4d; PC FORMAT=AT&T;

[9] OP:C7NET;ROUTING:[NID z],[RE q],[CLU r],[MEM s] - ...
PRINT SPECIFIC ROUTING

```
-----
|POINT|  |  |  |ROUTE|PREF|ACT|  STATUS  | |MEM|ABNM|
|CODE |NID|REG|CLU|FLAG |RTE |RTE|PRE|ALT1|ALT2|C|IDX|CNT |
-----
|  y  | z  | q  | r  | a1 | b1 | c1| d1| e1| f1|g1|h1| i1|
-----
M 35 OP C7NET COMPLETED
```

CDNETWORK = 254; CNLOCPC = 0xfef40f; CDSTDPC = 0;

CDNETWORK = 254; CNLOCPC = 0xfecc4d; CDSTDPC = 0;

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[10] OP:C7NET;LROUTING - PRINT LONG ROUTING INFORMATION

```

-----
|      |      |      |      | STATE |      |      | STATUS |C|      | | |
|POINT|      |      |ROUTING|-----|PREF|ACT|-----|O|INDEX|
|CODE |NID|CLU|   FLAG |RRXCMUCS| LS |LS |PRE|ALT|CLK|N|      |
-----
|  y  |  z  |  r  |   a1  |   j1  |  k1| l1| d1| e1| f1|m1| n1 |
-----
LOCAL NID=254; LOCAL PC=0xfecc4d; PC FORMAT=AT&T;

```

[11] OP:C7NET;LPC - PRINT THE LOCAL POINT CODE
LOCAL POINT CODE IS 254254077

[12] OP:C7NET;OPTIONS - PRINT THE OPTIONS AVAILABLE
o1 [p1][:RE q,CLU r,MEM s]

[13] OP:C7NET;INTL - PRINT THE INTERNATIONAL ROUTING STATUS
CNUM_EQP_IPCS = 14

ROUTING DATA TABLE IN 3B

```

-----
|      |INTL PC|      |      |      |      |      |      |CONG |
|INDEX| WCCCM |FLAG|PLS|ALS|STATE|ACT|P_ST|A_ST|LEVEL|
-----
|  q1  |   r1  |  s1  | t1| u1|  v1  | w1| x1  | x1  |  y1  |
-----

```

[14] OP:C7NET;OFFICE - PRINT THE INCORE AND DISK CNI OFFICE DATA

OFFICE DATA IN MEMORY

```

LOCAL FUNCTION:          z1
NETWORK INDICATOR:      a2
LOCAL POINT CODE:       b2
INTERNATIONAL LOCAL POINT CODE: c2 d2
LIS DESTINATION:        e2
LOCAL REGION:           f2
LOCAL CLLI:             g2

```

OFFICE DATA ON DISK

```

LOCAL FUNCTION:          z1
LOCAL POINT CODE:       b2
INTERNATIONAL LOCAL POINT CODE: c2 d2
LIS DESTINATION:        e2
LOCAL REGION:           f2
LOCAL CLLI:             g2

```

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[15] OP:C7NET;SLIDTAB - PRINT THE SLID TO RNA TABLE

SLID	NODE	MAJ	MIN	FEPC	SLC	CLLI
h2	i2 j2	k2	l2	m2	n2	o2

[16] OP:C7NET COMPLETED

2. REASON FOR OUTPUT

Format 1 prints information about local subsystems. If the subsystem is in-service, the ACTINDX will reflect the FINDX. If the subsystem is either unequipped or out-of-service, CNI will put the index of one of its own functions into this entry.

Format 2 The local office's view of the status of the subsystems at a given point code and whether or not the point code is accessible.

Format 3 prints a 2x2 array of point codes used when selecting a global title translator point code. Elements [0][0] and [1][0] are the static point codes, and elements [0][1] and [1][1] are the dynamic active point codes. Under normal network conditions, these entries would be the same. If one of the STPs becomes inaccessible, then both dynamic entries would contain the point code of the other STP while the static entries would remain unchanged.

Format 4 The point codes of the two adjacent STPs are printed. Subsystems marked Normal or Backup will be listed for mated subsystems (normally in an NCP office.)

Format 5 All point codes which are contained in the permanent relations list along with the subsystems marked Normal or Backup.

Format 6 All point codes which are contained in the broadcast list. This list is not used by an end-office.

Format 16 prints when done.

3. VARIABLE FIELD DEFINITIONS

- a Subsystem number.
- b Physical address that SCCP management information is received on.
- c Logical channel that SCCP management information is received on.
- d Index into a table of functions which could be executed when a message comes into this office, c is the static function the application would would prefer to be executed.
- e Dynamic function which will actually be executed when a message comes into this office and is maintained by CNI.
- f Point code (e.g., 254254077)
- g Subsystem number.

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h	A — Allowed.
	P — Prohibited.
i	B — Backup.
	N — Normal.
j	Link set.
k	Link set number.
l	Status of link set (NORMAL/FAILED, etc.).
m	Link set relation (LS, COMBINED LS).
n	(PART OF CLS) for regular link sets. (LSa AND LSb) for combined link sets.
o	Link type.
p	Far end point code.
q	Region.
r	Cluster.
s	Member.
t	Ring node address of the links in this set.
u	Signaling link selection. Group.
v	Group.
w	Ring node address.
x	Virtual number.
y	Point code of the cluster in hex.
z	Network.
a1	Flag field:
	CLS — Combined link set, normal.
	CLS_B — Combined link set, blocked.
	LS — Link set, normal.
	LS_B — Link set, blocked.
	NO RTE — No routing data.
	RPOPC_B — Remote populated cluster, blocked.
	RPOPC_C — Remote populated cluster, cluster routing.
	RPOPC_M — Remote populated cluster, member routing.
b1	The preferred route (link set number).
c1	The active route (link set number).

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d1	The status (TFX) of the preferred route.
e1	The status (TFX) of the alternate route 1.
f1	The status (TFX) of the alternate route 2.
g1	The congestion level (0-3).
h1	Index in the member table.
i1	Count of abnormal members in the cluster.
j1	Internal flags.
k1	The preferred route (link set number).
l1	The active route (link set number).
m1	The congestion level (0-3).
n1	Index in the member table - blank if using cluster level routing.
o1	BRDCST Print the broadcast list.
	GTXTAB Print the global translation table.
	INTL Print internation routing information.
	LNKSET Print link set information.
	LPC Print the local point code.
	LROUTING Print long routing information.
	OFFICE Print office data.
	OPTIONS Print the options available.
	RELATE Print the permanent relations.
	RIND Print ADJ STP routing indicators.
	ROUTING Print routing information.
	ROUTING Print specific routing.
	SLIDTAB Print the SLID to RNA table.
	SSINFO Print subsystem information.
	SSSTATES Print the subsystem states for PC.
p1	Number.
q1	Index into the cNipc_data array.
r1	International point code in the format WCCCM where:
	CCC — Country code, range 0-255.
	M — Member code, range 0-7.
	W — World zone, range 2-7.

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s1	Routing flag: CLS — Combined linkset routing. All traffic to specified point code will be load shared between the PLS and the ALS. DLS — Double linkset routing. All traffic to specified point code will go over the Primary Linkset (PLS) unless the PLS is down and then all traffic will go over the Alternate Linkset (ALS). NO — No routing defined. SLS — Single linkset routing. All traffic to specified point code will go over the Primary Linkset (PLS).
t1	Number of the primary linkset, range (1-255).
u1	Number of the alternate linkset, range (1-255).
v1	State of linkset - either INIT or blank.
w1	The number of the active linkset.
x1	State of the primary (alternate) linkset: TFA — Transfer allowed. TFC — Transfer congested. TFR — Transfer restricted. TFP — Transfer prohibited.
y1	Congestion level.
z1	Local function number (not used for CCS7).
a2	Network indicator for local point code (range 0-255).
b2	Local point code in format nnnccmmm for ANSI standard and format nnnrrcmmm for non-ANSI standard where nnn is network (range 0-255), ccc is cluster (range 0-255 for ANSI, 0-7 for non-ANSI), rr is region (range 0-31), and mmm is member (range 0-255).
c2	International point code in format wcccm where w is world zone (range 2-7), ccc is country code (range 0-255), and m is member number (range 0-7).
d2	International point code in hex format - top 3 bits world are zone, low 3 bits are member number, middle 8 bits are country code.
e2	LIS destination.
f2	Local region (non ANSI only).
g2	Local cli - 11 character office name.
h2	Slink identity.
i2	Group number of the node (00-631) .
j2	Member number of the node (1-15).

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k2 CNI major state:
AVL
UNA
UNE
UNK

l2 CNI minor state:
GROW
IS
MOOS
OOS
STBY
TEST
UNK

m2 Far end point code.

n2 Signaling link control.

o2 Common language location indicator.

Format 7 additional information:

CNLS_RNA TABLE FOR 5 LINKS

CNLS_RNA[0] - LINK NODE ID = 1 (GRP 0, MEM 1)
CNLS_RNA[1] - LINK NODE ID = 8 (GRP 0, MEM 8)
CNLS_RNA[2] - LINK NODE ID = 9 (GRP 0, MEM 9)
CNLS_RNA[3] - LINK NODE ID = 524 (GRP 32, MEM 12)
CNLS_RNA[4] - LINK NODE ID = 518 (GRP 32, MEM 6)

-----				-----			
SLS	LINK NODE ID	CNLDSHR[] PHYS. ADDR		SLS	LINK NODE ID	CNLDSHR[] PHYS. ADDR	

0	0	x	0	16	0	x	0
1	0	x	0	17	0	x	0
2	0	x	0	18	0	x	0
3	0	x	0	19	0	x	0
4	0	x	0	20	0	x	0
5	0	x	0	21	0	x	0
6	0	x	0	22	0	x	0
7	0	x	0	23	0	x	0
8	0	x	0	24	0	x	0
9	0	x	0	25	0	x	0
10	0	x	0	26	0	x	0

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LINK				CNLDSHR[]			
SLS	NODE	ID	PHYS.	ADDR	SLS	NODE	ID
				PHYS.	ADDR		
11	0		x	0	27	0	x 0
12	0		x	0	28	0	x 0
13	0		x	0	29	0	x 0
14	0		x	0	30	0	x 0
15	0		x	0	31	0	x 0

Format 8 and 9 additional information:

NID		ROUTING		ACT		C		R		N		C	
HEX	DEC	FLAG	LS	PRIM	ALT1	ALT2	G	RPI	T	INDEX			
0x 1	001	NTWK											1
0x 2	002	NTWK											2
0xe6	230	NTWK											5
0xfc	252	NTWK											3
0xfd	253	NTWK											4
0xfe	254	NTWK											0

POINT CODE		ROUTING		ACT		C		R		N		C	
HEX	DECIMAL	FLAG	LS	PRIM	ALT1	ALT2	G	RPI	T	INDEX			
017100	001-113-000	POPCLU	BLK	3	AA					1			
017900	001-121-000	POPCLU	BLK	3	AA					1			
01a100	001-161-000	POPCLU	BLK	3	AA					1			
025100	002-081-000	POPCLU	BLK	3	AA					1			
02a100	002-161-000	POPCLU	BLK	3	AA					1			
e60500	230-005-000	POPCLU	BLK	3	AA					1			
e60600	230-006-000	POPCLU	BLK	3	AA					1			
fc5100	252-081-000	POPCLU	BLK	3	AA					1			
fca100	252-161-000	POPCLU	BLK	3	AA					1			
fd5400	253-084-000	POPCLU	BLK	13	AA					2			
fd5500	253-085-000	POPCLU	BLK	13	AA					2			
fd5c00	253-092-000	POPCLU	BLK	16	AA					3			
fd5d00	253-093-000	POPCLU	BLK	16	AA					3			
fd7100	253-113-000	POPCLU	BLK	3	AA					1			
fd7900	253-121-000	POPCLU	BLK	3	AA					1			

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POINT CODE		ROUTING FLAG	ACT LS	ROUTES AND STATUS			C N	R C	INDEX
HEX	DECIMAL			PRIM	ALT1	ALT2			
fda100	253-161-000	POPCLU	BLK	3 AA				1	
fe3400	254-06-4-000	POPCLU	BLK	3 AA				1	
fe3500	254-06-5-000	POPCLU	BLK	3 AA				1	
fe5400	254-10-4-000	POPCLU	BLK	13 AA				2	
fe5500	254-10-5-000	POPCLU	BLK	13 AA				2	
fe5c00	254-11-4-000	POPCLU	BLK	16 AA				3	
fe5d00	254-11-5-000	POPCLU	BLK	16 AA				3	
feac00	254-21-4-000	POPCLU	BLK	3 AA				1	
fead00	254-21-5-000	POPCLU	BLK	3 AA				1	
feb400	254-22-4-000	POPCLU	BLK	3 AA				1	
feb500	254-22-5-000	POPCLU	BLK	3 AA				1	
febc00	254-23-4-000	POPCLU	BLK	3 AA				1	
febd00	254-23-5-000	POPCLU	BLK	3 AA				1	
fec400	254-24-4-000	POPCLU	BLK	3 AA				1	
fec500	254-24-5-000	POPCLU	BLK	3 AA				1	
fec800	254-25-0-000	UPOPCLU	BLK	1 A	2 A			4	
fec900	254-25-1-000	UPOPCLU	BLK	2 A	1 A			5	
fecc00	254-25-4-000	POPCLU	BLK	3 AA				1	
fecd00	254-25-5-000	POPCLU	BLK	3 AA				1	
fed400	254-26-4-000	POPCLU	BLK	3 AA				1	
fed500	254-26-5-000	POPCLU	BLK	3 AA				1	
fedc00	254-27-4-000	POPCLU	BLK	3 AA				1	
fedd00	254-27-5-000	POPCLU	BLK	3 AA				1	
fee400	254-28-4-000	POPCLU	BLK	3 AA				1	
fee500	254-28-5-000	POPCLU	BLK	3 AA				1	
feec00	254-29-4-000	POPCLU	BLK	3 AA				1	
feed00	254-29-5-000	POPCLU	BLK	3 AA				1	

Format 10 additional information:

NID		ROUTING FLAG	ACT LS	ROUTES AND STATUS			C N	R C	INDEX
HEX	DEC			PRIM	ALT1	ALT2			
0x 1	001	NTWK							1
0x 2	002	NTWK							2
0xe6	230	NTWK							5
0xfc	252	NTWK							3
0xfd	253	NTWK							4
0xfe	254	NTWK							0

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POINT CODE		ROUTING FLAG	ACT LS	ROUTES AND STATUS			C N	R C	INDEX
HEX	DECIMAL			PRIM	ALT1	ALT2			
017100	001-113-000	POPCLU	BLK	3 AA				1	
017900	001-121-000	POPCLU	BLK	3 AA				1	
01a100	001-161-000	POPCLU	BLK	3 AA				1	
025100	002-081-000	POPCLU	BLK	3 AA				1	
02a100	002-161-000	POPCLU	BLK	3 AA				1	
e60500	230-005-000	POPCLU	BLK	3 AA				1	
e60600	230-006-000	POPCLU	BLK	3 AA				1	
fc5100	252-081-000	POPCLU	BLK	3 AA				1	
fca100	252-161-000	POPCLU	BLK	3 AA				1	
fd5400	253-084-000	POPCLU	BLK	13 AA				2	
fd5500	253-085-000	POPCLU	BLK	13 AA				2	
fd5c00	253-092-000	POPCLU	BLK	16 AA				3	
fd5d00	253-093-000	POPCLU	BLK	16 AA				3	
fd7100	253-113-000	POPCLU	BLK	3 AA				1	
fd7900	253-121-000	POPCLU	BLK	3 AA				1	
fda100	253-161-000	POPCLU	BLK	3 AA				1	
fd5400	253-084-000	POPCLU	BLK	13 AA				2	
fd5500	253-085-000	POPCLU	BLK	13 AA				2	
fd5c00	253-092-000	POPCLU	BLK	16 AA				3	
fd5d00	253-093-000	POPCLU	BLK	16 AA				3	
fd7100	253-113-000	POPCLU	BLK	3 AA				1	
fd7900	253-121-000	POPCLU	BLK	3 AA				1	
fda100	253-161-000	POPCLU	BLK	3 AA				1	
fe3400	254-06-4-000	POPCLU	BLK	3 AA				1	
fe3500	254-06-5-000	POPCLU	BLK	3 AA				1	
fe5400	254-10-4-000	POPCLU	BLK	13 AA				2	
fe5500	254-10-5-000	POPCLU	BLK	13 AA				2	
fe5c00	254-11-4-000	POPCLU	BLK	16 AA				3	
fe5d00	254-11-5-000	POPCLU	BLK	16 AA				3	
feac00	254-21-4-000	POPCLU	BLK	3 AA				1	
fead00	254-21-5-000	POPCLU	BLK	3 AA				1	
feb400	254-22-4-000	POPCLU	BLK	3 AA				1	
feb500	254-22-5-000	POPCLU	BLK	3 AA				1	
febc00	254-23-4-000	POPCLU	BLK	3 AA				1	
febd00	254-23-5-000	POPCLU	BLK	3 AA				1	
fec400	254-24-4-000	POPCLU	BLK	3 AA				1	
fec500	254-24-5-000	POPCLU	BLK	3 AA				1	
fec800	254-25-0-000	UPOPCLU	BLK	1 A	2 A			4	
fec900	254-25-1-000	UPOPCLU	BLK	2 A	1 A			5	
fecc00	254-25-4-000	POPCLU	BLK	3 AA				1	
fecd00	254-25-5-000	POPCLU	BLK	3 AA				1	
fed400	254-26-4-000	POPCLU	BLK	3 AA				1	
fed500	254-26-5-000	POPCLU	BLK	3 AA				1	
fedc00	254-27-4-000	POPCLU	BLK	3 AA				1	

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+-----+											
POINT CODE			ROUTING		ROUTES AND STATUS			C	R		
			FLAG	LS	PRIM	ALT1	ALT2	N	C		
HEX	DECIMAL							G	RPI	T	INDEX
+-----+											
fedd00	254-27-5-000		POPCLU	BLK	3 AA				1		
fee400	254-28-4-000		POPCLU	BLK	3 AA				1		
fee500	254-28-5-000		POPCLU	BLK	3 AA				1		
feec00	254-29-4-000		POPCLU	BLK	3 AA				1		
feed00	254-29-5-000		POPCLU	BLK	3 AA				1		
+-----+											

4. ACTION TO BE TAKEN

None.

5. REFERENCES

Input Message
OP:C7NET-B

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ID OP:C7NET-B
WORK CENTER.. MOC
GENERIC 4AP14 and later
APPLICATION .. 4E,CNI
TYPE Output

1. FORMAT

- [1] RING OP C7NET
LOCAL NID = n; LOCAL PC = o; PC FORMAT = p
- ```

+-----+-----+-----+-----+-----+-----+
| NID | | | ROUTES AND STATUS|C| |R| |
+-----+-----+ROUTING|ACT| |N| |C| |
| HEX| DEC| FLAG |LS |PRIM | ALT1 | ALT2|G|RPI|T|INDEX|
+-----+-----+-----+-----+-----+-----+
i1| a | b | c | d |e fg | h fg |i fg |j| k |l| m |
+-----+-----+-----+-----+-----+-----+

+-----+-----+-----+-----+-----+-----+
POINT CODE			ROUTES AND STATUS	C		R				
	ROUTING	ACT		N		C				
HEX	DECIMAL	FLAG	LS	PRIM	ALT1	ALT2	G	RPI	T	INDEX
+-----+-----+-----+-----+-----+-----+
i1| a |b-[r]-s-t| c | d |e fg | h fg |i fg |j| k |l| u |
+-----+-----+-----+-----+-----+-----+

```
- [2] RING OP C7NET
- ```

+-----+-----+-----+-----+-----+-----+
|  NID  |      |      | ROUTES AND STATUS|C|  |R|      |
+-----+-----+ROUTING|ACT|      |N|  |C|      |
| HEX| DEC| FLAG |LS |PRIM | ALT1 | ALT2|G|RPI|T|INDEX|
+-----+-----+-----+-----+-----+-----+
i1|  a  |  b  |   c   | d |e fg | h fg |i fg |j| k |l| m  |
+-----+-----+-----+-----+-----+-----+

```
- [3] RING OP C7NET
LOCAL NID = n; LOCAL PC = o; PC FORMAT = p
- ```

+-----+-----+-----+-----+-----+-----+
POINT CODE			ROUTES AND STATUS	C		R				
	ROUTING	ACT		N		C				
HEX	DECIMAL	FLAG	LS	PRIM	ALT1	ALT2	G	RPI	T	INDEX
+-----+-----+-----+-----+-----+-----+
i1| a | b-r-s-t| c | d |e fg | h fg |i fg |j| k |l| u |
+-----+-----+-----+-----+-----+-----+

```

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[3a] RING OP C7NET  
LOCAL NID = n; LOCAL PC = o; PC FORMAT = p;

| POINT CODE |         | ROUTING |    | ACT  |      | ROUTES AND STATUS |      | C   | R |       |   |
|------------|---------|---------|----|------|------|-------------------|------|-----|---|-------|---|
| HEX        | DECIMAL | FLAG    | LS | PRIM | ALT1 | ALT2              | G    | RPI | T | INDEX |   |
| i1         | a       | b-s-t   | c  | d    | e fg | h fg              | i fg | j   | k | l     | u |

[4] RING OP C7NET

| POINT |     | NID |     | CLU   |        | MEM   |        | CNPAGE_ACCESS |       | CNMEMBER |  |
|-------|-----|-----|-----|-------|--------|-------|--------|---------------|-------|----------|--|
| CODE  | NID | CLU | MEM | ENTRY | MEM(6) | ENTRY | NUMBER | INDEX         | ENTRY | number   |  |
| o     | n   | s   | t   | a2    | b2     | c2    |        |               |       |          |  |

[5] RING OP C7NET

| CNMEMBER |  | CNMEMBER |  | CNMEMBER |  | CNMEMBER |  |
|----------|--|----------|--|----------|--|----------|--|
| ENTRY    |  | ENTRY    |  | ENTRY    |  | ENTRY    |  |
| c2       |  | c2       |  | c2       |  | c2       |  |

[6] RING OP C7NET

| CNMEMBER |      | ROUTING |      | ACT  |      | ROUTES AND STATUS |     | C | R     |    |  |
|----------|------|---------|------|------|------|-------------------|-----|---|-------|----|--|
| INDEX    | FLAG | LS      | PRIM | ALT1 | ALT2 | G                 | RPI | T | INDEX |    |  |
| i1       | f1   | c       | d    | e fg | h fg | i fg              | j   | k | l     | g1 |  |

[7] RING OP C7NET  
d2

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[8] RING OP C7NET  
LS j1 is NORMAL/FAILED

LS j1 is a y1  
CNLS\_RNA TABLE FOR z1 LINKS  
CNLS\_RNAv1 - LINK NODE ID = w1

| ----- |                 |                          | ----- |                 |                          |
|-------|-----------------|--------------------------|-------|-----------------|--------------------------|
| SLS   | LINK<br>NODE ID | CNLD SHR[]<br>PHYS. ADDR | SLS   | LINK<br>NODE ID | CNLD SHR[]<br>PHYS. ADDR |
| ----- |                 |                          |       |                 |                          |
| v1    | w1              | x1                       | v1    | w1              | x1                       |

[9] RING OP C7NET  
POINT CODE IS ACCESSIBLE  
SUBSYSTEMS MARKED PROHIBITED:  
e1  
ALL OTHER SUBSYSTEMS ARE MARKED ALLOWED.

[10] RING OP C7NET  
SCCP DEBUG FLAG BEING TURNED ON

[11] RING OP C7NET  
SCCP DEBUG FLAG BEING TURNED OFF

[12] RING OP C7NET  
STP [0]: d1 IS ACCESSIBLE  
STP [1]: d1 IS ACCESSIBLE  
  
SUBSYSTEMS RECEIVING BACKUP TRAFFIC FROM STP [0]:  
e1  
  
SUBSYSTEMS RECEIVING BACKUP TRAFFIC FROM STP [1]:  
e1

[13] RING OP C7NET  
POINT CODES ON SCCP BROADCAST LIST:  
k1

| Type          | PC[0] | PC[1] | SELECTOR |
|---------------|-------|-------|----------|
| GPAIR STATIC  | v     | v     | w        |
| GPAIR DYNAMIC | v     | v     | w        |

[15] RING OP C7NET  
SUBSYSTEM 1 (TBL INDEX 1) IS x AND IS y  
MGT INDICATIONS GO TO z CHAN a1  
UPAUSE/URESUME INDICATIONS WANTED  
SIGNALLING CHANNEL INFORMATION  
PADDR z CHAN a1 FINDX b1 ACTINDX c2

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[16] RING OP C7NET  
CURRENT LOCAL POINT CODE: d2  
HEX VALUE: d2

[17] RING OP C7NET  
POINT CODES ON SCCP PERMANENT RELATIONS LIST:  
k1

[18] RING OP C7NET

| point | code | z  | c  | m  | p0 | p1 | p2 | p3 | ls# | 00 | 01 | 10 | 11 | 20 | 21 | 30 | 31 | perm |
|-------|------|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|------|
| k1    | l1   | m1 | n1 | o1 | o1 | o1 | o1 | d  | p1  | p1 | p1 | p1 | p1 | p1 | p1 | p1 | p1 | q1   |

  

| point | cur | cong | next  | #of | sccp |
|-------|-----|------|-------|-----|------|
| code  | rte | lvl  | index | rte | indx |
| k1    | r1  | j    | s1    | t1  | u1   |

[19] RING OP C7NET ABNORMAL

| POINT     | ACTIVE | PRIM | ALT1 | ALT2 | CONG | SSN  |
|-----------|--------|------|------|------|------|------|
| CODE      | ROUTE  | LS   | LS   | LS   | LVL  | LIST |
| b-[r]-s-t | d      | e fg | h fg | i fg | j    | h1   |

[20] RING OP C7NET

| POINT CODE |         | TIMER STATUS |     |     |
|------------|---------|--------------|-----|-----|
| HEX        | DECIMAL | T25          | T28 | T29 |
| a          | b-r-s-t | e2           | e2  | e2  |

## 2. REASON FOR OUTPUT

C7NET provides a means for the craft to get a formatted display of the routing data in the cluster, member and load share tables and the timer status in the MTP restart table. This is very useful in monitoring the System 7 traffic management code that updates these tables.

Format 1 is for the PRTE option. This is the output for the network table, cNnetwork[.].

Format 2 is for the PNID option.

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Format 3 is for the PRN, PREG, PCLU, and PMEM options. This is the output for the local cluster table, cNcluster[],

and the member table, cNmember[], if the local network uses the AT&T point code format (for example, PC FORMAT=AT&T).

Format 3a is for the PRN, PREG, PCLU, and PMEM options. This is the output for a nonlocal network cluster table, cNcluster[], and the member table, cNmember[], or for the local cluster and member table if the local network uses the ANSI standard point code format (for example, PC FORMAT=ANSI).

Format 4 is for the PIDX option.

Format 5 is for the PIDXPA option.

Format 6 is for the PIDXMEM option.

Format 7 is for the PFL, PFRNG options.

Format 8 is for the PLS option.

Format 9 is for the STATES option.

Format 10 is for the DEBUGON option.

Format 11 is for the DEBUGOFF option.

Format 12 is for the RIND option.

Format 13 is for the BRDCST option.

Format 14 is for the GTXTAB option.

Format 15 is for the SSINFO option.

Format 16 is for the LOCPC, ILOCPC options.

Format 17 is for the RELATE option.

Format 18 is for the PIPC, PAIPC options.

Format 19 is for the ABNORMAL option.

Format 20 is for the PMTP option. This is the output for the Message Transfer Part (MTP) restart table, cT7mtprst[].

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### 3. VARIABLE FIELD DEFINITIONS

- a The Network Identifier (NID) expressed as a hexadecimal number.
- b The Network Identifier (NID) expressed as a decimal number.
- c The network, cluster, or member level routing flag:

**NTWK** — NetworkK flag is used to identify a network with clusters of signaling points. When routing to a network with this flag, a route will be selected for Signaling Connection Control Point (SCCP) and Message Transfer Part (MTP) routing to a signaling point based on the network, cluster, and possibly, member fields of the destination point code.

**NTWK\_0** — Network Only flag is used to identify a network that has Network-Only\_Routing. When routing to a network with this flag, a route will be selected for SCCP and MTP routing to a signaling point based only on the network field of the destination point code.

**POPCLU** — A populated cluster is a group of signaling points, all of which have the same network and cluster in their point codes. The Populated Cluster flag is used to identify populated clusters. When routing to a cluster with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster and if the member is exceptional (for example, a Full Point Code Routing (FPCR) member or a member that has an abnormal route status), member fields of the destination point code.

**UPOPCLU** — An unpopulated cluster is a signaling point in a network that has a unique cluster number. The Unpopulated Cluster flag is used to identify unpopulated clusters [in the NSD network, Signal Transfer Points (STPs) are unpopulated clusters]. When routing to a cluster with this flag, a route will be selected for SCCP and MTP routing based on the network, and cluster fields of the destination point code.

**SMEMBER** — Static Member flag is used to identify static members (FPCR members) of a POPCLU. When routing to a member with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster, and member fields of the destination point code.

**DMEMBER** — Dynamic Member flag is used to identify dynamic members of a POPCLU. When routing to a member with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster, and member fields of the destination point code.

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**NOTE:** DMEMBER is only created as a result of network events (for example, transfer prohibits, subsystem prohibits, remote congestion, etc.) and contain the abnormal network status of the member. These members will be deleted when the abnormal status is cleared.

- NO\_RTE — No Route flag is used to identify networks, clusters, or members that do not have routing data.
- d The current/active link set (route) number or Blocked (BLK) if point code is inaccessible.
- e The primary route's link set number. The value is left blank when there is no link set associated with the primary route.
- f The route status of the first direct link set associated with the route:  
blank — No first direct link set.  
A — Transfer (cluster) allowed.  
R — Transfer (cluster) restricted.  
P — Transfer (cluster) prohibited.
- g The route status of the second direct link set associated with the route:  
blank — No second direct link set.  
A — Transfer (cluster) allowed.  
R — Transfer (cluster) restricted.  
P — Transfer (cluster) prohibited.
- NOTE:** If the route status for the first and second direct link set are both non-blank then the route's link set is a combined link set. If the route status for the first is non-blank and the second is blank then the link set is a direct link set. If both fields for the first and second are blank, then there is no link set associated with that route.
- h The first alternate route's link set number. The value is left blank when there is no link set associated with the first alternate route.
- i The second alternate route's link set number. The value is left blank when there is no link set associated with the second alternate route.
- j The remote congestion level (0-3). The value is blank when there is no remote congestion for the point code.
- k The Routing Priority Index (RPI) for the point code (0-255). However, if the RPI is 0 a blank is printed for the field. This is used internally to index into the cNrtg\_prior table.

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|    |                                                                                                                                                                                                                                                                                                                                                                              |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| l  | The signaling Route Set Congestion Test (RCT). It denotes what remote congestion timer is running at the present moment:<br><br>blank — No timers are running,<br>0 — Protocol timer T15 is running,<br>1 — Protocol timer T16 is running.                                                                                                                                   |
| m  | The director index value. This value is used to index into the cluster table, cNcluster[].                                                                                                                                                                                                                                                                                   |
| n  | The local network's Network Identifier (NID) in decimal format.                                                                                                                                                                                                                                                                                                              |
| o  | The local point code in hexadecimal format.                                                                                                                                                                                                                                                                                                                                  |
| p  | The local point code format. The word "ANSI" or "AT&T" will be indicated in this field.                                                                                                                                                                                                                                                                                      |
| r  | Region from which the data is being retrieved in decimal format.                                                                                                                                                                                                                                                                                                             |
| s  | Cluster number from which the data is being retrieved in decimal format.                                                                                                                                                                                                                                                                                                     |
| t  | Member number from which the data is being retrieved in decimal format.                                                                                                                                                                                                                                                                                                      |
| u  | If the routing flag field indicates that the entry is a Populated Cluster (POPCLU), this field is used to index into the page access table, cNpage_access[]. If the data retrieved indicates that the entry is an Unpopulated (UPOPCLU) cluster or for a member (SMEMBER or DMEMBER), it is used to index into the SCCP bitmap. For all other cases the field is left blank. |
| v  | The point code translator. The format is nnncccmmm for ANSI format and nnnrrcmmm for AT&T format. These values are in decimal format.<br><br>nnn — Network ID<br>rr — Region number<br>ccc or c — Cluster number<br>mmm — Member number                                                                                                                                      |
| w  | Which translator value will be used for the next translation (0-1).                                                                                                                                                                                                                                                                                                          |
| x  | Indicates if the subsystem is equipped or unequipped.                                                                                                                                                                                                                                                                                                                        |
| y  | Indicates if the subsystem is allowed or prohibited.                                                                                                                                                                                                                                                                                                                         |
| z  | The program address physical ring node or LADD_3B in hexadecimal format.                                                                                                                                                                                                                                                                                                     |
| a1 | The channel number.                                                                                                                                                                                                                                                                                                                                                          |
| b1 | The preferred user selected function index for incoming messages.                                                                                                                                                                                                                                                                                                            |
| c1 | The active function index for incoming messages.                                                                                                                                                                                                                                                                                                                             |
| d1 | The current local point code.                                                                                                                                                                                                                                                                                                                                                |

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| e1 | The Subsystem Number (SSN).                                                                                                                                                                                                                                                                                                                                                                                                                       |
| f1 | The index into the member table, cNmember[.].                                                                                                                                                                                                                                                                                                                                                                                                     |
| g1 | The SCCP bitmap index.                                                                                                                                                                                                                                                                                                                                                                                                                            |
| h1 | The list of prohibited subsystems.                                                                                                                                                                                                                                                                                                                                                                                                                |
| i1 | <p>This field is used to indicate abnormal route status [Transfer (Cluster) Restricted or Transfer (Cluster) Prohibited] and /or alternate routing:</p> <p>&gt; — Indicates that there is an abnormal route status on any of the valid routes for that point code.</p> <p>&gt;&gt; — Indicates that alternate routing is being used for that point code. The alternate routing symbol takes precedence over the abnormal route status symbol.</p> |
| j1 | Link set number. A decimal number from 1 - 255.                                                                                                                                                                                                                                                                                                                                                                                                   |
| k1 | Point code in decimal.                                                                                                                                                                                                                                                                                                                                                                                                                            |
| l1 | Zone.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| m1 | Country.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| n1 | Member number.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| o1 | Route (link set number). One of four routes out of the office (p0 through p3). Route p0 is attempted first and p3 is attempted last. Value is a link set number or zero (0) meaning unavailable.                                                                                                                                                                                                                                                  |
| p1 | Route status [prohibited (P), allowed (A), unavailable (U)]. Columns numbered 00 and 01 goes with route p0; 10 and 11 goes with p1, etc. 00 and 01, 10 and 11, etc. . . are a pair of either a combined link set or a direct link set route. For example, if 00 = A or P and 01 = A or P, then the route is over a combined link set. If, instead, 00 = A or P and 01 = U, then the route is over a direct link set.                              |
| q1 | Link set permutation. A decimal number from 0 to 63 representing the different possible combinations of routes p0 through p3. Link sets or point codes using the same permutation are grouped together into a link set permutation according to similar routing characteristics.                                                                                                                                                                  |
| r1 | Current route (0 to 3 for p0 to p3).                                                                                                                                                                                                                                                                                                                                                                                                              |
| s1 | Next index in hexadecimal. This is only useful to the system designer and is neither accessible nor changeable in the field.                                                                                                                                                                                                                                                                                                                      |
| t1 | Decimal number of equipped routes out of the office for this point code.                                                                                                                                                                                                                                                                                                                                                                          |
| u1 | Signaling Connection Control Part (SCCP) index. This is an index into a table containing remote subsystem status information. This is only useful to the system designer and is neither accessible nor changeable in the field.                                                                                                                                                                                                                   |
| v1 | Signaling Link Selection (SLS) field. A decimal number from 0 to 15.                                                                                                                                                                                                                                                                                                                                                                              |

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|    |                                                                                                                                                                                                                                                                                                                 |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| w1 | Link node id in decimal.                                                                                                                                                                                                                                                                                        |
| x1 | Physical address in load share table in hexadecimal format.                                                                                                                                                                                                                                                     |
| y1 | Link set description which is based on the information from the link set relation table (cNlsrel):<br><br>COMBINED LS made up of DIRECT LS (link set number)<br>and DIRECT LS (link set number)<br><br>DIRECT LS NOT part of a COMBINED LS<br><br>DIRECT LS which is part of a COMBINED LS (link set<br>number) |
| z1 | Number of links.                                                                                                                                                                                                                                                                                                |
| a2 | CNpage access entry number. The first dimension index into the cNpage_access table that is retrieved from the cNcluster table's index field.                                                                                                                                                                    |
| b2 | CNpage access mem(6) index. The second dimension index into the cNpage_access table derived from the upper six bits of the member number.                                                                                                                                                                       |
| c2 | CNmember entry number. The cNmember table entry number that is used to access into the member table routing information. This number is derived from "OR"ing the index field from the cNpage_access table that is associated with the point code with the lower order two bits of the member field.             |
| d2 | An integer or range of integers representing marked free elements for a particular table.                                                                                                                                                                                                                       |
| e2 | MTP Restart Signaling Point procedure timer status:<br><br>NOT RUNNING<br><br>RUNNING                                                                                                                                                                                                                           |

#### 4. ACTION TO BE TAKEN

Various error output messages are printed when using the C7NET command.

This tool is support use only. Contact your support organization for details.

#### 5. REFERENCES

Practice 256-090-181, *CNI Operations Manual* - Data Base Description Section

Practice 256-090-187, *CNI Feature Description Manual* - Message Transfer Part (MTP)  
Restart Section.

Input Message  
OP:C7NET-B

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ID ..... OP:CFGSTAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP:CFGSTAT MESSAGE STARTED  
UNIT MTCE INH DGN  
a b [ c d ] e f g
- [2] OP CFGSTAT COMPLETED
- [3] OP CFGSTAT INTERFACE ERROR, ERRNO=h
- [4] OP CFGSTAT NOT STARTED  
INVALID DATA FIELD
- [5] OP CFGSTAT NOT STARTED  
RETRY LATER
- [6] OP CFGSTAT IN PROGRESS  
a b [ c d ] e f g
- [7] OP CFGSTAT RETRY LATER i
- [8] OP CFGSTAT WRITE TO j  
FAILED ON KEY #k

## 2. REASON FOR OUTPUT

To give device information specific to hardware units on communities requested via the OP:CFGSTAT input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name. Unit names are listed in Member Numbers Input Appendix C, APP:MEM-NUM-C.
- b Unit number. See Member Numbers Input Appendix C, APP:MEM-NUM-C.
- c Subunit name, if subunit name is CU, Control Unit (CU) subunit names are listed in Member Numbers Input Appendix C, APP:MEM-NUM-C.
- d Subunit number. See Member Numbers Input Appendix C, APP:MEM-NUM-C.

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- e                   The current maintenance state of the unit is indicated by the identifiers:
- ACT     — Active units.
  - GROW    — Units being grown.
  - INIT    — Initializing units.
  - OFL     — Off-line units.
  - OOS     — Out-of-service units.
  - STBY    — Standby units.
  - UNAV    — Unavailable units.
  - UNEQIP — Unequipped units.
- f                   Current inhibit status of the associated error source:
- ALW — Allowed.
  - INH — Inhibited.
- g                   The results of the last diagnostic on the unit is indicated by the identifiers:
- ABT    — Aborted diagnostics.
  - ATP    — All tests passed.
  - CATP — Conditional all tests passed.
  - NTR    — No tests were run.
  - STF    — Some tests failed.
- h                   Error number:
- 9 — Cannot attach to plant measurement library.
  - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
  - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i                   Retry the message later for one of the reasons:
- CANNOT CREATE FILE IN /tmp
  - CANNOT GET DATABASE RECORD ID
  - CANNOT SEQUENCE DATABASE
- j                   Temporary output file name.
- k                   Key associated with write failure.

#### 4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 49 and 477.  
Format 2 has OMDB keys of 50 and 478.  
Format 3 has OMDB keys of 51 and 479.  
Format 6 has OMDB keys of 580 and 582.

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Format 7 has OMDB keys of 588 and 589.  
Format 8 has an OMDB key of 656.

Input Appendix  
APP:MEM-NUM-C

Input Messages

OP:ACT  
OP:CFGSTAT  
OP:GROW  
OP:INIT  
OP:OFL  
OP:OOS  
OP:STBY  
OP:UNAV  
OP:UNEQIP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:CLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

OP CLK COMPLETED  
a/b/c d:e

## 2. REASON FOR OUTPUT

To print the current date and time, as requested in an OP:CLK input command.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                  |
|---|----------------------------------|
| a | Month (01-12).                   |
| b | Day (01-31).                     |
| c | Last two digits of year (00-99). |
| d | Hour (00-23).                    |
| e | Minute (00-59).                  |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 287.

Input Messages  
OP:CLK  
SET:CLK

Output Message  
SET:CLK

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ID ..... OP:DCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] OP DCC COMPLETE  
APPDB DCC IS ALLOWED FOR a
- [2] OP DCC COMPLETE  
APPDB DCC IS ACTIVATED FOR a
- [3] OP DCC COMPLETE  
APPDB DCC TASK c IS EXECUTING FOR a
- [4] OP DCC COMPLETE  
APPDB DCC IS INHIBITED FOR a
- [5] OP DCC COMPLETE  
INPUT ERROR - d
- [6] OP DCC COMPLETE  
ERROR a (LINE b) -- CANNOT DETERMINE APPDB DCC STATUS FOR a

## 2. REASON FOR OUTPUT

Response to the OP:DCC input command. Formats 1 thru 4 indicate the inhibit and activation status of DCC. Note that if a DCC task is executing, DCC is both allowed and activated. Also if DCC is activated, then it is allowed. If DCC is inhibited, it cannot be either active, allowed, or executing. Format 5 prints if a syntax error was found in the OP:DCC command that was input. Format 6 prints if internal errors are preventing the 4ESS™ Switch from obtaining status of the DCC capability.

## 3. VARIABLE FIELD DEFINITIONS

- a Error number (TBD).
- b Source line number where error was found. (For NESAC troubleshooting.)
- c Transaction ID of DCC task that is executing. The Transaction ID is specified with the START:DCC command.
- d English description of the syntax error found in the command input.

## 4. ACTION TO BE TAKEN

Format 6: Notify NESAC.

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## **5. REFERENCES**

Input Messages  
ACTV:DCC  
ALW:DCC  
DEACTV:DCC  
INH:DCC  
OP:DCC  
START:DCC  
STOP:DCC  
VER:DCC

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ID ..... OP:DCNAUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has seven formats.

- [1] OP DCNAUD LNb c COMPLETED  
AUDIT MAN SOFT ROUT  
NUMBER MODE MODE MODE  
a d d d
- [2] OP DCNAUD a LNb c FAILED  
REASON: ACM AT INITIALIZATION
- [3] OP DCNAUD a LNb c FAILED  
REASON: INVALID AUDIT NUMBER
- [4] OP DCNAUD a LNb c FAILED  
REASON: NODE IS NOT DCHAN
- [5] OP DCNAUD a LNb c FAILED  
REASON: NODE IS NOT ACTIVE
- [6] OP DCNAUD a LNb c FAILED  
REASON: SEND MSG TO DCHAN FAILED
- [7] OP DCNAUD a LNb c FAILED  
REASON: RECEIVED \_RTNMSG OR \_SRCMATCH MSG

## 2. REASON FOR OUTPUT

To report the termination status of the OP:DCNAUD input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Audit member. One of the following:
  - 1 — Data Blocks audit.
  - 2 — User call reference value (CRV) Table audit.
  - 3 — Network CRV Table audit.
  - 4 — Channel ID Table audit.
  - 5 — Idle Data Blocks List audit.
  - ALL — All D-Channel Node (DCN) audits.
- b DCN group number.
- c DCN member number.

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d                      Audit status for all audits controlled by DCN. One of the following:

ACT — Active  
IDLE — Idle  
INH — Inhibited  
SCHE — Scheduled  
UNK — Unknown

#### 4. ACTION TO BE TAKEN

Format 1 indicates successful execution. If the audit status is UNK seek technical assistance; otherwise, no action is necessary.

Format 2 indicates that the Audit Control Mechanism on the DCN is under initialization. Wait until the DCN finishes initialization and retry.

Format 3 indicates that the audit number is not valid. Retry with a correct audit number.

Format 4 indicates that the requested node is not a DCN. Retry with a correct group and member number for the DCN.

Format 5 indicates that the DCN is not active. Wait until DCN is active and retry.

Format 6 indicates that DCNAP can not send message to the DCN. Retry. If you get the same error multiple times, seek technical assistance.

Format 7 indicates that DCNAP received a returned or source matched message. Either the IMS channel is not open on the DCN or the DCN is not active.

#### 5. REFERENCES

##### Input Messages

ALW:DCNAUD  
INH:DCNAUD  
OP:DCNAUD  
STOP:DCNAUD

##### Output Messages

ALW:DCNAUD  
INH:DCNAUD  
STOP:DCNAUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:DCNAUDERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has seven formats.

- [1] OP DCNAUDERR LNb c COMPLETED  
AUDIT AUDIT ERRORS ERRORS SCHEDULED  
NUMBER MODE FOUND CORR COUNT  
a d e f g
- [2] OP DCNAUDERR a LNb c FAILED  
REASON: ACM AT INITIALIZATION
- [3] OP DCNAUDERR a LNb c FAILED  
REASON: INVALID AUDIT NUMBER
- [4] OP DCNAUDERR a LNb c FAILED  
REASON: NODE IS NOT DCHAN
- [5] OP DCNAUDERR a LNb c FAILED  
REASON: NODE IS NOT ACTIVE
- [6] OP DCNAUDERR a LNb c FAILED  
REASON: SEND MSG TO DCHAN FAILED
- [7] OP DCNAUDERR a LNb c FAILED  
REASON: RECEIVED \_RTNMSG OR \_SRCMATCH MSG

## 2. REASON FOR OUTPUT

To report the termination status of the OP:DCNAUDERR input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Audit member. One of the following:
  - 1 — Data Blocks audit.
  - 2 — User call reference value (CRV) Table audit.
  - 3 — Network CRV Table audit.
  - 4 — Channel ID Table audit.
  - 5 — Idle Data Blocks List audit.
  - ALL — All D-Channel Node (DCN) audits.
- b DCN group number.
- c DCN member number.

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- d                      Audit mode. One of the following:
- MAN — Manual mode  
                            ROUT — Routine mode  
                            SOFT — Software mode
- e                      Number of errors found.
- f                      Number of errors corrected.
- g                      Number of times audits have been scheduled.

#### 4. ACTION TO BE TAKEN

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that the Audit Control Mechanism on the DCN is under initialization. Wait until the DCN finishes initialization and retry.

Format 3 indicates that the audit number is not valid. Retry with a correct audit number.

Format 4 indicates that the requested node is not a DCN. Retry with a correct group and member number for the DCN.

Format 5 indicates that the DCN is not active. Wait until DCN is active and retry.

Format 6 indicates that D-Channel Node Agent Process (DCNAP) cannot send message to the DCN. Retry. If you get the same error multiple times, seek technical assistance.

Format 7 indicates that DCNAP received a returned or source matched message. Either an IMS channel is not open on the DCN or the DCN is not active.

#### 5. REFERENCES

##### Input Messages

AUD:DCNAUD  
OP:DCNAUD  
OP:DCNAUDERR

##### Output Messages

AUD:DCNAUD  
OP:DCNAUD

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ID ..... OP:DFC-INFO  
WORK CENTER.. MOC  
GENERIC ..... 4AP17 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] OP DFC a INFO NOT STARTED b c

[2] OP DFC a INFO STOPPED b c

[3] OP DFC a INFO ERROR b c

[4] OP DFC a INFO ABORTED b

[5] OP DFC a INFO  
DFC a STATUS: d  
FIRMWARE VERSION: e  
PUMPCODE VERSION: e

NO DEVICES EQUIPPED

[6] OP DFC a INFO  
DFC a STATUS: d  
FIRMWARE VERSION: e  
PUMPCODE VERSION: e

| UNIT | DID | PORT | STATUS | TRCKS | VTOC | USABLE | RSVD | ESNTL | MATE |
|------|-----|------|--------|-------|------|--------|------|-------|------|
| f    | g   | h    | d      | i     | j    | k      | l    | m     | n    |

.  
. .  
. .

| UNIT | **** EQUIPAGE SIZE **** |     | SIZES |            |
|------|-------------------------|-----|-------|------------|
|      | DRIVE                   | UCB | VTOC  | COMPATIBLE |
| f    | o                       | p   | q     | r          |

.  
. .  
. .

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[7] OP DFC a INFO  
DFC a STATUS: d  
FIRMWARE VERSION: e  
PUMPCODE VERSION: e

SBUS s SCSI HA BUS t STATUS: d

| UNIT | DEVICE | TYPE | DID | STATUS | VTOC | USABLE | RSVD | ESNTL | MATE |
|------|--------|------|-----|--------|------|--------|------|-------|------|
| f    | u      |      | g   | d      | j    | k      | l    | m     | n    |

.  
.  
.

| UNIT | DRIVE | UCB | VTOC | SIZES COMPATIBLE |
|------|-------|-----|------|------------------|
| f    | o     | p   | q    | r                |

.  
.  
.

| UNIT | PRODUCT IDENTIFICATION | REV LEVEL | SERIAL NUMBER |
|------|------------------------|-----------|---------------|
| f    | v                      | w         | x             |

.  
.  
.

[8] OP DFC a INFO  
DFC a STATUS: d  
FIRMWARE VERSION: e  
PUMPCODE VERSION: e

SBUS s SCSI HA BUS t STATUS: d

| UNIT | DEVICE | TYPE | DID | STATUS | VTOC | USABLE | RSVD | ESNTL | MATE |
|------|--------|------|-----|--------|------|--------|------|-------|------|
| f    | u      |      | g   | d      | j    | k      | l    | m     | n    |

.  
.  
.

| UNIT | DRIVE | UCB | VTOC | SIZES COMPATIBLE |
|------|-------|-----|------|------------------|
| f    | o     | p   | q    | r                |

.  
.  
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| UNIT   | PRODUCT IDENTIFICATION  | REV LEVEL | SERIAL NUMBER |            |        |      |       |      |
|--------|-------------------------|-----------|---------------|------------|--------|------|-------|------|
| f      | v                       | w         | x             |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| SBUS s | SCSI HA BUS t           | STATUS: d |               |            |        |      |       |      |
| UNIT   | DEVICE TYPE             | DID       | STATUS        | VTOC       | USABLE | RSVD | ESNTL | MATE |
| f      | u                       | g         | d             | j          | k      | l    | m     | n    |
| .      |                         |           |               |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| UNIT   | **** EQUIPAGE SIZE **** | SIZES     |               |            |        |      |       |      |
| UNIT   | DRIVE                   | UCB       | VTOC          | COMPATIBLE |        |      |       |      |
| f      | o                       | p         | q             | r          |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| UNIT   | PRODUCT IDENTIFICATION  | REV LEVEL | SERIAL NUMBER |            |        |      |       |      |
| f      | v                       | w         | x             |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |
| .      |                         |           |               |            |        |      |       |      |

## 2. REASON FOR OUTPUT

To report the result of executing an OP:DFC-INFO input message.

Format 5 is output when all of the subunits of the Disk File Controller (DFC) are unequipped.

Format 6 is used to output data for a Storage Module Device (SMD) DFC.

Format 7 is used to output data for a Small Computer System Interface (SCSI) DFC equipped with only one SCSI Bus (SBUS).

Format 8 is used to output data for a SCSI DFC equipped with more than one SBUS.

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### 3. VARIABLE FIELD DEFINITIONS

- a DFC member number.
- b Process step or reason code:
- f01 — Failed to enable message reception.
  - f03 — Failed to open Equipment Configuration Database (ECD).
  - f06 — Failed to get Unit Control Block (UCB) by name.
  - f08 — Failed to get top UCB.
  - f0a — Top UCB is not a DFC.
  - f0c — Unknown DFC type.
  - f0e — Failed to get UCB of SBUS.
  - f11 — Failed to assign special device file name for DFC.
  - f14 — Failed to open special device file for DFC.
  - f17 — See Disk Driver (DKDRV) report on the Read Only Printer (ROP).
  - f1a — Failed to close special device file.
  - f1c — Failed to release special device file.
  - f1f — Failed to unreserve DFC UCB.
  - f23 — Failed to get next UCB.
  - f26 — Failed to assign special device file name.
  - f29 — Failed to open special device file.
  - f2c — Failed to set Input / Output (I/O) mode of device file.
  - f2f — Device size not recognized.
  - f33 — See DKDRV report on the ROP.
  - f36 — Failed to close special device file.
  - f37 — Failed to release special device file.
  - f38 — Failed to unreserve device UCB.
  - f3e — Message to port failure.
  - f43 — Message reception failure.
  - f46 — Process timed out.
  - f49 — Failed to close special device file.
  - f4c — Failed to release special device file.
  - f4f — Failed to unreserve UCB.
  - f53 — Failed to close ECD.
  - f56 — Terminated externally with signal.
- c System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- d Major status of unit.
- e DFC firmware/pumpcode version:
- NAP — The pumpcode version is not applicable for SMD DFCs.
  - NAV — The firmware or pumpcode versions are not available, or cannot be determined.
  - A.B.C — D
- A = Version of DFC FIRMWARE/PUMPCODE.

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B = Issue of DFC FIRMWARE/PUMPCODE.

C = Point issue of DFC FIRMWARE/PUMPCODE.

D = Laboratory Design Issue (LDI) of DFC  
FIRMWARE/PUMPCODE.

- f Unit name and member number.
- g Device ID (drive ID number).
- h Physical port where the SMD disk drive is connected to the DFC:  
NAV — The DFC is not available, or the DFC is reserved, or the  
SMD DFC firmware/pumpcode version is earlier than 3.2.0.  
data — Physical port number.
- i Number of tracks on the SMD disk drive:  
NAV — DFC is not available, or the unit is reserved.  
data — Decimal number of disk tracks.
- j Validity of the Volume Table Of Contents (VTOC):  
INVALID — Could not find a valid VTOC entry.  
NAP — Not applicable for this device.  
NAV — Could not reserve unit - VTOC not read.  
UNRDBLE — Read error while trying to read VTOC.  
VALID — VTOC has a valid VTOC entry.
- k Usability:  
NAP — Not applicable for this device.  
NO — Disk data integrity is unknown.  
YES — Disk is considered usable.
- l Unit reserved:  
NO — Unit is not reserved.  
YES — Unit is reserved for maintenance activity.
- m Unit essential:  
NAP — Not applicable for this device.  
data — Hexadecimal value of the essential field of the unit's UCB.
- n Unit's mate:  
NAP — Not applicable for this device.  
SMPLX — Unit has no mate.  
data — Unit name and member number of duplex mate.

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- o** Equipage size based on the physical disk drive. For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record:
- 160MB — (SMD disk drive)
  - 300MB — (SMD disk drive)
  - 322MB — (SCSI disk drive)
  - 340MB — (SMD disk drive)
  - 600MB — (SCSI disk drive)
  - 1000MB — (SCSI disk drive)
  - 2000MB — (SCSI disk drive)
  - NAP — Not applicable for this device.
  - NAV — The DFC is not active, or the SCSI device is inaccessible, or the unit is reserved.
- p** Equipage size based on the UCB equipage value. The disk drive size is determined by reading the equipage value in the UCB record for the unit:
- 160MB — (SMD disk drive)
  - 300MB — (SMD disk drive)
  - 322MB — (SCSI disk drive)
  - 340MB — (SMD disk drive)
  - 600MB — (SCSI disk drive)
  - 1000MB — (SCSI disk drive)
  - 2000MB — (SCSI disk drive)
  - NAP — Not applicable for this device.
  - NAV — The DFC is not active, or the unit is reserved.
- q** Equipage size based on the VTOC. The drive size is derived from the maximum capacity of the unit's VTOC:
- 160MB — (SMD disk drive)
  - 300MB — (SMD disk drive)
  - 322MB — (SCSI disk drive)
  - 340MB — (SMD disk drive)
  - 600MB — (SCSI disk drive)
  - 1000MB — (SCSI disk drive)
  - 2000MB — (SCSI disk drive)

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NAP — Not applicable for this device.

NAV — The DFC is not active, or the unit is reserved, or the unit is inaccessible.

r Sizes compatible.

NAP — Not applicable for this device.

NAV — At least one of the equipage sizes are not available.

NO — DRIVE, UCB, and VTOC equipage sizes are not compatible.

YES — DRIVE, UCB, and VTOC equipage sizes are compatible.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size. Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the LUCENT RTR-supported disk drives are:

| Drive  | Formatted Capacity |
|--------|--------------------|
| 160MB  | 133MB              |
| 300MB  | 253MB              |
| 322MB  | 322MB              |
| 340MB  | 277MB              |
| 600MB  | 604MB              |
| 1000MB | 1000MB             |
| 2000MB | 2000MB             |

s SBUS unit number if the DFC is a SCSI device. Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

t SCSI Host Adapter (HA) bus identification number (0-1).

u Device type.

v Product identification:

NAP — Not applicable for this device.

NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

data — Alphanumeric data representing the product identification of a SCSI device.

w Revision level:

NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

data — Alphanumeric data representing the revision level of the firmware in a SCSI device.

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|   |                                                                                                          |
|---|----------------------------------------------------------------------------------------------------------|
| x | Serial number:                                                                                           |
|   | NAP — Not applicable for this device.                                                                    |
|   | NAV — The DFC or the SBUS is not active, or the unit is reserved,<br>or the SCSI device is inaccessible. |
|   | data — Alphanumeric data representing the serial number of a<br>SCSI device.                             |

#### 4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated DFC is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For Formats 6, 7, and 8, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, contact the next level of technical assistance.

## 5. REFERENCES

## OMDB Keys

Formats 1 through 4 have an OMDB key of 153.

Format 5 has an OMDB key of 152.

Format 6 has an OMDB key of 150.

Format 7 has an OMDB key of 570.

Format 8 has an OMDB key of 571.

## Output Appendix

APP:SYSERR

## Input Messages

OP:DFC-INFO

OP:MHD-INFO

OP:MT-INFO

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:DFCELOG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP DFCELOG CANNOT OPEN LOGFILE a
- [2] OP DFCELOG CANNOT ATTACH TO ECD
- [3] OP DFCELOG CANNOT OPEN ECD
- [4] OP DFCELOG CANNOT GET UCB BY NAME
- [5] OP DFCELOG CANNOT GET NEXT UCB
- [6] OP DFCELOG CANNOT GET SBUS UCB
- [7] OP DFCELOG ID PLUG DOES NOT MATCH a
- [8] OP DFCELOG ID SWITCH DOES NOT MATCH a
- [9] OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 1 a
- [10] OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 2 a
- [11] OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 3 a
- [12] OP DFCELOG CORRUPTED LOGFILE - MSG SIZE FIELD IS NOT NUMERIC a
- [13] OP DFCELOG CORRUPTED LOGFILE - INVALID MESSAGE SIZE a
- [14] OP DFCELOG CORRUPTED LOGFILE - DATE FIELD IS NOT NUMERIC a
- [15] OP DFCELOG CORRUPTED LOGFILE - TIME FIELD IS NOT NUMERIC a
- [16] OP DFCELOG INVALID DFC NUMBER a
- [17] OP DFCELOG NEW LINE AND TAB IS EXPECTED a
- [18] OP DFCELOG INVALID ID PLUG NUMBER a
- [19] OP DFCELOG INVALID ID SWITCH NUMBER a
- [20] OP DFCELOG STARTED

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```
[21] OP DFCELOG IN PROGRESS {MHD | MT} b SEGMENT c
 d
 [eeee]
 [ffff]
 [gggg]
 [hhhh]
 [iiii]
 [jjjj]
 [kkkk]
 [llll]
 [mmmm]
 [nnnn]
 [oooo]
 [pppp]
 [qqqq]
 [rrrr]
```

```
[22] OP DFCELOG IN PROGRESS {MHD | MT} b SEGMENT c
 d
 [ssttuvvw]
 [xxxxxxxx]
 [y.zz.a1a1 - b1b1b1b1]
 [c1.d1d1.e1e1 - f1f1f1f1]
 [g1g1g1g1]
 [h1h1]
 [i1i1]
 [j1j1j1j1j1j1j1j1]
 [k1k1k1k1k1k1k1k1]
 [l1l1l1l1l1l1l1l1]
 [m1m1m1m1m1m1m1m1]
 [m1m1m1m1m1m1m1m1]
 [m1m1m1m1m1m1m1m1]
 [m1m1m1m1m1m1m1m1]
 [n1n1n1n1n1n1n1n1]
 [n1n1n1n1n1n1n1n1]
 [n1n1n1n1n1n1n1n1]
 [n1n1n1n1n1n1n1n1]
```

```
[23] OP DFCELOG COMPLETED
```

## 2. REASON FOR OUTPUT

Formats 2 through 6 report that an Equipment Configuration Database (ECD) call failed.

Format 7 reports that the Storage Module Device (SMD) Moving Head Disk (MHD) ID plug number does not match the ID plug number in the ECD records.

Format 8 reports that the ID switch number on the SCSI device does not match the ID switch number in the ECD records.

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Formats 9 through 15 report that the User Control String (UCS) portion of the DFCELOG entry is corrupted.

Formats 16 through 19 report that the text portion of the DFCELOG entry is corrupted.

Formats 20, 21, 22, and 23 report and format the Enhanced Information Report (EIR) entries in the disk driver logfile.

See REPT:DFCE and REPT:DFCI output messages for the displayed codes.

### **3. VARIABLE FIELD DEFINITIONS**

|   |                                                                                               |
|---|-----------------------------------------------------------------------------------------------|
| a | Name of the disk driver logfile.                                                              |
| b | MHD or SCSI MT member number.                                                                 |
| c | Number of the segment being generated.                                                        |
| d | Time stamp.                                                                                   |
| e | Data flags.                                                                                   |
| f | Drive table status word 0.                                                                    |
| g | Drive table status word 1.                                                                    |
| h | Identification plug number.                                                                   |
| i | Completion codes.                                                                             |
| j | Enhanced codes.                                                                               |
| k | Disk status register.                                                                         |
| l | Starting cylinder of current job.                                                             |
| m | Starting head of current job.                                                                 |
| n | Starting sector of current job.                                                               |
| o | Number of sectors in current job.                                                             |
| p | Current cylinder.                                                                             |
| q | Current head.                                                                                 |
| r | Current sector.                                                                               |
| s | Completion code. See output Disk File Controller (DFC) Appendix B, APP:DFC-B, Tables 1 and 2. |
| t | Number of blocks read on short failure of read command.                                       |
| u | Device ID number.                                                                             |
| v | Autonomous completion code. See output DFC Appendix B, APP:DFC-B, Table 3.                    |
| w | Job ID number.                                                                                |
| x | Device status word.                                                                           |

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|    |                                                                                                                     |
|----|---------------------------------------------------------------------------------------------------------------------|
| y  | Version of DFC firmware.                                                                                            |
| z  | Issue of DFC firmware.                                                                                              |
| a1 | Point issue of DFC firmware.                                                                                        |
| b1 | Laboratory Design Issue (LDI).                                                                                      |
| c1 | Version of DFC pumpcode. If the SCSI DFC is running without pumpcode, the pumpcode version has the format: FFFFFFFF |
| d1 | Issue of DFC pumpcode.                                                                                              |
| e1 | Point issue of DFC pumpcode.                                                                                        |
| f1 | Laboratory Design Issue (LDI).                                                                                      |
| g1 | Enhanced completion code.                                                                                           |
| h1 | SCSI job block status byte.                                                                                         |
| i1 | Firmware/Driver communication register.                                                                             |
| j1 | Host adapter status register.                                                                                       |
| k1 | BIC status register.                                                                                                |
| l1 | Routine exerciser failure block number.                                                                             |
| m1 | Failed command words 1-4.                                                                                           |
| n1 | Extended sense data 1-4.                                                                                            |

#### 4. ACTION TO BE TAKEN

If Format 1 is printed, check to see if the logfile exists under /etc/log.

The contents of the corrupted logfile must be SAVED on paper and/or tape for later reference. The corrupted logfile should be removed by using the CLR:F-FILE input message, and terminate the Spooler Output Process (SOP) for the logfile.

**NOTE:** Depending on the severity of the corruption, the message may or may not continue processing.

#### 5. REFERENCES

Output Appendix  
APP:DFC-B

Input Messages  
CLR:F-FILE  
OP:DFCELOG

Output Messages  
REPT:DFCE  
REPT:DFCI

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:DLNAUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] OP DLNAUD  
REHASH AUDIT IS a FOR APP b
- [2] OP DLNAUD  
CANNOT GIVE INHIBIT STATUS OF INVALID APP c

## 2. REASON FOR OUTPUT

Print the status of application database audits.

## 3. VARIABLE FIELD DEFINITIONS

- a Status of audit:
- ALLOWED
- INHIBITED
- b Application database that is affected. Valid values are:
- IBGTT — Inbound global title translation
- PCPGTT — Positive call processing global title translation
- ATP — AT&T Trigger Platform (ATP) data tables
- c Invalid application database. Valid values are 0 (for IBGTT), 2 (for PCPGTT), or 3 (for ATP).

## 4. ACTION TO BE TAKEN

Inhibit or allow the audit if appropriate via the INH:DLNAUD or ALW:DLNAUD command.

## 5. REFERENCES

Input Messages  
ALW:DLNAUD  
INH:DLNAUD  
OP:DLNAUD

Output Messages  
ALW:DLNAUD  
INH:DLNAUD

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ID ..... OP:DLNCM-BINKMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

OP DLNCM BINKMAP COMPLETED

OWNER: ab    MAP CONTENTS(X'):

| BINK | DATA 1 | DATA 2 | DATA 3 | DATA 4 | DATA 5 |
|------|--------|--------|--------|--------|--------|
| c    | d      | e      | f      | g      | h      |

## 2. REASON FOR OUTPUT

To report the status and contents of the bink map.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Procedure id of procedure using the bink map. Byte representation:
- First byte (leftmost) — Zero value.  
Second byte — Procedure number.  
Third byte — TCB number.  
Fourth byte (rightmost) — Incarnation bit.  
Procedure id equal to zero implies null procedure.
- b                      Procedure name.
- c                      Bink number (positive integer).
- d through h          Bink representation.
- Each byte represents a bink and each bit represents a 128 word (512 byte) block per bink. The rightmost byte is the low order bink, e.g., bink 0 is the rightmost byte in data word 1. DLN updates and audits use the bink map to record changes and errors, respectively.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
OP:DLNCM

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:DLNCM-DLNMAP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

OP DLNCM DLNMAP COMPLETED

STATUS OF LNa b

|            |   |           |   |
|------------|---|-----------|---|
| Hdwr State | c | ODA Pump  | i |
| RI State   | d | Update/RC | j |
| NP State   | e | Audit 1   | k |
| Appl State | f | Audit 2   | l |
| Mode       | g | Audit 3   | m |
| Stream     | h |           |   |

## 2. REASON FOR OUTPUT

To report the status of each Direct Link Node (DLN).

## 3. VARIABLE FIELD DEFINITIONS

- a DLN group number.
- b DLN member number.
- c IMS Hardware state:
- ACT — Active.
  - OOS-AUTO — Out of service automatic.
  - OOS-MAN — Out of service manual.
  - UNKN — Unknown.
- d Ring Interface state:
- FLTY — Ring interface hardware is faulty.
  - QUSBL — Ring interface hardware is usable if node is quarantined.
  - UNKN — Unknown.
  - UNTSTD — Condition of ring interface hardware is unknown.
  - USBL — Ring interface hardware is usable.
- e Node Processor state:
- FLTY — Node processor hardware is faulty.
  - UNKN — Unknown.
  - UNTSTD — Condition of node processor hardware is unknown.
  - USBL — Node processor hardware is usable.
- f CNI Application state:
- ACT — Active.
  - OFL — Offline.

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OOS — Out of service.  
STBY — Standby.  
UNKN — Unknown.

g CNI mode:  
ONEWAY IN — Single direction DLN, 1B incoming.  
ONEWAY OUT — Single direction DLN, 1B outgoing.  
TWOWAY — Dual direction DLN.  
UNKN — Unknown.

h Stream status:  
NOT SCAN — Not scanning.  
SCAN BOTH — Scanning in both directions.  
SCAN IN — Scanning 1B incoming direction.  
SCAN OUT — Scanning 1B outgoing direction.

i ODA Pump status:  
COMPL — Complete.  
FAILED — Failed.  
IP — In progress.  
UNKN — Unknown.

j DLN Update status:  
COMPL — Complete.  
FAILED — Failed.  
IP — In progress.  
UNKN — Unknown.

k DLN Audit 1 status:  
COMPL — Complete.  
FAILED — Failed.  
IP — In progress.  
UNKN — Unknown.

l DLN Audit 2 status:  
COMPL — Complete.  
FAILED — Failed.  
IP — In progress.  
UNKN — Unknown.

m DLN Audit 3 status:  
COMPL — Complete.  
FAILED — Failed.  
IP — In progress.  
UNKN — Unknown.

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**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Messages

OP:DLNCM

OP:RING

Output Message

OP:RING

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... OP:DLNCM-IMSCHN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

OP DLNCM IMSCHAN COMPLETED

IMS CHANNEL STATUS

| CHAN NAME | NUMBER | STATUS | COUNT | READ | PROCID | NAME |
|-----------|--------|--------|-------|------|--------|------|
| a         | b      | c      | d     | e    | f      | g    |

### 2. REASON FOR OUTPUT

To report the status of the API -DLN stream.

### 3. VARIABLE FIELD DEFINITIONS

- a IMS /CNI channel name. Possible values:
- DLNUZRCHN — DLN user channel.
  - DLNERRCHN — DLN error channel.
  - DLNAUDCHN — DLN audit channel.
  - DLNPANICHN — DLN panic channel.
- b IMS /CNI channel number
- c Status of channel.
- OPEN — Channel is open.
  - CLOSE — Channel is closed.
- d Number of messages received.
- e Status of reads. Possible values:
- NACT — No reads pending.
  - ACT — Read pending.
- f Procedure id of procedure with pending read. Byte representation:
- First byte (leftmost) — Zero value.
  - Second byte — Procedure number.
  - Third byte — TCB number.
  - Fourth byte (rightmost) — Incarnation bit.
- Procedure id equal to zero implies null procedure.
- g Procedure name.

SEE PROPRIETARY NOTICE ON COVER PAGE

**4. ACTION TO BE TAKEN**

If channels are not open and ring initialization or start traffic sequence is not in progress, request CNI phase 1.

**5. REFERENCES**

Input Message  
OP:DLNCM

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ID ..... OP:DLNCM-TASKS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

OP DLNCM TASKS COMPLETED

TASK CONTROL BLOCK (TCB) STATUS

| TCB | STATUS | PROCID | NAME | STACK | PARENT |
|-----|--------|--------|------|-------|--------|
| a   | X'b    | X'c    | X'd  | X'e   | X'f    |

## 2. REASON FOR OUTPUT

To report the status of DLNCM tasks.

## 3. VARIABLE FIELD DEFINITIONS

- a Task control block (tcb) number. Possible values: 0 through 7.
- b Task status. Representation of bits:
- 0x0 — tcb slot is available.
  - 0x1 — tcb slot is in use.
  - 0x2 — tcb is ready to run.
  - 0x4 — tcb is currently running.
  - 0x10 — tcb is to be torn down.
  - 0x20 — tcb is timing.
  - 0x40 — tcb is starting.
  - 0x80 — tcb is expecting a RTR msg stimulus.
  - 0x100 — tcb is expecting a IMS msg stimulus.
  - 0x200 — tcb is expecting a DLN cmd stimulus.
  - 0x400 — tcb is waiting for death of a child task.
  - 0x800 — tcb is waiting for an audit to be dispatched.
- c Procedure id. Byte representation:
- First byte (leftmost) — Zero value.
  - Second byte — Procedure number.
  - Third byte — tcb number.
  - Fourth byte (rightmost) — Incarnation bit.
- Procedure id equal to zero implies null procedure.
- d Procedure name.
- e Stack address.
- f Procedure id of the parent task. (same as c).

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**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Message  
OP:DLNCM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:DLNESC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] OP DLNESC COMPLETE  
[-CANNOT GET UCB FOR DLN LNaa bb - ERR=c]  
[-CANNOT FIND UCB FOR DLN LNaa bb]
- [2] OP DLNESC COMPLETE  
[-DLN LNaa bb: COUNT=d, TIME=e]  
[-DLN LNaa bb: COUNT=d, TIME=e]  
[-DLN LNaa bb: COUNT=d, TIME=e]  
[-DLN LNaa bb: COUNT=d, TIME=e]

## 2. REASON FOR OUTPUT

This output is the result of an OP:DLNESC input command.

Format 1 is output is printed only as abnormal conditions are encountered during program execution.

Format 2 is the normal response in an office with DLNs. A set of counts for each DLN will print with values for the COUNT and TIME escalation parameters.

## 3. VARIABLE FIELD DEFINITIONS

|      |                                                          |
|------|----------------------------------------------------------|
| LNaa | Group number of DLN.                                     |
| bb   | Member number of DLN.                                    |
| c    | System error indication. See Output Appendix APP:SYSERR. |
| d    | Count.                                                   |
| e    | Time.                                                    |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Appendix  
APP:SYSERR

Input Messages  
CLR:DLNESC  
OP:DLNESC

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Output Message  
CLR:DLNESC

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ID ..... OP:DMQ  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

OP DMQ

REQUEST ACTIVE

[DIAGNOSTIC EXECUTION SUSPENDED DURING RECOVERY]

a            b c    d

SOURCE = e            PRIORITY = f

STATUS = g

REQUEST WAITING

a            b c    d

SOURCE = e            PRIORITY = f

STATUS = g

INHIBIT SOURCES

h

OP DMQ COMPLETED

## 2. REASON FOR OUTPUT

To report the status of the Maintenance Input Request Administrator (MIRA) request queue in response to the OP:DMQ input message.

If the statement DIAGNOSTIC EXECUTION SUSPENDED DURING RECOVERY appears under REQUEST ACTIVE, a previous initialization has suspended all diagnostic requests. See the ALW:DMQ input message.

For additional, application-specific information about format or field values, refer to appropriate, application-specific documentation.

## 3. VARIABLE FIELD DEFINITIONS

a            Task number assigned to the request by MIRA. This is the TASK number used in the STOP:DMQ or input message.

b            Request type:

DGN

DMQ

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|   |                                                                                                                                                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | RMV                                                                                                                                                                                                                                        |
|   | RST                                                                                                                                                                                                                                        |
| c | Requested unit; for example, CU 0 CC 0.                                                                                                                                                                                                    |
| d | Request parameters. The request parameters indicate the beginning and ending phase numbers requested. If no phase numbers were specified in the input message, Beginning Phase (BPH) is shown as 1 and Ending Phase (EPH) is shown as 100. |
| e | Request source:<br>ADP — Automatic diagnostic process<br>MAN — Manual<br>PSM — Power switch monitor<br>REX — Routine exerciser<br>ARR — Automatic ring recovery                                                                            |
| f | Request priority.                                                                                                                                                                                                                          |
| g | Request status:<br>ABORTING<br>ACTIVE<br>EMPTY<br>WAITING                                                                                                                                                                                  |
| h | Source identification of the inhibited requests.                                                                                                                                                                                           |

#### 4. ACTION TO BE TAKEN

Issue the STOP:DMQ input message to remove any unwanted requests from the queue. Issue the appropriate maintenance request command (DGN, DMQ, RMV, RST) to add a desired request to the queue.

#### 5. REFERENCES

##### OMDB Keys

This message has OMDB keys of 91, 171, 172, and 173.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

##### Input Messages

ALW:DMQ-A  
INH:DMQ-A  
OP:DMQ  
STOP:DMQ

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:DMSORDERS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has six formats:

- [1] OP DMSORDERS COMPL  
TMP FILE (a) CREAT FAIL  
ERRNO b(c)
- [2] OP DMSORDERS COMPL  
TMP FILE (a) WRITE FAIL  
ERRNO b(c)
- [3] OP DMSORDERS COMPL  
ERROR OPENING DMS STATUS FILE a  
ERRNO b(c)
- [4] OP DMSORDERS COMPL  
STAT FILE (a) READ FAIL  
ERRNO b(c)
- [5] OP DMSORDERS COMPL  
dddddddddddd eeeee ffffffff g ... g  
.  
.  
.  
dddddddddddd eeeee ffffffff g ... g
- [6] OP DMSORDERS COMPL  
NO f ORDERS FOUND

## 2. REASON FOR OUTPUT

To report the termination status of the OP:DMSORDERS input command.

This message is generated automatically after every RING initialization reaches a terminal condition (see INIT:RING input message) to report DMS orders that were INCORE only. Orders that were INCORE only are lost and have to be resubmitted. Automatic reports of lost INCORE DMS changes have a minor alarm associated with the output message.

## 3. VARIABLE FIELD DEFINITIONS

- a File name of a temporary file or the DMS system status file.
- b System error number (errno) (refer to System Error Codes Output Appendix, APP:SYSERR).

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- c Description of the system error number (sys\_errlist) (refer to System Error Codes Output Appendix, APP:SYSERR).
- d 12-character DMS order number.
- e 6-character DMS function name. Possible values are:
- cevent — Changes the CNI critical event table.
  - clsrout — Controls combined linkset routing associated with a cluster.
  - except — Changes information in the CNI measurement exception table.
  - histfd — Changes information in the CNI measurement history table.
  - lkdata — Manages CNI link configuration information.
  - lkinfo — Used by remote administration to manage CNI link configuration information.
  - lsrout — Changes linkset routing information.
  - ofdata — Changes data describing the office.
  - schedl — Manages information in the CNI measurement schedule table.
  - setrna — Verify only.
  - vuname — Controls information in the CNI measurement User View Descriptor Table.
- f Status of the DMS order. Possible values are:
- ACTFAILED — The order has failed activation. See the DMS error log for failure reasons.
  - ACTIVATED — The order exists in core and on disk.
  - INCORE — The order exists incore only and has not been backed up on disk. Orders in this state can be lost during RING initializations 3 or 4.
  - PENDING — Orders not in any other state are in this state.
- g 40-character comment field associated with the DMS order.

#### 4. ACTION TO BE TAKEN

If INCORE DMS orders have been lost due to RING initializations, steps must be taken to restore the changes. Else the RING sub-system may not perform message transport duties correctly.

#### 5. REFERENCES

Output Appendix  
APP:SYSERR

Input Messages  
INIT:RING  
OP:DMSORDERS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:EMERSTAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP EMERSTAT COMPLETED  
EMERGENCY DUMP PARTITION IS EMPTY
  
- [2] OP EMERSTAT COMPLETED  
EMERGENCY DUMP PARTITION IS FULL  
TIME OF EMERGENCY DUMP: a b c d e  
BOOT DEVICE LOADED = f  
g BYTES OF MAIN MEMORY WERE DUMPED  
FROM THE FOLLOWING SEGMENTS:  
    ADDRESS    LENGTH  
    X'hhhhhhh  X'iiiiiii
  
- [3] OP EMERSTAT COMPLETED  
{FOPEN|FREAD|FSEEK|REWIND} OF PANIC DUMP PARTITION FAILED: ERRNO = j
  
- [4] OP EMERSTAT COMPLETED  
PDMPFULL FLAG IN LOW CORE IS NOT SET  
TIME OF LAST DUMP: k

## 2. REASON FOR OUTPUT

To report the status of the emergency dump partition in response to an OP:EMERSTAT input message.

## 3. VARIABLE FIELD DEFINITIONS

- a                Day of the week.
- b                Month of the year.
- c                Day of the month.
- d                Time of day.
- e                Year.
- f                Unit number of the disk the dump was written on.  
                  0 — MHD 0.  
                  1 — MHD 1.

**NOTE:** If a disk restoral has been performed, the data reside on both disks.

- g                Total number of bytes written into the emergency dump partition on MHD listed.

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|   |                                                                                                                                                                                                                              |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| h | Address. For each segment, bits 30 and 31 represent status information, and the remaining bits represent the physical address. If set, bit 30 indicates that all data was dumped; bit 31 indicates the segment was accessed. |
| i | Number of bytes written from address given.                                                                                                                                                                                  |
| j | Error number.                                                                                                                                                                                                                |
| k | ASCII string indicating time and date when last panic dump occurred.                                                                                                                                                         |

#### **4. ACTION TO BE TAKEN**

For Formats 1 and 3, no action is required.

For Format 2, use the **COPY:T-EMERDMP** input message to copy the data to magnetic tape, and the **CLR:EMERDMP** input message to clear the emergency dump partition status flag. Send the tape and this printout to a technical assistance center for analysis.

For Format 4, use the **COPY:T-EMERDMP** input message to copy the data to magnetic tape. Send the tape and this output message to a technical assistance center for analysis.

#### **5. REFERENCES**

##### OMDB Keys

Format 1 has an OMDB key of 445.

Format 2 has an OMDB key of 444.

Format 3 has an OMDB key of 593.

Format 4 has an OMDB key of 594.

##### Input Messages

**CLR:EMERDMP**

**COPY:T-EMERDMP**

**OP:EMERSTAT**

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:ERRCHK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP ERRCHK MESSAGE STARTED  
a  
[b]  
[c]  
[d]  
[e]  
[f]  
[g]
- [2] OP ERRCHK MESSAGE IN PROGRESS  
SUMMARY OF INHIBITED UNITS  
h i j k  
OP ERRCHK COMPLETED
- [3] OP ERRCHK ABORTED l
- [4] OP ERRCHK NOT STARTED  
INVALID ID FIELD

## 2. REASON FOR OUTPUT

To indicate the inhibit status of all computer error conditions that may be optionally inhibited or allowed. The error conditions of this type are:

1. Hardware checks identified by HDWCHK,
2. Software checks identified by SFTCHK,
3. Error interrupts identified by ERRINT,
4. Control Unit (CU) pseudo-nodes identified by ERRSRC,
5. Emergency Action Interface (EAI) error interrupts from CU 0 identified by EAIINT CU 0, and
6. EAI error interrupts from CU 1 identified by EAIINT CU 1.

**NOTE:** The 3B20D/3B21D computer CUs do not have EAI error interrupts.

The report lists each error condition and its associated inhibit state. In the case of inhibited Error Interrupts (ERRINT), a supplemental report is output which then lists all units that are inhibited. Information specific to each device is output in a format consistent with related maintenance messages.

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The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful ABORTED message.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | This field indicates the existence or non-existence of error source inhibits.<br><br>ACTIVE INHIBITS — Prints if any error source inhibits are active.<br><br>NO INHIBITS — Default.                                                                                                                                                                                                                                                       |
| b | HDWCHK if the hardware checks are inhibited.                                                                                                                                                                                                                                                                                                                                                                                               |
| c | SFTCHK if the software checks are inhibited.                                                                                                                                                                                                                                                                                                                                                                                               |
| d | ERRSRC if the CU pseudo-nodes are inhibited.                                                                                                                                                                                                                                                                                                                                                                                               |
| e | ERRINT if the error interrupts are inhibited.                                                                                                                                                                                                                                                                                                                                                                                              |
| f | EAIINT CU 0 if the EAI error interrupts are inhibited on CU 0.                                                                                                                                                                                                                                                                                                                                                                             |
| g | EAIINT CU 1 if the EAI error interrupts are inhibited on CU 1.                                                                                                                                                                                                                                                                                                                                                                             |
| h | Unit name. This name may indicate the complex name in a two-level identification, such as CU, or can simply indicate a specific hardware unit, such as Teletypewriter (TTY).                                                                                                                                                                                                                                                               |
| i | Unit number that specifically identifies a complex type or hardware unit.                                                                                                                                                                                                                                                                                                                                                                  |
| j | Indicates a subunit name that must always be identified with a two-level name, example CU 0 MASC 0.                                                                                                                                                                                                                                                                                                                                        |
| k | Subunit number that specifically identifies a unit described by a two-level name.                                                                                                                                                                                                                                                                                                                                                          |
| l | Error codes:<br><br>50 — Message could not be sent to a driver or Real Time Status (RTS) report.<br>51 — Equipment Configuration Database (ECD) access function completed unsuccessfully.<br>52 — Error in message communication.<br>53 — Error internal to the inhibit administrator.<br>54 — Temporary output file could not be opened.<br>55 — Invalid system port was specified.<br>56 — No process is attached to the specified port. |

### 4. ACTION TO BE TAKEN

All error codes associated with this activity are significant. Seek technical assistance.

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## **5. REFERENCES**

### OMDB Keys

Format 1 has an OMDB key of 412.

Format 2 has an OMDB key of 413.

Format 3 has an OMDB key of 414.

### Input Messages

ALW:ERRCHK

INH:ERRCHK

OP:ERRCHK

### Output Messages

ALW:ERRCHK

INH:ERRCHK

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ID ..... OP:FNAME  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP FNAME a  
b NAME  
c d
- [2] OP FNAME ABORTED CANNOT OPEN OUTPUT FILE e
- [3] OP FNAME ABORTED CANNOT WRITE OUTPUT FILE e
- [4] OP FNAME ABORTED CANNOT CREATE TEMPORARY FILE
- [5] OP FNAME NOT STARTED  
RETRY LATER f

## 2. REASON FOR OUTPUT

Format 1 prints the full path names of files.

Format 2 reports an error when trying to create a temporary output file.

Format 3 reports an error when writing to a temporary output file.

Format 4 reports an error when unable to create a uniquely-named, temporary file.

Format 5 reports an aborted OP:FNAME command with an explanation.

## 3. VARIABLE FIELD DEFINITIONS

- a Output message status:
  - COMPLETED — Last or only segment of message.
  - IN PROGRESS — Intermediate segment(s) of message.
  - STARTED — First segment of message.
- b Search type:
  - BLOCK — The check for matches was made on block numbers.
  - INODE — The check for matches was made on i-nodes.
- c Inode or first block number on which the match occurred.
- d Full path name on which the match occurred.
- e Name of temporary file.
- f Explanation of error. See the OP-FNAME Output Appendix, APP:OP-FNAME.

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#### 4. ACTION TO BE TAKEN

If Format 1 prints, no action is needed.

Format 2 indicates all of the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using input message CLR:F-FILE.

Format 3 indicates all tmp file system space has been used. Clean up unused files in the tmp file system using input message CLR:F-FILE.

Format 4 indicates system resources do not permit the running of this command at this time; try again later. If the command continues to fail, seek technical assistance.

If Format 5 prints, action is dependent upon the error given.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 442.

Format 2 has an OMDB key of 438.

Format 3 has an OMDB key of 628.

Format 4 has an OMDB key of 667.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System*  
*Lucent Technologies 3B20D/3B21D Computer*

##### Output Appendix

APP:OP-FNAME

##### Input Messages

OP:FNAME

CLR:F-FILE

##### Output Messages

AUD:FSBLK

AUD:FSLINK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:FTA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] OP FTA APP a COMPLETE  
FTA IS INHIBITED FOR a
- [2] OP FTA APP a COMPLETE  
FTA IS INHIBITED FOR a - TRANSFER STILL IN PROGRESS
- [3] OP FTA APP a COMPLETE  
FTA IS INHIBITED FOR a - ACTIVATION STILL IN PROGRESS
- [4] OP FTA APP a COMPLETE  
FTA IS INHIBITED FOR a - TRANSFER AND ACTIVATION STILL IN PROGRESS
- [5] OP FTA APP a COMPLETE  
FTA IS ALLOWED FOR a
- [6] OP FTA APP a COMPLETE  
FTA IS ALLOWED FOR a - TRANSFER STILL IN PROGRESS
- [7] OP FTA APP a COMPLETE  
FTA IS ALLOWED FOR a - ACTIVATION STILL IN PROGRESS
- [8] OP FTA APP a COMPLETE  
FTA IS ALLOWED FOR a - TRANSFER AND ACTIVATION STILL IN PROGRESS
- [9] OP FTA APP a COMPLETE  
INPUT ERROR - b
- [10] OP FTA APP a COMPLETE  
ERROR c (LINE d) -- CANNOT DETERMINE FTA STATUS FOR a

## 2. REASON FOR OUTPUT

Response to the File Transfer and Activation (FTA) OP:FTA input command. Formats 1 through 4 indicate that the FTA capability is inhibited. If FTA is inhibited, file transfers and activations will not be permitted. (Further work on pending transfers and/or activations will also not be permitted.) Formats 5 through 8 indicate that the FTA capability is allowed, and either transferring or activating or both). Format 9 prints if a syntax error was found in the OP:FTA command that was input. Format 10 prints if internal errors are preventing the 4ESS™ Switch from obtaining status of the FTA capability.

**NOTE:** If the APP keyword argument was not specified in the corresponding IM message, the preceding formats will be slightly different. An Output Message

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will print, with "IN PROGRESS" on the first line instead of "COMPLETE", for each application programmed for FTA. A final "COMPLETE" message will print concluding the Output Message sequence. For example, instead of format 1 preceding, the output will be:

OP FTA IN PROGRESS  
APPDB FTA IS ALLOWED FOR IBGTT

OP FTA IN PROGRESS  
APPDB FTA IS ALLOWED FOR OBGTT

OP FTA IN PROGRESS  
APPDB FTA IS ALLOWED FOR CORE

OP FTA COMPLETE

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                   |
|---|-----------------------------------------------------------------------------------------------------------------------------------|
| a | The customer application for which FTA status is being output. Either:<br><br>IBGTT<br>OBGTT (Refers to the PCP customer)<br>CORE |
| b | English description of the syntax error found in the command input.                                                               |
| c | Error number (TBD).                                                                                                               |
| d | Source line number where error was found. (For NESAC trouble-shooting.)                                                           |

### 4. ACTION TO BE TAKEN

Format 10: Notify NESAC.

### 5. REFERENCES

Input Messages

ALW: FTA  
OP: FTA  
INH: FTA

Output Messages

ALW: FTA  
INH: FTA  
OP: FTA

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:FTF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

- [1] OP FTF APP a e  
NAME SIZE STATUS  
f g h
- [2] OP FTF APP a COMPLETE  
NO FILES FOR THIS APPLICATION
- [3] OP FTF APP a COMPLETE  
INPUT ERROR - b
- [4] OP FTF APP a COMPLETE  
ERROR c (LINE d) PRINTING FILE DATA

### 2. REASON FOR OUTPUT

Response to the File Transfer and Activation (FTA) OP:FTF input command. Normally, one or more format 1's will be output containing size and status information for each of the requested FTA customer application's FTA command and response files that exist in the customer application's FTA directory. Format 2 prints if the requested FTA customer application does not have files in its FTA directory. Format 3 prints if a syntax error was found in the OP:FTF command that was input. Format 4 prints if internal errors are preventing the 4ESS™ Switch from obtaining status on the given customer application's FTA files.

### 3. VARIABLE FIELD DEFINITIONS

- a The customer application for which FTF status is being output. Either:  
IBGTT  
OBGTT (Refers to the PCP customer)  
CORE
- b English description of the syntax error found in the command input.
- c Error number (TBD).
- d Source line number where error was found. (For NESAC trouble-shooting.)

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|   |                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                       |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| e | One of:                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                       |
|   | STARTED                                                                                                                                                                                                                                                                                                                                  | Prints on only the first format 1 of two or more formats of FTA file data output.                                                                                                                     |
|   | IN PROGRESS                                                                                                                                                                                                                                                                                                                              | Prints on all but the first and last format 1 of FTA file data output.                                                                                                                                |
|   | COMPLETE                                                                                                                                                                                                                                                                                                                                 | Prints always on the last format 1 of FTA file data output, and when the output is short.                                                                                                             |
| f | The name of an existing FTA command or response file in the FTA customer application's FTA directory. Command file names have the form C<number>, where <number> is a digit string representing a number from 0 to 99. Response file names have the form R<number>, where <number> is a digit string representing a number from 0 to 99. |                                                                                                                                                                                                       |
| g | The size in bytes of the corresponding FTA command or response file.                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                       |
| h | The "status" of the corresponding FTA command or response file. Either:                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                       |
|   | OPEN                                                                                                                                                                                                                                                                                                                                     | The file is open -- an OSS has it open either to write to or read from the file.                                                                                                                      |
|   | EXECUTING                                                                                                                                                                                                                                                                                                                                | The file is being activated.                                                                                                                                                                          |
|   | STOPPED                                                                                                                                                                                                                                                                                                                                  | The command file was being activated and the activation was stopped by the OSS or via STOP:FTA user technician input command.                                                                         |
|   | STOPPED (x)                                                                                                                                                                                                                                                                                                                              | The command file was being activated and the activation was stopped by 4ESS™ Switch software. x is a number that indicates the reason why the file activation was stopped. Possible values for x are: |
|   | 2                                                                                                                                                                                                                                                                                                                                        | File does not exist                                                                                                                                                                                   |
|   | 5                                                                                                                                                                                                                                                                                                                                        | Internal I/O error                                                                                                                                                                                    |
|   | 56                                                                                                                                                                                                                                                                                                                                       | DLN Inhibit Active                                                                                                                                                                                    |
|   | 65                                                                                                                                                                                                                                                                                                                                       | APPDB RC inhibited                                                                                                                                                                                    |
|   | 66                                                                                                                                                                                                                                                                                                                                       | FTA is inhibited                                                                                                                                                                                      |

Other values not on this list can be found in the 4ESS™/APS Output Appendix APP:SYSERR.

#### 4. ACTION TO BE TAKEN

Format 4: Notify NESAC.

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## **5. REFERENCES**

Output Appendix  
APP:SYSERR

Input Messages  
ALW:FTA  
INH:FTA  
OP:FTA  
OP:FTF  
START:FTA  
STOP:FTA

Output Messages  
ALW:FTA  
INH:FTA  
OP:FTA  
OP:FTF  
START:FTA

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ID ..... OP:G-READLOG  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP GEN READLOG COMPLETED
- [2] OP GEN READLOG STOPPED WITH ERROR CODE a
- [3] OP GEN READLOG  
FIRST ENTRIES: b
- [4] OP GEN READLOG  
BEGIN {PROCEED|COMMIT|BACKOUT|RESTORE}  
METHOD: {BKPRT|OFLDISK}  
EXECUTION: {CONDITIONAL|UNCONDITIONAL}  
PID: c  
d
- [5] OP GEN READLOG  
BEGIN ENTER  
METHOD: {BKPRT|OFLDISK}  
EXECUTION: {CONDITIONAL|UNCONDITIONAL}  
INPUT FILE: e  
DESTINATIONS: f  
DFC NUMBER: [0|1]  
SEQUENCE OPTIONS: g  
ECD: h  
ECD PARTITION: i  
OLD LOG: j  
OLD LOG PARTITION: k  
NEW LOG: l  
NEW LOG PARTITION: m  
PID: c  
d
- [6] OP GEN READLOG  
DISK {ENTER|COMMIT|RESTORE}  
VTOC: f  
PID: c  
DISK PAIR: n  
d

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- [7] OP GEN READLOG  
DISK {ENTER|COMMIT|RESTORE}  
NEW GENERIC: MHD o  
OLD GENERIC: MHD p  
PID: c  
DISK PAIR: n  
d
  
- [8] OP GEN READLOG  
WRITE ENTER  
PARTITION: q  
BACKUP PARTITION: r  
PID: c  
d
  
- [9] OP GEN READLOG  
TAPE ENTER  
SEQUENCE NUMBER: s  
SG ID: t  
GENERIC-VERSION: u  
SEQUENCE: {FIRST|SECOND}  
PID: c  
d
  
- [10] OP GEN READLOG  
APPLHOOK {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}  
PID: c  
d
  
- [11] OP GEN READLOG  
UPDATE ENTER  
PID: c  
BACKUP PARTITION UPDATED: v  
d
  
- [12] OP GEN READLOG  
CONTINUE {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}  
PID: c  
d

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- [13] OP GEN READLOG  
END {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}  
FILE SYSTEM: {PRIMARY|BACKUP}  
BOOT FILE: {APPD Mert|DMERT}  
BOOT DISK: MHD {0|1}  
COMPLETION: {SUCCESS|FAILURE}  
ERROR CODE: w  
UNIX® ERROR NUMBER: x  
CONTINUABLE: {YES|NO}  
PID: c  
d
- [14] OP GEN READLOG  
NOT STARTED  
INVALID ID FEILD ERROR IN IDENTIFICATION FIELD
- [15] OP GEN READLOG  
NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS PROCESS NOT INITIATED

## 2. REASON FOR OUTPUT

To print the contents of the system update event log.

Format 1 indicates that output of the system update event log has been completed.

Format 2 indicates that output of the system update event log has been stopped due to error. The error is identified.

Format 3 displays the FIRST log entry, including the number of entries in the log.

Format 4 displays a BEGIN log entry indicating that an identified system update process began the update method in use, the mode of execution and the Process Identification (PID) of the update process, and the date and time that the entry was made.

Format 5 displays a BEGIN log entry for an ENTER process, which includes all the information in Format 4 as well as the pathname of the input file (normally a magnetic-tape device), the pathname of each Volume Table Of Contents (VTOC) on each disk pair being updated, the unit number of the Disk File Controller (DFC) for each new-generic disk (if one was specified), and the tape sequence options used to update the specified disks. Also included is the pathname of the Equipment Configuration Database (ECD) which will be accessed in the new generic, the partition in which this ECD will reside, the pathname of the system update log in the new generic, and the partition in which this log will reside. Also included is the PID of the update process, and the date and time of the log entry.

Format 6 displays a DISK entry for the Backup Partition (BKPRT) update method indicating the type of update process that began updating a disk pair, the name of the VTOC on this disk pair, the PID of the update process, and the date and time that the entry was made.

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Format 7 displays a Disconnect (DISK) entry for the Off-Line Disk (OFLDISK) update method indicating the type of process that began updating a disk, the disk that was to contain (or contained) the new generic, and its mate, the disk that contained the old generic. Also included is the PID of the update process, and the date and time of the log entry.

Format 8 displays a WRITE entry indicating that an ENTER process began to update a partition, which partition was being updated, and its backup partition (if one exists). Also, the PID of the update process and the date and time of the log entry are included.

Format 9 displays a TAPE entry indicating that an ENTER process was ready to read a tape, the sequence number of the tape expected, the System Generation (SG) -database ID (time stamp) expected from the tape, the generic-version number expected from the tape, and an indication of whether the tape is in the first or second sequence for the disk-pair. Also included is the process ID of the update process, and the date and time of the log entry.

Format 10 displays an APPLHOOK entry indicating the type of update process that initiated application-dependent processing, the PID of the update process, and the date and time of the log entry.

Format 11 displays an UPDATE entry indicating that the ENTER process is updating the backup partitions, the PID of the update process, the backup partition number being updated, and the date and time of the log entry.

Format 12 displays a CONTINUE entry indicating the type of update process that restarted execution, the PID of the update process, and the date and time of the log entry.

Format 13 displays an END entry indicating that the execution of an update process ended (and the process type), whether the system was booted on primary or backup root, appdmert or dmert (the latter is MIN\_CONFIG on the EAI), and for the off-line disk method the boot disk (Moving Head Disk [MHD] 0 or 1). Also included are whether the process completed successfully or failed, the error code, an error number set by a UNIX® system call or DMERT interface function, the PID of the update process, and the date and time of the log entry.

Formats 14 and 15 indicate that an error was made when entering the input message.

**NOTE:** The log is normally emptied when a COMMIT or RESTORE process succeeds.

**NOTE:** Two of these formats may appear in succession with OP:G-READLOG printed only once.

### 3. VARIABLE FIELD DEFINITIONS

- a Error code for failing process, or the reason the process stopped; 0 implies success. The error code is output at the time the process is run. See the System Error Codes Output Appendix, APP:SYSERR.
- b Number of event entries in the system update log.

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|   |                                                                                                                                                                                                                                         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| c | Process ID associated with the log entry.                                                                                                                                                                                               |
| d | Date stamp; indicates when the log entry was made.                                                                                                                                                                                      |
| e | Pathname of the input file, as specified in the UPD:G-ENTER input message.                                                                                                                                                              |
| f | Destination VTOC pathname(s) for subsequent write entries.                                                                                                                                                                              |
| g | Sequence options used for the specified destinations.                                                                                                                                                                                   |
| h | Pathname of the ECD to be accessed in the new generic.                                                                                                                                                                                  |
| i | Partition number of the partition in which the ECD will reside.                                                                                                                                                                         |
| j | Pathname of the system update log in the old generic.                                                                                                                                                                                   |
| k | Partition number of the partition in which the system update log of the old generic resided.                                                                                                                                            |
| l | Pathname of the system update log in the new generic.                                                                                                                                                                                   |
| m | Partition number of the partition in which the system update log will reside.                                                                                                                                                           |
| n | Number, in order of updating, of the disk pair being updated.                                                                                                                                                                           |
| o | Member number of the disk containing the new generic; associated with subsequent write entries (off-line disk method only).                                                                                                             |
| p | Member number of the duplexed disk containing the old generic; mate for MHD a (off-line disk method only).                                                                                                                              |
| q | Partition number of the partition written.                                                                                                                                                                                              |
| r | Partition number of the partition paired with a, if one exists; 0 implies that no backup to a exists.                                                                                                                                   |
| s | Sequence number of the tape.                                                                                                                                                                                                            |
| t | SG database unique ID (time stamp).                                                                                                                                                                                                     |
| u | Generic and version number of the new generic.                                                                                                                                                                                          |
| v | Backup partition number being updated.                                                                                                                                                                                                  |
| w | Internal error code generated by a system update process. See the System Update Error Codes Appendix, APP: SUPR.                                                                                                                        |
| x | Error number set by a failed UNIX® system call or DMERT interface function (which usually results in process failure); 0 implies success of all system calls (some DMERT functions set this number to non-zero values even on success). |

#### 4. ACTION TO BE TAKEN

None.

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**5. REFERENCES**

OMDB Key

Format 1 has an OMDB key of 326.

Practice 254-341-240 *DMERT Operating System Field Update Facilities Software Subsystem*  
*Description 3B20D/3B21D Processor*

Output Appendix

APP: SUPR

APP: SYSERR

Input Messages

OP: G-READLOG

UPD: G-BKOUT

UPD: G-COMMIT

UPD: G-ENTER

UPD: G-PROCD

UPD: G-RESTR

Output Messages

UPD: G-BKOUT

UPD: G-COMMIT

UPD: G-ENTER

UPD: G-PROCD

UPD: G-RESTR

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ID ..... OP:GROW  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP GROW MESSAGE STARTED  
UNIT MTCE INH DGN  
a b [ c d ] e f g
- [2] OP GROW COMPLETED
- [3] OP GROW INTERFACE ERROR, ERRNO=h
- [4] OP GROW NOT STARTED  
INVALID DATA FIELD
- [5] OP GROW NOT STARTED  
RETRY LATER
- [6] OP GROW IN PROGRESS  
a b [ c d ] e f g
- [7] OP GROW RETRY LATER i
- [8] OP GROW WRITE TO j  
FAILED ON KEY #k

## 2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:GROW input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name. Computer unit names are listed in the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- b Unit number. See the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- c Subunit name, if subunit name is CU, CU subunit names are listed in the Member Numbers Output Appendix D, APP:MEM-NUM-D.
- d Subunit number. See the Member Numbers Output Appendix C, APP:MEM-NUM-C.

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- e The current maintenance state of the unit is indicated by the identifiers:
- ACT — Active units
  - GROW — Units being grown
  - INIT — Initializing units
  - OFL — Offline units
  - OOS — Out-of-service units
  - STBY — Standby units
  - UNAV — Unavailable units
  - UNEQIP — Unequipped units
- f Indicates the current inhibit status of the associated error source:
- ALW — Allowed
  - INH — Inhibited
- g Results of the last diagnostic on the unit:
- ABT — Aborted diagnostics
  - ATP — All tests passed
  - CATP — Conditional all tests passed
  - NTR — No tests were run
  - STF — Some tests failed
- h Error number:
- 9 — Cannot attach to plant measurement library.
  - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
  - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i Retry the command later for the reasons:
- CANNOT CREATE FILE IN /tmp
  - CANNOT GET DATABASE RECORD ID
  - CANNOT SEQUENCE DATABASE
- j Temporary output file name.
- k Key associated with write failure.

#### 4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 49 and 477.  
Format 2 has OMDB keys of 50 and 478.  
Format 3 has OMDB keys of 51 and 479.  
Format 6 has OMDB keys of 580 and 582.  
Format 7 has OMDB keys of 588 and 589.  
Format 8 has an OMDB key of 656.

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Output Appendixes  
APP:MEM-NUM-C  
APP:MEM-NUM-D

Input Messages  
OP:ACT  
OP:CFGSTAT  
OP:GROW  
OP:INIT  
OP:OFL  
OP:OOS  
OP:STBY  
OP:UNAV  
OP:UNEQIP

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ID ..... OP:INH-APPDB  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has eight formats.

- [1] OP INH APPDB  
DLN INHIBIT ACTIVE
- [2] OP INH APPDB  
DLN INHIBIT INACTIVE
- [3] OP INH APPDB -  
RL - CANNOT CONNECT TO DATABASE
- [4] OP INH APPDB  
CANNOT TALK TO DATABASE
- [5] OP INH APPDB  
NO RCV MANUAL INHIBITS ACTIVE
- [6] OP INH APPDB  
PCPGTT INHIBIT ACTIVE
- [7] OP INH APPDB  
IBGTT INHIBIT ACTIVE
- [8] OP INH APPDB  
ATP INHIBIT ACTIVE

## 2. REASON FOR OUTPUT

These output messages are printed in response to the OP:INH-APPDB input message.

Format 1 indicates that the "DLN Inhibit" feature is active. GTT10D RCV is NOT allowed.

Format 2 indicates that the "DLN Inhibit" feature is NOT active. GTT10D RCV is allowed.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

If Format 3 prints, the input message cannot establish a communication link with the RCV process. Probable cause: the RCV process does not exist or insufficient system resources are available for the operation. Wait and retry later.

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If Format 4 prints, the input message has established a communication link with the RCV process, however no data can be sent or received. Probable cause: the RCV process has a software problem or insufficient system resources are available for the operation. Wait and retry later. If the problem does not clear, notify NESAC.

If Format 5 prints, then there are no GTT10D RC manual inhibits currently active.

If Format 6 prints, then there is currently a GTT10D RC manual inhibit on the PCPGTT (PCP GTT) portion of the database.

If Format 7 prints, then there is currently a GTT10D RC manual inhibit on the IBGTT (800 and 900 services) portion of the database.

If Format 8 prints, then there is currently a manual inhibit on the ATP (AT&T Trigger Platform) portion of the database.

## **5. REFERENCES**

### **Input Messages**

ALW: RCV-APPDB

INH: RCV-APPDB

OP: INH-APPDB

### **Output Messages**

ALW: RCV-APPDB

INH: RCV-APPDB

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP INIT MESSAGE STARTED  
UNIT MTCE INH DGN  
a b [ c d ] e f g
- [2] OP INIT COMPLETED
- [3] OP INIT INTERFACE ERROR, ERRNO=h
- [4] OP INIT NOT STARTED  
INVALID DATA FIELD
- [5] OP INIT NOT STARTED  
RETRY LATER
- [6] OP INIT IN PROGRESS  
a b [ c d ] e f g
- [7] OP INIT RETRY LATER i
- [8] OP INIT WRITE TO j  
FAILED ON KEY #k

## 2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:INIT input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name. Computer unit names are listed in the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- b Unit number. See the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- c Subunit name, if subunit name is CU, CU subunit names are listed in the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- d Subunit number. See the Member Numbers Output Appendix C, APP:MEM-NUM-C.

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- e The current maintenance state of the unit is indicated by the identifiers:
- ACT — Active units
  - GROW — Units being grown
  - INIT — Initializing units
  - OFL — Offline units
  - OOS — Out-of-service units
  - STBY — Standby units
  - UNAV — Unavailable units
  - UNEQIP — Unequipped units
- f Indicates the current inhibit status of the associated error source:
- ALW — Allowed
  - INH — Inhibited
- g Results of the last diagnostic on the unit:
- ABT — Aborted diagnostics
  - ATP — All tests passed
  - CATP — Conditional all tests passed
  - NTR — No tests were run
  - STF — Some tests failed
- h Error number:
- 9 — Cannot attach to plant measurement library.
  - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
  - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i Retry the command later for the reasons:
- CANNOT CREATE FILE IN /tmp
  - CANNOT GET DATABASE RECORD ID
  - CANNOT SEQUENCE DATABASE
- j Temporary output file name.
- k Key associated with write failure.

#### 4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 49 and 477.  
Format 2 has OMDB keys of 50 and 478.  
Format 3 has OMDB keys of 51 and 479.  
Format 6 has OMDB keys of 580 and 582.  
Format 7 has OMDB keys of 588 and 589.  
Format 8 has an OMDB key of 656.

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Output Appendix  
APP:MEM-NUM-C

Input Messages

OP:ACT  
OP:CFGSTAT  
OP:GROW  
OP:INIT  
OP:OFL  
OP:OOS  
OP:STBY  
OP:UNAV  
OP:UNEQIP

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ID ..... OP:IODRV  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP IODRV MSG STARTED  
LVL  
a  
ID  
b  
CLASS  
c  
MSGSAVE  
{ON|OFF}  
OP IODRV COMPLETED
- [2] OP IODRV NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS d
- [3] OP IODRV ABORTED
- [4] OP IODRV ATTRIBUTE FILE UPDATED

## 2. REASON FOR OUTPUT

Response to a OP : IODRV input message.

Format 1 prints the status of the current options set in the Input/Output Processor (IOP) driver. These options are as requested in the OP : IODRV input message.

Format 4 indicates that the attribute file for the IOP driver messages was inconsistent with the IOP driver and has been updated to the current settings.

## 3. VARIABLE FIELD DEFINITIONS

- |     |                                                        |
|-----|--------------------------------------------------------|
| a   | Severity levels set.                                   |
| b   | Handler identifications set.                           |
| c   | Classes set.                                           |
| ON  | Messages are being saved in the IODRVLOG log file.     |
| OFF | Messages are not being saved in the IODRVLOG log file. |
| d   | Process not initiated.                                 |

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#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

##### OMDB Keys

Format 1 has an OMDB key of 221.

Formats 3 and 4 have an OMDB key of 161.

##### Input Messages

CLR: IODRV

OP: IODRV

SET: IODRV

##### Output Messages

CLR: IODRV

SET: IODRV

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ID ..... OP:IOP-INFO  
 WORK CENTER.. MOC  
 GENERIC ..... 4AP17 and later  
 APPLICATION .. 4E,3B  
 TYPE ..... Output

### 1. FORMAT

[1] OP IOP a INFO b c [d]

[2] OP IOP a INFO b c [d]  
 \_Name Unit # U\_mv State PackCode Versions Ver\_From  
 -----  
 e f g h i j k  
 .  
 .  
 .

### 2. REASON FOR OUTPUT

To report the result of executing an OP:IOP a;INFO input message.

### 3. VARIABLE FIELD DEFINITIONS

a IOP member number.

b Message State:  
 ABORT  
 ERROR  
 NOT STARTED  
 STOPPED

c Process step or Error Code:  
 f01 — Failed to enable message reception.  
 f03 — Failed to open ECD.  
 f06 — Failed to to get UCB by name.  
 f08 — Failed to to get down UCB.  
 f09 — Failed to get the side UCB.  
 f0a — Top UCB is not a IOP.  
 f10 — Failed to send message to I/O driver.  
 f11 — Failed to unreserve UCB.  
 f12 — Failed to receive ack from I/O driver.  
 f13 — Failed to close ECD.  
 f14 — Failed to reserve UCB.  
 f15 — A message to driver has been lost, time out.  
 f16 — Terminated externally with signal.  
 f20 — Failed to get UCBL.  
 f21 — Failed to get PTA (page table address).  
 f23 — Failed to assign a dma slot.

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|   |                                                                                                                            |
|---|----------------------------------------------------------------------------------------------------------------------------|
|   | f24 — Failed to queue a job                                                                                                |
|   | f25 — Failed to define a task with an ucblp as the idcode, function timreq1 failed.                                        |
|   | f27 — IO is BUSY.                                                                                                          |
|   | f28 — Time out when access RAM.                                                                                            |
| d | System error code (set by libC functions, defined in sys/errno.h).                                                         |
| e | IOP unit name.                                                                                                             |
| f | Unit number.                                                                                                               |
| g | MV number.                                                                                                                 |
| h | Major States.                                                                                                              |
| i | Pack code.                                                                                                                 |
| j | RAM code version.                                                                                                          |
| k | RAM code version is read from:<br><br>ECD — Version is read from ECD.<br>RAM — Version is read from RAM.<br>Number — Error |

#### 4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated IOP is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 766.

Format 2 has an OMDB key of 767.

##### Output Appendix

APP:SYSERR

##### Input Message

OP: IOP- INFO

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ID ..... OP:LFS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

[1] OP LFS COMPL  
LFS a b c {NEAR|FAR} AT d IN PROGRESS}  
INTERMEDIATE RESULTS

| LPBK<br>CMPT | TEST<br>REPT | LPBK<br>EVAL | ELAPSED<br>TIME | ERRORS<br>BITS | SEC  | BIT<br>E-RT | PCT<br>E-F-S | LST<br>SYNC |
|--------------|--------------|--------------|-----------------|----------------|------|-------------|--------------|-------------|
| ----         | ----         | ----         | -----           | -----          | ---- | ----        | -----        | ----        |
| e            | f            | g            | h               | i              | j    | k           | l            | m           |
| .            | .            | .            | .               | .              | .    | .           | .            | .           |
| .            | .            | .            | .               | .              | .    | .           | .            | .           |
| .            | .            | .            | .               | .              | .    | .           | .            | .           |

[2] OP LFS COMPL  
[CUSTOMIZE LBK ATTRIBUTES]

| MEM<br>LOC | PATTERN<br>LACH | NON-LACH | MEAS<br>DUR | ERROR<br>TYPE | THR<br>VALUE | NLST<br>SYNC | NER<br>BITS |
|------------|-----------------|----------|-------------|---------------|--------------|--------------|-------------|
| ---        | ----            | -----    | -----       | -----         | -----        | ----         | ----        |
| N/A        | 2047            | 2047     | < 15 MINS   | BER           | 1.0E-6       | 0            | 1           |
| N/A        | 2047            | 2047     | >=15 MINS   | BER           | 1.0E-6       | 0            | 1           |
| n          | o               | p        | q           | r             | s            | t            | u           |
| .          | .               | .        | .           | .             | .            | .            | .           |
| .          | .               | .        | .           | .             | .            | .            | .           |
| .          | .               | .        | .           | .             | .            | .            | .           |

## 2. REASON FOR OUTPUT

Format 1 reports intermediate results in response to input message OP:LFS.

Format 2 reports the customized loopback test attributes, in response to the input command OP:LFS (with DEFAULTS option).

## 3. VARIABLE FIELD DEFINITIONS

- a Link group number (0-63).  
b Link member number (1-15).

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- c Number of loopback components specified in the EXC:LFS command line.
- TEST sequence progression specifier:
- NEAR — Indicates link fault sectionalization (LFS) test started from the nearest specified loopback component to the farthest.
- FAR — Indicates LFS test started from the farthest specified loopback component to the nearest.
- e Loopback point to which the test sequence has progressed. Must be one of the following:
- CSUL — Channel service unit (CSU) latching loopback.
- CSUN — Channel service unit (CSU) non-latching loopback.
- DPuu — Indicates the uuuth digital signal zero (DS0) data port relative to the near-end. The uu is a number in the range: (01-50).
- DSUL — Data service unit (DSU) data port latching loopback.
- DSUN — Data service unit (DSU) non-latching loopback.
- LID0 — Indicates test sequence has not progressed beyond the local loopback test.
- NEI — Far-end network element interface. (Loopback select code octet value = x1000001).
- OCUL — Office channel unit (OCU) latching loopback.
- OCUN — Office channel unit (OCU) non-latching loopback.
- REM — Manual remote loopback.
- RPT1 — Represents non-latching loopback test for the first 56K bps local loop regenerative repeater.
- RPT2 — Represents non-latching loopback test for the second 56K bps local loop regenerative repeater.
- f Repetitive (>1) or single (1) operation. Must be a value in the range: (1-99).
- 1 — Indicates 1st operation of the loopback component.
- 2 — Indicates the 2nd operation of a unique loopback component.
- g Individual evaluations of loopback tests.
- PASS — Indicates a successful test based on input criteria.
- FAIL — Indicates test failure based on input criteria.
- TINP — Indicates the designated LC is being tested.

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- h Elapsed duration of measurement for individual loopback points in hours:minutes:seconds respectively.
- i Number of errored bits for this LC (0 to 65535).
- j Number of errored seconds for this loopback point (0 to 9999).
- k Bit error ratio (BIT-ERT) for this loopback point. Expressed as one of the following:

—  $x.yE-z$

— UNFLW to indicate underflow.

— OVFLW to indicate overflow.

Where  $x$ ,  $y$  and  $z$  are integer values in the range: (0-9).

**NOTE:** The BIT-ERT and PCT E-F-S values in an intermediate report could be worse than the specified threshold, but the test will not necessarily fail (yet). This is due to a difference in the way calculations are done for reporting vs. thresholding. For example, the reported BIT-ERT is calculated by dividing the number of errored bits by the total number of bits from the start of the test up to the time of the calculation (elapsed time). For thresholding, the denominator is always the number of bits for the entire specified duration. Thresholding is done in this way so that the test is not overly sensitive to bit errors early in a long test.

- l Percent error free seconds (PCT E-F-S) for this LC. Also represented as a fixed point with precision = 0.1%.

**NOTE:** The BIT-ERT and PCT E-F-S values in an intermediate report could be worse than the specified threshold, but the test will not necessarily fail (yet). This is due to a difference in the way calculations are done for reporting vs. thresholding. For example, the reported BIT-ERT is calculated by dividing the number of errored bits by the total number of bits from the start of the test up to the time of the calculation (elapsed time). For thresholding, the denominator is always the number of bits for the entire specified duration. Thresholding is done in this way so that the test is not overly sensitive to bit errors early in a long test.

- m Number of lost synchronization for the loopback point (0 to 999).
- n Memory location for customized default attributes. Must be a value in the range: (1-50).
- o Latching pattern type for a memory location.
- p Non-latching test pattern type for a memory location.

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|   |                                                                                                           |
|---|-----------------------------------------------------------------------------------------------------------|
| q | Measurement duration of the test in hours, minutes, seconds respectively specified for the designated LC. |
| r | Errored threshold type specified for the designated LC.                                                   |
| s | Error threshold value specified for the designated LC.                                                    |
| t | Maximum number of lost synchronization specified for the indicated LC.                                    |
| u | Maximum number of errored bits indicated for the designated LC.                                           |

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

Input Messages  
EXC:LFS  
OP:LFS

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ID ..... OP:LIBUF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

[1] LNa b, c BUFFER, d DUMP# e

[2] OP LIBUF

|   |   |   |   |   |
|---|---|---|---|---|
| f | f | f | f | f |
| f | f | f | f | f |

ISDN7: SI0=g DPC=h OPC=i  
SLS=j MTYPE=aa CIC=l

[3] OP LIBUF

|   |   |   |   |   |
|---|---|---|---|---|
| f | f | f | f | f |
| f | f | f | f | f |

SCCP7: SI0=g DPC=h OPC=i  
SLS=j MTYPE=m PCLASS=n\*

[4] OP LIBUF

|   |   |   |   |   |
|---|---|---|---|---|
| f | f | f | f | f |
| f | f | f | f | f |

SCMG7: SI0=g DPC=h OPC=i  
SLS=j FMTID=o

[5] OP LIBUF

|   |   |   |   |   |
|---|---|---|---|---|
| f | f | f | f | f |
| f | f | f | f | f |

SNM7: SI0=g DPC=h OPC=i  
SLS=j H0/H1=k AFFPC=[p]

[6] OP LIBUF

|   |   |   |   |   |
|---|---|---|---|---|
| f | f | f | f | f |
| f | f | f | f | f |

ECIS: SI0=g HDGINF=q BD=r TK=s

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[7] OP LIBUF

|   |   |   |   |   |
|---|---|---|---|---|
| f | f | f | f | f |
| f | f | f | f | f |

DCIS: SI0=g DPC=h OPC=i  
SLS=j DOM=t DESTA=u DESTB=v FUNC=w  
RF=x RC=y RTAD=z

[8] OP LIBUF

|   |   |   |   |   |
|---|---|---|---|---|
| f | f | f | f | f |
| f | f | f | f | f |

MSPEC7: SI0=g DPC=h OPC=i  
SLS=j H0/H1=bb

[9] OP LIBUF

|   |   |   |   |   |
|---|---|---|---|---|
| f | f | f | f | f |
| f | f | f | f | f |

UNDEF7: SI0=g DPC=h OPC=i  
SLS=j

## 2. REASON FOR OUTPUT

Response to OP:LIBUF input request.

**NOTE:** For format 2 some ISDN7 messages, the names of some fields may be meaningless.

For format 3, \* In UDTs messages, PCLASS is replaced by DGPAR=n

**NOTE:** For format 3, SCCP messages other than UDT and UDTs, the names of some fields such as MTYPE may be meaningless.

**NOTE:** For format 5, SNM7 messages with a message group of CHM, ECM or MIM, the AFFPC field is not present and will not be printed.

**NOTE:** Form format 7, when the RF=0, the RC and RTAD are not valid.

## 3. VARIABLE FIELD DEFINITIONS

- a Group number.
- b Member number.
- c Type of buffer.

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|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| d | Condition on which buffer was dumped (OL1,OL2, OL3, OF).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| e | Index of stored dump.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| f | The whole hex message printed out in 5 words per line for as many lines as needed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| g | Service Indicator of the SIO in decimal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| h | DPC in decimal and hex (network id, region, cluster).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| i | OPC in decimal and hex (network id, region, cluster).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| j | Signaling Link Selection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| k | <p>The symbolic from the H0/H1 code.</p> <p>CBA — Change Back Acknowledgement signal.<br/>CBD — Change Back Declaration signal.<br/>COA — Change Over Acknowledgement signal.<br/>COO — Change Over Order signal.<br/>ECA — Emergency Changeover Acknowledgement signal.<br/>ECO — Emergency Changeover Order signal.<br/>LFU — Link Forced Uninhibit message.<br/>LIA — Link Inhibit Acknowledgement message.<br/>LID — Link Inhibit Denied message.<br/>LIN — Link Inhibit message.<br/>LUA — Link Uninhibit Acknowledgement message.<br/>LUN — Link Uninhibit message.<br/>RCP — Signaling Route Set Test Cluster Prohibited signal.<br/>RCR — Signaling Route Set Test Cluster Restricted signal.<br/>RCT — Signaling Route Set Congestion Test signal.<br/>RSP — Signaling Route Set Test Prohibited signal.<br/>RSR — Signaling Route Set Test Restricted signal.<br/>TCA — Transfer Cluster Allowed signal.<br/>TCP — Transfer Cluster Prohibited signal.<br/>TCR — Transfer Cluster Restricted signal.<br/>TFA — Transfer Allowed signal.<br/>TFC — Transferred Controlled signal.<br/>TFP — Transfer Prohibited signal.<br/>TFR — Transfer Restricted signal.</p> |
| l | The decimal value for the CIC field.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| m | <p>Message Type.</p> <p>CO_AK — Data Acknowledgement.<br/>CO_CA — Connection Failure Acknowledgement.<br/>CO_CC — Connection Confirm.<br/>CO_CF — Connection Failure.<br/>CO_CREF — Connection Refused.<br/>CO_CR — Connection Request.<br/>CO_DT1 — Data Form 1.<br/>CO_DT2 — Data Form 2.<br/>CO_EA — Expected Data Acknowledgement.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | CO_ED — Expected Data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|   | CO_ERR — Error.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   | CO_IT — Inactivity Test.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|   | CO_RLC — Connection Released Complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|   | CO_RLSD — Connection Released.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|   | CO_RSC — Reset Confirmation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|   | CO_RSR — Reset Request.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|   | UDTS — Unit Data Service Signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|   | UDT — Unit Data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| n | The hex value for the PCLASS or DGPARG field.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| o | Format ID.<br><br>SBR — Subsystem backup routing.<br>SNR — Subsystem normal routing.<br>SOG — Subsystem out of service grant.<br>SOR — Subsystem out of service request.<br>SRT — Subsystem routing status test.<br>SSA — Subsystem allowed.<br>SSP — Subsystem prohibited.<br>SST — Subsystem status test.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| p | The Affected Point Code in decimal and hexadecimal (network id, region, cluster).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| q | Heading Information Flag.<br><br>ADC — Address Complete, Charge.<br>ADI — Address Incomplete.<br>ANC — Answer, Charge.<br>BLO — Blocking.<br>CB1 — Clear Back #1.<br>CB2 — Clear Back #2.<br>CB3 — Clear Back #3.<br>CBK — Crankback.<br>CFL — Call Failure.<br>CLF — Clear Forward.<br>COF — Confusion.<br>COT — Continuity.<br>IAM — Initial Address Message.<br>MMUM — Misc. Multi-unit Message.<br>MRF — Message Refusal.<br>NSC — National Switching Congestion.<br>NTC — National Trunk Congestion.<br>RA1 — Reanswer #1.<br>RA2 — Reanswer #2.<br>RA3 — Reanswer #3.<br>RCT — Recycle Continuity Timer.<br>RLG — Release Guard.<br>RST — Reset Trunk.<br>SSB — Customer Busy (Subscriber Busy, Electrical).<br>SSD — Second Start Dial. |

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|    |                                                             |
|----|-------------------------------------------------------------|
|    | UBL — Unblocking.                                           |
| r  | Band number.                                                |
| s  | Trunk number.                                               |
| t  | Domain.                                                     |
| u  | Destination A.                                              |
| v  | Destination B.                                              |
| w  | Function number.                                            |
| x  | Return Flag.                                                |
| y  | Return code.                                                |
| z  | Return Address.                                             |
| aa | Message Type for ISDN messages.                             |
|    | ACM — Address Complete.                                     |
|    | ANM — Answer.                                               |
|    | BLA — Blocking Acknowledgement.                             |
|    | CCR — Continuity Check Request.                             |
|    | CFN — Confusion.                                            |
|    | CGBA — Circuit Group Blocking Acknowledgement.              |
|    | CGB — Circuit Group Blocking.                               |
|    | CMC — Call Modification Completed.                          |
|    | CMRJ — Call Modification Reject.                            |
|    | CMR — Call Modification Request.                            |
|    | CON — Connect.                                              |
|    | COT — Continuity.                                           |
|    | CPG — Call Progress.                                        |
|    | CQM — Circuit query.                                        |
|    | CQR — Circuit Query Response.                               |
|    | CRA — Circuit Reservation Acknowledgement.                  |
|    | CRM — Circuit Reservation.                                  |
|    | CSVR — Closed User Group Selection and Validation Request.  |
|    | CSVS — Closed User Group Selection and Validation Response. |
|    | CVR — Circuit validation test response.                     |
|    | CVT — Circuit validation test.                              |
|    | DRS — Delayed Release.                                      |
|    | EXM — Exit.                                                 |
|    | FAA — Facility Accepted.                                    |
|    | FAD — Facility Deactivated.                                 |
|    | FAI — Facility Information.                                 |
|    | FAR — Facility Request.                                     |
|    | FOT — Forward transfer.                                     |
|    | FRJ — Facility Reject.                                      |
|    | GRA — Circuit Group Reset Acknowledgement.                  |
|    | GRS — Circuit Group Reset.                                  |
|    | IAM — Initial Address.                                      |
|    | INF — Information.                                          |

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INR — Information Request.  
LPA — Loop-back Acknowledgement.  
OLM — Overload.  
PAM — Pass Along.  
REL — Release.  
RES — Resume.  
RLC — Release Complete.  
RSC — Reset Circuit.  
RSVP — RSVP Message.  
RSVR — RSVP Reply.  
SAI — SDN SID / ANI Increment.  
SAM — Subsequent Address.  
SSD — Second Start Redial.  
SUS — Suspend.  
UBL — Unblocking.  
UCI — Unequipped CIC.  
USR — User to User Information.  
VCR — Virtual Connection Request.

bb                    Signaling Network Test and Maintenance Message.

SLT — Signaling Link Test Message.  
SLTA — Signaling Link Test Message Acknowledgement.

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

Input Messages  
OP: LIBUF

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ID ..... OP:LNSTAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

[1] CNI OP LNSTAT a b IN PROG  
  
SLK a b NWT c  
  
MINOR = d LKTYPE = e  
  
SPEED = f EC\_MODE = g  
  
FACILITY = h LI\_TYPE = i  
  
L2\_STATE = j XLC\_STATE = k  
  
ROL\_STATE = l DUR\_SIB = m  
  
SUERM = n L1\_STATE = p  
  
NP\_LNC\_ST = q LI\_FW\_VER = [r|t-u]  
  
CNI OP LNSTAT a b COMPL  
  
[2] CNI OP LNSTAT a b ABT  
S

## 2. REASON FOR OUTPUT

Prints in response to the OP:LNSTAT input message. Format 1 prints OP:LNSTAT requested data. Format 2 reports that the OP:LNSTAT command aborted prior to outputting the data.

## 3. VARIABLE FIELD DEFINITIONS

a Group number (0-63).  
b Member number (1-15).  
c Network time. The format of this field is: h:m:s. Where: h = hour,  
m = minutes, s = seconds.  
d Minor State:  
IS — In Service.  
MOOS — Manual Out Of Service.

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- 00S — Out Of Service.
- e Link Type: A, B, C, D, E, G, W, S
- f Link speed:
- 56 — 56kps.
- 56D — 56kps DS0 equipped link node.
- 64C — 64kps Clear.
- 1.544M — 1.544Mbps
- g Error Correction Mode:
- BEC — Basic Error Correction
- PCR — Preventive Cyclic Retransmission
- h Facility Type:
- DS0
- DS1
- DSU
- T1FA
- i Link Interface Board (LIB) Type and Circuit Pack Number:
- LI4D-TN1315
- LI4S-TN1316
- LID0-TN1669
- LIE-TN917B
- LINE-TN916
- LIT1-TN2520 — Universal Link Node (ULN) is a Ring Interface Board (RIB) and LIB with T1 option module.
- UNKNOWN — ULN has an unknown LIB and option module.
- j Level 2 State:
- ALG\_NRDY — Alignment Not Ready due to processor outage interruption. Local and/or remote processor outage must cease before level 2 can go in service.
- ALG\_RDY — Local initial alignment complete (Ready) and we are waiting on FISU and/or MSU to go in service (level 2 state = IS and timer T1 is active).
- INTALGN\_E — This is the initial alignment state 2 of being aligned, level 2 will be sending SIN or SIE and waiting for SIN or SIE (timer T3 is active). Emergency proving time is used.

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INTALGN\_N—This is the initial alignment state 2 of being aligned, level 2 will be sending SIN or SIE and waiting for SIN or SIE (timer T3 is active). Normal proving time is used.

INTNALGN\_E—This is the first step, or non-aligned stage, of initial alignment (timer T2 is active). Emergency proving time is used.

INTNALGN\_N—This is the first step, or non-aligned stage, of initial alignment (timer T2 is active). Normal proving time is used.

INTPROVIN\_E—This is the initial alignment state 3 with Emergency proving being done, and level 2 is sending and/or receiving SIE (timer T4e is active).

INTPROVIN\_N—This is the initial alignment state 3 with Normal proving being done, and level 2 is sending SIN (timer T4n is active).

IS — In Service; capable of handling level 3 traffic.

L\_POUT — Local processor outage SIPOS being sent on link.

LR\_POUT — Both local and remote processor outage (SIPOS being sent and received).

OOS — Out of Service (sending SIOS LSSU on link).

OOS\_LLT — Out of Service (performing local loop-back test).

OOS\_LLT\_FAIL — Out of Service (local loop-back test failed).

OOSINIT — ULN only. Out of Service (awaiting first start).

OOSSTOP — ULN only. Out of Service (commanded by stop).

PWROFF — Level 2 is in a power off state due to initialization, hardware failure, or transition to another state.

R\_POUT — Remote processor outage (SIPOS being received and FISU being sent).

UNKNOWN — ULN only. ULN has unknown level 2 state.

WAIT\_POUT — Recovering from processor outage, waiting for events.

k

Transmit Link Buffer Congestion Level:

XDIS1 — Transmit buffer level 1 discard state, level 0 priority MSUs are discarded.

XDIS2 — Transmit buffer level 2 discard state, level 0 and 1 priority MSUs are discarded.

XDIS3 — Transmit buffer level 3 discard state, level 0, 1, and 2 priority MSUs are discarded.

XFULL — Transmit buffer is full.

XNORM — Transmit buffer level is normal.

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The previous bit positions match the following descriptions of valid status indications:

| Octet |        |                                                                    |
|-------|--------|--------------------------------------------------------------------|
| Bit   | Bit    |                                                                    |
| Pos.  | Symbol | Description                                                        |
| b7    | U      | Set when any remaining bit is set                                  |
| b6    | F      | Set when unavailable-signal (alias failed signal) condition exists |
| b5    | R      | Red alarm (that is, red LOF or CFC)                                |
| b4    | Y      | Yellow alarm signal detected on ESF-DL                             |
| b3    | A      | Blue alarm indication signal (LOF/CFC)                             |
| b2    | T      | Not used                                                           |
| b1    | L      | Test signal or payload loopback activated on transmit side         |
| b0    | O      | LOS/LFVR alarm state                                               |

For invalid status indications. U-bit not set, and the following values are recorded on the remaining bits:

| Octet |        |                                                                              |
|-------|--------|------------------------------------------------------------------------------|
| Bit   | Bit    |                                                                              |
| Pos.  | Symbol | Description                                                                  |
| b7    | U      | Bit NOT set; bit=0;                                                          |
| b3    | A      | Request denial between ULNs (new for ULN)                                    |
| b2    | T      | No response by Network Channel Office Equipment (NCOE) from a far-end entity |
| b1    | L      | Set by NCOE when equipment (IU) not available                                |
| b0    | O      | Set by NCOE when an illegal request is received                              |

CD — Bits 15-8, the second and third hex digits from the right, show near-end ULN's view/status of which particular FAR-END loopback condition or test signal is activated at the far-end ULN; as follows:

- b8 — Data (payload) loopback (toward facility) activated
- b9 — High-density test signal activated
- b10 — Low-density test signal activated
- b11 — All-zeroes test signal activated
- b12 — Quasi-Random test signal activated
- b13-14 — Spare
- b15 — Yellow (4Kb ESF-DL) test signal activated

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EF — Bits 7-0, the rightmost two hex digits, indicate which specific NEAR-END loopback condition or test signal is activated, as follows:

b0 — Data (payload) loopback (toward facility) activated

b1 — High-density test signal activated

b2 — Low-density test signal activated

b3 — All-zeros test signal activated

b4 — Quasi-Random test signal activated

b5-6 — Spare

b7 — Yellow (4Kb ESF-DL) test signal activated

p

Level 1 State for 56-Kbps only:

NA — Not Available. The level one state is not available to report a link node equipped with LIE MC3F022A1 TN917B or LINE MC3F003A1 TN916 hardware.

The following are only valid for link nodes that have a DSU facility type and are equipped with hardware other than that listed previously for NA.

DSU\_ON — DSU is receiving valid data. Due to design constraints, DSU\_ON may also be obtained when the DSU is unplugged from its frame.

DSU\_OFF — DSU not receiving valid data as indicated by the DSU RSLD, DSR, and CTS leads.

ALL\_ONES — All ones are being received on the link.

The following are only valid for LID0 equipped link nodes that have a DS0 facility type.

NORM — Normal. There are no problems or other significant data to report.

DEAD\_CLK — An absent or defective DS0 composite clock signal has been detected.

ALL\_ONES — All ones are being received on the link.

NE\_LB — The Network Element Loop-back code is received.

The following are control codes received on the DS0 data leads, and are only valid for LID0 equipped link nodes that have a DS0 facility type.

ASC — Abnormal Station Code

BLOCK — Block

CMI — Control Mode Idle

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CSU\_LB — CSU Loop-back  
DSU\_LB — DSU Loop-back  
FEV — Far-end Voice  
LBE — Loop-back Enable  
MA — MJU Alert  
MOS — T1 Multiplex-Out-Of Sync  
NOT\_RDY — Not Ready  
NSC — Non-Secondary Channel mapping of TIP bytes  
OCU\_LB — OCU Loop-back  
RLS — Release control  
TA — Test Alert  
TESTCODE — Test Code  
TIP — Transition In Progress  
UMC — Unassigned Mux Channel. This indicates some drop side, typically far-end local loop, is disconnected.  
ZEROS — All Zeros. This is an open local loop control code that indicates disconnection from the DS0 DP in D4 channel bank.

If none of the previous, then the unknown/unrecognized control code is output in hexadecimal value.

q

Node Processor Link and Node Control State:

IS\_BUF — In Service, but messages are buffered.  
IS\_BUF\_S — In Service, but messages are buffered, short processor outage.  
IS\_TXM — In Service and messages are transmitted.  
IS\_TXM\_S — In Service and messages are transmitted, short processor outage.  
OOS\_LCHKP — Out of Service - preparation for link check test.  
OOS\_LCHKR — Out of Service - link check test is running.  
OOS\_L2ID — Out of Service and level 2 is idle.  
OOS\_L2RT — Out of Service and level 2 is restoring.  
OOS\_L2UP — Out of Service and level 2 is up.  
OOS\_SIPO — Out of Service - processor outage at either one or both ends of link.  
RDY\_CB — Out of Service - ready for changeback.

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|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | RDY_CB_S — Out of Service - ready for changeback, short processor outage.                                                                                                                                                                                                                                                                                                                                                                                                                |
| r   | LI firmware version:<br>MC3F029A1<br>MC3F030A1<br>MC3F032A1<br><br>NA — Not applicable or not available. The LI is not firmware based (for example, LI4S, LI4D, and LID0) or, if the LI is firmware based, the firmware version is an older version that is not detectable by the node software.                                                                                                                                                                                         |
| s   | Text describing an error condition that has been encountered causing OP:LNSTAT to abort:<br><br>TIMED OUT WHILE WAITING FOR DATA FROM LINK NODE — This error condition may be caused by a defective link node, or, a lost message either from or to the 3B computer.                                                                                                                                                                                                                     |
| t-u | LI firmware version for 1.544 Mbps version:<br><br>t=TFNxxxx — Shows the xxxx (for example, TFN00A4-T1OM01) Thomson device firmware version number (four alphanumeric characters) on the LIB.<br><br>u=T1OMyy — Shows that the Link Option Module (LOM) on the LIB is a T1 type, with hardware version ID register number yy (2 digits). Future types of LOMs would have something other than T1OMyy printed here.<br><br>u=T1OM?? — Shows the ULN has an unknown option module version. |

#### 4. ACTION TO BE TAKEN

For format 1, none. This message is a response to the input message OP:LNSTAT. Use information provided for monitoring link node performance and trouble analysis.

For format 2, Message is self-explanatory. Seek technical assistance if unable to resolve.

#### 5. REFERENCES

Input Message  
OP:LNSTAT

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ID ..... OP:LOG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP LOG a b CORRUPT SEGMENT AT c  
[d]
- [2] OP LOG a FILE e CANNOT OPEN TEMPORARY FILE
- [3] OP LOG a CANNOT OPEN LOGFILE
- [4] OP LOG a {STARTED|IN PROGRESS|COMPLETED} SEGMENT f  
g  
[d]
- [5] OP LOG a OUTPUT FILE EXISTS h
- [6] OP LOG a CANNOT CREATE OUTPUT FILE h
- [7] OP LOG a OUTPUT DIRECTORY DOES NOT EXIST i
- [8] OP LOG a OUTPUT DIRECTORY IS NOT WRITABLE i
- [9] OP LOG a PASSED BAD PARM TYPE TO FILE FUNCTION
- [10] OP LOG a STOPPED j

## 2. REASON FOR OUTPUT

Formats 1, 2, 3, and 5 indicate that an error occurred when executing the OP:LOG input message.

Formats 6, 7, and 8 indicate a system error preventing creation of the file.

Format 9 indicates that the process is using invalid data in the message structure.

Formats 4 and 10 indicate the process status.

## 3. VARIABLE FIELD DEFINITIONS

- a Name of the logfile.
- b Pathname of the file in which corruption was discovered.
- c Position, expressed in characters, in file where corruption was discovered.

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|   |                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| d | Message text from the logfile entry. If the output file parameter has been requested, this will not appear.                                                                                                                                                                                                                                                                                                     |
| e | Name of temporary file.                                                                                                                                                                                                                                                                                                                                                                                         |
| f | Number of output segment.                                                                                                                                                                                                                                                                                                                                                                                       |
| g | Time stamp.                                                                                                                                                                                                                                                                                                                                                                                                     |
| h | Name of the output file to be created in /fmt                                                                                                                                                                                                                                                                                                                                                                   |
| i | Name of the directory where the output file will be created                                                                                                                                                                                                                                                                                                                                                     |
| j | The STOPPED reason code: <ul style="list-style-type: none"><li>40 — cannot open temporary file</li><li>201 — given output file name is too long</li><li>202 — implied output file path name is too long</li><li>203 — given output file is formatted incorrectly</li><li>208 — given input file name is too long</li><li>211 — cannot create temporary file</li><li>212 — cannot write temporary file</li></ul> |

#### 4. ACTION TO BE TAKEN

If Format 1 prints, the contents of the corrupt logfile must be SAVED on paper and /or tape for later reference. The corrupt logfile entries should be cleaned up by using the DEL : LOG input message on the logfile without any selection criteria.

If Format 2 prints, check the /tmp file system to see if all the space is used up.

If Format 3 prints, check to see if the logfile exists under the pathname specified in the device record.

If Format 5 prints, retry the command with a file name that is 14 characters or less and contains no slashes (/) to denote a sub-directory.

If Format 6 prints, check to see if there are i-nodes available on the file system partition in which that directory resides. If i-nodes are available, contact technical support for further assistance.

If Format 7 or 8 prints, check to see if the identified directory exists and has write permission.

If Format 9 prints, contact technical support for further assistance.

If Format 10 prints, check SPLLOG for CSOP error messages.

#### 5. REFERENCES

##### OMDB Keys

Formats 1, 2, and 3 have an OMDB key of 277.

Format 4 has an OMDB key of 279.

Formats 5 through 10 have an OMDB key of 276.

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Input Messages  
DEL : LOG  
OP : LOG

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ID ..... OP:MEMERRS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP MEMERRS {IN PROGRESS | COMPLETED}  
DATE        TIME    CU MASC MY/OTH TYPE SLOT DEV UNCORR/CORR  
mm/dd/yy   hh mm   a     b        c     d     e [f]        g  
ACCESS ERRASRC  
             h        i  
             SLOT NUMBERS ARE INVALID
- [2] OP MEMERRS CANNOT OPEN NEW TEMP FILE
- [3] OP MEMERRS NO MEMLOG FILES
- [4] OP MEMERRS NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS - NOT AVAILABLE ON HW PLATFORM
- [5] OP MEMERRS CANNOT OPEN ECD FOR MEMLOG
- [6] OP MEMERRS CANNOT RETRIEVE MEMLOG RECORD FROM ECD
- [7] OP MEMERRS COMPLETED  
NO MEMLOG ENTRIES MATCH THE SPECIFIED DATE
- [8] OP MEMERRS CANNOT WRITE TEMPORARY FILE j
- [9] OP MEMERRS CANNOT CLOSE TEMPORARY FILE j

## 2. REASON FOR OUTPUT

To report a table of interpreted 3B20D/3B21D CU memory errors from MEMLOG. 3B21D CU memory errors are not interpreted because there is only one memory board in each CU.

Format 3 indicates the information message stating that there are no memory errors stored in the log files.

Format 4 indicates that memory error interpretation was requested on 3B21D CU memory errors.

**NOTE:** When a variable has no value, a dash("-") is printed in its place.

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### 3. VARIABLE FIELD DEFINITIONS

|          |                                                                                                                                                                                                                                                                                                                                                                         |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| mm/dd/yy | Date that the memory error occurred. Listed in the form of month/day/year.                                                                                                                                                                                                                                                                                              |
| hh mm    | Time of day of the memory error. Listed in the form of hour and minute.                                                                                                                                                                                                                                                                                                 |
| a        | Control Unit (CU) number of the faulty unit.                                                                                                                                                                                                                                                                                                                            |
| b        | Main store controller of the faulty unit.                                                                                                                                                                                                                                                                                                                               |
| c        | Indicates where the error occurred.<br><br>MY — My store.<br>OTH — Other store.                                                                                                                                                                                                                                                                                         |
| d        | Type of memory error that occurred.<br><br>A — An "or" over several circuit checks resulted in error detection.<br>B — An attempt was made to access an unequipped memory array or module.<br>C — The Hamming check circuitry detected a multi-bit uncorrectable error during a system access of memory.<br>D — A system or refresh access of memory detected an error. |
| e        | Slot number of the faulty data. This number is relative to the CU.                                                                                                                                                                                                                                                                                                      |
| f        | Hexadecimal code identifier for memory devices. This value is only reported on an error D and is used to locate the faulty chip on the array board. The form of this identifier is nnss where ss is the side (A, B, 1A, 1B, 2A, 2B) of the memory device.                                                                                                               |
| g        | Indicates whether the detected error was correctable or uncorrectable.                                                                                                                                                                                                                                                                                                  |
| h        | Indicates whether the error was detected during system or refresh access.                                                                                                                                                                                                                                                                                               |
| i        | The error A interrupt source formed from an "or" of several check circuits internal to the memory controller. The error A source is only output if an error A has occurred.                                                                                                                                                                                             |
| j        | The name of the temporary file.                                                                                                                                                                                                                                                                                                                                         |

### 4. ACTION TO BE TAKEN

If the abort message appears, remove any files in directory tmp of the form MEMERRS-XXXXXX and retry the message.

If the warning message that the slot numbers are invalid appears, the slot numbers in the table cannot be trusted. This message indicates that the Equipment Configuration Database (ECD) cannot be properly accessed; seek technical assistance to rectify this problem. Also, all equipment is assumed to be the same as in CU 0 and only MASC 0 and MASC 1 are allowed for any CU.

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If question marks (?) appear at any place, the data being read is invalid. Output will resume at the next valid entry.

Format 3 is not an error condition. It requires no action.

## **5. REFERENCES**

### **OMDB Keys**

Format 1 has an OMDB key of 428.  
Format 2 has an OMDB key of 427.  
Format 3 has an OMDB key of 429.  
Format 5 has an OMDB key of 598.  
Format 6 has an OMDB key of 597.  
Format 7 has an OMDB key of 600.  
Formats 8 and 9 have an OMDB key of 713.

### **Input Message**

**OP:MEMERRS**

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ID ..... OP:MHD-INFO  
WORK CENTER.. MOC  
GENERIC ..... 4AP17 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP MHD a INFO NOT STARTED b c
- [2] OP MHD a INFO STOPPED b c
- [3] OP MHD a INFO ERROR b c
- [4] OP MHD a INFO ABORTED b
- [5] OP MHD a INFO  
CONTROLLER: DFC d STATUS: e  
FIRMWARE VERSION: f  
PUMPCODE VERSION: f

| UNIT  | DID | PORT | STATUS | TRCKS | VTOC  | USABLE | RSVD  | ESNTL | MATE  |
|-------|-----|------|--------|-------|-------|--------|-------|-------|-------|
| ----- | --- | ---- | -----  | ----- | ----- | -----  | ----- | ----- | ----- |
| MHD g | h   | i    | e      | j     | k     | l      | m     | n     | o     |
| .     |     |      |        |       |       |        |       |       |       |
| .     |     |      |        |       |       |        |       |       |       |
| .     |     |      |        |       |       |        |       |       |       |

| UNIT  | **** EQUIPAGE SIZE **** |       | SIZES |            |
|-------|-------------------------|-------|-------|------------|
|       | DRIVE                   | UCB   | VTOC  | COMPATIBLE |
| ----- | -----                   | ----- | ----- | -----      |
| MHD g | p                       | q     | r     | s          |
| .     |                         |       |       |            |
| .     |                         |       |       |            |
| .     |                         |       |       |            |

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```
[6] OP MHD a INFO
 CONTROLLER: DFC d STATUS: e
 FIRMWARE VERSION: f
 PUMPCODE VERSION: f

 SBUS t SCSI HA BUS u STATUS: e

 UNIT DEVICE TYPE DID STATUS VTOC USABLE RSVD ESNTL MATE

 MHD g v h e k l m n o
 .
 .
 .

 ***** EQUIPAGE SIZE ***** SIZES
 UNIT DRIVE UCB VTOC COMPATIBLE

 MHD g p q r s
 .
 .
 .

 PRODUCT REV SERIAL NUMBER
 UNIT IDENTIFICATION LEVEL

 MHD g w x y
 .
 .
 .
```

## 2. REASON FOR OUTPUT

To report the result of executing an OP:MHD;INFO input message.

Format 5 is used to output data for an Storage Module Device (SMD) Moving Head Disk (MHD).

Format 6 is used to output data for a Small Computer System Interface (SCSI) MHD.

## 3. VARIABLE FIELD DEFINITIONS

- a MHD member number.
- b Process step or reason code:
- f01 — Failed to enable message reception.
  - f03 — Failed to open Equipment Configuration Database (ECD).
  - f06 — Failed to get Unit Control Block (UCB) by name.
  - f08 — Failed to get top UCB.
  - f0a — Top UCB is not a Disk File Controller (DFC).
  - f0c — Unknown DFC type.
  - f0e — Failed to get UCB of SCSI Bus (SBUS).

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- f11 — Failed to assign special device file name for DFC.
  - f14 — Failed to open special device file for DFC.
  - f17 — See Disk Driver (DKDRV) report on the Read Only Printer (ROP).
  - f1a — Failed to close special device file.
  - f1c — Failed to release special device file.
  - f1f — Failed to unreserve DFC UCB.
  - f23 — Failed to get next UCB.
  - f26 — Failed to assign special device file name.
  - f29 — Failed to open special device file.
  - f2c — Failed to set Input / Output (I/O) mode of device file.
  - f2f — Device size not recognized.
  - f33 — See DKDRV report on the ROP.
  - f36 — Failed to close special device file.
  - f37 — Failed to release special device file.
  - f38 — Failed to unreserve device UCB.
  - f3e — Message to port failure.
  - f43 — Message reception failure.
  - f46 — Process timed out.
  - f49 — Failed to close special device file.
  - f4c — Failed to release special device file.
  - f4f — Failed to unreserve UCB.
  - f53 — Failed to close ECD.
  - f56 — Terminated externally with signal.
- c      System error code number. See the System Error Codes Output Appendix, APP:SYSERR.
- d      Member number of controller.
- e      Major status of unit.
- f      DFC firmware/pumpcode version:  
        A.B.C — D  
                A = Version of DFC FIRMWARE/PUMPCODE.  
                B = Issue of DFC FIRMWARE/PUMPCODE.  
                C = Point issue of DFC FIRMWARE/PUMPCODE.  
                D = Laboratory Design Issue (LDI) of DFC FIRMWARE/PUMPCODE.
- NAP — The pumpcode version is not applicable for SMD DFCs.
- NAV — The firmware or pumpcode versions are not available, or cannot be determined.
- g      Unit number.
- h      Device ID (drive ID number).

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- i Physical port where the SMD disk is connected to the DFC:  
NAV — The DFC is not available, or the DFC is reserved, or the SMD DFC firmware/ pumpcode version is earlier than 3.2.0.  
data — Physical port number.
- j Number of tracks on the SMD disk drive:  
NAV — DFC is not available, or the unit is reserved.  
data — Decimal number of disk tracks.
- k Validity of the Volume Table Of Contents (VTOC):  
INVALID — Could not find a valid VTOC entry.  
NAV — Could not reserve unit - VTOC not read.  
UNRDBLE — Read error while trying to read VTOC.  
VALID — VTOC has a valid VTOC entry.
- l Usability:  
NO — Disk data integrity is unknown.  
YES — Disk is considered usable.
- m Unit reserved:  
NO — Unit is not reserved.  
YES — Unit is reserved for maintenance activity.
- n Unit essential:  
data — Hexadecimal value of the essential field of the unit's UCB.
- o Unit's mate:  
SMPLX — Unit has no mate.  
data — Unit name and member number of duplex mate.
- p Equipage size based on the physical drive. For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record:  
160MB — (SMD disk drive)  
300MB — (SMD disk drive)  
322MB — (SCSI disk drive)  
340MB — (SMD disk drive)  
600MB — (SCSI disk drive)  
1000MB — (SCSI disk drive)  
2000MB — (SCSI disk drive)  
NAV — The DFC is not active, or the SCSI device is inaccessible, or the unit is reserved.

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q Equipage size based on the UCB equipage value. The drive size is determined by reading the equipage value in the UCB record for the unit:

160MB — (SMD disk drive)  
 300MB — (SMD disk drive)  
 322MB — (SCSI disk drive)  
 340MB — (SMD disk drive)  
 600MB — (SCSI disk drive)  
 1000MB — (SCSI disk drive)  
 2000MB — (SCSI disk drive)  
 NAV — The DFC is not active, or the unit is reserved.

r Equipage size based on the VTOC. The drive size is derived from the maximum capacity of the unit's VTOC:

160MB — (SMD disk drive)  
 300MB — (SMD disk drive)  
 322MB — (SCSI disk drive)  
 340MB — (SMD disk drive)  
 600MB — (SCSI disk drive)  
 1000MB — (SCSI disk drive)  
 2000MB — (SCSI disk drive)  
 NAV — The DFC is not active, or the unit is reserved, or the unit is inaccessible.

s Sizes compatible:

NAV — At least one of the equipage sizes are not available.

NO — DRIVE, UCB, and VTOC equipage sizes are not compatible.

YES — DRIVE, UCB, and VTOC equipage sizes are compatible.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the LUCENT RTR-supported disk drives are:

| Drive  | Formatted Capacity |
|--------|--------------------|
| 160MB  | 133MB              |
| 300MB  | 253MB              |
| 322MB  | 322MB              |
| 340MB  | 277MB              |
| 600MB  | 604MB              |
| 1000MB | 1000MB             |
| 2000MB | 2000MB             |

t SBUS unit number if the DFC is a SCSI device. Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

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|   |                                                                                                                                                                                                                                                           |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| u | SCSI Host Adapter (HA) bus identification number (0 - 1).                                                                                                                                                                                                 |
| v | Device type.                                                                                                                                                                                                                                              |
| w | Product identification:<br><br>NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.<br><br>data — Alphanumeric data representing the product identification of a SCSI device.                            |
| x | Revision level:<br><br>NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.<br><br>data — Alphanumeric data representing the revision level of the firmware in a SCSI device.                            |
| y | Serial number:<br><br>NAP — Not applicable for this device.<br><br>NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.<br><br>data — Alphanumeric data representing the serial number of a SCSI device. |

#### 4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

For Formats 5 and 6, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, contact the next level of technical assistance.

#### 5. REFERENCES

##### OMDB Keys

Formats 1 through 4 have an OMDB key of 153.

Format 5 has an OMDB key of 151.

Format 6 has an OMDB key of 572.

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Output Appendix  
APP:SYSERR

Input Messages  
OP:DFC-INFO  
OP:MHD-INFO

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ID ..... OP:MT-INFO  
 WORK CENTER.. MOC  
 GENERIC ..... 4AP12 and later  
 APPLICATION .. 4E,3B  
 TYPE ..... Output

## 1. FORMAT

```
[1] OP MT a INFO NOT STARTED b c

[2] OP MT a INFO STOPPED b c

[3] OP MT a INFO ERROR b c

[4] OP MT a INFO ABORTED b

[5] OP MT a INFO
 CONTROLLER: DFC d STATUS: e
 FIRMWARE VERSION: f
 PUMPCODE VERSION: f

 SBUS g SCSI HA BUS h STATUS: e

 UNIT DEVICE TYPE DID STATUS RSVD

 MT i j k e l
 .
 .
 .

 PRODUCT REV
 UNIT IDENTIFICATION LEVEL SERIAL NUMBER

 MT i m n o
 .
 .
 .
```

## 2. REASON FOR OUTPUT

To report the result of executing an OP:MT;INFO input message.

Format 5 is used to output data for a Small Computer System Interface (SCSI) Magnetic Tape (MT) device.

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### 3. VARIABLE FIELD DEFINITIONS

- a MT member number.
- b Process step or reason code:
- f01 — Failed to enable message reception.
  - f03 — Failed to open Equipment Configuration Database (ECD).
  - f06 — Failed to get Unit Control Block (UCB) by name.
  - f08 — Failed to get top UCB.
  - f0a — Top UCB is not a Disk File Controller (DFC).
  - f0c — Unknown DFC type.
  - f0e — Failed to get UCB of Small Computer System Interface Bus (SBUS).
  - f11 — Failed to assign special device file name for DFC.
  - f14 — Failed to open special device file for DFC.
  - f17 — See Disk Driver (DKDRV) report on the Read Only Printer (ROP.)
  - f1a — Failed to close special device file.
  - f1c — Failed to release special device file.
  - f1f — Failed to unreserve DFC UCB.
  - f23 — Failed to get next UCB.
  - f26 — Failed to assign special device file name.
  - f29 — Failed to open special device file.
  - f2c — Failed to set Input / Output (I/O) mode of device file.
  - f2f — Device size not recognized.
  - f33 — See DKDRV report on the ROP.
  - f36 — Failed to close special device file.
  - f37 — Failed to release special device file.
  - f38 — Failed to unreserve device UCB.
  - f3e — Message to port failure.
  - f43 — Message reception failure.
  - f46 — Process timed out.
  - f49 — Failed to close special device file.
  - f4c — Failed to release special device file.
  - f4f — Failed to unreserve UCB.
  - f53 — Failed to close ECD.
  - f56 — Terminated externally with signal.
- c System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- d Member number of controller.
- e Major status of unit.

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- f DFC firmware/pumpcode version:
- NAV — The firmware or pumpcode versions are not available, or cannot be determined.
- A.B.C — D
- A = Version of DFC FIRMWARE/PUMPCODE.  
B = Issue of DFC FIRMWARE/PUMPCODE.  
C = Point issue of DFC FIRMWARE/PUMPCODE.  
D = Laboratory Design Issue (LDI) of DFC FIRMWARE/PUMPCODE.
- g Small Computer System Interface Bus (SBUS) unit number. Logical unit number of the SCSI bus that is stored in the SBUS's UCB.
- h SCSI HA bus identification number (0-1).
- i Unit number.
- j Device type.
- k Device ID (drive ID number).
- l Unit reserved:
- NO — Unit is not reserved.
- YES — Unit is reserved for maintenance activity.
- m Product identification:
- NAP — Not applicable for this device.
- n Revision level:
- NAV — The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.
- data — Alphanumeric data representing the revision level of the firmware in an SCSI device.
- o Serial number:
- NAP — Not applicable for this device.

#### 4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

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## **5. REFERENCES**

### OMDB Keys

Formats 1 through 4 have an OMDB key of 153.

Format 5 has an OMDB key of 695.

### Output Appendix

APP:SYSERR

### Input Messages

OP:DFC-INFO

OP:MHD-INFO

OP:MT-INFO

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:NODES  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] OP NODES DCHN IN PROGRESS  
 NODE LNK MAJ MIN MATE LACID P/S BILL NO FAC CIN  
 aa b c d eee f gg h i j k lll m n o  
 .  
 .  
 .
- [2] OP NODES SADC IN PROGRESS  
 NODE LNK MAJ MIN LACID CIN  
 aa b c d eee f k o  
 .  
 .  
 .
- [3] OP NODES CIT7 IN PROGRESS  
 NODE MAJ MIN FEPC LS SLC CLLI  
 aa b eee f p q r s  
 .  
 .  
 .
- [4] OP NODES CCS7 IN PROGRESS  
 NODE MAJ MIN MATE FEPC LS CLS SLC CLLI  
 aa b eee f gg h p q t r s  
 .  
 .  
 .
- [5] OP NODES HSAL IN PROGRESS  
 NODE MAJ MIN MATE FEPC LS CLS SLC CLLI  
 aa b eee f gg h p q t r s  
 .  
 .  
 .
- [6] OP NODES DLN IN PROGRESS  
 NODE IMS CNI MODE  
 aa b u v w  
 .  
 .  
 .

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- [7] OP NODES EIN/SIN IN PROGRESS  
 NODE N\_M L\_MJR L\_MIN  
 aa b z a1 b1  
 .  
 .  
 .
- [8] OP NODES ATP IN PROGRESS  
 NODE IMS ATP  
 LNaa b x y  
 .  
 .  
 .
- [9] OP NODES c1 IN PROGRESS  
 LNaa b 3B: d1/e1/f1 g1:h1:i1 NODE: j1/k1/l1 m1:n1:o1  
 .  
 .  
 .
- [10] OP NODES COMPLETE[D]

## 2. REASON FOR OUTPUT

Information depends upon the equipment and status of the ring. In addition to the Common Network Interface (CNI) status of the node, the state of each link is given and other pertinent information depending upon the node type and what is defined in the database. If the MAJOR state is unequipped, no other data is given for that node.

If an office does not contain any nodes of a particular type, then no information is given about that node type. If only a specific node type was requested (see OP:NODES input message, Format 2), then only the data for the requested node type is output.

Format 9 prints the information that compares the node software verses the 3B version of the software.

## 3. VARIABLE FIELD DEFINITIONS

|     |                                                               |
|-----|---------------------------------------------------------------|
| aa  | Group number of the node (00-63).                             |
| b   | Member number of the node (1-15).                             |
| c   | Link Interface (LI) board number (0-1).                       |
| d   | Port number (0-3).                                            |
| eee | CNI major state (AVL   UNA   UNE   UNK).                      |
| f   | CNI minor state (GROW   IS   MOOS   OOS   STBY   TEST   UNK). |
| gg  | Mate group number.                                            |
| h   | Mate member number                                            |

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|       |                                                                                                  |
|-------|--------------------------------------------------------------------------------------------------|
| i     | Mate LI board number.                                                                            |
| j     | Mate port number.                                                                                |
| k     | Logical circuit identification (ID) number.                                                      |
| l l l | Primary / secondary / simplex field (PRI   SEC   SIM).                                           |
| m     | 10-digit billing number.                                                                         |
| n     | Facility ID number.                                                                              |
| o     | Circuit ID number.                                                                               |
| p     | Far end point code number.                                                                       |
| q     | Link set number.                                                                                 |
| r     | Signaling link control number.                                                                   |
| s     | Common Language Location Indicator number.                                                       |
| t     | Combined link set number.                                                                        |
| u     | Interprocess Message Switch (IMS) Direct Link Node (DLN) state of the node (ACT   OOS).          |
| v     | CNI DLN state of the node (ACT   OFFLINE   OOS   STBY).                                          |
| w     | CNI DLN mode for the node (1WAYIN   1WAYOUT   GROWTH   TWOWAY).                                  |
| x     | IMS state of the node (ACT   OOS).                                                               |
| y     | AT&T Trigger Platform (ATP) state of the node (ACT   BACKUP   DBPUMP   INIT   OOS   STBY   UNK). |
| z     | State of the node (ACT   GROW   INIT   OOS   UNEQUIP).                                           |
| a1    | Major state of the link (AVL   UNA   UNE).                                                       |
| b1    | Minor state of the link (GROW   IS   MOOS   OOS   STBY   UNEQUIP).                               |
| c1    | Node type: ATP, CCS7, CIT7, DCHN, DLN, EIN/SIN, HSAL, and SADC.                                  |
| d1    | Month of time stamp for the 3B file.                                                             |
| e1    | Day of time stamp for the 3B file.                                                               |
| f1    | Year of time stamp for the 3B file.                                                              |
| g1    | Hour of time stamp for the 3B file.                                                              |
| h1    | Minutes of time stamp for the 3B file.                                                           |
| i1    | Seconds of time stamp for the 3B file.                                                           |
| j1    | Month of time stamp for the node file.                                                           |
| k1    | Day of time stamp for the node file.                                                             |
| l1    | Year of time stamp for the node file.                                                            |
| m1    | Hour of time stamp for the node file.                                                            |

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|    |                                          |
|----|------------------------------------------|
| n1 | Minutes of time stamp for the node file. |
| o1 | Seconds of time stamp for the node file. |

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Message  
OP:NODES

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## 1. FORMAT

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**September 2001**

```

c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d
c d d d d d d d d d d d d d d d d

```

[2] Output format when FILE is specified on the command line.

A. Rop data output format.

The rop format for the OP:NPMEM command when FILE is the argument to the NPMEM keyword follows:

OP NPMEM FILE {RPCNx 0 | LNx y} a

n BYTES OUTPUT IN FILE - p f

B. File data output format

The file memory or port data dump is blocked by request. All data pertaining to that request will be contained within a single block. The block of data will be preceded by a date time stamp and the type, group and position of the node. All data dump requests for a node is appended to one file (provided that the directory for file placement doesn't change). Therefore, a file can contain multiple dump requests. The maximum number of bytes per line of data dump is 16.

The format of the file produced for the OP:NPMEM command when FILE is the argument to the NPMEM keyword follows:

```

t
[AP] {RPCNx 0 | LNx y}
b

```

```

c d

```

[3] Output format when FILEROP is specified on the command line.

A. Rop data output format.

The memory data dump is blocked into 432 or smaller byte blocks for memory or port dumps. Dumps greater than 432 bytes will result in multiple blocks of output data.

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The memory/port data dump format for a full 432 bytes block is as follows:

b

[illegible]

n BYTES OUTPUT IN FILE - p f

The file format for the **OP:NPMEM** command when **FILEROP** is the argument to the **NPMEM** keyword is the same as when the argument is **FILE**.

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**September 2001**

[4] Output format when RAW3B or RAW80 is specified on the command line.

A. Rop data output format.

The rop format for the OP:NPMEM command when RAW3B or RAW80 is the argument to the NPMEM keyword follows:

OP NPMEM r {RPCNx 0 | LNx y} a

n BYTES OUTPUT IN FILE - p g

B. File data output format

The file memory or port data dump is grouped by request. All data pertaining to that request will be contained within a single grouping.

The data part of the dump will be preceded by a header which contains a date time stamp; the type, group and position of the node; the start address of the data dumped and the total number of bytes dumped.

The date time stamp and node type, group and position will be in ASCII. The start address, total bytes dumped and dumped data will be in binary.

The data portion of the dump is byte ordered according to the target machine's byte ordering.

All data dump requests for a node is appended to one file (provided that the directory for file placement doesn't change). Therefore, a file can contain multiple dump requests.

The format of the file produced for the OP:NPMEM command when RAW3B or RAW80 is the argument to the NPMEM keyword follows:

t  
[AP] {RPCNx 0 | LNx y}  
h q k

[5] No data output format.

This format may be output by itself or accompany Formats [1], [2], [3], or [4].

OP NPMEM STOPPED  
e

## 2. REASON FOR OUTPUT

The OP-NPMEM output message is in response to the OP:NPMEM input message and provides the data dump of memory or port locations from a node processor (NP) or an attached processor (AP).

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### 3. VARIABLE FIELD DEFINITIONS

- a Termination code.  
{STARTED | IN PROG | COMPL}
- b MADDR — Node processor memory.  
BPORT — Byte port.  
APADDR — Attached processor memory.
- x The Ring Node (RN) group number (00-63).
- y The node position in the RN group (0-15).
- c Start address in hex of the first byte of NP memory or port represented on this line.
- d Contents of the indicated byte in node memory / port in hex.
- e One of several explanations that can appear in describing the reason for stopping. Most reasons are self explanatory. Examples of error outputs and their meanings follow:
- ?E — The basic format of the message appears correct, however, further checks have revealed an inconsistency and the fields in error cannot be identified. This acknowledgment is used only when system design limitations make further error isolation impractical.
- Additional output that can accompany the ?E output -  
CFTSHL UNABLE TO MATCH COMMAND X.
- ?I — The message contains an error in the identification field of the message. This could mean that an improper character(s) or out-of-range numeric was entered or that a field, sub-field or keyword delimiter was omitted. It may also result from an invalid association of the identification field contents with the action field.
- Additional output that can accompany the ?I output
- INVALID KEYWORD: X  
VALID KEYWORDS: AA BB CC
  - MISSING DATA FOR KEYWORD: X
  - RANGE ERROR IN X; RANGE(0-X'FFFF)
  - RANGE ERROR IN X; RANGE(1-1024)
  - RANGE ERROR IN X; RANGE(1-60)
  - RANGE ERROR IN X; RANGE(0-15)
  - RANGE ERROR IN X; RANGE NEGATIVE
  - RANGE ERROR IN X; MADDR PLUS NBYTES  
EXCEEDS NP MEMORY
  - INPUT ERROR; BAD NODE NAME< X >
  - INPUT ERROR; < X > UNEXPECTED HERE
  - INPUT ERROR; GROUP NAME < X > MISSING
  - INPUT ERROR; GROUP NAME < X > TOO LONG

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PF — The request was received and will be processed. A printout will follow giving either a termination report or termination report and results of the work initiated by the input message.

Additional output that can accompany the PF output

- OP NPMEM X STOPPED  
BAD NODE NAME< X >
- OP NPMEM X STOPPED  
NODE CAN'T BE UNQUARANTINED - IN  
NP FLTY STATE
- OP NPMEM X STOPPED NODE CAN'T BE  
UNQUARANTINED - IN RI QUSBL STATE
- OP NPMEM X STOPPED REQUESTED NODE DOES  
NOT HAVE A KNOWN AP
- OP NPMEM X STOPPED REQUESTED NODE DOES  
NOT HAVE A KNOWN NP
- OP NPMEM X STOPPED REQUESTED AP CAN NOT  
DUMP WHEN NOT ACTIVE
- OP NPMEM X STOPPED CAN'T DUMP PORT ON  
ACTIVE NODE
- OP NPMEM X STOPPED RANGE ERROR: APADDR  
WITH NBYTES > 63488
- OP NPMEM X STOPPED RANGE ERROR: MADDR  
PLUS NBYTES EXCEEDS MEMORY
- OP NPMEM X STOPPED RANGE ERROR: APADDR  
PLUS NBYTES EXCEEDS MEMORY
- OP NPMEM X STOPPED RANGE ERROR: APADDR =  
X EXCEEDS MEMORY
- OP NPMEM X STOPPED X : MJ=UNEQ
- OP NPMEM X STOPPED TIME OUT WHILE  
AWAITING REPLY FROM NODE READ

|   |                                                                                                                         |
|---|-------------------------------------------------------------------------------------------------------------------------|
| n | The total number of bytes dumped to the file.                                                                           |
| p | The path to the file data was placed. The default path for file placement is "/etc/log/".                               |
| f | The file name where data is placed D.{RPCN   LN}x_y.                                                                    |
| g | The file name where data is placed DR.{RPCN   LN}x_y.                                                                   |
| r | RAW3B or RAW80 depending on the request made.                                                                           |
| t | The date time stamp when data was dumped to the file. The RTR ctime() interface was used to format the date time stamp. |
| h | Start address of the first byte of memory or port represented in this group of data.                                    |
| q | The total number of data bytes contained in that grouping.                                                              |
| k | Contents of the indicated byte in node memory / port in binary.                                                         |

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**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Message  
OP : NPMEM

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ID ..... OP:OFL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP OFL MESSAGE STARTED  
UNIT MTCE INH DGN  
a b [ c d ] e f g
- [2] OP OFL COMPLETED
- [3] OP OFL INTERFACE ERROR, ERRNO=h
- [4] OP OFL NOT STARTED  
INVALID DATA FIELD
- [5] OP OFL NOT STARTED  
RETRY LATER
- [6] OP OFL IN PROGRESS  
a b [ c d ] e f g
- [7] OP OFL RETRY LATER i
- [8] OP OFL WRITE TO j  
FAILED ON KEY #k

## 2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:OFL input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name. Computer unit names are listed in the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- b Unit number. See the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- c Subunit name, if subunit name is CU, CU subunit names are listed in Member Numbers Output Appendix D, APP:MEM-NUM-D.
- d Subunit number. See the Member Numbers Output Appendix C, APP:MEM-NUM-C.

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- e The current maintenance state of the unit is indicated by the identifiers:
- ACT — Active units.
  - GROW — Units being grown.
  - INIT — Initializing units.
  - OFL — Offline units.
  - OOS — Out-of-service units.
  - STBY — Standby units.
  - UNAV — Unavailable units.
  - UNEQIP — Unequipped units.
- f Indicates the current inhibit status of the associated error source:
- ALW — Allowed.
  - INH — Inhibited.
- g Results of the last diagnostic on the unit:
- ABT — Aborted diagnostics.
  - ATP — All tests passed.
  - CATP — Conditional all tests passed.
  - NTR — No tests were run.
  - STF — Some test failed.
- h Error number:
- 9 — Cannot attach to plant measurement library.
  - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
  - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i Retry the command later for the reasons:
- CANNOT CREATE FILE IN /tmp
  - CANNOT GET DATABASE RECORD ID
  - CANNOT SEQUENCE DATABASE
- j Temporary output file name.
- k Key associated with write failure.

#### 4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 49 and 477.  
Format 2 has OMDB keys of 50 and 478.  
Format 3 has OMDB keys of 51 and 479.  
Format 6 has OMDB keys of 580 and 582.  
Format 7 has OMDB keys of 588 and 589.  
Format 8 has an OMDB key of 656.

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Output Appendixes  
APP:MEM-NUM-C  
APP:MEM-NUM-D

Input Messages  
OP:ACT  
OP:CFGSTAT  
OP:GROW  
OP:INIT  
OP:OFL  
OP:OOS  
OP:STBY  
OP:UNAV  
OP:UNEQIP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:OMDB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP OMDB COMPLETED
- [2] OP OMDB NO DATABASE ENTRY FOUND FOR THE  
FOLLOWING KEYS:  
    b
- [3] OP OMDB FAILED  
UNABLE TO ACCESS /cft/spl/omdb
- [4] OP OMDB FAILED
- [5] OP OMDB ABORTED  
UNABLE TO CREATE TEMP FILE
- [6] OP OMDB a  
KEY      MSG\_CLASS   ALARM   TEXT  
c          d          e      f
- [7] OP OMDB ABORTED  
UNABLE TO SEND REQUEST TO CSOP
- [8] OP OMDB NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS g

## 2. REASON FOR OUTPUT

To report the result of executing an OP : OMDB input message.

## 3. VARIABLE FIELD DEFINITIONS

- a          DISK for Output Message Database (OMDB) disk file or ACT for active OMDB.
- b          List of message keys for which the OP : OMDB failed.
- c          Message key that was requested. There will be one line in the report for each key requested.
- d          Numeric value of the message class associated with the message for the message key.

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- e Alarm level associated with the message for the message key:
- ACT
  - CRIT
  - MAJ
  - MAN
  - MIN
  - INFO
  - VAR
- f Up to 40 characters of the text associated with the message for the message key. The text shown in this report may include "%" characters. These characters indicate that variable data will be passed by the requesting process when this message is to be formatted and spooled.
- g Further explanation of error:
- INVALID KEY
  - INVALID OMDB COPY
  - SYNTAX ERROR
  - TOO MANY KEYS

#### 4. ACTION TO BE TAKEN

Format 1 indicates success.

For format 2, verify that the key(s) was entered correctly.

For format 3, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the `OP:ST-LISTDIR` command for `/cft/spl/omdb`.

For format 4, verify that the OMDB disk file (`/cft/spl/omdb`) is there. If the file is there, run the `ACTV:OMDB` command. If that does not solve the problem, attempt a craft initialization. If the file is not on the disk, restore the file and then run `ACTV:OMDB`.

Format 5 indicates a possible file system problem, such as lack of available disk space.

Format 6 indicates successful execution of the command.

For format 7, verify that the Coordinator Of Spooler Output Processes (CSOP) is running.

For format 8, verify that the input message was entered correctly.

#### 5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 5.

Format 2 has an OMDB key of 7.

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Format 5 has an OMDB key of 10.  
Format 6 has an OMDB key of 6.  
Format 7 has an OMDB key of 118.

Input Messages

ACTV:OMDB

OP:OMDB

OP:ST-LSTDIR

UPD:OMDB

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ID ..... OP:OOS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP OOS MESSAGE STARTED  
UNIT MTCE INH DGN  
a b [ c d ] e f g
- [2] OP OOS COMPLETED
- [3] OP OOS INTERFACE ERROR, ERRNO=h
- [4] OP OOS NOT STARTED  
INVALID DATA FIELD
- [5] OP OOS NOT STARTED  
RETRY LATER
- [6] OP OOS IN PROGRESS  
a b [ c d ] e f g
- [7] OP OOS RETRY LATER i
- [8] OP OOS WRITE TO j  
FAILED ON KEY #k

## 2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:OOS input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name. AM unit names are listed in the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- b Unit number. See the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- c Subunit name, if subunit name is CU, Control Unit (CU) subunit names are listed in the Member Numbers Output Appendix D, APP:MEM-NUM-D.

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- d Subunit number. See the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- e The current maintenance state of the unit is indicated by the identifiers:
- ACT — Active units.
  - GROW — Units being grown.
  - INIT — Initializing units.
  - OFL — Offline units.
  - OOS — Out-of-service units.
  - STBY — Standby units.
  - UNAV — Unavailable units.
  - UNEQIP — Unequipped units.
- f Unit status:
- ALW — Allowed.
  - INH — Inhibited.
- g Result of the last diagnostic on the unit:
- ABT — Aborted diagnostics.
  - ATP — All tests passed.
  - CATP — Conditional all tests passed.
  - NTR — No tests were run.
  - STF — Some test failed.
- h Error number:
- 9 — Cannot attach to plant measurement library.
  - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
  - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i Retry the command later for the reasons:
- CANNOT CREATE FILE IN /tmp
  - CANNOT GET DATABASE RECORD ID
  - CANNOT SEQUENCE DATABASE
- j Temporary output file name.
- k Key associated with write failure.

#### 4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

#### 5. REFERENCES

##### OMDB Keys

- Format 1 has OMDB keys of 49 and 477.
- Format 2 has OMDB keys of 50 and 478.
- Format 3 has OMDB keys of 51 and 479.
- Format 6 has OMDB keys of 580 and 582.

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Format 7 has OMDB keys of 588 and 589.  
Format 8 has an OMDB key of 656.

Output Appendixes

APP:MEM-NUM-C

APP:MEM-NUM-D

Input Messages

OP:ACT

OP:CFGSTAT

OP:GROW

OP:INIT

OP:OFL

OP:OOS

OP:STBY

OP:UNAV

OP:UNEQIP

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ID ..... OP:OUTCLS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E, CNI  
TYPE ..... Output

## 1. FORMAT

- [1] OP OUTCLS a STARTED  
CLASS a  
DEVICE b b b b b  
      b b b b b  
      b b b b b  
      b b b b b  
OP OUTCLS a COMPL
- [2] OP OUTCLS a STARTED  
DESTINATION a IS NOT EQUIPPED  
  
OP OUTCLS a COMPL
- [3] OP OUTCLS ALL IN PROG  
CLASS a  
DEVICE b b b b b  
      b b b b b  
      b b b b b  
      b b b b b  
  
CLASS a  
DEVICE b b b b b  
      b b b b b  
      b b b b b  
      b b b b b  
  
OP OUTCLS ALL COMPL
- [4] OP OUTCLS ALL IN PROG  
NO DESTINATIONS ARE EQUIPPED  
  
OP OUTCLS ALL COMPL

## 2. REASON FOR OUTPUT

Output formats [1] and [2] are in response to input command OP:OUTCLS, and output formats [3] and [4] are in response to input command OP:OUTCLS (with ALL option).

If all output classes were requested, then the class/device information will be displayed for each output class in the Equipment Configuration Database (ECD). The number of devices assigned to an output class can vary from one to twenty. Only the assigned device names will be displayed from left to right and top to bottom.

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Each IN PROG output will contain a maximum of ten classes meaning there will be multiple IN PROG outputs if there are more than ten classes.

### **3. VARIABLE FIELD DEFINITIONS**

- a                      Output class: {0-255}
- b                      Device name: 1-9 text characters.

### **4. ACTION TO BE TAKEN**

None.

### **5. REFERENCES**

Input Message  
OP:OUTCLS

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:PMCR  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP PMCR ERROR abbc[,ERRNO = {d|e|f|g|h|i}]
- [2] OP PMCR INFO abbc

## 2. REASON FOR OUTPUT

To report errors encountered during the execution of the processes which comprise the Plant Measurements Common Report (PMCR) capability.

The error code is a four-digit error code. This code consists of a one-digit number which indicates the PMCR process in which the error was detected, a two-digit number which indicates the error type, and a one-digit number which shows the location of the error within the specific process. The last digit is necessary for field support and is only used by developers. Therefore, all possible values and their meanings are not documented.

## 3. VARIABLE FIELD DEFINITIONS

- a Process values (first digit):
- 1 — PMCR craft interface
  - 2 — PMCR manager
  - 3 — PMCR collector
  - 4 — PMCR report generator
- bb Error-type values (second and third digits):
- 00 — User is not allowed to request scheduled report. This message comes from PMCR craft interface as ERROR 1001.
  - 01 — Could not connect to system port.
  - 02 — Could not send or receive message.
  - 03 — Failed plib call.
  - 04 — Failed pl\_init call.
  - 05 — Failed pl\_attrec call.
  - 06 — Failed pl\_update call.
  - 07 — Failed pl\_read call.
  - 08 — Failed lla\_iatt call.
  - 09 — Failed lla\_irel call.
  - 10 — Failed lla\_rdget call.
  - 11 — Failed lla\_opensq call.
  - 12 — Failed lla\_nextseq call.
  - 13 — Could not execute PMCR collector or PMCR report generator.
  - 14 — Could not get ECD segments.
  - 15 — Could not get reporting office name from ECD.

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- 16 — Computation of maintenance usage time for the specified unit resulted in a time greater than 86,400 seconds (one day), or in a negative value.
  - 17 — Bad arguments received by PMCR report generator.
  - 18 — Spool error during output of report.
  - 19 — No data has been collected to output a retained/demand report. Requesting a daily retained report should not be attempted until after a scheduled daily report has been generated. Requesting an hourly retained report should not be attempted until after a scheduled hourly report has been generated. Demand reports should not be attempted until at least one hour after a valid scheduled daily report has been generated.
  - 22 — PMDB initialization time reset to current time.
  - 23 — Start time reset to 0.
  - 24 — Start time reset to current time.
  - 25 — Change reason for start time and reset start time to 0.
  - 26 — Start time reset to top unit start time.
  - 27 — Change reason for start time to top unit reason and reset start time to top unit start time.
  - 28 — Hour limit exceeded - time reset to one hour.
  - 29 — Negative time count time reset to 0.
  - 30 — Day limit exceeded - time reset to one day.
  - 31 — The current value (for example, alarm count) is less than count recorded from previous hour, or previous count was invalid.
  - 32 — Open of /etc/log/pmcrlog file failed.
  - 33 — Could not execute pmdbcoppy.
  - 34 — Unrecognized UCB status.
  - 35 — Failed malloc call.
  - 36 — Failed lla\_gtrid call.
  - 37 — Plant Measurements audit record deleted.
  - 38 — Bad arguments supplied to pmcrman via the "PMCRMAN" ULARP form. There should be no more than two arguments to pmcrman. The arguments should be a number (0-23) indicating the time the daily reports should be generated and/or "NEF". "NEF" is used by 5E International which uses the eaiopt fields differently than expected.
- c      Process location value (fourth digit). Possible values and meanings are not documented because this digit is necessary for field support and is only used by developers.
- d      Error code returned by the failing function call. If the error code is x01x, x02x, x03x, x13x, x14x, x15x, x16x, x181, or x182, see the System Error Codes Output Appendix, APP:SYSERR.
- e      Error code returned by the failing function call. If the error code is x04x, x05x, x06x, or x07x, this variable is the plant measurements error code number.

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- |   |                                                                                                                                                                                    |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| f | Error code returned by the failing function call. If the error code is x17x or x183, this variable is the value of the bad arguments passed to the function or process.            |
| g | Error code returned by the failing function call. If the error code is x34x, this variable is the invalid UCB status.                                                              |
| h | Error code returned by the failing function call. If the error code is x37x, this variable is the deleted audit record.                                                            |
| i | Error code returned by the failing function call. If the error code is x08x, x09x, x10x, x11x, x12x, x19x, x35x, x36x, x37x, or x38x this variable does not specify an error code. |

#### 4. ACTION TO BE TAKEN

For error messages x22x through x31x, see /etc/log/pmcrllog for record name information. These error messages indicate that the count or time for the unit may not be valid. Since these errors are corrected by pmcrman, they are for information only and require no further action. Some of these errors may be seen at boot time or after stopping Off Line Boot (OFLBOOT).

The log file (/etc/log/pmcrllog) is reset each time a scheduled report runs.

For all other errors, the table shows the action to be taken based on the error code. In all instances, seek technical assistance if the error persists.

If x01x is the error code, Request output of scheduled reports to be turned on by using OP:PMCR;TYPE STAT input command. Then scheduled hourly reports will be printed at the end of the hour, and daily at the end of the day.

If x01x is the error code, Check port 27, using the OP:STATUS;PORTS input message, to see if another process has control of the port.

If x02x is the error code, Check that the correct OP:PMCR input message was entered. Request output of scheduled reports to be turned on by using OP:PMCR.

If x03x - x07x is the error code, Check the usability of the plant measurements database.

If x08x - x12x is the error code, Check the usability of the ECD.

If x13x is the error code, Check the usability of the PMCR processes.

If x14x - x15x is the error code, Check the usability of the ECD.

If x16x is the error code, Check system clock versus last clean report.

If x17x is the error code, Check that the correct OP:PMCR input message was entered.

If x18x - x19x is the error code, No action can be taken.

If x32x is the error code, Check that the /etc/log/ directory has read/write/search permission, that the etc/log/pmcrllog file (if it exists) has write permission, and that free blocks and i-nodes are available on the file system.

If x33x is the error code, Check that the /prc/pmdbcopy file exists and is executable.

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If x34x - x35x is the error code, Seek technical assistance if the error persists.

If x36x is the error code, Check the usability of the ECD.

If x37x is the error code, No action to be taken.

If x38x is the error code, Check the "PMCRMAN" ULARP form to ensure the arguments are correct. Seek technical assistance if necessary.

## **5. REFERENCES**

### OMDB Key

Format 1 has an OMDB key of 213.

Format 2 has an OMDB key of 319.

### Output Appendix

APP:SYSERR

### Input Messages

OP:PMCR

OP:ST-PORTS

### Output Message

REPT:OP-PMCR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:RCAS-FILES  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

OP RCAS FILES COMPLETED

RCAS FILES STATUS

| PATHNAME | STATUS | READS/BYTES | WRITES/BYTES |
|----------|--------|-------------|--------------|
| a        | b      | c/d         | e/f          |

## 2. REASON FOR OUTPUT

To report the status of RCAS files.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                       |
|---|-----------------------------------------------------------------------|
| a | Pathname of the file. Possible values: /dev/1afile0 1, and /dev/odad. |
| b | File status.                                                          |
| c | Number of reads.                                                      |
| d | Number of bytes read.                                                 |
| e | Number of writes.                                                     |
| f | Number of bytes written.                                              |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
OP:RCAS

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:RCAS-MEAS  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

OP RCAS MEAS COMPLETED

RCAS MEAS REPORT

| NAME | VALUE |
|------|-------|
| a    | b     |

## 2. REASON FOR OUTPUT

To report the status of RCAS meas .

## 3. VARIABLE FIELD DEFINITIONS

|   |                           |
|---|---------------------------|
| a | Name of the measurement.  |
| b | Value of the measurement. |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
OP:RCAS

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:RCAS-TASKS  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

OP RCAS TASKS COMPLETED

TASK CONTROL BLOCK (TCB) STATUS

| TCB | STATUS | PROCID | NAME | STACK | SWITCHES |
|-----|--------|--------|------|-------|----------|
| a   | X'b    | X'c    | X'd  | X'e   | f        |

## 2. REASON FOR OUTPUT

To report the status of RCAS tasks.

## 3. VARIABLE FIELD DEFINITIONS

- a Task control block (tcb) number. Possible values: 0 through 15.
- b Task status. Representation of bits:
- 0x0 — tcb slot is available.
  - 0x1 — tcb slot is in use.
  - 0x2 — tcb is ready to run.
  - 0x4 — tcb is currently running.
  - 0x8 — tcb is to be torn down.
  - 0x10 — tcb is timing.
  - 0x20 — tcb is starting.
  - 0x40 — tcb is expecting an RTR msg stimulus.
  - 0x80 — tcb is expecting an INT msg stimulus.
  - 0x100 — tcb is expecting an ACK msg stimulus.
  - 0x200 — tcb is expecting WAKEUP event
  - 0x400 — tcb is expecting SHUTDOWN event
  - 0x800 — tcb is expecting user event 1.
  - 0x1000 — tcb is expecting user event 2.
  - 0x2000 — tcb is expecting user event 3.
  - 0x4000 — tcb is waiting for an audit to be dispatched.
- c Procedure ID. Byte representation:
- First byte (leftmost) — Zero value.
  - Second byte — Procedure number.
  - Third byte — tcb number.
  - Fourth byte (rightmost) — Incarnation bit.
- Procedure ID equal to zero implies null procedure.

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|   |                                         |
|---|-----------------------------------------|
| d | Procedure name.                         |
| e | Stack address.                          |
| f | Number of switches made by the process. |

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

Input Message  
OP:RCAS

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:REXINH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP REXINH {COMPLETED|IN PROGRESS}  
[a] REX INHIBITS  
[b c]  
.  
.  
.  
[REX INHIBITED IN DMQ |  
REX DMQ STATUS NOT AVAILABLE]
- [2] OP REXINH CANNOT OPEN d
- [3] OP REXINH NOT STARTED  
INVALID DATA FIELD
- [4] OP REXINH NOT STARTED  
RETRY LATER
- [5] OP REXINH CANNOT WRITE TO d  
WITH MESSAGE FROM KEY # e

## 2. REASON FOR OUTPUT

Format 1 is printed in response to an OP:REXINH input message. This message reports either the temporary routine exercise inhibits or the permanent routine exercise inhibits if the PERM option was specified on the input message. The INH:REX input message temporarily inhibits routine exercises from hardware communities. The INH:DMQ input message can temporarily inhibit honoring routine exercise process maintenance requests. This message reports if routine exercises are inhibited in the Diagnostic Maintenance Queue (DMQ) or if the DMQ cannot be accessed as part of temporary routine exercise inhibits. DMQ inhibits may be verified by using the OP:DMQ input message. Permanent routine exercise inhibits are established for hardware communities by a field in the Equipment Configuration Database (ECD).

Format 2 could not open temporary file used for sending report data to Coordinator of Spooler Output Processes (CSOP) - no report is generated.

## 3. VARIABLE FIELD DEFINITIONS

- |             |                                    |
|-------------|------------------------------------|
| COMPLETED   | Entire report has been processed.  |
| IN PROGRESS | Report has not yet been completed. |

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- a REX inhibits:
- NO — There are no temporary REX inhibited hardware communities and REX is not inhibited in the DMQ.
- NO PERMANENT — There are no permanent REX inhibited hardware communities.
- PERMANENT — There are permanent REX inhibited hardware communities, followed by a list of the permanent REX inhibited hardware communities.
- (blank) — There are temporary REX inhibited hardware communities or REX is inhibited in the DMQ, followed by a list of the temporary REX inhibits.
- b Unit name.
- c Unit number.
- d Temporary output file name.
- e Key associated with write failure.

#### 4. ACTION TO BE TAKEN

None.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 24.  
Format 2 has an OMDB key of 25.  
Format 3 has an OMDB key of 650.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

##### Input Messages

ALW:DMQ-A  
ALW:REX  
INH:DMQ-A  
INH:REX  
OP:DMQ  
OP:REXINH

##### Output Message

OP:DMQ

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ID ..... OP:RING  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] OP RING COMPL  
RING STAT: a [- ERROR THRESHOLD EXCEEDED]  
[EXCEEDED]  
[BISO: LNb c EISO: LNb c]
- [2] OP RING COMPL  
RING STAT: a [- ERROR THRESHOLD EXCEEDED]  
[EXCEEDED]  
[BISO: LNb c EISO: LNb c]
- GRP
- |                    |                    |                    |
|--------------------|--------------------|--------------------|
| 00 ddddddddddddddd | 01 ddddddddddddddd | 02 ddddddddddddddd |
| [eeeeeeeeeeeeeeee] | [eeeeeeeeeeeeeeee] | [eeeeeeeeeeeeeeee] |
| 03 ddddddddddddddd | 04 ddddddddddddddd | 05 ddddddddddddddd |
| [eeeeeeeeeeeeeeee] | [eeeeeeeeeeeeeeee] | [eeeeeeeeeeeeeeee] |
| .                  | .                  | .                  |
| .                  | .                  | .                  |
| 24 ddddddddddddddd | 25 ddddddddddddddd | 26 ddddddddddddddd |
| [eeeeeeeeeeeeeeee] | [eeeeeeeeeeeeeeee] | [eeeeeeeeeeeeeeee] |
| .                  | .                  | .                  |
| .                  | .                  | .                  |
| 60 ddddddddddddddd | 61 ddddddddddddddd | 62 ddddddddddddddd |
| [eeeeeeeeeeeeeeee] | [eeeeeeeeeeeeeeee] | [eeeeeeeeeeeeeeee] |
| 63 ddddddddddddddd |                    |                    |
| [eeeeeeeeeeeeeeee] |                    |                    |
- [3] OP RING LNb c COMPL  
LNb c: MJ = f ; NM = g ; RI = h ; NP =i ; EMSB = j  
k
- [4] OP RING RPCNb 0 COMPL  
RPCNb 0: MJ = f ; NM = g ; RI = h ; NP =i  
k
- [5] OP RING GRP b COMPL  
RPCNb 0: MJ = f ; NM = g ; RI = h ; NP =i  
k  
LNb c: MJ = f ; NM = g ; RI = h ; NP =i ; EMSB = j  
k

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- [6] OP RING LNb c COMPL  
IMS GENERIC RELEASE l  
LNb c HOME RPC = {NONE|m}  
LNb c PRESENT LOAD TO 3B = n  
GENERIC SPEC FILE ACCORDING TO IUN:  
NP GENERIC SPEC FILE o CONTENTS:  
{ {p q r|s t u|G v v}} w | NOT AVAILABLE }  
{ . . . }  
{ . . . }  
[AP GENERIC SPEC FILE x CONTENTS:  
{ {p q r|s t u|G v v}} w | NOT AVAILABLE }  
{ . . . }  
{ . . . }]
- GENERIC SPEC FILE ACCORDING TO ECD:  
NP GENERIC SPEC FILE o CONTENTS:  
{ {p q r|s t u|G v v}} w | NOT AVAILABLE }  
{ . . . }  
{ . . . }  
[AP GENERIC SPEC FILE x CONTENTS:  
{ {p q r|s t u|G v v}} w | NOT AVAILABLE }  
{ . . . }  
{ . . . }]
- [7] OP RING RPCNb 0 COMPL  
IMS GENERIC RELEASE l  
RPCNb 0 HAS y NODES ASSIGNED  
GENERIC SPEC FILE ACCORDING TO ECD:  
NP GENERIC SPEC FILE o CONTENTS:  
{ {p q r|s t u|G v v}} w | NOT AVAILABLE }  
{ . . . }  
{ . . . }
- [8] OP RING STOPPED  
{z| RING STATE CHANGED! ORIG: a1. CURR: a1.}

## 2. REASON FOR OUTPUT

The OP:RING output message is in response to an OP:RING input message and provides status and generic information of specific ring nodes, groups of ring nodes, or the entire ring in general.

Format 1 provides a general summary output.

Format 2 provides a detailed summary output. The example shows the output of all the ring nodes as if the option ALL was entered. If the option ALL was not entered then only the lines containing the equipped ring nodes will be output (This is the default condition).

Formats 1 and 2 also provide the status of Ring Error Analysis threshold.

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Ring Error Analysis and Recovery (EAR) operates in one of two modes. In the "stable" mode, EAR assumes that all ring failure events are transient in nature. Consequently, on a ring failure, the first recovery action attempted is to restore the ring to the configuration that existed before the ring failure occurred (via EAR recovery level 0). If this fails, EAR will escalate to a recovery action that usually isolates the faulty portion of the ring (via EAR recovery level 1 or 3).

EAR will keep track of the number of ring failures that occur. If the failure rate in a given time interval becomes excessive, EAR will switch its mode of operation to the "quasi-unstable" or seemingly-unstable mode. In this mode, EAR assumes that all ring failure events are not transient in nature. The first recovery action attempted then will usually isolate the faulty portion of the ring (via EAR recovery level 1 or 3). Once in the quasi-unstable mode of operation, EAR will automatically switch back to the stable mode when the ring has remained error free for a specified time interval. Formats 1 and 2 indicate "ERROR THRESHOLD EXCEEDED" when EAR is operating in the quasi-unstable mode.

Formats 3 and 4 are a single ring node output.

Format 5 is a ring node group output. (This is the same output as Format 3 and 4 but for all the ring nodes in a requested ring node group.)

Format 6 provides generic information for an Link Node (LN) ring node. An attempt will be made to print both the generic spec file according to the Interprocess Message Switch User Node (IUN) and according to the Equipment Configuration Database (ECD). These may or may not be the same, depending upon how the IUN was restored.

Each IUN has a Node Processor (NP), thus the NP generic spec file contents will be printed if possible. A given IUN may or may not have an Attached Processor (AP). If the IUN has an AP the contents to the AP generic spec file will be printed if possible.

If it is impossible to determine the generic spec file name according to the IUN, e.g., the IUN is out of service or the IUN did not respond to generic spec. file query request, the generic spec. file name will be printed as blank (null) string and the phrase NOT AVAILABLE will also be printed. If the generic spec. file's contents cannot be read, the generic spec. file name will be printed and the phrase NOT AVAILABLE will also be printed.

Format 7 provides generic information for an Ring Peripheral Controller (RPC) node.

Format 8 provides the reason the command was STOPPED.

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### 3. VARIABLE FIELD DEFINITIONS

- a                      Status:
- ACTIVE
- CONFIGURING
- DOWN
- ISOLATED
- RESTORING
- b                      Ring Node group number (00-63).
- c                      Ring Node member number (1-15).
- d                      Ring node's Major State. Upper case letters indicate active portion of the ring; lower case letters indicate the isolated portion of the ring. Each group of variables represents the nodes of the respective group. The initial block represents the RPC (00) and the succeeding 15 represent the 15 LNs (01-15):

| ACT | Status           | ISO/RGDWN |
|-----|------------------|-----------|
| A   | = Active         | = -       |
| S   | = Standby        | = s       |
| U   | = Unavailable    | = u       |
| F   | = Offline        | = f       |
| O   | = Out of Service | = i       |
| .   | = Unequipped     | = .       |
| B   | = Initializing   | = b       |
| G   | = Grow           | = g       |

- e                      Numeric character representation of the minor node states when requesting OP:RING:DETD.
- blank — Node maintenance mode state AUTO and Ring interface hardware state USBL and Node processor hardware state USBL, or Node major state is UNEQ.
- 1 — Node under manual control.
- 2 — Node processor hardware maintenance state is FLTY or UNTSTD, or Ring Interface hardware maintenance state is QUSBL.
- 4 — Ring interface hardware maintenance state is FLTY or UNTSTD.
- 3, 5, 6, 7 — Combination of the definitions.

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- f Major state of the ring node:
- ACT — Node is active.
  - GROW — Node is being physically added to or removed from the ring.
  - INIT — Node is initializing.
  - OFL — Node is Out Of Service (OOS) and neither restoral nor removal is permitted.
  - OOS — Node is out-of-service and unavailable for normal use.
  - STBY — Node is an RPC which is running but the ring configuration is not completed or the ring is down.
  - UNAV — Unavailable.
  - UNEQ — Node is unequipped, but an ECD record may exist for it.
  - UNKNOWN MJ — An unknown major state has been encountered.
- g Maintenance mode state of the ring node:
- AUTO — If the major state is ACT, the maintenance mode is defaulted to AUTO.
  - AUTO — If the major state is OOS, the node was removed from service automatically. Automatic recovery is in progress or has not yet started. The node major state will change to ACT if the recovery is successful or the node maintenance mode will change to FLTY or XTHD if the recovery is unsuccessful.
  - FLTY — The node was removed from service automatically. Automatic recovery has been attempted and failed.
  - MAN — Node is under manual control.
  - XTHD — The node was removed from service automatically. Automatic recovery cannot be attempted since the node recovery history has exceeded the 3 permissible outages in the preceding 60 minutes.
  - UNKNOWN MN — An unknown maintenance mode state has been encountered.
- h Ring interface hardware maintenance state of the ring node:
- FLTY — Ring interface hardware is faulty.
  - QUSBL — Ring interface hardware is usable if the node is quarantined.
  - UNKNOWN — An unknown ring interface hardware state has been encountered.

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|      |                                                                                                                                                                                                                                                                                                                                                                         |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | UNTSTD — Condition of ring interface hardware is unknown.                                                                                                                                                                                                                                                                                                               |
|      | USBL — Ring interface hardware is usable.                                                                                                                                                                                                                                                                                                                               |
| i    | Node processor hardware maintenance state of the ring node:<br>FLTY — Ring interface hardware is faulty.<br>QUSBL — Ring interface hardware is usable if the node is quarantined.<br>UNKNOWN — An unknown ring interface hardware state has been encountered.<br>UNTSTD — Condition of ring interface hardware is unknown.<br>USBL — Ring interface hardware is usable. |
| j    | ECD equipped status of Enhanced Message Sampling Board.<br>YES — Board equipped.<br>NO — Board not equipped.                                                                                                                                                                                                                                                            |
| k    | Ring position:<br>BISO NODE<br>EISO NODE<br>FAILED RANGE FOR PHYS. NODE IDENTIFIER<br>IN ACT SEG<br>IN ISOL SEG<br>RING BEING RECONFIGURED, UNKNOWN RP AT THIS TIME<br>RING DOWN, UNKNOWN RP AT THIS TIME<br>UNKNOWN RP                                                                                                                                                 |
| l    | Release number e.g., 1.4.1.3.                                                                                                                                                                                                                                                                                                                                           |
| NONE | This ring node is not in ACT or OOS state, or is in an isolated segment.                                                                                                                                                                                                                                                                                                |
| m    | RPC associated with this ring node:                                                                                                                                                                                                                                                                                                                                     |
| n    | Present load capacity of this ring node presented to 3B.                                                                                                                                                                                                                                                                                                                |
| o    | Generic Specification File (i.e. RPC.1.0).                                                                                                                                                                                                                                                                                                                              |
| p    | Type of file:<br>b — Load module, b16.out.<br>m — Load module, mc8.out.<br>w — Load module, rap.out.<br>x — Load module, x86.out.                                                                                                                                                                                                                                       |
| q    | Start execution address. Segment address.                                                                                                                                                                                                                                                                                                                               |
| r    | Start execution address. Virtual address.                                                                                                                                                                                                                                                                                                                               |

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- s           Type of file:
- d — Data file common to all nodes.
  - n — Node dependent data file.
  - v — Optional node dependent data file.
- t           Where data is to be written into the related processor of this ring node.  
Segment address.
- u           Where data is to be written into the related processor of this ring node.  
Virtual address.
- G           AP generic specification file.
- v           Dummy value, not used.
- w           File name.
- x           AP Generic Specification File.
- y           Number of ring nodes linked to this RPC.
- z           Reason command was STOPPED:
- (1) PROBLEM WITH IMS DRIVER REPLY — Report internal command failures, intended primarily for use by Bell Laboratories.
  - (2) PROBLEM WITH IMS DRIVER REPLY — Report internal command failures, intended primarily for use by Bell Laboratories.
  - (3) PROBLEM WITH IMS DRIVER REPLY — Report internal command failures, intended primarily for use by Bell Laboratories.
  - (4) PROBLEM WITH IMS DRIVER REPLY — Report internal command failures, intended primarily for use by Bell Laboratories.
  - (5) PROBLEM WITH IMS DRIVER REPLY — Unassigned.
  - (6) PROBLEM WITH IMS DRIVER REPLY — Report internal command failures, intended primarily for use by Bell Laboratories.
- COULD NOT GET A UCB — Probable resource problem within the Equipment Configuration Database (ECD) of the 3B20D/3B21D.
- RING STATE CHANGED!   Reports that the ring changed its major state during the execution of the command. In this case, the ring and node data to be reported by the OP:RING command was inconsistent so no data was reported.

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a1                    Ring major state:  
ACTIVE, ISO SEG  
ACTIVE, NO ISO SEG  
BISO/EISO 00S, ISO SEG  
DOWN  
RECONFIGURING  
UNKNOWN

#### **4. ACTION TO BE TAKEN**

Error messages are self-explanatory.

#### **5. REFERENCES**

Practice 256-090-182 *CNI Maintenance Manual* - Maintenance Description Section,  
Diagnostics User's Guide Section

Input Message  
OP:RING

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:RUTIL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has 11 formats.

- [1] OP RUTIL IN PROG  
LNaa b BP = c  
BPTNUM ADDR IMP STATE HITS MHITS LOST cX'defghi  
c X'd e f g h i
- [2] OP RUTILFLAG IN PROG  
LNaa b BP = c  
FLAG NOT DEFINED
- [3] OP RUTILFLAG COMPL  
LNaa b INVALID BP = c
- [4] OP RUTIL ABT  
SEND2KERN MKNODE() FAILED j
- [5] OP RUTILFLAG ABT  
SEND2KERN MKNODE() FAILED j
- [6] OP RUTIL ABT  
SEND2KERN OPEN() FAILED j
- [7] OP RUTILFLAG ABT  
SEND2KERN OPEN() FAILED j
- [8] OP RUTIL ABT  
SEND2KERN KERNEL RETURNED ERROR j
- [9] OP RUTILFLAG ABT  
SEND2KERN KERNEL RETURNED ERROR j
- [10] OP RUTIL ABT  
KERNEL RESPONSE TIMEOUT j
- [11] OP RUTILFLAG ABT  
KERNEL RESPONSE TIMEOUT j

## 2. REASON FOR OUTPUT

Response to an OP:RUTIL input command.

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Format 1 indicates a successful completion of the OP : RUTIL input command.

Format 2 indicates that this particular breakpoint is not set.

Format 3 indicates that the breakpoint specified is invalid.

Formats 4 and 5 indicate that creating the special file for the kernel has failed.

Formats 6 and 7 indicate that attempting to open the file for kernel processing has failed.

Formats 8 and 9 indicate that the kernel has returned a failing return code.

Formats 10 and 11 indicate that the kernel has not responded to the craft process.

### **3. VARIABLE FIELD DEFINITIONS**

|    |                                                                                      |
|----|--------------------------------------------------------------------------------------|
| aa | The group number of the concerned node.                                              |
| b  | The member number of the concerned node.                                             |
| c  | The specified breakpoint number.                                                     |
| d  | The address of the given breakpoint.                                                 |
| e  | 1 software implementation of breakpoint.<br>2 hardware implementation of breakpoint. |
| f  | 1 breakpoint is disabled.<br>2 breakpoint is enabled.                                |
| g  | Number of hits on this breakpoint.                                                   |
| h  | Maximum number of hits specified for this breakpoint.                                |
| i  | Number of breakpoint response messages lost for this breakpoint.                     |
| j  | The value of the global variable errno.                                              |

### **4. ACTION TO BE TAKEN**

For Format 3 check the specified breakpoint number.

Otherwise seek technical assistance for Formats 4 through 11.

### **5. REFERENCES**

Input Message  
OP : RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:SCHD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

### 1. FORMAT

```
OP SCHD IN PROG
REPORT NAME DEST REPORT TYPE HISTORY FILE ACT TIME REPEAT

 a b c d e f
 :
 :
 :
```

### 2. REASON FOR OUTPUT

This output message is in response to input message OP : SCHD.

The report information will be displayed for each report in the Measurement Output Control (MOC) schedule table (schd).

### 3. VARIABLE FIELD DEFINITIONS

a                      Report name (1 - 16 text characters).  
b                      Output class (0 - 255).  
c                      Report generator type (1 - 10 text characters).  
d                      History file name (1 - 14 text characters).  
e                      Activation time (0000 - 2355).  
f                      Number of repetitions per day (0 - 288).

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

Practice 256-090-121 *CNI Operations Manual* - Measurement Output Control Table Section

Input Message  
OP : SCHD

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ID ..... OP:SCSD  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP SCSD UNIT a  
      INHIBIT: cccccccc cccccccc cccccccc cccccccc cccccccc cccccccc  
      SCAN PT: dddddddd dddddddd dddddddd dddddddd dddddddd dddddddd  
      OP SCSD UNIT a b
- [2] OP SCSD GRPN e  
      DUPID f  
      INHIBIT: [ccc]  
      SCAN PT: [ddd]  
      OP SCSD GRPN e b
- [3] OP SCSD NOT STARTED  
      CONFLICT WITH CURRENT SYSTEM STATUS

## 2. REASON FOR OUTPUT

To indicate the state and the inhibit status of the scan points on a Scanner And Signal Distributor (SCSD) unit.

Format 1 is used to display the entire SCSD scan map for a unit.

Format 2 is used to display the scan state for a particular logical group.

Format 3 indicates the SCSD administration process is not active. No communication with SCSD points is possible.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number of SCSD unit.
- b Termination status.
- COMPLETED — Action completed.
- FAILED — Action could not be completed by SCSD administrator:
- SCSD unit number is invalid.
  - Point number is invalid for the logical group.
  - Logical group name is invalid and either the SCSD unit is Out Of Service (OOS) or is in an inactive state to the SCSD administrator.

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- c Inhibit status. (Scan points are numbered 0 - 47 starting from the left)  
One of the following.
  - 0 — Scan point is not inhibited.
  - 1 — Scan point is inhibited.
- d Scan point status. (Scan points are numbered 0 - 47 starting from the left)  
One of the following.
  - 0 — Scan point is clear (open).
  - 1 — Scan point is set (closed).
- e Logical group name.
- f Duplex group ID (0-1).

#### 4. ACTION TO BE TAKEN

Issue the OP:00S input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter Recent Change And Verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the results are negative, seek technical assistance.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 158.

Format 2 has an OMDB key of 157.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and  
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory  
of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

##### Input Messages

OP:00S

OP:SCSD

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:SDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] OP SDC COMPLETE  
[a]  
LNbb cc - d  
[LIe-f] [g]
- [2] OP SDC COMPLETE  
NO SDC CONDITION EXISTS

## 2. REASON FOR OUTPUT

This output message is the result of a previous OP:SDC input message. It lists the 3B-based devices that are causing loss of service to the office. Format 1 is printed when there exists at least one device causing a Service Degrading Condition (SDC). Format 2 is printed when no SDC exists.

For Format 1, only the list of failed conditions is output. This message gives all possible conditions.

## 3. VARIABLE FIELD DEFINITIONS

- a This field is optional in the output message based on the status of the system. All events that are true are printed; i.e., more than one event of the following list may be printed. If none of the events are true, then no entry will be made. Values are:
- API INPUT STREAM— The stream is down between the 3B and the API for traffic destined from the DLN to the 1B.
- API OUTPUT STREAM— The stream is down between the 3B and the API for traffic destined from the 1B to the DLN.
- DLN INPUT STREAM— The stream is down between the DLN and the 3B for traffic destined from the DLN to the 1B.
- DLN OUTPUT STREAM— The stream is down between the DLN and the 3B for traffic destined from the 1B to the DLN.
- RING INIT— A ring initialization is taking place.
- RING QUIET— The ring is in quiet mode. The ring is down and automatic recovery has failed.
- bb Group number of the node (00-63).
- cc Member number of the node (01-15).

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- d                      Node type:
- ATP — AT&T Trigger Platform Node. The criteria for ATP nodes to be on the SDC list is that both nodes are down.
  - CCS7 — Domestic CCS7. The criteria for CCS7 nodes to be on the SDC list is a domestic CCS7 linkset has 50% or fewer active links. Each node that is down that is part of the affected linkset is put on the SDC.
  - CIT7 — International CCITT7. The criteria for CCITT7 nodes to be on the SDC list is that an international CCITT7 linkset is 100% failed. Each node in the linkset is put on the SDC.
  - DCHN — D-Channel Node. The criteria for DCHN nodes with simplex links is if there exists a link down, then the node is put on the SDC. Additional output will distinguish affected links. For DCHN nodes with D-Channel backup links, if both links of a D-Channel backup pair are down, then both nodes that contain those links are put on the list. For AT&T offices, DCHN nodes are put on the list only if the link problem is internal to the office.
  - DLN — Direct Link Node. The criteria for DLN nodes to be on the SDC list is based on the number of equipped DLNs in the office. If the office has two DLNs, then both DLNs must be down. If the office has greater than two, then three DLNs must be down. In the four DLN office, having one active twoway DLN is considered an SDC because the office was engineered to need two active DLNs for load capacity.
  - HSAL — High Speed A-link Node. The criteria for HSAL nodes to be on the SDC list is a HSAL linkset has 50% or fewer active links.
  - SADC — Special Access Data Channel. See criteria for DCHN node.
- LI                      This is an optional field for DCHN and SADC nodes only. These nodes have up to 8 links per node and any single link can cause the node to be on the SDC list. Therefore, a list of the links on the node that are causing the SDC condition are given.
- e                      Indicates which LI board (0 - 1).
- f                      Indicates which link on the LI board (0 - 3).
- g                      This is an optional field for DCHN and SADC nodes only. It gives an indication of where the problem exists for the DCHN or SADC link. Values are:
- EXTERNAL LINK FAILURE
  - INTERNAL LINK FAILURE

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**NODE FAILURE**

**T1FA FAILURE**

#### **4. ACTION TO BE TAKEN**

For every case except RING QUIET, the 3B will be attempting automatic recovery on the failed devices. To monitor automatic recovery for stream failures, see the 1107 display page. To monitor automatic recovery on node or link failures, see the 1107 display page for DLN nodes and 1108 display page for other nodes. For the ATP nodes see page 1109.

If automatic recovery mechanisms fail to recover the device, seek technical assistance.

For the RING QUIET case, seek technical assistance.

#### **5. REFERENCES**

Display / Menu Page Names

1107 Display Page

1108 Display Page

1109 Display Page

Input Message

OP:SDC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:SLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] OP SLK a IN PROG  
SLK b c d e f [f1]
  
- [2] OP SLK a IN PROG  
SLK b c d e f  
6 g h i j k l m n o p q r s
  
- [3] OP SLK a IN PROG  
SLK b c d e f  
6 g h i k n o [dddd]
  
- [4] OP SLK a IN PROG  
SLK b c d e f  
6 t u v w x y z aa bb cc
  
- [5] OP SLK a IN PROG  
SLK b c d e f  
6 dd ee ff gg-hh ii jj kk ll mm  
nn oo pp qq rr ss tt uu vv
  
- [6] OP SLK a IN PROG  
SLK b c d e f  
6 g h i j k l m n o p q r s  
6 dd ee ff gg-hh ii jj kk ll mm  
nn oo pp qq rr ss tt uu vv
  
- [7] OP SLK a IN PROG  
SLK b c d e f  
6 g h i k n o  
6 dd ee ff gg-hh ii jj kk ll mm  
nn oo pp qq rr ss tt uu vv
  
- [8] OP SLK a IN PROG  
SLK b c d e f  
6 t u v w x y z aa bb cc  
6 dd ee ff gg-hh ii jj kk ll mm  
nn oo pp qq rr ss tt uu vv

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- [9] OP SLK a IN PROG  
SLK b c d e f  
6 g h i j k l m n o p q r s  
6 t u v w x y z aa bb cc  
6 dd ee ff gg-hh ii jj kk ll mm  
nn oo pp qq rr ss tt uu vv
- [10] OP SLK a IN PROG  
SLK b c d e f  
6 g h i k n o  
6 t u v w x y z aa bb cc  
6 dd ee ff gg-hh ii jj kk ll mm  
nn oo pp qq rr ss tt uu vv
- [11] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm aaa bbb ccc j ddd eee k fff ggg n q r
- [12] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm aaa bbb ccc k
- [13] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm aaa bbb ccc k dddd n uuuu
- [14] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm
- [15] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm dd ee ff gg-hh ii jj kk ll mm  
hhh iii jjj kkk lll mmm  
nnn ooo ppp qq q rrr sss ttt  
uuu vv v www xxx yyy zzz aaaa bbbb  
cccc dddd aaaaa bbbbbb rrrrr sssss eeee
- [16] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm aaa bbb ccc j ddd eee k fff ggg n q r  
mmmm dd ee ff gg-hh ii jj kk ll mm  
hhh iii jjj kkk lll mmm  
nnn ooo ppp qq q rrr sss ttt  
uuu vv v www xxx yyy zzz aaaa bbbb  
cccc dddd aaaaa bbbbbb rrrrr sssss eeee

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- [17] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm aaa bbb ccc k  
mmmm dd ee ff gg-hh ii jj kk ll mm  
hhh iii jjj kkk lll mmm  
nnn ooo ppp qqq rrr sss ttt  
uuu vvv www xxx yyy zzz aaaa bbbb  
cccc dddd aaaaa bbbbbb rrrrr sssss eeee
- [18] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm  
mmmm dd ee ff gg-hh ii jj kk ll mm  
hhh iii jjj kkk lll mmm  
nnn ooo ppp qqq rrr sss ttt  
uuu vvv www xxx yyy zzz aaaa bbbb  
cccc dddd aaaaa bbbbbb rrrrr sssss eeee
- [19] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm aaa bbb ccc j ddd eee k fff ggg n q r  
mmmm  
mmmm dd ee ff gg-hh ii jj kk ll mm  
hhh iii jjj kkk lll mmm  
nnn ooo ppp qqq rrr sss ttt  
uuu vvv www xxx yyy zzz aaaa bbbb  
cccc dddd aaaaa bbbbbb rrrrr sssss eeee
- [20] OP SLK a IN PROG  
SLK b c d e f [f1]  
mmmm aaa bbb ccc k  
mmmm  
mmmm dd ee ff gg-hh ii jj kk ll mm  
hhh iii jjj kkk lll mmm  
nnn ooo ppp qqq rrr sss ttt  
uuu vvv www xxx yyy zzz aaaa bbbb  
cccc dddd aaaaa bbbbbb rrrrr sssss eeee
- [21] OP SLK a IN PROG  
DLN b c hhhh iii
- [22] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f
- [23] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
pppp j qqqq kkkk jjjjjj ssss tttt uuuu xxxx  
mmmmm nnnnn fffff ggggg ooooo ppppp qqqqq

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- [24] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
ssss tttt fffff ggggg kkkk uuuu
- [25] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
mmmm
- [26] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
vvvv www yyy zzzz aaaaa bbbbb ccccc dddd eeee  
hhhhh iiii jjjj kkkk llll
- [27] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
pppp j qqq kkk jjjjj ssss tttt uuuu xxxx  
mmmm nnnn fffff ggggg ooooo pppp qqqq  
vvvv www yyy zzzz aaaaa bbbbb ccccc dddd eeee  
hhhhh iiii jjjj kkkk llll
- [28] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
ssss tttt fffff ggggg kkkk uuuu  
vvvv www yyy zzzz aaaaa bbbbb ccccc dddd eeee  
hhhhh iiii jjjj kkkk llll
- [29] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
mmmm  
vvvv www yyy zzzz aaaaa bbbbb ccccc dddd eeee  
hhhhh iiii jjjj kkkk llll
- [30] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
pppp j qqq kkk jjjjj ssss tttt uuuu xxxx  
mmmm nnnn fffff ggggg ooooo pppp qqqq  
mmmm  
vvvv www yyy zzzz aaaaa bbbbb ccccc dddd eeee  
hhhhh iiii jjjj kkkk llll
- [31] OP SLK a IN PROG  
SLK b c mmmm nnnn oooo e f  
ssss tttt fffff ggggg kkkk uuuu  
mmmm  
vvvv www yyy zzzz aaaaa bbbbb ccccc dddd eeee  
hhhhh iiii jjjj kkkk llll

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## 2. REASON FOR OUTPUT

Prints in response to the OP:SLK input message.

The report from the OP:SLK input command may be broken into one or more output blocks. Each block of the output report is surrounded by time and date information. When a request is made for a report of more than one node, information about all nodes in the range specified will be given. This information will contain various amounts of detail depending on the state of the node/link(s) and the options used in the OP SLK input request. Some data fields included in the more detailed forms of this report, such as those obtained with the RAW option, are intended for use only by technical assistance, and those data fields are not explained in detail in this output message.

Format 1 is the default format for Common Channel Signaling System 6 (CCS6), Common Channel Signaling System 7 (CCS7), and Consultative Committee On International Telephone & Telegraph (CCITT) Common Channel Signaling System Number 7 (CCITT7) nodes. This form is obtained when none of the optional fields for these node types are specified on the input command.

Format 2 for CCS6 nodes of RAW.

Format 3 for CCS6 nodes of ABNORMAL or CODES.

Format 4 for CCS6 nodes of ROUTING.

Format 5 for CCS6 nodes of FIX.

Format 6 for CCS6 nodes of FIX and RAW.

Format 7 for CCS6 nodes of ABNORMAL and FIX.

Format 8 for CCS6 nodes of FIX and ROUTING.

Format 9 for CCS6 nodes of FIX, RAW and ROUTING

Format 10 for CCS6 nodes of ABNORMAL, FIX and ROUTING

Format 11 for CCS7 and CCITT7 nodes of RAW.

Format 12 for CCS7 and CCITT7 nodes of ABNORMAL.

Format 13 for CCS7 and CCITT7 nodes of CODES.

Format 14 for CCS7 and CCITT7 nodes of ROUTING.

Format 15 for CCS7 and CCITT7 nodes of FIX.

Format 16 for CCS7 and CCITT7 nodes of FIX and RAW.

Format 17 for CCS7 and CCITT7 nodes of ABNORMAL and FIX.

Format 18 for CCS7 and CCITT7 nodes of FIX and ROUTING.

Format 19 for CCS7 and CCITT7 nodes of FIX, RAW and ROUTING.

Format 20 for CCS7 and CCITT7 nodes of ABNORMAL, FIX and ROUTING.

Format 21 is the format for a Direct Link Node (DLN) node.

Special Access Data Channel (SADC) or D-Channel (DCHN) node. This form is obtained when none of the optional fields for this node type is specified on the input command.

Format 23 for SADC or DCHN nodes of RAW.

Format 24 for SADC or DCHN nodes of ABNORMAL or CODES.

Format 25 for SADC or DCHN nodes of ROUTING.

Format 26 for SADC or DCHN nodes of FIX.

Format 27 for SADC or DCHN nodes of FIX and RAW.

Format 28 for SADC or DCHN nodes of ABNORMAL and FIX.

Format 29 for SADC or DCHN nodes of FIX and ROUTING.

Format 30 for SADC or DCHN nodes of FIX, RAW and ROUTING.

Format 31 for SADC or DCHN nodes of ABNORMAL, FIX and ROUTING.

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Each report is surrounded by date and time information in the following format:

kkkkkk aaaaaa bbbbbb cccccc dddddd:eeeeee:ffffff:gggggg hhhhhh

For certain reports, some nodes are skipped. The range of those skipped are shown in the report with the following format:

SLK b c THRU b c iiiiii

For DCHN or SADC links, which are skipped, the range of those skipped are shown in the report with the following format:

SLK b c mmmm nnnn oooo THRU nnnn oooo iiiiii

### 3. VARIABLE FIELD DEFINITIONS

- |    |                                                                                                                                                                                                                                                                  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a  | Either a range of link numbers or ALL from the input request.                                                                                                                                                                                                    |
| b  | Group number (0-63).                                                                                                                                                                                                                                             |
| c  | Member number (1-15).                                                                                                                                                                                                                                            |
| d  | Far end CLLI® of this link.                                                                                                                                                                                                                                      |
| e  | Major State:<br>AVL<br>UNA<br>UNE                                                                                                                                                                                                                                |
| f  | Minor State:<br>GROW<br>IS<br>MOOS<br>OOS<br>STBY<br>TEST<br>UNE                                                                                                                                                                                                 |
| f1 | Subminor state of the CCS7 link. This field exists only when the LID0 is equipped and the previous field is either MOOS or TEST.<br>FLFS — Local LFS ran and failed.<br>MLFS — Local LFS is running.<br>NLFS — LFS not running.<br>RLFS — Remote LFS is running. |
| g  | First failure indicator, see output appendix APP:APPENDIX-12.                                                                                                                                                                                                    |

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- h Link failure indicators (hexadecimal number) where a 1 in bit position n indicates the condition is active or has occurred since the last time the link was in service. The definition of each bit is given in output appendix APP:APPENDIX-12.
- i Link status indicators (hexadecimal number) where a 1 in bit position n indicates the condition is active or has occurred since the last time the link was removed from service. The definitions are in output appendix APP:APPENDIX-12.
- j Link monitor status: (All zeros is OFF) (Nonzero ON, see MON:SLK input message and output appendix APP:APPENDIX-10.
- k Alarm inhibit status:  
OFF  
ON
- l Far end manual changeover status:  
CLEAR  
FAR W2  
NEAR W  
ON  
TRAFC  
WAIT F
- m Near end manual changeover status:  
CLEAR  
FAR W2  
NEAR W  
ON  
TRAFC  
WAIT F
- n Prove-in mode:  
E — Emergency.  
N — Normal.
- o Voice Frequency Link (VFL) force:  
A — VFL A forced  
B — VFL B forced  
- — No VFL forced

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|   |                                                     |
|---|-----------------------------------------------------|
| p | VFL act:                                            |
|   | A — A VFL                                           |
|   | B — B VFL                                           |
| q | - — Unknown                                         |
|   | Diagnostic requested:                               |
|   | Y — Yes                                             |
| r | N — No                                              |
|   | Encryption state:                                   |
|   | 0 — Audit not in progress                           |
| s | 1 — Licr to be sent                                 |
|   | 2 — Req audit data for Line Interface Circuit (LIC) |
|   | 3 — Lic to be sent                                  |
| t | 4 — Req audit data for LIC                          |
|   | 5 — Lics to be sent                                 |
|   | Periodic rekey status:                              |
| u | Y — In progress                                     |
|   | N — Inactive                                        |
|   | Link status:                                        |
| v | U — Unknown                                         |
|   | 0 — Out Of Service (OOS)                            |
|   | BA — Active                                         |
|   | C — Congested                                       |
|   | Mate Link status:                                   |
|   | U — Unknown                                         |
|   | 0 — OOS                                             |
|   | A — Active                                          |
|   | C — Congested                                       |
|   | Pool status:                                        |
|   | U — Unknown                                         |
|   | 0 — OOS                                             |
|   | A — Active                                          |

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|    |                                                                                                                              |
|----|------------------------------------------------------------------------------------------------------------------------------|
| w  | Combined Pool status:<br>U — Unknown<br>O — OOS<br>A — Active                                                                |
| x  | Pool congestion status:<br>U — Unknown<br>N — Not congested<br>C — Congested                                                 |
| y  | Combined pool congestion status:<br>U — Unknown<br>N — Not congested<br>C — Congested                                        |
| z  | Number of bands allowed.                                                                                                     |
| aa | Number of bands blocked.                                                                                                     |
| bb | Number of bands restricted.                                                                                                  |
| cc | Number of bands unknown.                                                                                                     |
| dd | Link type: A, B, C, D, E or W                                                                                                |
| ee | Link speed:<br>024 — 2.4 KBS link<br>048 — 4.8 KBS link<br>560 — 56 KBS link<br>645 — 64C KBS link<br>15440 — 1.544 MBS link |
| ff | Encryption option:<br>N — Nonencrypted<br>E — Encrypted                                                                      |
| gg | Mate link group number: (0-63)                                                                                               |
| hh | Mate link member number: (1-15)                                                                                              |
| ii | Far end STP:<br>E — Even<br>O — Odd<br>N — Not connected to an STP                                                           |
| jj | Far end region number of this link.                                                                                          |

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|     |                                                                                                                                                     |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| kk  | Far end function number: (1 - 32767).                                                                                                               |
| ll  | Leaky bucket threshold: (0 - 1000, nominal values)<br>30 — 2.4 KBS link<br>60 — 4.8 KBS link<br>700 — 56 KBS or 1.544 MBS link<br>800 — 64 KBS link |
| mm  | Far end point code.                                                                                                                                 |
| nn  | Syu code:<br>S — Self looped<br>O — Odd<br>E — Even                                                                                                 |
| oo  | VFL:<br>S — Simplex<br>D — Dual                                                                                                                     |
| pp  | Changeover limit:<br>01 — 2.4 KBS link<br>202 — 4.8 KBS link                                                                                        |
| qq  | Receive buffer threshold (120).                                                                                                                     |
| rr  | Breakin option:<br>A — Allowed.<br>N — Not allowed.                                                                                                 |
| ss  | Pool number (0-255).                                                                                                                                |
| tt  | Combined pool number (0-255).                                                                                                                       |
| uu  | Link Layer (0-19).                                                                                                                                  |
| vv  | Voice frequency link test access circuit quadrant (0-4).                                                                                            |
| aaa | CCS7 First failure indicator, see output appendix APP:APPENDIX-13.                                                                                  |

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|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bbb | <p>Link failure indicators (hexadecimal number) where a 1 in bit position n indicates the condition is active or has occurred since the last time the link was in service. The definition of each bit is given in the previous field.</p> <ul style="list-style-type: none"><li>0 — Unused.</li><li>1 — Node not ACT.</li><li>2 — Unused.</li><li>3 — Level 2 active.</li><li>4 — Ready to restore.</li><li>5 — Unused.</li><li>6 — Unused.</li><li>7 — Unused.</li><li>8-31 — Unused.</li></ul>                                                                   |
| ccc | <p>Link status indicators (hexadecimal number) where a 1 in bit position n indicates the condition is active or has occurred since the last time the link was removed from service. The definitions of each bit are:</p> <ul style="list-style-type: none"><li>0-2 — Unused</li><li>3 — Prove-in complete</li><li>4 — User complete, continue link recovery</li><li>5-7 — Unused</li><li>8-11 — Unused</li><li>12-15 — Unused</li><li>16 — Long key exchange</li><li>17-19 — Unused</li><li>20-23 — Unused</li><li>24-29 — Unused</li><li>30-31 — Unused</li></ul> |
| ddd | <p>Internal Signaling Link Management ( SLM) link state (0-80). The value output for this field is useful when seeking technical assistance. The definition is dependent upon the internal workings of the machine; thus its meaning may change based on the release of the software being executed in the machine.</p>                                                                                                                                                                                                                                            |

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|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| eee | Internal link changeover / changeback state: <ul style="list-style-type: none"><li>0 — Change back idle (link OOS)</li><li>1 — Change back wait for 6 to complete</li><li>2 — Change back wait for Change Back Acknowledgements (CBAs)</li><li>3 — Change over idle (link ACT)</li><li>4 — Change over wait for 6 and T2 (COA / ECA)</li><li>5 — Change over wait for COA / ECA, T2, or NP OOS</li><li>6 — Change over wait for 6</li><li>7 — Change over wait for link or node OOS after receiving COO / ECO</li><li>8 — 8 change over waiting for retrieval complete message</li><li>9 — Waiting to change back, manual</li><li>10 — Waiting to change over, manual</li></ul> |
| fff | Far end manual inhibit state: <ul style="list-style-type: none"><li>0 — Mco cleared</li><li>1 — Awaiting response from application</li><li>2 — Awaiting far-end response</li><li>3 — Awaiting far-end response</li><li>4 — Waiting for traffic to clear</li><li>5 — Mco processing complete</li><li>6 — Awaiting far-end uninhibit response</li><li>7 — Awaiting far-end uninhibit response (retry)</li><li>8 — Awaiting far-end (force) uninhibit response</li><li>9 — Awaiting far-end (force) uninhibit response (retry)</li></ul>                                                                                                                                           |
| ggg | Near end manual inhibit state (see far end manual inhibit state, previous variable).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| hhh | Link set (0-255).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| iii | Combined link set (0-255).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| jjj | Signaling link code (0-15).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| kkk | Size, in bytes, of receive queue (>1024).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| lll | Congestion onset threshold in bytes (300-10000).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| mmm | Congestion abatement threshold in bytes (20-10000).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| nnn | Size, in bytes, of transmit queue (12000-250000).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|      |                                                                                                        |
|------|--------------------------------------------------------------------------------------------------------|
| ooo  | Far-end prove-in guard timer (200-7550 ticks, that is, 4-151 seconds / 20ms per tick).                 |
| ppp  | Near-end not aligned timer (250-7500 ticks, that is, 5-150 seconds / 20ms per tick).                   |
| qqq  | Far-end not aligned timer (50-700 ticks, that is, 1-14 seconds / 20ms per tick).                       |
| rrr  | Normal prove-in timer (104-1500 ticks, that is, 2.08-30 seconds / 20ms per tick).                      |
| sss  | Emergency prove-in timer (20-500 ticks, that is, .4-10 seconds / 20ms per tick).                       |
| ttt  | Local congestion timer (4-6 ticks, that is, .08-.12 seconds / 20ms per tick).                          |
| uuu  | Remote congestion timer (150-300 ticks, that is, 3-6 seconds / 20ms per tick).                         |
| vvv  | Alignment error rate monitor, signal unit threshold (4).                                               |
| www  | Emergency alignment error rate monitor, signal unit threshold (1).                                     |
| xxx  | Signal unit error rate monitor threshold (64-192).                                                     |
| yyy  | Packet acknowledgement timer (25-100 ticks, that is, .5-2 seconds / 20ms per tick).                    |
| zzz  | Interval timer for sending signaling link test messages (30-90 seconds).                               |
| aaaa | Signaling link test acknowledgement timer (4-12 seconds).                                              |
| bbbb | Retransmit queue length in bytes (910-41280).                                                          |
| cccc | N1 limit of Message Signal Units (MSUs) in the Retransmit Buffer (1-1023).                             |
| dddd | T1 clock mode:<br>0 — Master.<br>1 — Slave.                                                            |
| eeee | Link Interface Type:<br>0 — C_LI<br>2 — C_LI4S<br>3 — C_LI4D<br>4 — C_LID0<br>5 — C_LIER<br>6 — C_LIT1 |

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|      |                                                                                                                                                                                                                                                                                                                                         |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hhhh | DLN REMACS state:<br>A — Active.<br>N — No data.<br>O — OOS.<br>P — Pumping.<br>W — Waiting.                                                                                                                                                                                                                                            |
| iiii | DLN node state:<br>IS<br>OOS<br>PUMP<br>WAIT                                                                                                                                                                                                                                                                                            |
| kkkk | Node active indication:<br>ACT<br>OOS                                                                                                                                                                                                                                                                                                   |
| mmmm | Node type:<br>7 — CCS7<br>8 — DCHN<br>9 — SADC<br>11 — CCITT7                                                                                                                                                                                                                                                                           |
| nnnn | Circuit pack number (00-01).                                                                                                                                                                                                                                                                                                            |
| oooo | Port number (00-03).                                                                                                                                                                                                                                                                                                                    |
| pppp | Internal link state (level 2 state control).                                                                                                                                                                                                                                                                                            |
| qqqq | TREST timer variable.<br><br><b>NOTE:</b> TREST is a per node and not a per link timing function and is only recorded and administered in the data associated with link (0,0), i.e. Circuit pack = 0 and Port number = 0, on the node. This <i>qqqq</i> field has no meaning for other links on the node, and its value should be zero. |
| ssss | Fail Code (most recent) for link (00000000 - FFFFFFFF).                                                                                                                                                                                                                                                                                 |
| tttt | LI Fail Code (most recent) for link (00000000 - FFFFFFFF).                                                                                                                                                                                                                                                                              |

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|      |                                                                                                                                                                                          |                                                                                                                              |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| uuuu | State of the T1FA.                                                                                                                                                                       |                                                                                                                              |
|      | 00 —                                                                                                                                                                                     | TFA_UNK T1fa state is unknown; TCN not yet init'd, removed, etc.                                                             |
|      | 01 —                                                                                                                                                                                     | HDW_ALM T1fa hardware or firmware failure.                                                                                   |
|      | 02 —                                                                                                                                                                                     | RED_ALM Red Alarm (near end Facility failure).                                                                               |
|      | 03 —                                                                                                                                                                                     | YEL_ALM Yellow Alarm (far end Facility failure).                                                                             |
|      | 04 —                                                                                                                                                                                     | TFA_IS Normal In-Service State                                                                                               |
| vvvv | Circuit identification number.                                                                                                                                                           |                                                                                                                              |
| www  | Speed of DCHN or SADC links:                                                                                                                                                             |                                                                                                                              |
|      | 48 —                                                                                                                                                                                     | 4.8.                                                                                                                         |
|      | 640 —                                                                                                                                                                                    | 64R.                                                                                                                         |
|      | 645 —                                                                                                                                                                                    | 64C.                                                                                                                         |
| xxxx | Internal State for a mated (backed-up) D-Channel Link (Level 3 state control) Equals 00 and is not used for single (non-mated) D-Channel links. Mated (backed-up) D-Channel link states: |                                                                                                                              |
|      | 00                                                                                                                                                                                       | INIT3 Link initialized -level 2 and level 3 (L2 and L3) down.                                                                |
|      | 01                                                                                                                                                                                       | UNUSED                                                                                                                       |
|      | 02                                                                                                                                                                                       | DISAB Link disabled by L2 state control, Link MOOS'd or node removed - L2 and L3 down.                                       |
|      | 03                                                                                                                                                                                       | MB Link released and L2 held down from near end.                                                                             |
|      | 04                                                                                                                                                                                       | AWPRI Awaiting start of primary link before starting the secondary link - L2 and L3 down.                                    |
|      | 05                                                                                                                                                                                       | OOS3 Link OOS - L2 and L3 down.                                                                                              |
|      | 06                                                                                                                                                                                       | STBY Link standby, L2 up, L3 down (idle).                                                                                    |
|      | 07                                                                                                                                                                                       | WAIT Link waiting for level 3 to go IS L2 up, and awaiting completion of SERV/SERV_ACK message exchange to go IS at level 3. |
|      | 08                                                                                                                                                                                       | IS3 IS at level 3 - L2 and L3 up.                                                                                            |
| yyyy | USER:                                                                                                                                                                                    |                                                                                                                              |
|      | 0 —                                                                                                                                                                                      | NETWORK                                                                                                                      |
|      | 3 —                                                                                                                                                                                      | USER                                                                                                                         |

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|        |                                                                                                                         |
|--------|-------------------------------------------------------------------------------------------------------------------------|
| zzzz   | LI4 equipage:<br>0 — None equipped.<br>1 — LI4 0 equipped only.<br>2 — LI4 1 equipped only.<br>3 — Both LI4's equipped. |
| aaaaa  | Facility Type:<br>1 — Modem<br>2 — T1FA<br>3 — DS0<br>4 — DS1                                                           |
| bbbbbb | Rna of T1FA control node (applies only for DCHN or CCITT7 node types).                                                  |
| ccccc  | Mate / Primary / Secondary:<br>SIM — Simplex (No Mate).<br>PRI — Primary.<br>SEC — Secondary.                           |
| dddddd | Mate Link ID (gg-mm-cp-pt).                                                                                             |
| eeeeee | LACID identifier for link (0 - 2048).                                                                                   |
| ffffff | Fail Code (First Fail) (00000000 - FFFFFFFF).                                                                           |
| ggggg  | LI Fail Code (First Fail) (00000000 - FFFFFFFF).                                                                        |
| hhhhh  | Application Data Item 0 (00000000 - FFFFFFFF).                                                                          |
| iiiii  | Application Data Item 1 (00000000 - FFFFFFFF).                                                                          |
| jjjjj  | Application Data Item 2 (00000000 - FFFFFFFF).                                                                          |
| kkkkk  | Application Data Item 3 (00000000 - FFFFFFFF).                                                                          |
| lllll  | Application Data Item 4 (00000000 - FFFFFFFF).                                                                          |
| mmmmm  | Link Check Status:<br>LKC_ON — In Progress.<br>LKC_OFF — Not In Progress.                                               |
| nnnnn  | Acknowledgements Timer In Progress Status:<br>00 (em Timer is OFF.<br>Non Zero (em Timer is ON.                         |

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|        |                                                                                                                                                                                                                           |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 00000  | Link Routing Status:<br>RTE_ON — Routing Is On<br>RTE_OFF — Routing Is Off                                                                                                                                                |
| ppppp  | Configuration Bits - fraudit:<br>AUD_ON — Audit On<br>AUD_OFF — Audit Off                                                                                                                                                 |
| qqqqq  | Sequence Number (msgset) 00 - 256.                                                                                                                                                                                        |
| rrrrr  | Medium:<br>1 — SATELLITE<br>2 — TERRESTRIAL                                                                                                                                                                               |
| sssss  | Error Correction Mode:<br>1 — PCR<br>2 — BASIC                                                                                                                                                                            |
| aaaaaa | Day of week.                                                                                                                                                                                                              |
| bbbbbb | Month of year.                                                                                                                                                                                                            |
| cccccc | Day of month.                                                                                                                                                                                                             |
| dddddd | Hour in day.                                                                                                                                                                                                              |
| eeeeee | Minute in day.                                                                                                                                                                                                            |
| ffffff | Second in minute.                                                                                                                                                                                                         |
| gggggg | Millisecond in second.                                                                                                                                                                                                    |
| hhhhh  | Year.                                                                                                                                                                                                                     |
| iiiiii | Reason nodes were skipped:<br>ARE AVL IS OR UNA OR UNEQUIPPED<br>DID NOT MATCH INPUT CRITERIA<br>NOT ABNORMAL<br>NOT AVL<br>NOT AVL IS<br>NOT AVL MOOS<br>NOT AVL OOS<br>NOT OF TYPE REQUESTED<br>NOT UNA<br>NOT UNA GROW |

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|        |                                                                                                                                             |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
|        | NOT UNA TEST                                                                                                                                |
|        | UNEQUIPPED                                                                                                                                  |
| jjjjjj | Status of REMACS pump of Node data:                                                                                                         |
|        | NONE — Node contains no data that is pumped by REMACS.                                                                                      |
|        | R00S — Node data NOT pumped successfully, REMACS views node as OOS.                                                                         |
|        | PEND — Request to pump node data is pending, pump request has been put on queue.                                                            |
|        | PUMP — Node data pump is in progress.                                                                                                       |
|        | RACT — Node data pumped successfully, REMACS views node as active.                                                                          |
|        | UNKN — Unknown or invalid pump status.                                                                                                      |
| kkkkkk | Network time label, NWT by default. The network time label is tunable through an RTR provided ECD form called "eaiopt" in the NWTZONE form. |

#### 4. ACTION TO BE TAKEN

#### 5. REFERENCES

Practice 234-100-121, (non-AT&T) - *CNI Operations Manual* -  
Practice 234-100-121AC, (AT&T only)- *CNI Operations Manual* -  
Analog Signaling Link Operating Procedures Section  
Analog Signaling Link Test Procedures Section  
Digital Signaling Link Operating Procedures Section  
Digital Signaling Link Test Procedures Section  
D-Channel and Special Access Data Channel Signaling  
Link Operating Procedures Section  
International Link Node Signaling Link Operating  
Procedures Section  
D-Channel and International Link Node Signaling  
Link Test Procedures Section

Output Appendixes  
APP:APPENDIX-10  
APP:APPENDIX-11  
APP:APPENDIX-12  
APP:APPENDIX-13

Input Messages  
MON:SLK  
OP:SLK

Output Message  
REPT:MON-SLK

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ID ..... OP:SMR  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

[1] OP SMR A30MPR30        STARTED  
SIGNALING LINK 30 MINUTE MARGINAL PERFORMANCE REPORT

REPORTING OFFICE: a                      REPORT INTERVAL: b  
CURRENT GENERIC: c                      DEMAND REPORT  
DATE: d,    TIME: e  
REPORT PERIOD(f): g, h THRU    i, j  
DATA COVERAGE: k

### CCS7 LINKS:

| FAR END           |        |       |       | OOS TIM | CRCER | BY RX | AUTO     |
|-------------------|--------|-------|-------|---------|-------|-------|----------|
| CLLI CODE-LAYER T | GR-MEM | MIN   | SEC   |         |       |       | CHG OVER |
| -----             | -----  | ----- | ----- | -----   | ----- | ----- | -----    |
| l                 | - m    | n     | o-p   | q       | r     | s     | t        |
|                   |        | •     |       |         |       |       |          |
|                   |        | •     |       |         |       |       |          |
|                   |        | •     |       |         |       |       |          |

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OP SMR A30MPR30 IN PROG

### CCS7 LINKS:

| FAR END           |        |   |     | ERSEC | UNVL  |
|-------------------|--------|---|-----|-------|-------|
| CLLI CODE-LAYER T | GR-MEM |   |     |       |       |
| -----             | -----  |   |     | ----- | ----- |
| l                 | - m    | n | o-p | u     | v     |
|                   |        | • |     |       |       |
|                   |        | • |     |       |       |
|                   |        | • |     |       |       |

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OP SMR A30MPR30 IN PROG

CCITT7 LINKS:

| FAR END |            |       |        | OOS   | TIM   | CRCER | BYTES | AUTO     |
|---------|------------|-------|--------|-------|-------|-------|-------|----------|
| CLLI    | CODE-LAYER | T     | GR-MEM | MIN   | SEC   |       | FORRX | CHG OVER |
| -----   | -----      | ----- | -----  | ----- | ----- | ----- | ----- | -----    |
| l       | - m        | n     | o-p    | q     |       | r     | s     | t        |
|         |            | •     |        |       |       |       |       |          |
|         |            | •     |        |       |       |       |       |          |
|         |            | •     |        |       |       |       |       |          |

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OP SMR A30MPR30 IN PROG

CCITT7 LINKS:

| FAR END |            |       |        | ERSEC | UNVL  |
|---------|------------|-------|--------|-------|-------|
| CLLI    | CODE-LAYER | T     | GR-MEM |       |       |
| -----   | -----      | ----- | -----  | ----- | ----- |
| l       | - m        | n     | o-p    | u     | v     |
|         |            | •     |        |       |       |
|         |            | •     |        |       |       |
|         |            | •     |        |       |       |

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OP SMR A30MPR30 IN PROG

CCS7 CLUSTERS:

| CLUSTER | TYPE  | ROUTE SET<br>COUNT | UNAVAILABLE<br>SEC |
|---------|-------|--------------------|--------------------|
| -----   | ----- | -----              | -----              |
| w       | x     | y                  | z                  |
|         |       |                    |                    |
|         |       |                    |                    |
|         |       |                    |                    |

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SEE PROPRIETARY NOTICE ON COVER PAGE



OP SMR A30MPR30 IN PROG

PBX LINKS:

| TYPE | GR-MN-C-P | OOS TIM<br>(MINS) | ERSEC | CRCER |
|------|-----------|-------------------|-------|-------|
| ---- | -----     | -----             | ----- | ----- |
| aa   | o-p-bb-cc | dd                | u     | r     |
|      | •         |                   |       |       |
|      | •         |                   |       |       |
|      | •         |                   |       |       |

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OP SMR A30MPR30 IN PROG

PBX LINKS:

| TYPE | GR-MN-C-P | BY RX | MSG RXMT | INVLD MSG<br>FMT ERR | PROTOCOL<br>EX RCVD |
|------|-----------|-------|----------|----------------------|---------------------|
| ---- | -----     | ----- | -----    | -----                | -----               |
| aa   | o-p-bb-cc | s     | ee       | ff                   | gg                  |
|      | •         |       |          |                      |                     |
|      | •         |       |          |                      |                     |
|      | •         |       |          |                      |                     |

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OP SMR A30MPR30 IN PROG

OP SMR A30MPR30 COMPL

[OP SMR A30MPR30 COMPL  
NO MEASUREMENT EXCEPTIONS ENCOUNTERED]

SEE PROPRIETARY NOTICE ON COVER PAGE

[2] OP SMR AMPR[#] STARTED  
MACHINE PERFORMANCE REPORT

REPORTING OFFICE: a  
CURRENT GENERIC: c  
DATE: d TIME: e  
REPORT PERIOD(f): g , h THRU i , j  
DATA COVERAGE: k

REPORT INTERVAL: b  
DEMAND REPORT

SYSTEM INITIALIZATIONS

|     | LEVEL_0 |     | LEVEL_1 |     | LEVEL_1A |     | LEVEL_1B |     |
|-----|---------|-----|---------|-----|----------|-----|----------|-----|
|     | COUNT   | SEC | COUNT   | SEC | COUNT    | SEC | COUNT    | SEC |
|     | -----   |     | -----   |     | -----    |     | -----    |     |
| CNI | l       | m   | n       | o   | N/A      |     | N/A      |     |
| IMS | l       | m   | N/A     |     | p        | q   | r        | s   |

SYSTEM INITIALIZATIONS

|     | LEVEL_2 |     | LEVEL_3 |     | LEVEL_4 |     |
|-----|---------|-----|---------|-----|---------|-----|
|     | COUNT   | SEC | COUNT   | SEC | COUNT   | SEC |
|     | -----   |     | -----   |     | -----   |     |
| CNI | t       | u   | v       | w   | x       | y   |
| IMS | N/A     |     | v       | w   | x       | y   |

NO MESSAGE SIGNAL UNIT PROCESSING

| COUNT | SEC   |
|-------|-------|
| ----- | ----- |
| z     | aa    |

RPC NODE PERFORMANCE - RPC COUNT: bb

| ERRORS | OOS_AUTO |       | OOS_MAN |       | OOS_CNFG |       |
|--------|----------|-------|---------|-------|----------|-------|
| COUNT  | COUNT    | SEC   | COUNT   | SEC   | COUNT    | SEC   |
| -----  | -----    | ----- | -----   | ----- | -----    | ----- |
| cc     | dd       | ee    | ff      | gg    | hh       | ii    |

LN NODE PERFORMANCE - LN COUNT: jj

| ERRORS | OOS_AUTO |       | OOS_MAN |       | OOS_CNFG |       |
|--------|----------|-------|---------|-------|----------|-------|
| COUNT  | COUNT    | SEC   | COUNT   | SEC   | COUNT    | SEC   |
| -----  | -----    | ----- | -----   | ----- | -----    | ----- |
| jj     | kk       | ll    | mm      | nn    | oo       | pp    |

SEE PROPRIETARY NOTICE ON COVER PAGE

| SNGL ISOLAT | MULT ISOLAT | RING DOWN | MAN NODE ISOLAT |
|-------------|-------------|-----------|-----------------|
| COUNT SEC   | COUNT SEC   | COUNT SEC | COUNT SEC       |
| -----       | -----       | -----     | -----           |
| qq rr       | ss tt       | uu vv     | ww xx           |

|     |      |         |        | OVERFLOW<br>LEVEL_1 | OVERFLOW<br>LEVEL_2 | OVERFLOW<br>LEVEL_3 |
|-----|------|---------|--------|---------------------|---------------------|---------------------|
|     |      |         |        | -----               | -----               | -----               |
| RPC | RING | RECEIVE | BUFFER | yy                  | zz                  | aaa                 |
| LN  | RING | RECEIVE | BUFFER | N/A                 | bbb                 | ccc                 |

```
[2a] OP SMR AMPR[#] ABT
 CLOSING MEASUREMENT FILE BEING READ
```

```
REPORTING OFFICE: a REPORT INTERVAL: b
CURRENT GENERIC: c DEMAND REPORT
DATE: d, TIME: e
REPORT PERIOD(f): g, h THRU i, j
DATA COVERAGE: k
```

| GRP | MEM | ERROR | OOS-AUTO |     | OOS-MAN |     | OOS-CNFG |     |
|-----|-----|-------|----------|-----|---------|-----|----------|-----|
| NUM | NUM | COUNT | COUNT    | SEC | COUNT   | SEC | COUNT    | SEC |
| --- | --- | ---   | ---      | --- | ---     | --- | ---      | --- |
| l   | m   | n     | o        | p   | q       | r   | s        | t   |

•  
•  
•

SEE PROPRIETARY NOTICE ON COVER PAGE

OP SMR ASEPR[#] IN PROG

CCITT7 LN PERFORMANCE

| GRP<br>NUM | MEM<br>NUM | ERROR<br>COUNT | OOS-AUTO<br>COUNT SEC | OOS-MAN<br>COUNT SEC | OOS-CNFG<br>COUNT SEC |
|------------|------------|----------------|-----------------------|----------------------|-----------------------|
| ---        | ---        | -----          | -----                 | -----                | -----                 |
| l          | m          | n              | o p                   | q r                  | s t                   |
|            |            | •              |                       |                      |                       |
|            |            | •              |                       |                      |                       |
|            |            | •              |                       |                      |                       |

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OP SMR ASEPR[#] IN PROG

RPC NODE PERFORMANCE

| GRP<br>NUM | MEM<br>NUM | ERROR<br>COUNT | OOS-AUTO<br>COUNT SEC | OOS-MAN<br>COUNT SEC | OOS-CNFG<br>COUNT SEC |
|------------|------------|----------------|-----------------------|----------------------|-----------------------|
| ---        | ---        | -----          | -----                 | -----                | -----                 |
| l          | m          | n              | o p                   | q r                  | s t                   |
|            |            | •              |                       |                      |                       |
|            |            | •              |                       |                      |                       |
|            |            | •              |                       |                      |                       |

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OP SMR ASEPR [#] IN PROG

OP SMR ASEPR [#] COMPL

[3a] OP SMR ASEPR[#] ABT  
CLOSING MEASUREMENT FILE BEING READ

SEE PROPRIETARY NOTICE ON COVER PAGE

```
REPORTING OFFICE: a REPORT INTERVAL: b
CURRENT GENERIC: c DEMAND REPORT
DATE: d TIME: e
REPORT PERIOD(f): g , h THRU i , j
DATA COVERAGE: k
```

| SIGNALING LOAD ---    | RECEIVED | TRANSMITTED |
|-----------------------|----------|-------------|
| CCS7 MSU BYTES:       | l        | m           |
| CCS7 ROUTED MSGS:     | n        | o           |
| TOTAL GTR MSGS REC'D: | p        |             |

| SIGNALING PERFORMANCE ---                   | PEG<br>COUNT | TIME<br>(SEC.) |
|---------------------------------------------|--------------|----------------|
| -----                                       | -----        | -----          |
| CCS7 PERFORMANCE ---                        |              |                |
| SIG LINK CONGESTION ONSET (LEVEL 1)         | q            | r              |
| DECLARED LINK FAILURES                      | s            | t              |
| AUTOMATIC CHANGEOVERS                       | u            |                |
| RECEIVE BUFFER OVERFLOW                     | v            |                |
| RECEIVE BUFFER OVERLOAD                     | w            | x              |
| TRANSMIT BUFFER DISCARD LEVEL 1             | y            |                |
| ROUTING AUDIT FAILURES                      | z            |                |
| ALTERNATE LINK SET ROUTING TRANSITIONS      | aa           | bb             |
| EXCEPTION REPORTS (THRESHOLDS EXCEEDED) --- |              |                |
| ERRORED SECONDS                             | cc           |                |
| DETECTED ERRORS                             | dd           |                |
| BYTES RETRANSMITTED                         | ee           |                |
| AUTOMATIC CHANGEOVERS                       | ff           |                |
| MESSAGE TRANSFER FAILURES ---               |              |                |
| MSGS REFUSED - BLOCKED                      | gg           |                |
| MSGS REFUSED - NO TRANSLATION               | hh           |                |
| ECIS6 MSGS DROPPED - DLN/RPC CONGESTION     | ii           |                |
| LOOPING CCS7 MSGS                           | jj           |                |
| GTT REFUSED - BLOCKED                       | kk           |                |
| GTT REFUSED - NO TRANSLATION                | ll           |                |
| SIG LINK MESSAGES DISCARDED                 | mm           |                |
| MSGS DROPPED - DLN/RPC CONGESTION           | nn           |                |
| SCCP MSGS - UNKNOWN ADDRESS (LN7)           | oo           |                |
| SCCP MSGS - UNKNOWN ADDRESS TYPE (LN7)      | pp           |                |
| SCCP MSGS - UNEQUIPPED SUBSYSTEM (LN7)      | qq           |                |
| SCCP MSGS - PROHIBITED SUBSYSTEM (LN7)      | rr           |                |
| SCCP MSGS - UNKNOWN ADDRESS (OFC)           | ss           |                |
| SCCP MSGS - UNKNOWN ADDRESS TYPE (OFC)      | tt           |                |
| SCCP MSGS - UNEQUIPPED SUBSYSTEM (OFC)      | uu           |                |
| SCCP MSGS - PROHIBITED SUBSYSTEM (OFC)      | vv           |                |

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|                          |          |             |
|--------------------------|----------|-------------|
| OP SMR ASNPR1[#] IN PROG |          |             |
| SIGNALING LOAD ---       | RECEIVED | TRANSMITTED |
| CCITT7 MSU BYTES:        | l        | m           |
| CCITT7 ROUTED MSGS:      | n        | o           |
| TOTAL GTR MSGS REC'D:    | p        |             |

  

|                                             |       |        |
|---------------------------------------------|-------|--------|
| SIGNALING PERFORMANCE ---                   | PEG   | TIME   |
|                                             | COUNT | (SEC.) |
| CCITT7 PERFORMANCE ---                      | ----- | -----  |
| SIG LINK CONGESTION ONSET                   | q     | r      |
| DECLARED LINK FAILURES                      | s     | t      |
| AUTOMATIC CHANGEOVERS                       | u     |        |
| RECEIVE BUFFER OVERFLOW                     | v     |        |
| RECEIVE BUFFER OVERLOAD                     | w     | x      |
| TRANSMIT BUFFER DISCARD                     | y     |        |
| EXCEPTION REPORTS (THRESHOLDS EXCEEDED) --- |       |        |
| ERRORED SECONDS                             | cc    |        |
| DETECTED ERRORS                             | dd    |        |
| BYTES FORCED RETRANSMITTED                  | ee    |        |
| AUTOMATIC CHANGEOVERS                       | ff    |        |
| MESSAGE TRANSFER FAILURES ---               |       |        |
| LOOPING CCITT7 MSGS                         | jj    |        |
| ROUTING AUDIT FAILURES                      | kk    |        |
| SIG LINK MESSAGES DISCARDED                 | mm    |        |
| MSGS DROPPED - DLN/RPC CONGESTION           | nn    |        |

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|                                     |       |        |
|-------------------------------------|-------|--------|
| OP SMR ASNPR1[#] IN PROG            |       |        |
| SIGNALING PERFORMANCE ---           | PEG   | TIME   |
|                                     | COUNT | (SEC.) |
| CCS7 & CCITT7 PERFORMANCE ---       | ----- | -----  |
| SIGNALING POINT ISOLATION           | ww    | xx     |
| LINK SET FAILURE                    | yy    | zz     |
| MESSAGE TRANSFER FAILURES ---       |       |        |
| MSUS DISCARDED - ROUTING DATA ERROR | aaa   |        |

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```
OP SMR ASNPR1[#] IN PROG
SIGNALING LOAD ---
 PBX BYTES: bbb
 PBX MESSAGES: ddd
 PBX Q.931 MSGS: fff
 TRANSMITTED
 ggg

SIGNALING PERFORMANCE ---
 PEG TIME
 COUNT (SEC.)
PBX PERFORMANCE ---

 SIGNALING PATH FAILURE hhh iii
 DECLARED LINK FAILURE jjj kkk
 TEMPORARY LINK FAILURE lll mmm
 RECEIVE BUFFER OVERLOAD nnn ooo
 TRANSMIT BUFFER FULL EVENTS ppp qqq
 NUMBER OF LINK RESTARTS rrr
 SIGNALING SWITCHOVERS SUCCESSFUL sss
 SIGNALING SWITCHOVER FAILURES ttt
 MESSAGE TRANSFER FAILURES ---
 MSGS RECEIVED FOR UNAVAILABLE LINK uuu
 MSGS RECEIVED WITH INVALID ADDRESS vv

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```

OP SMR ASNPR1[#] IN PROG

OP SMR ASNPR1[#] COMPL

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[5] OP SMR ASNPR2[#] STARTED  
SIGNALING NETWORK PERFORMANCE REPORT - PART II

REPORTING OFFICE: a  
CURRENT GENERIC: c  
DATE: d, TIME: e  
REPORT PERIOD(f): g, h THRU i, j  
DATA COVERAGE: k

|      |        |     |
|------|--------|-----|
| CCS7 | CCITT7 | PBX |
| l    | l      | m   |
| n    | n      | o   |
| p    | p      |     |
| q    | q      |     |

TOTAL NO. OF EQUIPPED LINKS:  
TOTAL LINK OOS TIME (SECS):  
DURATION RCV'D PROCESSOR OUTAGE:  
TOTAL NO. OF LINK SETS:

PBX  
m  
o

TOTAL NO. OF EQUIPPED LINKS:  
TOTAL LINK OOS TIME (SECS):

LOSS OF SIGNALING CAPABILITY ---

|            |              |              |
|------------|--------------|--------------|
|            | --CCS7 SPI-- | --CCS7 LSF-- |
|            | PC SEC       | PC SEC       |
| A/E LINKS: | r s          | t u          |

LOSS OF SIGNALING CAPABILITY ---

|          |                |                |
|----------|----------------|----------------|
|          | --CCITT7 SPI-- | --CCITT7 LSF-- |
|          | PC SEC         | PC SEC         |
| W LINKS: | r s            | t u            |

ALTERNATE LINK SET ROUTING ---

|            |      |       |
|------------|------|-------|
| LINK SET # | PC   | SEC   |
| -----      | ---- | ----- |
| v          | w    | x     |
|            | •    |       |
|            | •    |       |
|            | •    |       |

CCS7 SIGNALING LINK PERFORMANCE

|                          |         |           |           |           |
|--------------------------|---------|-----------|-----------|-----------|
| FAR END                  | --ACO-- | --ERSEC-- | --CRCER-- | -BYT-RXMT |
| CLLI CODE-LAYER T GR-MEM | PC TE   | PC TE     | PC TE     | PC TE     |
| -----                    | -----   | -----     | -----     | -----     |
| y - z aa bb-cc           | dd ee   | ff gg     | hh ii     | jj kk     |
|                          | •       |           |           |           |
|                          | •       |           |           |           |
|                          | •       |           |           |           |

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OP SMR ASNPR2[#] IN PROG  
CCS7 SIGNALING LINK PERFORMANCE

| FAR END |      |       |    | OOS-TIME |     |    | ---LSF--- |    | --DCL-FLR- |     |    |     |
|---------|------|-------|----|----------|-----|----|-----------|----|------------|-----|----|-----|
| CLLI    | CODE | LAYER | T  | GR       | MEM | HH | MM        | SS | PC         | SEC | PC | SEC |
| y       | -    | z     | aa | bb       | cc  | ll |           |    | t          | u   | mm | nn  |
|         |      |       |    |          |     |    |           |    |            |     |    |     |

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OP SMR ASNPR2[#] IN PROG  
CCS7 SIGNALING LINK PERFORMANCE

| FAR END |      |       |    | ----XMIT |     | BUFFER--- |           | PRO-XMTD |     | PRO-RCVD |       |
|---------|------|-------|----|----------|-----|-----------|-----------|----------|-----|----------|-------|
| CCLI    | CODE | LAYER | T  | GR       | MEM | MSURMV    | CONG-LEV1 | PC       | SEC | PC       | SEC   |
| y       | -    | z     | aa | bb       | cc  | oo        | pp        | qq       | rr  | ss       | tt uu |
|         |      |       |    |          |     |           |           |          |     |          |       |

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OP SMR ASNPR2[#] IN PROG  
CCS7 SIGNALING LINK PERFORMANCE

| FAR END |      |       |    | ----SPI-- |     | --SPI-P0- |     |    |     |
|---------|------|-------|----|-----------|-----|-----------|-----|----|-----|
| CLLI    | CODE | LAYER | T  | GR        | MEM | PC        | SEC | PC | SEC |
| y       | -    | z     | aa | bb        | cc  | r         | s   | vv | ww  |
|         |      |       |    |           |     |           |     |    |     |

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OP SMR ASNPR2[#] IN PROG

CCITT7 SIGNALING LINK PERFORMANCE

| FAR END |      |       |    | ---ACO--- |     | --ERSEC-- |    | --CRCER-- |    | -BYT-FORRX- |    |
|---------|------|-------|----|-----------|-----|-----------|----|-----------|----|-------------|----|
| CLLI    | CODE | LAYER | T  | GR        | MEM | PC        | TE | PC        | TE | PC          | TE |
| y       | -    | z     | aa | bb        | cc  | dd        | ee | ff        | gg | hh          | ii |
|         |      |       |    |           |     |           |    |           |    |             | xx |

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OP SMR ASNPR2[#] IN PROG

CCITT7 SIGNALING LINK PERFORMANCE

| FAR END |      |       |    | OOS-TIME |     |    | ----LSF---- |    | --DCL-FLR- |     |
|---------|------|-------|----|----------|-----|----|-------------|----|------------|-----|
| CLLI    | CODE | LAYER | T  | GR       | MEM | HH | MM          | SS | PC         | SEC |
| y       | -    | z     | aa | bb       | cc  | ll |             |    | t          | u   |
|         |      |       |    |          |     |    |             |    | mm         | nn  |

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OP SMR ASNPR2[#] IN PROG

CCITT7 SIGNALING LINK PERFORMANCE

| FAR END |      |       |    | ----XMIT BUFFER---- |     |        |           |     |          |     |          |     |
|---------|------|-------|----|---------------------|-----|--------|-----------|-----|----------|-----|----------|-----|
| CLLI    | CODE | LAYER | T  | GR                  | MEM | MSURMV | CONG-LEV1 |     | PRO-XMTD |     | PRO-RCVD |     |
|         |      |       |    |                     |     | PC     | PC        | SEC | PC       | SEC | PC       | SEC |
| y       | -    | z     | aa | bb                  | cc  | oo     | pp        | qq  | rr       | ss  | tt       | uu  |

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OP SMR ASNPR2[#] IN PROG

CCITT7 SIGNALING LINK PERFORMANCE

| FAR END |            |   |          | ----SPI-- |     | --SPI-P0- |     |
|---------|------------|---|----------|-----------|-----|-----------|-----|
| CLLI    | CODE-LAYER | T | GR-MEM   | PC        | SEC | PC        | SEC |
| -----   |            |   |          | -----     |     | -----     |     |
| y       | -          | z | aa bb-cc | r         | s   | vv        | ww  |
|         |            |   |          |           |     |           |     |
|         |            |   |          |           |     |           |     |
|         |            |   |          |           |     |           |     |

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OP SMR ASNPR2[#] IN PROG

PBX SIGNALING LINK PERFORMANCE ---

| TYPE | GR-MN-C-P     | OOS TIM<br>HR MIN | OOS-AUTO<br>(SEC) | OOS-MAN<br>(SEC) | SIG<br>PC | FLR<br>(SEC) |
|------|---------------|-------------------|-------------------|------------------|-----------|--------------|
| ---- | -----         | -----             | -----             | -----            | -----     | -----        |
| xx   | yy-zz-aaa-bbb | ccc ddd           | eee               | fff              | ggg       | hhh          |
|      |               |                   |                   |                  |           |              |
|      |               |                   |                   |                  |           |              |
|      |               |                   |                   |                  |           |              |

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OP SMR ASNPR2[#] IN PROG

PBX SIGNALING LINK PERFORMANCE ---

| TYPE | GR-MN-C-P     | DCL FLR<br>PC SEC | TMP LK FLR<br>PC SEC | LINK<br>RESTARTS | MSGs RCV<br>UNAVL |
|------|---------------|-------------------|----------------------|------------------|-------------------|
| ---- | -----         | -----             | -----                | -----            | -----             |
| xx   | yy-zz-aaa-bbb | iii jjj           | kkk lll              | mmm              | nnn               |
|      |               |                   |                      |                  |                   |
|      |               |                   |                      |                  |                   |
|      |               |                   |                      |                  |                   |

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OP SMR ASNPR2[#] IN PROG

PBX SIGNALING LINK PERFORMANCE ---

| TYPE | GR-MN-C-P     | MSGS RCV<br>IVLD ADDR | XMT BUF FULL<br>PC SEC | RCV BUF OVLD<br>PC SEC | SWITCHOVRS<br>SUC FLD |
|------|---------------|-----------------------|------------------------|------------------------|-----------------------|
| xx   | yy-zz-aaa-bbb | ooo                   | ppp qq                 | rrr sss                | ttt uu                |
|      |               |                       |                        |                        |                       |
|      |               |                       |                        |                        |                       |
|      |               |                       |                        |                        |                       |

PAGE \* OF zzz

OP SMR ASNPR2[#] IN PROG

OP SMR ASNPR2[#] COMPL

[6] OP SMR RINGEXLPM STARTED  
RPC OVERFLOW REPORT

REPORTING OFFICE: a                      REPORT INTERVAL: FIVE MINUTES  
CURRENT GENERIC: b                      DEMAND REPORT  
DATE: c, TIME: d  
REPORT PERIOD(e): f, g THRU h, i  
DATA COVERAGE: j

| GRP MEM<br>NUM NUM | OVFLW LVL 0<br>PC | OVFLW LVL 1<br>PC TIME | OVFLW LVL 2<br>PC TIME | OVFLW LVL 3<br>PC TIME |
|--------------------|-------------------|------------------------|------------------------|------------------------|
| k l                | m                 | n o                    | p q                    | r s                    |
|                    |                   |                        |                        |                        |
|                    |                   |                        |                        |                        |
|                    |                   |                        |                        |                        |

PAGE \* OF zzz

OP SMR RINGEXLPM IN PROG

OP SMR RINGEXLPM COMPL

[OP SMR RINGEXLPM COMPL  
NO RPC OVERFLOWS ENCOUNTERED]

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[7] OP SMR COMPL

r=a  
day=b  
p=c

(per office section)

n=d  
e

.

.

f

.

.

(per link section)

n6=g  
e

.

.

n7=h

e

.

.

id=i-j

sys=k

f

.

.

(per node section)

nr=l

e

.

.

ni=m

e

.

.

rpc=i-j

f

.

.

iun=i-j

f

.

.

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(per channel section)

chn=n

e

.

.

channel=o

f

.

.

(per link set section)

ls=p

e

.

.

linkset=q

f

.

.

(per cluster section)

clu=r

e

.

.

cluster=s

f

.

.

[8] OP SMR DS1SR24HR STARTED  
DS1 24 HOUR SUMMARY REPORT

.sp

REPORTING OFFICE: a

REPORT INTERVAL: daily

CURRENT GENERIC: b

q REPORT

DATE: c, TIME: d

REPORT PERIOD(NWT): a, LAST 24 HOURS ENDING f

.sp

PAGE \* OF zzz

.sp

[NO DATA]

[RING OP SMR DS1SR24HR IN PROG

RNA ADR SIDE I N T E R V A L C O U N T S

GR MEM ES FS BES SES SLIPS LOFC

h i k l m n o p]

## 2. REASON FOR OUTPUT

**NOTE:** For format 1 if no 30 minute exceptions are encountered, the last 2 lines will be output.

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**NOTE:** For format 6 if no RPC overflows are encountered during the 5 minute report interval, the last 2 lines will be output.

These output messages are the result of the OP : SMR input message.

Message Formats [2a] and [3a] are output when a report generator process receives a termination signal from CMMSDP, its parent process. CMMSDP will send this termination before it aborts, if the report generator is reading a file CMMSDP needs to update, or if the number of current report generators running exceeds 20.

The general form of this message is:

OP SMR a [STARTED | COMPL | IN PROG | ABT]

If the inhibit report flag is active, no report is output. The message REPORTS ARE INHIBITED is output to notify the user.

The lower case a is a variable controlled by the Schedule (SCHD) Table in the Measurement Output Control Table (MOCT).

This message has seven output formats.

The format of the output message is dependent upon the report type assigned to the report name. There are ten report generator functions available as shown in the following tables.

The MEASLFT15 and SLMLFTLDAY processes listed in the Schedule Table ( in response to OP : SCHD ) are used for balancing 3B computer traffic on the ring nodes and should not be demanded with OP : SMR.

| REPORT<br>GENERATOR<br>TYPE | REPORT<br>NAME | MEANING                                               |
|-----------------------------|----------------|-------------------------------------------------------|
| Fixed Format Reports        |                |                                                       |
| AM30MPR                     | A30MPR30       | Signaling link 30 minute marginal performance report. |
| AMMPR                       | AMPR[#]        | Machine performance report.                           |
| AMSEPR                      | ASEPR[#]       | Signaling equipment performance report.               |
| AMSNPR1                     | ASNPR1[#]      | Signaling network performance report - Part 1.        |
| AMSNPR2                     | ASNPR2[#]      | Signaling network performance report - Part 2.        |
| CMRINGEX                    | RINGEXLPM      | RPC overflow report.                                  |

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| REPORT<br>GENERATOR<br>TYPE | REPORT<br>NAME | MEANING                               |
|-----------------------------|----------------|---------------------------------------|
| Flexible Format Reports     |                |                                       |
| CMNFDISK                    | NFDISK         | Non-fixed disk report.                |
| CMNFDISKEX                  | NFDISKEX       | Non-fixed disk exception report.      |
| CMNFLPMEX                   | NFLPMEX        | Non-fixed 5-minute exception reports. |

The full format description is found on the following pages.

### 3. VARIABLE FIELD DEFINITIONS

These reports are paginated. The page variables are the same for all formats and are:

|     |                                      |
|-----|--------------------------------------|
| #   | Report period:                       |
|     | 15 — 15 minutes                      |
|     | 30 — 30 minutes                      |
|     | HR — 1 hour                          |
|     | CDAY — Current day                   |
|     | LDAY — Last (previous) day           |
| *   | Page number of report.               |
| zzz | Total number of pages in the report. |

Format [1] variables:

|   |                                                                                                                                                                                 |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Reporting office CLLI® code.                                                                                                                                                    |
| b | The accumulation period:<br>{DAILY   HOURLY   HALF HOURLY   FIFTEEN MINUTES}                                                                                                    |
| c | The current generic.                                                                                                                                                            |
| d | Local time zone date in a flexible, user specified format (Ex. 'month/day/year').                                                                                               |
| e | Local time zone time in 'hour:minute:second' format.                                                                                                                            |
| f | User defined string (by way of the Equipment Configuration Database [ECD]). This is the time zone indicator and has a default of Network Time (NWT) within the Continental U.S. |
| g | Network Date at beginning of accumulation period in a flexible, user specified format (Ex. 'month/day/year').                                                                   |

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|   |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| h | Network time at beginning of accumulation period in 'hour:minute:second' format.                                                                                                                                                                                                                                                                                                                                                 |
| i | Network Date at end of accumulation period in a flexible, user specified format (Ex. 'month / day / year').                                                                                                                                                                                                                                                                                                                      |
| j | Network time at end of accumulation period in 'hour:minute:second' format.                                                                                                                                                                                                                                                                                                                                                       |
| k | <p>The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:</p> <p>001 &lt;= aaa &lt;= 288 (288 periods equals<br/>one day - 24 hours)</p> <p>001 &lt;= ccc &lt;= 288</p> <p>aaa &lt;= ccc .</p> |
| l | CLLI® code plus set member number.                                                                                                                                                                                                                                                                                                                                                                                               |
| m | Link-layer.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| n | Link type: {A   B   C   D   E}                                                                                                                                                                                                                                                                                                                                                                                                   |
| o | Group number of link in frame: 00-63.                                                                                                                                                                                                                                                                                                                                                                                            |
| p | Member number of link in frame: 01-15.                                                                                                                                                                                                                                                                                                                                                                                           |
| q | Out-of-service time in minutes and seconds.                                                                                                                                                                                                                                                                                                                                                                                      |
|   | <p><b>NOTE:</b> Any of the following measurements may appear on the report followed by an asterisk (*) indicating that the threshold for that measurement has been exceeded. Only links that have at least one measurement whose threshold is exceeded are printed; therefore, if no data should appear on this report, then no thresholds were exceeded for the report period.</p>                                              |
| r | Cyclic redundancy check errors.                                                                                                                                                                                                                                                                                                                                                                                                  |
| s | <p>Bytes retransmitted.</p> <p><b>NOTE:</b> If link has Basic Error Correction (BEC), then s is bytes retransmitted. If link has Preventative Cyclic Redundancy (PCR) error correction, then S is forced bytes retransmitted.</p>                                                                                                                                                                                                |
| t | The number of automatically initiated changeovers.                                                                                                                                                                                                                                                                                                                                                                               |
| u | The current day errored seconds count of the clock half hour.                                                                                                                                                                                                                                                                                                                                                                    |
| v | Unavailability.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| w | Cluster number (000-255).                                                                                                                                                                                                                                                                                                                                                                                                        |
| x | Cluster type: [POP   UNPOP   NO_RTE]                                                                                                                                                                                                                                                                                                                                                                                             |

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|                              |                                       |
|------------------------------|---------------------------------------|
| y                            | Route set unavailable count.          |
| z                            | Duration of route set unavailable.    |
| aa                           | Link type: SADC or DCHN               |
| bb                           | Circuit pack number of link (0 - 1).  |
| cc                           | Port number of link (0 - 3).          |
| dd                           | Total out-of-service time in minutes. |
| ee                           | Messages retransmitted.               |
| ff                           | Invalid messages - format errors.     |
| gg                           | Protocol exceptions received.         |
| End of Format [1] variables. |                                       |

Format [2] variables:

|   |                                                                                                                                                                                                                                                                                          |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Reporting office CLLI® code.                                                                                                                                                                                                                                                             |
| b | The accumulation period:<br>{DAILY   HOURLY   HALF HOURLY   FIFTEEN MINUTES}                                                                                                                                                                                                             |
| c | The current generic.                                                                                                                                                                                                                                                                     |
| d | Local time zone date in 'month/day/year' format.                                                                                                                                                                                                                                         |
| e | Local time zone time in 'hour:minute:second' format.                                                                                                                                                                                                                                     |
| f | User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S.                                                                                                                                                            |
| g | Network date at beginning of accumulation period in 'month/day/year' format.                                                                                                                                                                                                             |
| h | Network time at beginning of accumulation period in 'hour:minute:second' format.                                                                                                                                                                                                         |
| i | Network date at end of accumulation period in 'month/day/year' format.                                                                                                                                                                                                                   |
| j | Network time at end of accumulation period in 'hour:minute:second' format.                                                                                                                                                                                                               |
| k | The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where: |
|   | 001 <= aaa <= 288 (288 periods equals<br>one day - 24 hours)                                                                                                                                                                                                                             |
|   | 001 <= ccc <= 288                                                                                                                                                                                                                                                                        |
|   | aaa <= ccc.                                                                                                                                                                                                                                                                              |

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|           |                                                                                             |
|-----------|---------------------------------------------------------------------------------------------|
| <b>l</b>  | The number of Level 0 Initializations.                                                      |
| <b>m</b>  | Peg count for the number of Level 0 Initializations.                                        |
| <b>n</b>  | The number of Level 1 Initializations.                                                      |
| <b>o</b>  | Peg count for the number of Level 1 Initializations.                                        |
| <b>p</b>  | The number of Level 1A Initializations.                                                     |
| <b>q</b>  | Peg count for the number of Level 1A Initializations.                                       |
| <b>r</b>  | The number of Level 1B Initializations.                                                     |
| <b>s</b>  | Peg count for the number of Level 1B Initializations.                                       |
| <b>t</b>  | The number of Level 2 Initializations.                                                      |
| <b>u</b>  | Peg count for the number of Level 2 Initializations.                                        |
| <b>v</b>  | The number of Level 3 Initializations.                                                      |
| <b>w</b>  | Peg count for the number of Level 3 Initializations.                                        |
| <b>x</b>  | The number of Level 4 Initializations.                                                      |
| <b>y</b>  | Peg count for the number of Level 4 Initializations.                                        |
| <b>z</b>  | A peg count showing the number of occurrences when no signal unit processing was occurring. |
| <b>aa</b> | The interval (in seconds) of the peg counts referenced in z.                                |
| <b>bb</b> | The number of Ring Peripheral Controllers (RPCs) for which this output data was collected.  |
| <b>cc</b> | The peg count of RPC node errors.                                                           |
| <b>dd</b> | The peg count of RPC Out-Of-Service Auto for RPC node.                                      |
| <b>ee</b> | The time (in seconds) of dd.                                                                |
| <b>ff</b> | The peg count of RPC Out-Of-Service Manual for RPC node.                                    |
| <b>gg</b> | The time (in seconds) of ff.                                                                |
| <b>hh</b> | The peg count of RPC Out-Of-Service Configuration for RPC node.                             |
| <b>ii</b> | The time (in seconds) of hh.                                                                |
| <b>jj</b> | The number of Link Nodes (LNs) for which this output data was collected.                    |
| <b>kk</b> | The peg count of LN node errors.                                                            |
| <b>ll</b> | The peg count of LN Out-Of-Service Auto for LN Node.                                        |
| <b>mm</b> | The time (in seconds) of ll.                                                                |
| <b>nn</b> | The peg count of LN Out-Of-Service Manual for LN node.                                      |
| <b>oo</b> | The time (in seconds) of nn.                                                                |

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|                              |                                                                        |
|------------------------------|------------------------------------------------------------------------|
| pp                           | The peg count of LN Out-Of-Service Configuration for LN node.          |
| qq                           | The time (in seconds) of pp.                                           |
| rr                           | The peg count of Single Fault Ring Errors.                             |
| ss                           | The time (in seconds) of rr.                                           |
| tt                           | The peg count of Multiple Fault Ring Errors.                           |
| uu                           | The time (in seconds) of tt.                                           |
| vv                           | Peg count for the number of times the entire ring went down.           |
| ww                           | The time (in seconds) the ring was down.                               |
| xx                           | Peg count for the number of nodes isolated manually.                   |
| yy                           | Duration timer for the number of nodes isolated manually (in seconds). |
| zz                           | The peg count of Ring Receive Buffer Overflows (Level 1).              |
| aaa                          | The peg count of Ring Receive Buffer Overflows (Level 2).              |
| bbb                          | The peg count of Ring Receive Buffer Overflows (Level 3).              |
| ccc                          | The peg count of LN Receive Buffer Overflows (Level 2).                |
| ddd                          | The peg count of LN Receive Buffer Overflows (Level 3).                |
| End of Format [2] variables. |                                                                        |

Format [3] variables:

|   |                                                                                                                               |
|---|-------------------------------------------------------------------------------------------------------------------------------|
| a | Reporting office CLLI® code.                                                                                                  |
| b | The accumulation period:<br>{DAILY   HOURLY   HALF HOURLY   FIFTEEN MINUTES}                                                  |
| c | The current generic.                                                                                                          |
| d | Local time zone date in 'month / day / year' format.                                                                          |
| e | Local time zone time in 'hour:minute:second' format.                                                                          |
| f | User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S. |
| g | Network date at beginning of accumulation period in 'month / day / year' format.                                              |
| h | Network time at beginning of accumulation period in 'hour:minute:second' format.                                              |
| i | Network date at end of accumulation period in 'month / day / year' format.                                                    |
| j | Network time at end of accumulation period in 'hour:minute:second' format.                                                    |

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- k The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:  
001 <= aaa <= 288 (288 periods equals  
one day - 24 hours)  
001 <= ccc <= 288  
aaa <= ccc.
- l Group number of link in frame: 00-63.
- m Member number of link in frame: 00-15.
- n Peg count of transient errors, errors which do not result in a node being removed from service.
- o Peg count of out-of-service time due to faults; this includes all time that a node is automatically removed from service.
- p Duration of time in seconds that a node is out-of-service due to faults.
- q Peg count for manually initiated out-of-service time.
- r Duration of time in seconds that a node is manually out-of-service.
- s Peg count for out-of-service time due to ring reconfiguration that isolates this node.
- t Duration of time in seconds that a node is out-of-service due to a ring reconfiguration.
- End of Format [3] variables.

Format [4] variables:

- a Reporting office CLLI® code.
- b The accumulation period:  
{DAILY | HOURLY | HALF HOURLY | FIFTEEN MINUTES}
- c The current generic.
- d Local time zone date in 'month/day/year' format.
- e Local time zone time in 'hour:minute:second' format.
- f User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S.
- g Network date at beginning of accumulation period in 'month/day/year' format.
- h Network time at beginning of accumulation period in 'hour:minute:second' format.
- i Network date at end of accumulation period in 'month/day/year' format.

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|    |                                                                                                                                                                                                                                                                                                                                                                                              |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| j  | Network time at end of accumulation period in 'hour:minute:second' format.                                                                                                                                                                                                                                                                                                                   |
| k  | The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:<br>001 <= aaa <= 288 (288 periods equals<br>one day - 24 hours)<br>001 <= ccc <= 288<br>aaa <= ccc. |
| l  | Common Channel Signaling System 7 (CCS7)<br>Bytes received.                                                                                                                                                                                                                                                                                                                                  |
| m  | CCS7 Bytes transmitted.                                                                                                                                                                                                                                                                                                                                                                      |
| n  | CCS7 Routed Messages received.                                                                                                                                                                                                                                                                                                                                                               |
| o  | CCS7 Routed Messages transmitted.                                                                                                                                                                                                                                                                                                                                                            |
| p  | Total number of global title routing messages received.                                                                                                                                                                                                                                                                                                                                      |
| q  | Level 1 transmit buffer congestion onset.                                                                                                                                                                                                                                                                                                                                                    |
| r  | Duration of Level 1 transmit buffer overloads (in seconds).                                                                                                                                                                                                                                                                                                                                  |
| s  | Declared failures.                                                                                                                                                                                                                                                                                                                                                                           |
| t  | Duration of declared link failures.                                                                                                                                                                                                                                                                                                                                                          |
| u  | Automatic changeovers.                                                                                                                                                                                                                                                                                                                                                                       |
| v  | Receive buffer overflow.                                                                                                                                                                                                                                                                                                                                                                     |
| w  | Receive buffer overload.                                                                                                                                                                                                                                                                                                                                                                     |
| x  | Duration of receive buffer overload (in seconds).                                                                                                                                                                                                                                                                                                                                            |
| y  | Transmit buffer discard Level 1.                                                                                                                                                                                                                                                                                                                                                             |
| z  | Routing audit failures.                                                                                                                                                                                                                                                                                                                                                                      |
| aa | Number of alternate link set routing transitions to a lower priority link set.                                                                                                                                                                                                                                                                                                               |
| bb | Duration of alternate link set transitions.                                                                                                                                                                                                                                                                                                                                                  |
| cc | Half hours with errored second threshold exceeded.                                                                                                                                                                                                                                                                                                                                           |
| dd | Half hours with detected error threshold exceeded.                                                                                                                                                                                                                                                                                                                                           |
| ee | Bytes retransmitted.                                                                                                                                                                                                                                                                                                                                                                         |
| ff | Half hours with automatic changeover threshold exceeded.                                                                                                                                                                                                                                                                                                                                     |
| gg | Direct Signaling messages rejected by Central Processor due to congestion.                                                                                                                                                                                                                                                                                                                   |
| hh | Direct Signaling messages rejected due to no translation data.                                                                                                                                                                                                                                                                                                                               |

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|     |                                                                                                                   |
|-----|-------------------------------------------------------------------------------------------------------------------|
| ii  | Number of priority level 1/2/3 ECIS6 messages dropped due to DLN/RPC congestion.                                  |
| jj  | Looping CCS7 messages.                                                                                            |
| kk  | Global title translation refused - blocked.                                                                       |
| ll  | Global title translation refused - no translation.                                                                |
| mm  | Messages removed / discarded due to link congestion.                                                              |
| nn  | Number of priority level 1/2/3 messages dropped due to DLN/RPC congestion.                                        |
| oo  | Number of Signal Connection Control Part (SCCP) messages destined for an unknown address (or global title) (LN7). |
| pp  | Number of SCCP messages destined for an unknown address (or global title) type (LN7).                             |
| qq  | Number of SCCP messages destined for an unequipped subsystem (LN7).                                               |
| rr  | Number of SCCP messages destined for a prohibited subsystem (LN7).                                                |
| ss  | Number of SCCP messages destined for an unknown address (or global title) (OFC).                                  |
| tt  | Number of SCCP messages destined for an unknown address (or global title) type (OFC).                             |
| uu  | Number of SCCP messages destined for an unequipped subsystem (OFC).                                               |
| vv  | Number of SCCP messages destined for a prohibited subsystem (OFC).                                                |
| ww  | Signaling Point (SP) node isolations.                                                                             |
| xx  | Duration of SP node isolations (in seconds).                                                                      |
| yy  | SP Link set failures.                                                                                             |
| zz  | Duration of SP link set failures (in seconds).                                                                    |
| aaa | Message Signal Units (MSUs) discarded due to routing data error count.                                            |
| bbb | PBX bytes received.                                                                                               |
| ccc | PBX bytes transmitted.                                                                                            |
| ddd | PBX messages received.                                                                                            |
| eee | PBX messages transmitted.                                                                                         |
| fff | PBX Q.931 messages received.                                                                                      |
| ggg | PBX Q.931 messages transmitted.                                                                                   |
| hhh | Signaling path failures.                                                                                          |
| iii | Duration of signaling path failures. (in seconds).                                                                |

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|     |                                                   |
|-----|---------------------------------------------------|
| jjj | Declared link failure.                            |
| kkk | Duration of declared link failure (in seconds).   |
| lll | Temporary link failure.                           |
| mmm | Duration of temporary link failure (in seconds).  |
| nnn | Number of receive buffer overloads.               |
| ooo | Duration of receive buffer overload (in seconds). |
| ppp | Transmit buffer full events.                      |
| qqq | Duration of transmit buffer full (in seconds).    |
| rrr | Number of link establishment attempts (Restarts). |
| sss | Successful Signaling Switchovers.                 |
| ttt | Signaling Switchover Failures.                    |
| uuu | Messages received for an unavailable link.        |
| vvv | Messages received with invalid address.           |

End of Format [4] variables.

Format [5] variables:

|   |                                                                                                                               |
|---|-------------------------------------------------------------------------------------------------------------------------------|
| a | Reporting office CLLI® code.                                                                                                  |
| b | The accumulation period:<br>{DAILY   HOURLY   HALF HOURLY   FIFTEEN MINUTES}                                                  |
| c | The current generic.                                                                                                          |
| d | Local time zone date in 'month / day / year' format.                                                                          |
| e | Local time zone time in 'hour:minute:second' format.                                                                          |
| f | User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S. |
| g | Network date at beginning of accumulation period in 'month / day / year' format.                                              |
| h | Network time at beginning of accumulation period in 'hour:minute:second' format.                                              |
| i | Network date at end of accumulation period in 'month / day / year' format.                                                    |
| j | Network time at end of accumulation period in 'hour:minute:second' format.                                                    |

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|     |                                                                                                                                                                                                  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hh  | Peg count for cyclic redundancy check errors.                                                                                                                                                    |
| ii  | Number of times threshold exceeded for cyclic redundancy check errors.                                                                                                                           |
| jj  | Peg count for bytes retransmitted.                                                                                                                                                               |
|     | <b>NOTE:</b> If link has Basic Error Correction (BEC), then jj is bytes retransmitted. If link has Preventative Cyclic Redundancy (PCR) error correction, then jj is forced bytes retransmitted. |
| kk  | Number of times threshold exceeded for byte retransmissions.                                                                                                                                     |
| ll  | Out-of-Service time (in hours:minutes:seconds).                                                                                                                                                  |
| mm  | Peg count for declared link failures.                                                                                                                                                            |
| nn  | Duration in seconds of declared link failures.                                                                                                                                                   |
| oo  | MSUs removed due to link congestions.                                                                                                                                                            |
| pp  | Peg count for transmit buffer overload - Level 1.                                                                                                                                                |
| qq  | Duration in seconds of transmit buffer overload - Level 1.                                                                                                                                       |
| rr  | Link Interface in processor send mode.                                                                                                                                                           |
| ss  | Duration of processor outage.                                                                                                                                                                    |
| tt  | Far end processor outage occurred.                                                                                                                                                               |
| uu  | Duration of far end processor outage.                                                                                                                                                            |
| vv  | Adjacent signaling point isolation due to far end processor outage.                                                                                                                              |
| ww  | Duration of adjacent signaling point isolation due to far end processor outage.                                                                                                                  |
| xx  | Number of bytes forced retransmitted.                                                                                                                                                            |
| yy  | Link type: SADC or DCHN.                                                                                                                                                                         |
| zz  | Pack number of link: 0 - 1.                                                                                                                                                                      |
| aaa | Port number of link: 0 - 3.                                                                                                                                                                      |
| bbb | Amount of time link is active (in hours).                                                                                                                                                        |
| ccc | Amount of time link is active (in minutes).                                                                                                                                                      |
| ddd | Peg count of out-of-service time due to faults; this includes all time that a node is automatically removed from service.                                                                        |
| eee | Peg count for manually initiated out-of-service time.                                                                                                                                            |
| fff | Signaling path failures.                                                                                                                                                                         |
| ggg | Duration of signaling path failures (in seconds).                                                                                                                                                |
| hhh | Peg count for declared link failures.                                                                                                                                                            |
| iii | Duration in seconds of declared link failures.                                                                                                                                                   |

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jjj Peg count for temporary link failures.  
kkk Duration in seconds of temporary link failures.  
lll Number of link establishment attempts.  
mmm Messages received for an unavailable link.  
nnn Messages received with invalid address.  
ooo Transmit buffer full events.  
ppp Duration in seconds of transmit buffer full.  
qqq Number of receive buffer overloads.  
rrr Duration in seconds of received buffer overload.  
sss Successful Signaling Switchovers.  
ttt Signaling Switchover Failures.  
End of Format [5] variables.

Format [6] variables:

a Reporting office CLLI® code.  
b The current generic.  
c Local time zone date in 'month / day / year' format.  
d Local time zone time in 'hour:minute:second' format.  
e User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S.  
f Network date at beginning of accumulation period in 'month / day / year' format.  
g Network time at beginning of accumulation period in 'hour:minute:second' format.  
h Network date at end of accumulation period in 'month / day / year' format.  
i Network time at end of accumulation period in 'hour:minute:second' format.  
j The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa / ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:  
001 <= aaa <= 288 (288 periods equals  
one day - 24 hours)  
001 <= ccc <= 288  
aaa <= ccc.

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|                              |                                                                                                                                                                         |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| k                            | Group number of RPC in frame: 00-63.                                                                                                                                    |
| l                            | Member number of RPC in frame: 00-15.                                                                                                                                   |
| m                            | Overflow peg count for level 0 (zero); this is the abatement level and indicates how many times this normal operational level was reached from a higher overflow level. |
| n                            | Overflow peg count for Level 1.                                                                                                                                         |
| o                            | Overflow time duration in seconds for Level 1 (time of n).                                                                                                              |
| p                            | Overflow peg count for Level 2.                                                                                                                                         |
| q                            | Overflow time duration in seconds for Level 2 (time of p).                                                                                                              |
| r                            | Overflow peg count for Level 3.                                                                                                                                         |
| s                            | Overflow time duration in seconds for Level 3 (time of r).                                                                                                              |
| End of Format [6] variables. |                                                                                                                                                                         |

Format [7] variables:

|   |                                                                               |
|---|-------------------------------------------------------------------------------|
| a | Report name from the Schedule (SCHD) Table.                                   |
| b | Julian date: 1 - 366                                                          |
| c | Starting data collection period: 1 - 288                                      |
| d | The number of office measurements from the User View Descriptor Table (UVDT). |
| e | The name of the measurement in the UVDT.                                      |
| f | A measurement value.                                                          |
| g | The number of LN6 measurements in the UVDT.                                   |
| h | The number of LN7 measurements in the UVDT.                                   |
| i | The link frame number.                                                        |
| j | The link member number.                                                       |
| k | Link protocol: 6 or 7.                                                        |
| l | The number of RPC measurements in the UVDT.                                   |
| m | The number of IMS User Node (IUN) measurements in the UVDT.                   |
| n | The number of channel measurements in the UVDT.                               |
| o | The channel number.                                                           |
| p | Number of link set measurements in the UVDT.                                  |
| q | Link set number.                                                              |

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r                      Number of cluster measurements in the UVDT.

s                      Cluster number.

End of Format [7] variables.

Format [8] variables:

a                      Reporting office location.

b                      Current generic.

c                      Local home zone date in "month / day / year" format.

d                      Local home zone time in "hour:minute:second" format.

e                      Network date at the end of the accumulation period in  
"month / day / year" format.

f                      Network time at the end of the accumulation period in  
"hour:minute:second" format.

g                      Group number (0 - 63).

h                      Member number (1 - 15).

k                      Peg count errored seconds.

l                      Peg count failed seconds.

m                      Peg count bursty errored seconds.

n                      Peg count severely errored seconds.

o                      Peg count SLIPS.

p                      Peg count loss of frame.

q                      Report type:

AUTOMATIC

DEMAND

End of Format [8] variables.

#### 4. ACTION TO BE TAKEN

If either Format [2a or 3] appears, demand the report for the interval in question since the history file is complete and will produce a valid report. Use input message OP : SMR.

The remainder of the messages require no action.

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**5. REFERENCES**

Practice 256-090-121 *CNI Operations Manual* - Measurements, Reports, and  
Critical Events Section

Input Message  
OP:SMR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:SNAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

OP SNAT a  
NWT b c d e:f:g:h i

## 2. REASON FOR OUTPUT

Response to a request for the current network administrative time (SNAT).

## 3. VARIABLE FIELD DEFINITIONS

|   |                           |
|---|---------------------------|
| a | Message termination code. |
| b | Day of the week.          |
| c | Month.                    |
| d | Day of the month.         |
| e | Hour.                     |
| f | Minute.                   |
| g | Seconds.                  |
| h | Milliseconds.             |
| i | Year.                     |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
OP:SNAT

Output Message  
REPT:SNAT

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... OP:ST-DISKUSE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP STATUS DISKUSE COMPLETED  
a b
- [2] OP STATUS DISKUSE STOPPED  
c DOES NOT EXIST
- [3] OP STATUS DISKUSE STOPPED  
TOTAL OR EACH MUST BE SPECIFIED  
IF FN IS A FILE
- [4] OP STATUS DISKUSE STOPPED  
d

## 2. REASON FOR OUTPUT

To report the result of executing an OP:ST-DISKUSE input message.

## 3. VARIABLE FIELD DEFINITIONS

- a The total number of blocks in the directory or file is printed. Block size is 512 bytes.
- b Pathname of file specified in the input message.
- c Pathname of the directory which does not exist.
- d Text explaining why the command was stopped.

## 4. ACTION TO BE TAKEN

Use the OP:ST-LSTDIR input message to check the status of the file if bad status is printed. (This message implies that the file does not exist.)

Use the CLR:F-FILE input message to remove some files or the COPY:F-FILE input message to copy some files to another directory if Huge directory is printed.

Seek technical assistance if a cannot open or cannot read message is printed.

## 5. REFERENCES

### OMDB Keys

Format 1 has an OMDB key of 282.

Formats 2 and 3 have an OMDB key of 281.

Format 4 has an OMDB key of 288.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

CLR:F-FILE  
COPY:F-FILE  
OP:ST-DISKUSE  
OP:ST-LSTDIR  
OP:ST-SUM

Output Messages

OP:ST-LSTDIR  
OP:ST-SUM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:ST-FILESYS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

OP STATUS FILESYS COMPLETED  
a ON b c ON d e f g h i j

## 2. REASON FOR OUTPUT

To output information about all the mounted file systems requested by the OP:ST-FILESYS input message.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                         |
|---|---------------------------------------------------------|
| a | The directory name on which the file system is mounted. |
| b | File system; for example, /dev/mt08.                    |
| c | Permission; for example, read/write.                    |
| d | Abbreviated form of day of the week.                    |
| e | Abbreviated form of month.                              |
| f | Day of the month (00-31).                               |
| g | Hour (00-23).                                           |
| h | Minute (00-59).                                         |
| i | Second (00-59).                                         |
| j | Year (00-99).                                           |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages  
ALW: F-MOUNT  
INH: F-UMOUNT  
OP:ST-FILESYS

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message  
INH:F-UMOUNT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:ST-FRDISK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP STATUS FREEDISK {STARTED|IN PROGRESS|COMPLETED}  
a b c BLOCKS d I-NODES
- [2] OP STATUS FREEDISK STOPPED  
{cannot open e |  
cannot stat e |  
e not a block device |  
e not a file system}

## 2. REASON FOR OUTPUT

To respond to the OP:ST-FREEDISK input message to print out the number of free blocks and free i-nodes available for on-line file system.

Format 1 prints when the input message is being executed or is successfully completed.

Format 2 prints when the input message is stopped by an error condition.

**NOTE:** STARTED, IN PROGRESS and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                          |
|---|------------------------------------------|
| a | Mounted directory name.                  |
| b | Device name.                             |
| c | Number of free blocks.                   |
| d | Number of free inodes.                   |
| e | Pathname specified in the input message. |

## 4. ACTION TO BE TAKEN

Refer to the input message for the correct format and reenter the message or check the status of the file using the OP:ST-LISTDIR input message if cannot open printed.

Seek technical assistance if cannot stat or any other error message is printed.

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## **5. REFERENCES**

### OMDB Key

Formats 1 and 2 have an OMDB key of 288.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

### Input Messages

ALW:F-MOUNT

OP:ST-FILESYS

OP:ST-FRDISK

OP:ST-LSTDIR

### Output Messages

OP:ST-FILESYS

OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:ST-LSTDIR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP STATUS LISTDIR {STARTED|IN PROGRESS|COMPLETED}  
[Total a]  
b c d e f g h i
- [2] OP STATUS LISTDIR STOPPED  
{j not found |  
unreadable |  
too many files |  
out of memory}

## 2. REASON FOR OUTPUT

To report the result of executing an OP:ST-LISTDIR input command to list the contents of the file.

**NOTE:** STARTED, IN PROGRESS and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Size in blocks. Printed only on STARTED or COMPLETED messages.
- b                      Size in blocks.
- c                      Type of file:  
                        d — Directory  
                        b — Block  
                        c — Character  
                        p — First-In First-Out (FIFO)  
                        - — Ordinary
- d                      Permissions. (For example, RWX = read, write and execute.)
- e                      Number of links.
- f                      Owner.
- g                      Size, specified in bytes.

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|   |                                          |
|---|------------------------------------------|
| h | Current modification time.               |
| i | Filename.                                |
| j | Pathname specified in the input command. |

#### **4. ACTION TO BE TAKEN**

Refer to the input message for the correct format and reenter the command if not found is printed.

Seek technical assistance if any other error message is printed.

#### **5. REFERENCES**

OMDB Key

Formats 1 and 2 have an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

ALW:F-ACCESS

OP:ST-LSTDIR

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ID ..... OP:ST-NSC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

```
OP STATUS NSC a
 NSC b c
 .
 .
 .
 NSC b c
[NSC STATUS LIST IS INCOMPLETE]
```

## 2. REASON FOR OUTPUT

To print the status list of all equipped network services complexes (NSCs).

## 3. VARIABLE FIELD DEFINITIONS

a                      Status of output of NSC status list:

                        COMPLETED — Complete NSC status list follows.  
                        STOPPED     — NSC status list is incomplete.

b                      Member number of the NSC (0-127).

c                      Status of the NSC:

                        ACT           — Active.  
                        ACT INIP — Active with inhibit in progress.  
                        OOS           — Out-of-service.

NSC . . . INCOMPLETE = Text phrase that prints only if a = STOPPED.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
OP:ST-NSC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:ST-PORTS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP STATUS PORTS {STARTED|IN PROGRESS|COMPLETED}  
port a owner by b
- [2] OP STATUS PORTS STOPPED

## 2. REASON FOR OUTPUT

To respond to an OP:ST-PORTS input command to output the status of each connected port.

**NOTE:** STARTED, IN PROGRESS and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

## 3. VARIABLE FIELD DEFINITIONS

- a Port number.
- b Process Identification (ID) of the process connected to the port.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key  
Formats 1 and 2 have an OMDB key of 282.

Input Message  
OP:ST-PORTS

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ID ..... OP:ST-PROC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}  
PSTAT PRI KTIME KPTIM STIME TTY PID UTID SIZE SLEEP CMD  
a b c d e f g h i j k
- [2] OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}  
PSTAT PRI TOUT RTOUT EVENTS CHAN PID ADDR DCT ID DEVICE  
a l m n o p g q r h s
- PSTAT PRI KTIME KPTIM STIME TTY PID UTID SIZE SLEEP CMD  
a b c d e f g h i j k
- [3] OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}  
PPID TTY PID CMD  
t f g k
- [4] OP STATUS PROCESS STOPPED  
{no /dev/pmem |  
can't open /dev/kmem |  
can't open swap device: swapdev |  
can't open /dmrt/kprc |  
out of memory  
read error on /dmrt/kprc |  
warning: can't stat /dmrt/kprc |  
read error /dev/kmem |  
bad read |  
read error  
internal error |  
bad input line: badline |  
internal table exhausted}

## 2. REASON FOR OUTPUT

To output the status of one or more active processes.

Format 1 prints when ALL or ALLTERMS keyword was specified in the input message.

Format 2 prints when ALLKERNS keyword was specified in the input message.

Format 3 prints when PATH keyword was specified in the input message.

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**NOTE:** STARTED, IN PROGRESS and COMPLETED messages appear when three or more output segments are printed.

STARTED and COMPLETED messages appear when two output segments are printed.

A COMPLETED message appears when only one output segment is printed.

### 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                           |
|---|---------------------------------------------------------------------------------------------------------------------------|
| a | Process status flags (in hexadecimal notation).                                                                           |
| b | Current priority of the process (in decimal notation).                                                                    |
| c | Time spent in the kernel in milliseconds (in decimal notation).                                                           |
| d | Time spent in kernel processes in milliseconds (in decimal notation).                                                     |
| e | Time spent in supervisor processes in milliseconds (in decimal notation).                                                 |
| f | Last character of the control channel (terminal) of the process (alphabetical).                                           |
| g | Process number of the process (in decimal notation).                                                                      |
| h | Utility Identification (ID) as given in the specification file for the process.                                           |
| i | Size (in bytes) of the process (in decimal notation).                                                                     |
| j | Bit pattern on which the process is sleeping (in hexadecimal notation).                                                   |
| k | Command line used to invoke the process, including any arguments passed to the process. This is in alphabetical sequence. |
| l | Execution level for the process (in decimal notation).                                                                    |
| m | Real-time clock value for a single or repetitive timeout (in hexadecimal notation).                                       |
| n | Time interval (in milliseconds) between timeouts for repetitive timeouts (in decimal notation).                           |
| o | Process event-flag word (in hexadecimal notation).                                                                        |
| p | Process control channel (in hexadecimal notation).                                                                        |
| q | Address of the Process Control Block (PCB) segment descriptor entry (in hexadecimal notation).                            |
| r | Dispatcher control table index for the process (in decimal notation).                                                     |
| s | Name of the controller or device.                                                                                         |
| t | Process number of the parent process (in decimal notation).                                                               |

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**4. ACTION TO BE TAKEN**

Seek technical assistance if format 4 or other error message prints.

**5. REFERENCES**

OMDB Key

Formats 1 through 4 have an OMDB key of 287.

Input Messages

OP:ST-PROC

STOP:E-ANY

STOP:E-USER

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ID ..... OP:ST-SUM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP STATUS SUM COMPLETED  
a b c
- [2] OP STATUS SUM STOPPED  
{Cannot open c | Read error on c}

## 2. REASON FOR OUTPUT

To output the result of executing the OP:ST-SUM input command to calculate the checksum and to report the number of blocks in a file.

## 3. VARIABLE FIELD DEFINITIONS

- a 16-bit checksum of a file (in decimal notation).
- b Number of blocks in a file (in decimal notation).
- c Pathname of the file specified in the input command.

## 4. ACTION TO BE TAKEN

Refer to the input message for the correct format and reenter the command, or check the status of the file using the OP:ST-LSTDIR input message if can't open is printed.

Seek technical assistance if read error is printed.

## 5. REFERENCES

OMDB Key  
Formats 1 and 2 have an OMDB key of 282.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages  
OP:ST-LSTDIR  
OP:ST-SUM

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Output Messages  
OP:ST-DISKUSE  
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:STBY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP STBY MESSAGE STARTED  
UNIT MTCE INH DGN  
a b [ c d ] e f g
- [2] OP STBY COMPLETED
- [3] OP STBY INTERFACE ERROR, ERRNO=h
- [4] OP STBY NOT STARTED  
INVALID DATA FIELD
- [5] OP STBY NOT STARTED  
RETRY LATER
- [6] OP STBY IN PROGRESS  
a b [ c d ] e f g
- [7] OP STBY RETRY LATER i
- [8] OP STBY WRITE TO j  
FAILED ON KEY #k

## 2. REASON FOR OUTPUT

To give device information specific to computer hardware units on communities requested via the OP:STBY input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name. Computer unit names are listed in the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- b Unit number. See Member Numbers Output Appendix C, APP:MEM-NUM-C.
- c Subunit name, if the subunit name is Control Unit (CU), CU subunit names are listed in the Member Numbers Output Appendix D, APP:MEM-NUM-D.

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- d Subunit number. See Member Numbers Output Appendix C, APP:MEM-NUM-C.
- e The current maintenance state of the unit is indicated by the identifiers:
- ACT — Active units.
  - GROW — Units being grown.
  - INIT — Initializing units.
  - OFL — Offline units.
  - OOS — Out-of-service units.
  - STBY — Standby units.
  - UNAV — Unavailable units.
  - UNEQIP — Unequipped units.
- f Unit status:
- ALW — Allowed.
  - INH — Inhibited.
- g Results of the last diagnostic on the unit:
- ABT — Aborted diagnostics.
  - ATP — All tests passed.
  - CATP — Conditional all tests passed.
  - NTR — No tests were run.
  - STF — Some tests failed.
- h Error number:
- 9 — Cannot attach to plant measurement library.
  - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
  - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i Retry the command later for the reasons:
- CANNOT CREATE FILE IN /tmp
  - CANNOT GET DATABASE RECORD ID
  - CANNOT SEQUENCE DATABASE
- j Temporary output file name.
- k Key associated with write failure.

#### 4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

#### 5. REFERENCES

##### OMDB Keys

- Format 1 has OMDB keys of 49 and 477.
- Format 2 has OMDB keys of 50 and 478.
- Format 3 has OMDB keys of 51 and 479.
- Format 6 has OMDB keys of 580 and 582.

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Format 7 has OMDB keys of 588 and 589.  
Format 8 has an OMDB key of 656.

Output Appendixes

APP:MEM-NUM-C

APP:MEM-NUM-D

Input Messages

OP:ACT

OP:CFGSTAT

OP:GROW

OP:INIT

OP:OFL

OP:OOS

OP:STBY

OP:UNAV

OP:UNEQIP

OP:STBY

OP:CFGSTAT

Output Message

OP:CFGSTAT

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ID ..... OP:T1M  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] RING OP T1M STARTED  
RNA ADR SIDE NTWK RSP\_STAT ESF  
GR MEM O-D E/F TIME UFRYATLO ERRORS  
a b c d e l h o  
RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME
- [2] RING OP T1M STARTED  
RNA ADR SIDE NTWK RSP\_STAT ESF RAW DATA NEAR END ULN ONLY  
GR MEM O-D E/F TIME UFRYATLO ERRORS XST1 XST2 XST3  
a b c d e l h o i i i  
RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME
- [3] RING OP T1M STARTED  
RNA ADR SIDE I N T E R V A L C O U N T S  
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC  
a b c d e f j k k k k k k  
. . . . .  
. . . . .  
a b c d e f j k k k k k k  
RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME
- [4] RING OP T1M STARTED  
RNA ADR SIDE I N T E R V A L C O U N T S  
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC  
a b c d e f j k k k k k k  
. . . . .  
. . . . .  
a b c d e f j k k k k k k  
RING OP T1M INPROGRESS  
RNA ADR SIDE I N T E R V A L C O U N T S  
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC  
a b c d e f j k k k k k k  
. . . . .  
. . . . .  
a b c d e f j k k k k k k  
RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME

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[5] RING OP T1M STARTED

| RNA | ADR | SIDE | I N T E R V A L |      |          |    | C O U N T S |     |     |       |      |   |
|-----|-----|------|-----------------|------|----------|----|-------------|-----|-----|-------|------|---|
| GR  | MEM | O-D  | E/F             | TIME | DURATION | ES | FS          | BES | SES | SLIPS | LOFC |   |
| a   | b   | c    | d               | e    | f        | j  | k           | k   | k   | k     | k    | k |
| .   | .   | .    | .               | .    | .        | .  | .           | .   | .   | .     | .    | . |
| a   | b   | c    | d               | e    | f        | j  | k           | k   | k   | k     | k    | k |

RING OP T1M INPROGRESS

| RNA | ADR | SIDE | I N T E R V A L |      |          |    | C O U N T S |     |     |       |      |   |
|-----|-----|------|-----------------|------|----------|----|-------------|-----|-----|-------|------|---|
| GR  | MEM | O-D  | E/F             | TIME | DURATION | ES | FS          | BES | SES | SLIPS | LOFC |   |
| a   | b   | c    | d               | e    | f        | j  | k           | k   | k   | k     | k    | k |
| .   | .   | .    | .               | .    | .        | .  | .           | .   | .   | .     | .    | . |
| a   | b   | c    | d               | e    | f        | j  | k           | k   | k   | k     | k    | k |

RING OP T1M INPROGRESS

| RNA | ADR | SIDE | I N T E R V A L |      |          |    | C O U N T S |     |     |       |      |   |
|-----|-----|------|-----------------|------|----------|----|-------------|-----|-----|-------|------|---|
| GR  | MEM | O-D  | E/F             | TIME | DURATION | ES | FS          | BES | SES | SLIPS | LOFC |   |
| a   | b   | c    | d               | e    | f        | j  | k           | k   | k   | k     | k    | k |
| .   | .   | .    | .               | .    | .        | .  | .           | .   | .   | .     | .    | . |
| a   | b   | c    | d               | e    | f        | j  | k           | k   | k   | k     | k    | k |

RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME

[6] RING OP T1M STARTED

| RNA | ADR | SIDE | NTWK | VALID | RSP_STAT |          |   |  |  |  |  |  |
|-----|-----|------|------|-------|----------|----------|---|--|--|--|--|--|
| GR  | MEM | O-D  | E/F  | TIME  | NTRVLS   | UFRYATLO |   |  |  |  |  |  |
| a   | b   | c    | d    | e     | l        | g        | h |  |  |  |  |  |

  

| RNA | ADR | SIDE | I N T E R V A L |      |          |    | C O U N T S |     |     |       |      |   |
|-----|-----|------|-----------------|------|----------|----|-------------|-----|-----|-------|------|---|
| GR  | MEM | O-D  | E/F             | TIME | DURATION | ES | FS          | BES | SES | SLIPS | LOFC |   |
| a   | b   | c    | d               | e    | f        | j  | k           | k   | k   | k     | k    | k |

RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME

[7] RING OP T1M STARTED

| RNA | ADR | SIDE | NTWK | VALID | RSP_STAT |          |   |  |  |  |  |  |
|-----|-----|------|------|-------|----------|----------|---|--|--|--|--|--|
| GR  | MEM | O-D  | E/F  | TIME  | NTRVLS   | UFRYATLO |   |  |  |  |  |  |
| a   | b   | c    | d    | e     | l        | g        | h |  |  |  |  |  |

OP T1M INCOMPLETE - NO HISTORICAL PERFORMANCE DATA STORED FOR LNa b

| RNA | ADR | SIDE | I N T E R V A L |      |          |    | C O U N T S |     |     |       |      |   |
|-----|-----|------|-----------------|------|----------|----|-------------|-----|-----|-------|------|---|
| GR  | MEM | O-D  | E/F             | TIME | DURATION | ES | FS          | BES | SES | SLIPS | LOFC |   |
| a   | b   | c    | d               | e    | f        | j  | k           | k   | k   | k     | k    | k |

RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME

SEE PROPRIETARY NOTICE ON COVER PAGE



- [8] RING OP T1M STARTED  
RNA ADR SIDE NTWK VALID RSP\_STAT RAW DATA NEAR END ULN ONLY  
GR MEM O-D E/F TIME NTRVLS UFRYATLO XST1 XST2 XST3  
a b c d e l g h i i i  
RNA ADR SIDE I N T E R V A L C O U N T S  
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC  
a b c d e f j k k k k k k  
RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME
- [9] RING OP T1M STARTED  
RNA ADR SIDE NTWK VALID RSP\_STAT RAW DATA NEAR END ULN ONLY  
GR MEM O-D E/F TIME NTRVLS UFRYATLO XST1 XST2 XST3  
a b c d e l g h i i i  
OP T1M INCOMPLETE - NO HISTORICAL PERFORMANCE DATA STORED FOR LNa b  
RNA ADR SIDE I N T E R V A L C O U N T S  
GR MEM O-D E/F TIME DURATION ES FS BES SES SLIPS LOFC  
a b c d e f j k k k k k k  
RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME
- [10] RING OP T1M STARTED  
RNA ADR SIDE NTWK VALID RSP\_STAT  
GR MEM O-D E/F TIME NTRVLS UFRYATLO  
a b c d e l g h  
RNA ADR SIDE I N T E R V A L C O U N T S  
GR MEM O-D E/F TIME DURATION ES FS  
a b c d e f j k k  
RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME
- [11] RING OP T1M STARTED  
RNA ADR SIDE NTWK VALID RSP\_STAT  
GR MEM O-D E/F TIME NTRVLS UFRYATLO  
a b c d e l g h  
RNA ADR SIDE I N T E R V A L C O U N T S  
GR MEM O-D E/F TIME DURATION ES FS BES SES  
a b c d e f j k k k k  
RING OP T1M COMPL  
OP T1M COMPLETED AT l NETWORK TIME
- [12] RING OP T1M STOPPED  
T1M a b m n REQUEST DENIED  
ULN (PD) GUARD TIMER TIMEOUT,  
T1M CAN'T PROCEED WITHOUT DATA FROM n
- [13] RING OP T1M STOPPED  
T1M a b m n REQUEST DENIED  
SLMK (PD) GUARD TIMER TIMEOUT,  
T1M CAN'T PROCEED WITHOUT SLMK PERMISSION

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- [14] RING OP T1M STOPPED  
T1M a b m REQUEST DENIED  
UNABLE TO SEND (PD) TEST REQUEST TO SLMK
- [15] RING OP T1M STOPPED  
T1M a b m REQUEST DENIED  
MAXIMUM (PD) REQUEST ALREADY IN PROGRESS
- [16] RING OP T1M STOPPED  
T1M a b p TARGET ADR. d REQUEST FAILED/DENIED  
WITH THE REASON OF q

## 2. REASON FOR OUTPUT

Prints in response to the OP:T1M input message.

**NOTE:** Near-end Universal Link Node (ULN) and far-end ULN test status can get out of agreement.

Because the T1 facility connecting ULNs may fail in one or both directions, it is possible that the T1 maintenance intrusive test statuses can become different or "out-of-agreement" between the Near-End (NE) ULN and the Far-End (FE) ULN at the other end of the T1 facility.

- A. As a first example, consider a case where the NE ULN's T1 transmit path is operational, but the receive path is down, at a time when a request is made to establish an intrusive test in the FE ULN. In this case, the request gets to the FE ULN, so it activates the intrusive test; but the confirming acknowledgment from the FE ULN back to the NE ULN is obstructed. The result of this scenario:
  - 1. The NE ULN times out and reports the FE intrusive test request failure to the test originator and clears the internal test-status indicators, BUT
  - 2. The FE ULN has successfully activated the requested test and marked the test as being in progress in its internal status indications.
- B. A second example: The NE ULN successfully requests the FE ULN to activate an intrusive test. Both ULN statuses show the test in progress. Then the NE ULN's receive path fails. Next, at the FE ULN, the test is deactivated using the NEULN (near-end ULN) form of the EXC:T1M IM, but the notifying message to the originator of the test via the NE ULN is obstructed (because its receive path is down temporarily). The result of this scenario:
  - 1. The NE ULN's internal status still shows the test in progress, BUT
  - 2. The test has been deactivated in the FE ULN, and the FE internal intrusive test status indicators have been cleared.

These examples demonstrate that the intrusive test status indications of the NE ULN and the FE ULN can get out of agreement. This inherent condition can result when the intrusive test requests and acknowledgments need to be sent across a T1 path that may fail in one or both directions.

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**NOTE:** Having the NE and the FE test statuses out of agreement does not necessarily mean that the intended test procedure is being harmed or negatively affected. For example, if the FE ULN internal status indicates an activated test signal in that FE ULN, that test signal is being applied toward the NE ULN.

The difficulty/confusion arises when the tester - aware of only the NE ULN status that indicates no active test in the FE ULN - attempts to start the test and has it denied because the test (or another mutually-exclusive test) is already in progress in the FE ULN. For the safest and most enlightened operation, the tester should obtain and understand both the NE and the FE intrusive test status indications using the `OP:T1M,ST,...;NEULN;RAW` input command form.

#### PROCEDURE TO BRING INTRUSIVE TEST STATUS INTO AGREEMENT:

The ULN is designed to attempt, almost unconditionally and whenever possible, to complete the activity requested with an `EXC:T1M,...;STOP` input command, even if, for example, the NE ULN's status does not show an FE ULN test in progress.

Therefore, when the NE ULN's intrusive test status and the FE ULN's intrusive test status get out of agreement or become inconsistent, as determined by examining the `OP:T1M,ST,...;NEULN;RAW` output message for the NE and the FE ULN, then use the `EXC:T1M,...;STOP` input command form to bring the ULNs' intrusive test statuses into agreement.

Restarting the test after the failed path comes up will cause the test activity to resume, with the ULNs' test statuses in agreement.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                         |
|---|-----------------------------------------------------------------------------------------|
| a | The group number of the link node (00-63).                                              |
| b | The member number of the link node (1-15).                                              |
| c | Origination address Universal Link Node (A or Z).                                       |
| d | Destination address ULN (A or Z) or Network Channel Office Equipment (NCOE) (C - X).    |
| e | Side, Equipment or Facility (E or F). If ULN, E only. If NCOE, E or F.                  |
| f | Time interval/interval time, one of ninety-six 15-minute intervals in a 24-hour period. |
| g | Number of valid intervals in the reported data.                                         |

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h 8-Bit current status of the T1 device. The current-status octet for the ULN T1 termination has the following per-bit indicators to show the status/health of the receive-side signal of the designated T1 termination:

|           |   |   |   |   |   |   |   |   |                |
|-----------|---|---|---|---|---|---|---|---|----------------|
|           | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | <-bit position |
| cur_stat= | U | F | R | Y | A | T | L | O |                |

The previous bit positions match the following descriptions of valid status indications:

| Octet<br>Bit<br>Pos. | Bit<br>Symbol | Description                                                                      |
|----------------------|---------------|----------------------------------------------------------------------------------|
| b7                   | U             | Set when any remaining bit is set.                                               |
| b6                   | F             | Set when unavailable-signal (alias failed signal) condition exists.              |
| b5                   | R             | Red alarm (that is, red Loss of Frame [LOF] or Carrier Failure Condition [CFC]). |
| b4                   | Y             | Yellow alarm signal detected on Extended Super Frame-Data Loopback (ESF-DL).     |
| b3                   | A             | Blue alarm indication signal (LOF/CFC).                                          |
| b2                   | T             | Not used.                                                                        |
| b1                   | L             | Test signal or payload loopback activated on transmit side.                      |
| b0                   | O             | Loss of Signal/Line Format Violation Rate (LOS/LFVR) alarm state.                |

For invalid status indications. U-bit not set, and the following values are recorded on the remaining bits:

|    |   |                                                                  |
|----|---|------------------------------------------------------------------|
| b7 | U | Bit NOT set; bit=0.                                              |
| b3 | A | Request denial between ULNs (new for ULN).                       |
| b2 | T | No response by NCOE from a far-end entity.                       |
| b1 | L | Set by NCOE when equipment Interface Unit (IU) is not available. |
| b0 | O | Set by NCOE when an illegal request is received.                 |

When b3, the A-bit is set, a REASON CODE octet immediately follows the cur\_stat octet. This code indicates the reason for denial/failure.

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i Extra data sent from the near-end ULN only, T1 specific (for RAW option).

XST1 is 32-bits wide. The bits are numbered 0 through 31, with the zero bit position being the rightmost one. XST1 is printed as a hexadecimal number, with each digit representing four bits.

Bits 7 through 0, the rightmost two digits, indicate which NEAR-END loopback condition or test signal is activated, as follows:

|    |                                                     |
|----|-----------------------------------------------------|
| b7 | Yellow test signal activated                        |
| b6 | Spare                                               |
| b5 | Line loopback (toward facility) activated           |
| b4 | Quasi-Random test signal activated                  |
| b3 | All zeroes test signal activated                    |
| b2 | Low-density test signal activated                   |
| b1 | High-density test signal activated                  |
| b0 | Data (payload) loopback (toward facility) activated |

Bits 15-8, the second and third digits from the right, show the near-end ULN's view/status of which FAR-END loopback condition or test signal is activated at the far-end ULN, as follows:

|     |                                                     |
|-----|-----------------------------------------------------|
| b15 | Yellow (4-Kb ESF-DL) test signal activated          |
| b14 | Spare                                               |
| b13 | Line loopback (toward facility) activated           |
| b12 | Quasi-Random test signal activated                  |
| b11 | All zeroes test signal activated                    |
| b10 | Low-density test signal activated                   |
| b9  | High-density test signal activated                  |
| b8  | Data (payload) loopback (toward facility) activated |

Bits 16 through 31 provide T1-specific internal state information for technical assistance.

**NOTE:** Additional raw data definition intended for use ONLY by technical assistance associated with Intrusive Test Transaction Control.

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|        |                                                                                         |
|--------|-----------------------------------------------------------------------------------------|
| b19-16 | Spare.                                                                                  |
| b23-20 | Major Capabilities (MJC) state table: previous state from Cbnmjc_prevst variable.       |
| b27-24 | Near-End Non-Intrusive (NENI) state table: previous state from Cbnneni_prevst variable. |
| b31-28 | Remote Non-Intrusive (RENI) state table: previous state from Cbnreni_prevst variable.   |

XST2 is 32-bits wide. The bits are numbered 0 through 31, with the zero bit position being the rightmost one. XST2 is also printed as a hexadecimal number, with each digit representing four bits:

|        |                                                                                                        |
|--------|--------------------------------------------------------------------------------------------------------|
| b0-19  | T1-specific internal state information for technical assistance. These are the rightmost three digits. |
| b20-31 | Spare                                                                                                  |

**NOTE:** Additional raw data definition intended for use ONLY by technical assistance associated with Major Capabilities Control and Non-Intrusive Transactions Control.

|        |                                                                                         |
|--------|-----------------------------------------------------------------------------------------|
| b0-7   | Near-End Intrusive Test (NEIT) state table: previous state from Cbnneit_prevst variable |
| b8-11  | Far-End Intrusive Test (FEIT) state table: previous state from Cbnfeit_prevst variable  |
| b15-12 | Near-end 4K (NE4K) (ESF-DL) state table: previous state from Cbnne4k_prevst variable    |
| b19-16 | Far-end 4K (FE4K) (ESF-DL) state table: previous state from Cbnfe4k_prevst variable     |

XST3 is 32 bits wide, with bits numbered 31-0, and the 0-bit position is the rightmost one. XST3 is printed as a hexadecimal number, where each hexadecimal digit represents four bits.

XST3 carries Link Processor (LP) T1 Device Handler status and control information.

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For bits 3-0, the rightmost hex digit, bit subsets are defined in binary form to mean:

b01-00 Active Clock Control Value (activated by LP):

**NOTE:** Active Clocking set to equal LN DATA value described, when LN DATA value is not zero (00). Otherwise, active clocking set to equal BACKPLANE/CABLE value:

00 = not specified; unexpected, erroneous value.

01 = master clocking specified.

10 = slave clocking specified.

b03-02 BACKPLANE/CABLE Clock Control Value:

00 = not specified; unexpected, erroneous value.

01 = master clocking specified.

10 = slave clocking specified.

Therefore, "Valid/Expected" rightmost hex-digit values, in binary and hex, with their meanings, are as follows:

|         |          | CABLE CLK | ACTIVE CLK |
|---------|----------|-----------|------------|
| b(0101) | = 0x5 => | master    | master     |
| b(0110) | = 0x6 => | master    | slave      |
| b(1001) | = 0x9 => | slave     | master     |
| b(1010) | = 0xA => | slave     | slave      |

Bits 7-4, the second hex-digit from the right, subsets are defined in binary form to mean:

b05-04 LN DATA Clock Control Value:

(derived from clndata data base element t1\_clock\_mode)

00 => t1\_clock\_mode value invalid or unexpected;  
BACKPLANE/CABLE Clock Control Value used for clock control

01 => LN Data master clocking specified

10 => LN Data slave clocking specified

b07-06 Unused Spare; values have no specific meaning.

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Therefore, "Valid/Expected" second from right hex-digit values, in binary and hex, with their meanings, are as follows:

MTCE (SW) CLK  
b(0000) = 0x0 => Valid LN Data clock control not specified;  
BACKPLANE/CABLE clock control value is used  
b(0001) = 0x1 => master clocking specified  
b(0010) = 0x2 => slave clocking specified

**NOTE:** Additional raw data definition intended for use ONLY by technical assistance if alarm reporting inconsistencies should occur and need to be resolved, or line loopback activation or deactivation coded signals appear to be applied in error.

b11-8 The third hex digit from the right, indicates receive (signal) alarm status  
b15-12 The fourth hex digit from the right, indicates Xmit alarm status  
b19-16 The fifth hex digit from the right, contains the Status of Line Loopback (LLB) Activation or Deactivation signals

LLB Activate Signal is a full bandwidth (1.544 Mb/s) repeating one in five pattern (00001), with arbitrary values (1 or 0) in every 193rd bit position overwriting the pattern.

LLB Activate Signal is a full bandwidth (1.544 Mb/s) repeating one in three pattern (001), with arbitrary values (1 or 0) in every 193rd bit position overwriting the pattern.

To activate a remote LLB at an intermediate point on the T1 facility or at the far-end point of the facility, the near-end ULN will transmit the LLB Activate Signal for an interval of approximately 10-20 seconds. When the remote or far-end T1 termination detects this "LLB Activate" signal, it activates its LLB.

Similarly, to activate a remote LLB at an intermediate point on the T1 facility or at the far-end point of the facility, the near-end ULN will transmit the LLB Deactivate Signal for an interval of approximately 7-15 seconds. When the remote or far-end T1 termination detects this "LLB Deactivate" signal, it deactivates its LLB.

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**NOTE:** These Activation and Deactivation coded signals are normally sent for ONLY SHORT INTERVALS (less than 22 seconds) to request the receiving T1 termination to either activate or deactivate its LLB. These coded signals are NOT being sent for the entire interval while the LLB is actually activated or deactivated.

- b16 LLB Activate Signal is being received (requests the receiving T1 termination to activate its LLB)
- b17 LLB Deactivate Signal is being received (requests the receiving T1 termination to deactivate its LLB)
- b18 LLB Activate Signal is being transmitted (requests a remote or far-end T1 termination on the facility to activate its LLB)
- b19 LLB Deactivate Signal is being transmitted (requests a remote or far-end T1 termination on the facility to deactivate its LLB)

j Duration of the current interval.

**NOTE:** When far-end performance data are collected, the near end does NOT receive an actual interval duration from the far end for the historical intervals. The messages and protocol do not provide for conveying the historical interval duration from the far end to the near end, so the duration for all far-end historical intervals is automatically/arbitrarily set to 900 seconds as the best "estimated" duration of the far-end historical intervals.

When the actual duration of an historical interval is important, use the OP:T1M, . . . NEULN input command form, when possible, to get the actual duration of the historical interval of interest.

k The count of the specific error which includes:

Errored Seconds (ES) is a second with one or more: CRC6 checksum errors, Out-Of-Frame (OOF) conditions, or slip events.

Failed Seconds (FS) is also called an Unavailable Seconds (UAS) and is a second during which: one Loss-Of-Frame (LOF) occurs, or the failed signal state is entered, following ten consecutive Severely-Errored Seconds (SES).

Bursty-Errored Seconds (BES) is a second with one <CRC6 errors <320.

Severely Errored Seconds (SES) is a second with 320 or more CRC6 errors, or one or more OOF conditions, or one or more slip events.

Controlled- SLIP Seconds (SLIPS) is also called a slip event and is a second with the occurrence of slip buffer overflow or underflow.

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|   |                                                                                                                |
|---|----------------------------------------------------------------------------------------------------------------|
|   | Loss Of Frame Count (LOFC) is the number of times a RED (alarm) LOF event, or a BLUE (alarm) LOF event occurs. |
| l | Current network time of day report completed.                                                                  |
| m | PERF MEAS<br>STATUS                                                                                            |
| n | FEULN<br>NCOE_x — Where x is C through X.<br>NEULN                                                             |
| o | Extended Super Frame (ESF) errors. This is the count of CRC6 or out-of-frame error events.                     |
| p | FEULN<br>NCOE_x — Where x is C through X.<br>NEULN                                                             |
| q | CBNMTCE GRD TMR T.O. AWAIT T1DH RESP<br>FE CBNMTCE GRD TMR T.O. AWAIT T1DH RESP                                |

#### 4. ACTION TO BE TAKEN

Formats 1-11, None.

Format 12, Try the command again. If the problem persists with the FEULN command form, then try the NEULN command form on the far-end ULN. This form can work even if the ULN T1 link has failed. If neither form works, seek technical assistance.

Formats 13-16, Try the command again. If the problem persists, seek technical assistance.

#### 5. REFERENCES

Practice 256-090-182, *CNI Maintenance Manual*, T1 Maintenance Procedures Section

##### Input Messages

ATR:T1M  
CLR:T1M  
EXC:T1M  
OP:T1M  
SET:T1M

##### Output Messages

ATR:T1M  
CLR:T1M  
EXC:T1M  
SET:T1M

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ID ..... OP:TDAS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

OP TDAS USER a b

### 2. REASON FOR OUTPUT

To report the status of traffic data administration system (TDAS) measurement data link user access.

### 3. VARIABLE FIELD DEFINITIONS

a User ID.

b Status:

STARTED

ENDED

ABNORMAL TERMINATION

### 4. ACTION TO BE TAKEN

For error formats of this message, investigate the TDAS log using the OP:LOG input message.

### 5. REFERENCES

Input Message  
OP:LOG

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:TPC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] OP:TPC;TYPE a  
TRANSLATION POINT CODES  
b  
[c]
- [2] OP:TPC;TYPE ALL  
TRANSLATION POINT CODES  
TYPE a  
b  
[c]  
.  
.  
.
- DEFAULT TRANSLATION POINT CODES  
b  
[c]

## 2. REASON FOR OUTPUT

Format 1 is used when a specific translation type is entered.

Format 2 is used when the word "ALL" appears as the translation type.

This output is generated by the OP:TPC command. It will be directed to the standard output device associated with the initiator of the command, and to the maintenance class. If they are the same device, only one printout will occur.

**NOTE:** When the ALL option is used, only equipped translation types are printed, the other translation types will use the default TPCs.

## 3. VARIABLE FIELD DEFINITIONS

- a The translation type.
- b A translation point code (in decimal notation), or "UNABLE TO DERIVE TPC".
- c An optional translation point code (in decimal notation), or not displayed at all.

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**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Messages

CHG:SRVT

EXC:SRVT

OP:TPC

Output Messages

CHG:SRVT

EXC:SRVT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:TRACE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has three output formats:

- [1] OP TRACE STARTED  
STAT: a  
PROC: b  
NODE: c
- [2] OP TRACE INPROG  
SUBSYSTEM           DETAIL (HEX)  
d                   e  
.  
.  
.  
d                   e
- [3] OP TRACE COMPL

## 2. REASON FOR OUTPUT

This message is in response to the OP : TRACE input message.

## 3. VARIABLE FIELD DEFINITIONS

- a                   ACTIVE or INACTIVE.
- b                   Processor 3B or NP.
- c                   ALL.  
                    NONE.  
                    Node identity: name unit e.g., IUN32 1.  
                    Slot identity: name unit slot e.g., IUN32 1 (1).
- d                   Subsystem identifier.
- e                   Detail flags in hexadecimal.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Messages  
ALW: TRACE  
INH: TRACE

SEE PROPRIETARY NOTICE ON COVER PAGE

OP: TRACE  
SET: TRACE

Output Messages

ALW: TRACE  
INH: TRACE  
REPT: TRACE  
SET: TRACE

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:TRAP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

[1] OP TRAP STATUS IN PROG

| TRAP<br>ID | STAT | TRM<br>RSN | RATE | START TIME | END TIME | RT<br>DISP | DK<br>SAVE | MSG<br>COLL |
|------------|------|------------|------|------------|----------|------------|------------|-------------|
| a          | b    | c          | d    | e          | f        | g          | h          | i           |

OP TRAP STATUS COMPL

[2] OP TRAP STATUS IN PROG

TRAP INFORMATION ID a]

| STAT    | b | RATE     | d | RT DISP | g | START TIME | e |
|---------|---|----------|---|---------|---|------------|---|
| TRM RSN | c | MSG COLL | i | DK SAVE | h | END TIME   | f |

LINK(S): j

SET:TRAP COMMAND INFORMATION

| RATE  | k | DUR  | l | MCNT | m | ST    | n |
|-------|---|------|---|------|---|-------|---|
| RTDSP | o | SAVE | p | DEST | q | MGSZE | r |

LINK(S): s t

| [NAME | X'OFST | X'VALUE | X'MASK |
|-------|--------|---------|--------|
|-------|--------|---------|--------|

-----  
u v w x]

[NO OTHER INPUT PARAMETERS]

OP TRAP STATUS COMPL

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[3] OP TRAP STATUS IN PROG

TRAP INFORMATION ID a]

|         |   |          |   |         |   |            |   |
|---------|---|----------|---|---------|---|------------|---|
| STAT    | b | RATE     | d | RT DISP | g | START TIME | e |
| TRM RSN | c | MSG COLL | i | DK SAVE | h | END TIME   | f |

LINK(S): j

SET:TRAP COMMAND INFORMATION

|       |   |      |   |      |   |       |   |
|-------|---|------|---|------|---|-------|---|
| RATE  | k | DUR  | l | MCNT | m | ST    | n |
| RTDSP | o | SAVE | p | DEST | q | MGSZE | r |

LINK(S): s t

|       |        |         |        |
|-------|--------|---------|--------|
| [NAME | X'OFST | X'VALUE | X'MASK |
| ----- |        |         |        |
| u     | v      | w       | x]     |

[NO OTHER INPUT PARAMETERS]

OP TRAP STATUS COMPL

OP TRAP RESULT IN PROG

OP TRAP RESULT COMPL

[4] OP TRAP  
ID a NBYTES y LN z a1 b1 c1 d1:e1:f1 g1

[5] OP TRAP  
MTRP: OP TRAP COMPL; NO TRAP IN SYSTEM

[6] OP TRAP  
MTRP: OP TRAP IN PROG; SPECIFIED DEST = h1

[7] OP TRAP  
MTRP: OP TRAP FAILED; j1

[8] OP TRAP  
MTRP: OP TRAP ID COMPL; NO MSG COLLECTED

[9] OP TRAP  
MTRP: OP TRAP ID COMPL

[10] OP TRAP  
MTRP: OP TRAP ID FAILED; k1; ID = a

[11] OP TRAP  
MTRP: OP TRAP ID IN PROG; SPECIFIED DEST = h1

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- [12] OP TRAP  
MTRP: OP TRAP ID RTDSP l1 COMPL
- [13] OP TRAP  
MTRP: OP TRAP ID LFORM m1 COMPL
- [14] OP TRAP  
MTRP: OP TRAP ID LFORM m1 FAILED; RETRY LATER; ID = a
- [15] OP TRAP  
  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
ISDN7: SI0=s1 DPC=t1 OPC=u1  
SLS=v1 MTYPE=w1 CIC=x1
- [16] OP TRAP  
  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
SCCP7:SI0= s1 DPC= t1 OPC=u1  
SLS= v1 MTYPE= y1 {PCLASS|DGPAR}=z1
- [17] OP TRAP  
  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
SCCP7:SI0= s1 DPC= t1 OPC=u1  
SLS= v1 FMTID= a2
- [18] OP TRAP  
  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
SNM7:SI0= s1 DPC= t1 OPC=u1  
SLS= v1 H0/H1= b2 AFFPC= c2

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[19] OP TRAP  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
ECIS:SI0= s1 HDGINF= d2 BD= e2 TK= f2

[20] OP TRAP  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
DCIS:SI0= s1 DPC= t1 OPC= u1  
SLS= v1 DOM= g2 DESTA= h2  
DESTB = i2 FUNC=j2  
RF= k2 RC= l2 RTAD= m2

[21] OP TRAP  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
BAND6: HDGINF= d2 BD= e2 TK= f2

[22] OP TRAP  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
DS6: DOM= g2 DESTA= h2 DESTB=  
i2 FUNC=j2  
RF= k2 RC= l2 RTAD= m2

[23] OP TRAP  
ID a NBYTES n1 LN o1-p1 q1  
  
r1 r1 r1 r1 r1  
r1 r1 r1 r1 r1  
  
NM6: HDGINF= n2 BD= e2

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```
[24] OP TRAP
 ID a NBYTES n1 LN o1-p1 q1

 r1 r1 r1 r1 r1
 r1 r1 r1 r1 r1

 MSPEC7: SI0= s1 DPC= t1
 OPC= u1
 SLS=v1 H0/H1= o2

[25] OP TRAP

 ID a NBYTES n1 LN o1-p1 q1

 r1 r1 r1 r1 r1
 r1 r1 r1 r1 r1

 UNDEF7: SI0= s1 DPC= t1 OPC=
 u1
 SLS= v1
```

## 2. REASON FOR OUTPUT

This message is in response to an OP:TRAP input message.

Format 1 prints if only OP:TRAP is given (i.e. no other keyword has been specified), the status information as detailed in this format will be printed for all existing traps on the message trap system.

Format 2 prints if no trap Identification (ID) has been given and LFORM Y is specified, the status information as detailed in this format will be printed for all existing traps on the Message Trap system.

Format 3 prints if only a trap ID has been given, the status information and any trap results as detailed in this format will be printed for the specified trap.

Format 4 prints individual trapped messages, if any, will be displayed in this format. It has the message trap header information in user-friendly format and the content of the trapped message in enhanced buffer dump format.

Format 5 prints if only OP:TRAP is given (i.e. no other keyword has been specified) and there is no trap on the Message Trap system, this format will be printed.

Format 6 prints if no trap ID has been given and DEST is specified, this format will be used to acknowledge the OP:TRAP input message. The trap status information as detailed in Format [1] will be displayed in the specified destination output class.

Format 7 prints this format results when only OP:TRAP is given (i.e. no other keyword has been specified) and the processing of the input message has failed due to the reason being displayed.

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Format 8 prints if only a trap ID has been given, normally the status information and any trap results as detailed in Format [3] will be printed for the specified trap. In this format, only the trap status information will be printed since no message has been collected for this trap.

Format 9 prints if only a trap ID has been given, the status information and any trap results as detailed in Format [3] will be printed for the specified trap. This format serves as a positive acknowledgement to the input message which has been successfully processed to completion.

Format 10 prints this format results when a trap ID has been given (other keywords may have been specified as well) and the processing of the input message has failed due to the reason being displayed.

Format 11 prints if a trap ID has been given and DEST is specified, this format will be used to acknowledge the OP:TRAP input message. The trap status information and any trap results as detailed in Format [3] will be displayed in the specified destination output class.

Format 12 prints if a trap ID has been given and RTDSP is specified with Y or N option, this format will be printed to acknowledge the input message which has been processed successfully.

Format 13 prints if a trap ID has been given and LFORM is specified with Y or N option, this format will be printed to acknowledge the input message which has been processed successfully.

Format 14 prints if a trap ID has been given and LFORM is specified with Y or N option, this format will be printed to acknowledge the input message which has not been processed successfully.

Formats 15-25 prints decoded result of the particular trapped message.

**NOTE:** In Format 15, in some ISDN7 messages the names of some fields may be meaningless.

**NOTE:** In Format 16, in UDTs messages, PCLASS is replaced by DGPAR.

**NOTE:** In Format 16, in SCCP messages other than UDT and UDTs the names of some fields such as MTYPE may be meaningless.

**NOTE:** In Format 18, in SNM7 messages with a Message Group of CHM, ECM or MIM the AFFPC field is not present and will not be printed.

**NOTE:** In Format 20, when the RF=0, the RC and RTAD are not valid.

**NOTE:** In Format 23, NM6 is printed for all messages whose HDGINF field begins with binary 111.

Please refer to the SET:TRAP IM page for more details on the input parameters that can be given in a SET:TRAP input message.

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### 3. VARIABLE FIELD DEFINITIONS

- a                    Trap Identification (ID).
- b                    Trap state:
- ABT — Aborted trap.
- ACT — Active trap.
- CMP — Completed trap.
- INH — Inhibited trap.
- PND — Pending trap.
- TRM — Terminated trap.
- c                    Termination reason:
- 0 —     Unspecified.
- 1 —     The trap has gone to completion gracefully (due to message count).
- 2 —     The trap has gone to completion gracefully (due to duration).
- 3 —     Craft initiated STOP : TRAP.
- 4 —     Inhibited for too long; abort trap.
- 5 —     Resource problem at the 3B computer.
- 6 —     Frequency of disk write at the 3B computer exceeds threshold.
- 7 —     Disk space exhausted in "no overwrite" mode.
- 8 —     MTRP incore buffers unavailable during disk\_write .
- 9 —     CNI level 1 initialization has occurred
- 10 —    Trap aborted at all concerned link node(s); due to resource or congestion problem(s) at link node(s).
- 11 —    All concerned link nodes are OOS.
- 12 —    All concerned link nodes are either OOS or have aborted the trap.
- 13 —    Problem occurred during status check or audit.
- d                    Rate of trapping.
- e                    Starting time of trap in hh:mm mo / day.
- f                    Ending time of trap in hh:mm mo / day.
- g                    Realtime display:
- N —     No
- Y —     Yes

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h Saving of collected messages on disk:

N — No

Y — Yes

i Number of trapped messages collected.

**NOTE:** The number of messages collected for a trap may exceed the number of messages requested in the MCNT parameter. This is due to the fact that a trap can be set on several nodes and the central processor (3B20D/3B21D) maintains a cumulative count of the messages collected from all the nodes. When this cumulative count in the 3B20D/3B21D exceeds MCNT value, 3B20D/3B21D sends a message to all the nodes to stop the trap. But by then, the nodes might have sent some additional trapped messages to the 3B20D/3B21D. These additional messages are not discarded, but are included as part of the trap result.

If the trap is set on only one node, excess messages may result for the following reason. Once every second, each node sends to the 3B20D/3B21D all messages trapped during that one second period. The messages collected at the 3B20D/3B21D at a given time (in seconds) may be less than the MCNT field. But immediately after the next second, the messages collected may exceed the specified MCNT value. The 3B20D/3B21D, then, sends a message to the node to stop the trap.

j List of Link Numbers in gg-mm format. These links are currently affected by this trap.

If no link is currently affected by this trap, the following will be printed: NO AFFECTED LINK

k Rate of trapping. Default value not given in SET:TRAP input message; default used.

l Duration of trapping in hh,mm format. Default value not given in SET:TRAP input message; default used.

m Number of trapped messages to be collected. Default value not given in SET:TRAP input message; default used.

n Number of minutes to start the trap from the time when the SET:TRAP input message was entered. IMMD trap was to be started immediately after the SET:TRAP input message was entered.

o Realtime display. Default value not given in SET:TRAP input message; default used.

N — No

Y — Yes

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- p Saving of collected messages on disk:  
N — No  
Y — Yes
- q Output class for output of trap information.
- r Maximum trapped message size (in bytes) that will be saved and displayed.
- s Link information given in SET:TRAP input message  
LNKLST — Link list values were given.  
LNKR — Link range value was given.  
LNKSET — Link set value was given.
- t Link information given in SET:TRAP input message, this value is dependent on what the previous variable's value is:  
LNKLST — Number of links is printed next to LNKLST; and the list of links in gg-mm format is printed on the next line.  
LNKR — Link range in gg-mm, gg-mm format is printed.  
LNKSET — Link set value is printed.
- u Keywords of parameters as given in SET:TRAP input message:  
BNMf1, CDGT1f1, CDGT2f1, CDPCf1, CDSnf1, CDTf1, CGGT1f1, CGGT2f1, CGPCf1, CGSNf1, CGTf1, DESAf1, DESBf1, DMIf1, DOMf1, DPCf1, MODE f1, MTYPEf1, OFSTBf1, OPCf1, RCf1, RFRf1, RTADf1, SOPCf1, VLNf1.  
  
**NOTE:** CGGT1 gives high order 2 bytes of CGGT.  
CGGT2 gives low order 4 bytes of CGGT.  
CDGT1 gives high order 2 bytes of CDGT.  
CDGT2 gives low order 4 bytes of CDGT.  
  
CGGT and CDGT are used in the SET:TRAP input message.
- v Offset value in hexadecimal when previous value is OFSTB
- w Bit Pattern value in hexadecimal. Depends on keyword of parameters given:  
  
When MTYPE, it can be taken from the following set:  
ALL6, ALL7, BAND6, DCIS, DS6, ECIS7, ISDN7, NM6, NM67, MREG7, MSPEC7, SCCP, SNM7.  
  
When MODE, it can be taken from the following set:  
INCOMING, OUTGOING
- x Bit Mask value in hexadecimal
- y Length of trapped message in bytes

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|    |                                                                                                                                                                                                                                                  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| z  | Link Node (LN) group number.                                                                                                                                                                                                                     |
| a1 | LN member number.                                                                                                                                                                                                                                |
| b1 | Day                                                                                                                                                                                                                                              |
| c1 | Month                                                                                                                                                                                                                                            |
| d1 | Minute                                                                                                                                                                                                                                           |
| e1 | Hour                                                                                                                                                                                                                                             |
| f1 | Seconds                                                                                                                                                                                                                                          |
| g1 | Year                                                                                                                                                                                                                                             |
| h1 | Destination output class specified in OP : TRAP input message                                                                                                                                                                                    |
| j1 | Reason OP : TRAP input message failed (no other keyword is specified):<br>PREVIOUS OP TRAP IN PROGRESS<br>RETRY LATER                                                                                                                            |
| k1 | Reason OP : TRAP input message failed (keyword ID is specified)<br>PND TRAP — Pending trap does not have trap results.<br>INVALID ID — ID does not belong to any trap.<br>RETRY LATER — Try again later.<br>INVALID TRAP STATE — Internal error. |
| l1 | Realtime display:<br>N — No<br>Y — Yes                                                                                                                                                                                                           |
| m1 | Long format status display:<br>N — No<br>Y — Yes                                                                                                                                                                                                 |
| n1 | Length of the CCS message in bytes.                                                                                                                                                                                                              |
| o1 | Group number.                                                                                                                                                                                                                                    |
| p1 | Member number.                                                                                                                                                                                                                                   |
| q1 | Time stamp.                                                                                                                                                                                                                                      |
| r1 | The whole hex message printed out in five words per line for as many lines as needed.                                                                                                                                                            |
| s1 | Service Indicator of the SIO in decimal.                                                                                                                                                                                                         |
| t1 | DPC in dec and hex (network id, region, cluster).                                                                                                                                                                                                |
| u1 | OPC in dec and hex (network id, region, cluster).                                                                                                                                                                                                |
| v1 | Signaling Link Selection.                                                                                                                                                                                                                        |

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w1

Message type for ISDN messages:

ACM — Address complete.  
ANM — Answer.  
BLA — Blocking acknowledgement.  
CCR — Continuity check request.  
CFN — Confusion.  
CGB — Circuit group blocking.  
CGBA — Circuit group blocking acknowledgement.  
CMC — Call modification completed.  
CMRJ — Call modification reject.  
CMR — Call modification request.  
CON — Connect.  
CPG — Call progress.  
CQM — Circuit query.  
CQR — Circuit query response.  
CRA — Circuit reservation acknowledgement.  
CRM — Circuit reservation.  
CSV — Closed user group selection and validation request.  
CSVSR — Closed user group selection and validation response.  
CVR — Circuit validation test response.  
CVT — Circuit validation test.  
DRS — Delayed release.  
EXM — Exit.  
FAA — Facility accepted.  
FAD — Facility deactivated.  
FAI — Facility information.  
FAR — Facility request.  
FOT — Forward transfer.  
FRJ — Facility reject.  
GRA — Circuit group reset acknowledgement.  
GRS — Circuit group reset.  
IAM — Initial address.  
INF — Information.  
INR — Information request.  
LPA — Loop-back acknowledgement.  
OLM — Overload.  
PAM — Pass along.  
REL — Release.  
RES — Resume.  
RLC — Release complete.  
RSC — Reset circuit.  
RSVP — RSVP message.  
RSVR — RSVP reply.  
SAI — SDN SID / ANI increment.  
SAM — Subsequent address.  
SSD — Second start redial.  
SUS — Suspend.  
UBL — Unblocking.  
UCI — Unequipped CIC.

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | USR — User to user information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|    | VCR — Virtual connection request.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| x1 | The decimal value for the CIC field.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| y1 | Message type: <ul style="list-style-type: none"><li>CO_AK — Data acknowledgement.</li><li>CO_CA — Connection failure acknowledgement.</li><li>CO_CC — Connection confirm.</li><li>CO_CF — Connection failure.</li><li>CO_CREF — Connection refused.</li><li>CO_CR — Connection request.</li><li>CO_DT1 — Data form 1.</li><li>CO_DT2 — Data form 2.</li><li>CO_EA — Expected data acknowledgement.</li><li>CO_ED — Expected data.</li><li>CO_ERR — Error.</li><li>CO_IT — Inactivity test.</li><li>CO_RLC — Connection released complete.</li><li>CO_RLSD — Connection released.</li><li>CO_RSC — Reset confirmation.</li><li>CO_RSR — Reset request.</li><li>UDT — Unit data.</li><li>UDTS — Unit data service signal.</li></ul> |
| z1 | The hexadecimal value for the PCLASS or DGPARG field.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| a2 | Format ID: <ul style="list-style-type: none"><li>SBR — Subsystem backup routing.</li><li>SNR — Subsystem normal routing.</li><li>SOG — Subsystem out of service grant.</li><li>SOR — Subsystem out of service request.</li><li>SRT — Subsystem routing status test.</li><li>SSA — Subsystem allowed.</li><li>SSP — Subsystem prohibited.</li><li>SST — Subsystem status test.</li></ul>                                                                                                                                                                                                                                                                                                                                           |
| b2 | The symbolic from the H0/H1 code: <ul style="list-style-type: none"><li>CBA — Change back acknowledgement signal.</li><li>CBD — Change back declaration signal.</li><li>COA — Change over acknowledgement signal.</li><li>COO — Change over order signal.</li><li>ECA — Emergency changeover acknowledgement signal.</li><li>ECO — Emergency changeover order signal.</li><li>LFU — Link forced uninhibit message.</li><li>LIA — Link inhibit acknowledgement message.</li><li>LID — Link inhibit denied message.</li><li>LIN — Link inhibit message.</li><li>LUA — Link uninhibit acknowledgement.</li><li>LUN — Link uninhibit message.</li><li>RCP — Signaling route set test cluster prohibited signal.</li></ul>             |

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | RCR — Signaling route set test cluster restricted signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|    | RCT — Signaling route set congestion test signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|    | RSP — Signaling route set test prohibited signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|    | RSR — Signaling route set test restricted signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|    | TCA — Transfer cluster allowed signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|    | TCP — Transfer cluster prohibited signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|    | TCR — Transfer cluster restricted signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|    | TFA — Transfer allowed signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|    | TFC — Transferred controlled signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|    | TFP — Transfer prohibited signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|    | TFR — Transfer restricted signal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| c2 | The affected P.C in decimal and hexadecimal (network id, region, cluster).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| d2 | Heading information flag:<br><br>ADC — Address complete, charge.<br>ADI — Address incomplete.<br>ANC — Answer, charge.<br>BLO — Blocking.<br>CB1 — Clear back #1.<br>CB2 — Clear back #2.<br>CB3 — Clear back #3.<br>CBK — Crankback.<br>CFL — Call failure.<br>CLF — Clear forward.<br>COF — Confusion.<br>COT — Continuity.<br>IAM — Initial address message.<br>MMUM — Miscellaneous multi-unit message.<br>MRF — Message refusal.<br>NSC — National switching congestion.<br>NTC — National trunk congestion.<br>RA1 — Reanswer #1.<br>RA2 — Reanswer #2.<br>RA3 — Reanswer #3.<br>RCT — Recycle continuity timer.<br>RLG — Release guard.<br>RST — Reset trunk.<br>SSB — Customer busy (subscriber busy, electrical).<br>SSD — Second start dial.<br>UBL — Unblocking. |
| e2 | Band number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| f2 | Trunk number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| g2 | Domain.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| h2 | Destination A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| i2 | Destination B.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|       |                                               |
|-------|-----------------------------------------------|
| j2    | Function number.                              |
| k2    | Return flag.                                  |
| l2    | Return code.                                  |
| m2    | Return address.                               |
| n2    | Heading information flag:                     |
| BD1   | — Broadcast dynamic overload control level 1. |
| BD2   | — Broadcast dynamic overload control level 2. |
| BD3   | — Broadcast dynamic overload control level 3. |
| COV   | — Changeover.                                 |
| DEL   | — Delimiter.                                  |
| DOC1  | — Dynamic overload control level 1.           |
| DOC2  | — Dynamic overload control level 2.           |
| DOC3  | — Dynamic overload control level 3.           |
| DOC0  | — Dynamic overload control OFF.               |
| DOCRE | — Dynamic overload control refusal.           |
| ELT   | — Emergency load transfer.                    |
| ENDOC | — Enable dynamic overload control.            |
| ESU   | — End of status update.                       |
| GSC   | — Group signaling congestion.                 |
| IGDOC | — Ignore dynamic overload control.            |
| LKA   | — Link alarm signal.                          |
| LKF   | — Link failed.                                |
| LKN   | — Link normal.                                |
| LTA   | — Load transfer acknowledgement.              |
| LTR   | — Load transfer.                              |
| MCA   | — Manual changeover acknowledgement.          |
| MCO   | — Manual changeover.                          |
| MVT   | — Manual voice frequency link transfer.       |
| PRO   | — Processor outage.                           |
| PSC   | — Processor signaling congestion.             |
| RAB   | — Request all band status of STP.             |
| RD1   | — Remove dynamic overload control level 1.    |
| RD2   | — Remove dynamic overload control level 2.    |
| RD3   | — Remove dynamic overload control level 3.    |
| RLK   | — Request link status of STP.                 |
| RPB   | — Request particular band status of STP.      |
| RSB   | — Reset band.                                 |
| TFA   | — Transfer allowed.                           |
| TFP   | — Transfer prohibited.                        |
| TFR   | — Transfer restricted.                        |
| TQU   | — Trunk query.                                |
| TSV   | — Test standby voice frequency link.          |
| VLF   | — Voice frequency link test failed.           |
| VLP   | — Voice frequency link test passed.           |

SEE PROPRIETARY NOTICE ON COVER PAGE

o2                      Signaling network test and maintenance message:  
                            SLT — Signaling link test message.  
                            SLTA — Signaling link test message acknowledgement.

#### **4. ACTION TO BE TAKEN**

Format 7 Try again later (at least a minute).

Format 10 If an internal error condition occurs, seek technical assistance; otherwise, message is self-explanatory.

Format 14 Try again later (at least 3 minutes).

All other formats no action to be taken.

#### **5. REFERENCES**

Practice 256-090-182 *CNI Maintenance Manual*  
                            Message Trap Section

Input Messages

OP: TRAP

SET: TRAP

Output Message

REPT: MON - TRAP

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... OP:TSC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] OP TSC NODE COMPL  
TSC DATA NODE SUMMARY: GM: a,b  
TOTAL TSC CONNECTIONS: c NECONG: d  
PHYS.LINK      LACID      TOTCONS      PROV-TSC  
-----  
f,g            h            i            j  
f,g            h            i            j  
.  
.
- [2] OP TSC DCHN COMPL  
D CHANNEL DATA: GMCP: k,l,m,n LACID: o  
TYPE: p      TOTCONS: q      PROVI-TSC: r      STATUS: s  
DAY/  
TIME CRV B\_CH DPC DLRN SLRN TSC\_STATUS CONG ACT  
t  
u      v      w-x      y      z      a1      b1      c1      d1  
.  
.  
.  
.
- [3] OP TSC NODE COMPL  
NOT A D CHANNEL NODE
- [4] OP TSC NODE COMPL  
NO EQUIPMENTS ALLOCATED
- [5] OP TSC DCHN COMPL  
NO TSC CONNECTION DATA: GMCP: k,l,m,n LACID: o
- [6] OP TSC NODE COMPL  
NO RESPONSE FOR TSC SUMMARY DATA:RNA: k, l
- [7] OP TSC NODE COMPL  
NO TSC SUMMARY DATA:RNA: k, l
- [8] OP TSC DCHN COMPL  
\_GET\_MBUF RETURNED: c1m

SEE PROPRIETARY NOTICE ON COVER PAGE

## 2. REASON FOR OUTPUT

The report from the OP:TSC input command will be contained in a single output block preceded by time and date information. The output format will vary, depending on which input option was given.

Messages print in response to OP:TSC(NODE) or OP:TSC(DCHN) input commands.

Format 1 prints in response to OP:TSC(NODE) input message.

Format 2 prints in response to OP:TSC(DCHN) input message.

Formats 3-8 prints in response to ERROR outputs.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                                              |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Group number (0-63).                                                                                                                                         |
| b | Member number (1-15).                                                                                                                                        |
| c | Total number of TSC connections for this node (0-256).                                                                                                       |
| d | Congestion Level at this DCHN node:<br>0 — No congestion.<br>1-2 — Congestion is at this level.                                                              |
| f | Card number (0-1). There are 2 LI4 cards on each node, with each card terminating 4 D channels. Cards are numbered 0 to 1, referring to one of the two LI4s. |
| g | Port number (0-3). Ports are numbered 0 to 3, referring to one of the four D channels on an LI4 card.                                                        |
| h | Logical Access ID (LACID) low range: 1-255, high range: 1024-1279.                                                                                           |
| i | Total number of connections on this D channel (0-256).                                                                                                       |
| j | Number of provisioned TSC on this D channel (in multiples of 16).                                                                                            |
| k | Group Number (0-63).                                                                                                                                         |
| l | Member Number (1-15).                                                                                                                                        |
| m | Card Number (0-1).                                                                                                                                           |
| n | Port Number (0-3).                                                                                                                                           |
| o | LACID low range: 1-255, high range: 1024-1279.                                                                                                               |
| p | Type of D channel:<br>PRIMARY<br>SECOND<br>SIMPLEX                                                                                                           |
| q | Total number of active connections on this D channel (0-256).                                                                                                |
| r | Number of provisioned TSC on this D channel (in multiples of 16).                                                                                            |

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| s  | D channel (equipment) status:<br><br>CONGEST<br><br>FAIL<br><br>NORMAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| t  | Day the TSC was established, e.g., 04/17/91.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| u  | Time the TSC was established, e.g., HH:MM:SS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| v  | Call Reference Value (1-0xFFFF) as included in message sent from 4E to PBX. 4E sends CRV with flag=0 if 4E is the originator on this interface. 4E sends CRV with flag=1 if 4E is the destination on this interface.                                                                                                                                                                                                                                                                                                                                                                      |
| w  | Associated B channel (interface ID, 0-31).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| x  | Associated B channel (Channel ID, 1-24).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| y  | Destination Point Code (DPC). This destination point code consists of a string of 9 decimal digits (NNNRRRCMMM); digits NNN designate the Network ID, digits RR designate region, digit C designates cluster, digits MMM designate member.                                                                                                                                                                                                                                                                                                                                                |
| z  | Destination Local Reference Number (DLRN) (0 - 0xFFFFF). The DLRN is the number by which the network identifies the far-end of the connection.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| a1 | Source Local Reference Number (SLRN) (0 - 0xFFFFF). The SLRN is the number by which the network identifies the local end of the connection.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| b1 | Indicates the current status of this TSC connection:<br><br>DATATRNSFR — Data transfer ready.<br>INCONPEN — Incoming connection pending.<br>LOCALRESET — Local user initiated reset pending.<br>LOCDISCPEN — Local end disconnect pending.<br>OUTCONPEN — Outgoing connection pending.<br>REMRESET — Remote end reset pending.<br>RLSEHOLD — Connection release on hold.                                                                                                                                                                                                                  |
| c1 | Congestion Status of this connection (0 - 0xFF). This is a bit-field that contains the congestion information for this connection. A 0 in a bit indicates no congestion of this type, a 1 indicates there is this type of congestion. A value of 0x00 indicates there is no congestion.<br><br>BITS: 7 6 5 4 3 2 1 0<br><br>Bit 7 — Spare.<br>Bit 6 — Data send window congestion, marked to discard messages (unack ≥ 16).<br>Bit 5 — Data send window congestion (unack ≥ 8) - (unack < 16).<br>Bit 4 — Far-end congestion (0=OFF, 1=ON).<br>Bit 3 — Near-end congestion (0=OFF, 1=ON). |

SEE PROPRIETARY NOTICE ON COVER PAGE

Bit 2 — Local node congestion (0=OFF, 1=ON).  
Bit 1 — User connection congestion (0=OFF, 1=ON).  
Bit 0 — Local User TSC congestion (0=OFF, 1=ON).

d1

Activity indicator of connection:

- 0 Connection has been inactive for 60 minutes.
- 1 Connection is currently active.

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

Input Message  
OP:TSC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:ULARP-COM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] OP ULARP COMMAND STARTED  
a b c

[2] OP ULARP {COMPLETED|ABORTED}

## 2. REASON FOR OUTPUT

To print the status of one or all run commands.

## 3. VARIABLE FIELD DEFINITIONS

a Name of the Equipment Configuration Database (ECD) record for the run command.

b Status of the run command.

COMPLETED — Run command has successfully executed. Any numeric value indicates the run command failed.

FORK\_FAIL — User Level Automatic Restart Process's (ULARP's) attempt to fork a process to execute the run command failed.

NON\_EXEC — Run command was not executed.

c Date and time status field last changed.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
OP:ULARP-COM

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:ULARP-EXEC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

[1] OP ULARP EXECSEQ a STARTED  
SEQ NUM NAME TYPE BOOTPRM RID/UID DELAY WAIT  
b c d e f g h

[2] OP ULARP {COMPLETED|ABORTED}

### 2. REASON FOR OUTPUT

To print the order of execution of child processes and run commands.

### 3. VARIABLE FIELD DEFINITIONS

a Procedure.  
BOOT — Bootstrap.  
CFTINIT — Craft initialization.

b Sequence number.

c Name of Equipment Configuration Database (ECD) record for child process or run command.

d Child process or run command.  
C — Run command.  
P — Child process.

e BOOTPRM. Two-digit hexadecimal number which is output as part of a Processor Recovery Message (PRM) resulting from the creation of each child process.

f Record Identification (ID) in the case of a run command, or utility ID in the case of a child process.

g Delay timing field (in seconds).

h Wait-for-completion flag for run commands:  
NO  
YES

### 4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Input Message  
OP:ULARP-EXEC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:ULARP-PROC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

[1] OP ULARP PROCESS STARTED  
NAME PID STATUS LAST CHANGED RST CNT RST TIME  
a b c d e f

[2] OP ULARP {COMPLETED|ABORTED}

### 2. REASON FOR OUTPUT

To print the status of one or all User Level Automatic Restart Process (ULARP) child processes.

### 3. VARIABLE FIELD DEFINITIONS

a Name of Equipment Configuration Database (ECD) record for a ULARP child process.

b Process Identification (ID).

c Status:

CFTTERM — Craft initialization is in progress.

EXECFAIL — ULARP failed to execute the process.

FORKFAIL — ULARP's attempt to fork the process failed.

NONEXEC — Process was not executed.

RUNNING — Process is running.

UFATAL — Process terminated because of a fatal error.

Any numeric value indicates that the process terminated and was not restarted by ULARP. The value is the exit status that was returned to ULARP the last time the process terminated.

d Date and time status field last changed.

e Restart count, if non-zero.

f Date and time ULARP started counting restarts if e is non-zero.

### 4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Input Message  
OP:ULARP-PROC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:UMEM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP UMEM STOPPED COULD NOT CREATE a #b
- [2] OP UMEM COMPLETED NO OUTPUT #c
- [3] OP UMEM d [e LINES WRITTEN TO f FROM  
CIRCUIT g] #c
- [4] OP UMEM NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS  
NO TRACE IS DEFINED
- [5] OP UMEM NOT STARTED  
INVALID ACTION FIELD INVALID KEYWORD
- [6] OP UMEM NOT STARTED  
INVALID ID FIELD GENERAL SYNTAX ERROR
- [7] OP UMEM NOT STARTED  
RETRY LATER THE SYSTEM IS IN OVERLOAD  
CONDITION
- [8] OP UMEM STOPPED TRACE DEFINED ON CU h  
PLEASE RESTORE CU h AND PERFORM A SWITCH  
TO THAT CU. AFTER THE SWITCH HAS COMPLETED,  
REISSUE THE OP:UMEM INPUT MESSAGE

## 2. REASON FOR OUTPUT

To report the disposition of an OP:UMEM input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Indicates which file operation failed:
  - CREATE
  - OPEN
  - READ
- b DIAGNOSTICS TRACE INFORMATION. Indicates file for which operation failed.
- c Generic Access Package (GRASP) execution sequence number.

SEE PROPRIETARY NOTICE ON COVER PAGE

- d Termination status.
- COMPLETED — The data has been dumped to the file as indicated.
- STOPPED UCERR — The utility circuit either does not respond or does not match the circuit present when the trace was defined.
- e Number of lines written to the file.
- f Name of the file to which the output was written.
- g Circuit type from which the information was taken.
- h Control Unit (CU) for which last trace was defined (0-1).

#### 4. ACTION TO BE TAKEN

The file into which the information was written should be removed after it has been examined.

If a is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use initiative to reinitialize the circuit.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 507.

Format 2 has an OMDB key of 508.

Format 3 has an OMDB key of 509.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*  
*3B20D/3B21D Processor*

##### Input Messages

CLR:F-FILE

DUMP:F-ALL

DUMP:F-PARTL

INIT:UC

OP:ST-PROC

OP:UTIL

OP:UMEM

##### Output Message

OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:UNAV  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP UNAV MESSAGE STARTED  
UNIT MTCE INH DGN  
a b [ c d ] e f g
- [2] OP UNAV COMPLETED
- [3] OP UNAV INTERFACE ERROR, ERRNO=h
- [4] OP UNAV NOT STARTED  
INVALID DATA FIELD
- [5] OP UNAV NOT STARTED  
RETRY LATER
- [6] OP UNAV IN PROGRESS  
a b [ c d ] e f g
- [7] OP UNAV RETRY LATER i
- [8] OP UNAV WRITE TO j  
FAILED ON KEY #k

## 2. REASON FOR OUTPUT

To give device information specific to hardware units on communities requested via the OP:UNAV input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name. Administrative Module (AM) unit names are listed in the Member Numbers Output Appendix C, APP:MEM-NUM-C.
- b Unit number. See Member Numbers Output Appendix C, APP:MEM-NUM-C.
- c Subunit name, if subunit name is CU, Control Unit (CU) subunit names are listed in Member Numbers Output Appendix D, APP:MEM-NUM-D.
- d Subunit number. See Member Numbers Output Appendix C, APP:MEM-NUM-C.

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- e The current maintenance state of the unit is indicated by the identifiers:
- ACT — Active units.
  - GROW — Units being grown.
  - INIT — Initializing units.
  - OFL — Offline units.
  - OOS — Out-of-service units.
  - STBY — Standby units.
  - UNAV — Unavailable units.
  - UNEQIP — Unequipped units.
- f Indicates the current inhibit status of the associated error source:
- ALW — Allowed.
  - INH — Inhibited.
- g Results of the last diagnostic on the unit:
- ABT — Aborted diagnostics.
  - ATP — All tests passed.
  - CATP — Conditional all tests passed.
  - NTR — No tests were run.
  - STF — Some tests failed.
- h Error number:
- 9 — Cannot attach to plant measurement library.
  - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
  - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i Retry the command later for the reasons:
- CANNOT CREATE FILE IN /tmp
  - CANNOT GET DATABASE RECORD ID
  - CANNOT SEQUENCE DATABASE
- j Temporary output file name.
- k Key associated with write failure.

#### 4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 49 and 477.  
Format 2 has OMDB keys of 50 and 478.  
Format 3 has OMDB keys of 51 and 479.  
Format 6 has OMDB keys of 580 and 582.  
Format 7 has OMDB keys of 588 and 589.  
Format 8 has an OMDB key of 656.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes  
APP:MEM-NUM-C  
APP:MEM-NUM-D

Input Messages  
OP:ACT  
OP:CFGSTAT  
OP:GROW  
OP:INIT  
OP:OFL  
OP:OOS  
OP:STBY  
OP:UNAV  
OP:UNEQIP

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... OP:UNEQIP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] OP UNEQIP MESSAGE STARTED  
UNIT MTCE INH DGN  
a b [ c d ] e f g
- [2] OP UNEQIP COMPLETED
- [3] OP UNEQIP INTERFACE ERROR, ERRNO=h
- [4] OP UNEQIP NOT STARTED  
INVALID DATA FIELD
- [5] OP UNEQIP NOT STARTED  
RETRY LATER
- [6] OP UNEQIP IN PROGRESS  
a b [ c d ] e f g
- [7] OP UNEQIP RETRY LATER i
- [8] OP UNEQIP WRITE TO j  
FAILED ON KEY #k

## 2. REASON FOR OUTPUT

To give device information specific to hardware units on communities requested via the OP:UNEQIP input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name. Administrative Module (AM) unit names are listed in Member Numbers Output Appendix C, APP:MEM-NUM-C.
- b Unit number. See Member Numbers Output Appendix D, APP:MEM-NUM-D.
- c Subunit name, if subunit name is CU, Control Unit (CU) subunit names are listed in Member Numbers Output Appendix D, APP:MEM-NUM-D.
- d Subunit number. See Member Numbers Output Appendix C, APP:MEM-NUM-C.

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- e Current maintenance state of the unit is indicated by the identifiers:
- ACT — Active units.
  - GROW — Units being grown.
  - INIT — Initializing units.
  - OFL — Offline units.
  - OOS — Out-of-service units.
  - STBY — Standby units.
  - UNAV — Unavailable units.
  - UNEQIP — Unequipped units.
- f Indicates the current inhibit status of the associated error source:
- ALW — Allowed.
  - INH — Inhibited.
- g Results of the last diagnostic on the unit:
- ABT — Aborted diagnostics.
  - ATP — All tests passed.
  - CATP — Conditional all tests passed.
  - NTR — No tests were run.
  - STF — Some tests failed.
- h Error number:
- 9 — Cannot attach to plant measurement library.
  - 11 — Cannot open Equipment Configuration Database (ECD) sequence.
  - 12 — Cannot sequence Unit Control Blocks (UCBs).
- i Retry the command later for the reasons:
- CANNOT CREATE FILE IN /tmp
  - CANNOT GET DATABASE RECORD ID
  - CANNOT SEQUENCE DATABASE
- j Temporary output file name.
- k Key associated with write failure.

#### 4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 49 and 477.  
Format 2 has OMDB keys of 50 and 478.  
Format 3 has OMDB keys of 51 and 479.  
Format 6 has OMDB keys of 580 and 582.  
Format 7 has OMDB keys of 588 and 589.  
Format 8 has an OMDB key of 656.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes  
APP:MEM-NUM-C  
APP:MEM-NUM-D

Output Messages  
OP:ACT  
OP:CFGSTAT  
OP:GROW  
OP:INIT  
OP:OFL  
OP:OOS  
OP:STBY  
OP:UNAV  
OP:UNEQIP

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ID ..... OP:UPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

[1] OP UPD STARTED  
DCHN STATUS  
NODE STATUS  
LNa b c  
.  
.  
.  
LNa b c  
d  
e  
OP UPD COMPL

[2] OP UPD STARTED  
DCHN STATUS  
NODE STATUS  
LNa b c  
.  
.  
.  
LNa b c  
OP UPD INPROG  
DCHN STATUS  
NODE STATUS  
LNa b c  
.  
.  
.  
LNa b c  
d  
e  
OP UPD COMPL

## 2. REASON FOR OUTPUT

Format 1 prints in response to an OP:UPD input message. Prints when there are 30 or fewer D-channel nodes being reported on.

Format 2 prints when there are more than 30 D-channel nodes being reported on.

SEE PROPRIETARY NOTICE ON COVER PAGE

a The group number of the link node, with a valid range from 00 to 63.

b The member number of the link node, with a valid range from 1 to 15.

c A suitable response explaining the status. Must be one of the following:

UPDATE PENDING  
UPDATE IN PROGRESS  
UPDATE SUCCESSFULLY COMPLETED  
UPDATE ABORTED - NODE NOT IN ACT MAJOR STATE  
UPDATE ABORTED - STOP UPDATE REQUESTED  
UPDATE ABORTED - NODE MOVED OUT OF ACT STATE DURING UPDATE  
UPDATE ABORTED - PUMPER RE-CREATION COUNT EXCEEDED  
UPDATE ABORTED - PUMPER REPORTED FAILURE  
UPDATE ABORTED - PUMPER TIMED OUT  
UPDATE ABORTED - CHECKSUM NOT ACKNOWLEDGED  
UPDATE ABORTED - CHECKSUM FAILURE  
UPDATE ABORTED - SLMK COMMUNICATION FAILURE  
UPDATE ABORTED - FAILED TO GET NODE'S GSF ID  
UPDATE ABORTED - UPDATE ERRLOG SITUATION  
UPDATE FAILED - XFER REQUEST ACKNOWLEDGED, QUERY REPORTED FAILURE  
UPDATE FAILED - XFER REQUEST ACKNOWLEDGED, QUERY NOT ACKNOWLEDGED  
UPDATE FAILED - XFER REQUEST NOT ACKNOWLEDGED, QUERY REPORTED FAILURE  
UPDATE FAILED - XFER REQUEST NOT ACKNOWLEDGED, QUERY NOT ACKNOWLEDGED  
UPDATE FAILED - NODE MOVED OUT OF ACT STATE IMMEDIATELY AFTER SUCCESSFUL UPDATE  
UPDATE FAILED - UPDATE ERRLOG SITUATION  
UPDATE NOT ATTEMPTED

d An explicit status of the last UPD:DCHN request command. Must be one of the following:

UPDATE JOB NEVER EXECUTED  
UPDATE JOB IS CURRENTLY EXECUTING  
UPDATE JOB COMPLETED  
UPDATE JOB STOPPED, STOP UPDATE REQUESTED  
UPDATE JOB ABORTED, SLMK COMMUNICATION FAILED  
UPDATE JOB ABORTED, PUMPER CREATION FAILURE  
UPDATE JOB ABORTED, PUMPER RE-CREATION COUNT EXCEEDED  
UPDATE JOB ABORTED, PUMPER GUARD TIMER TIMED OUT  
UPDATE JOB ABORTED, EXCESSIVE NODE UPDATE FAILURES  
UPDATE JOB ABORTED, EXCESSIVE RING COMMUNICATION FAILURES  
UPDATE JOB ABORTED, RING DOWN  
UPDATE JOB ABORTED, UPDATE ERRLOG SITUATION

e                      A string for the time of the last UPD completion. For example, MON  
JUN 27 04:31:19 1994.

#### **4. ACTION TO BE TAKEN**

None

#### **5. REFERENCES**

Input Messages

OP:UPD  
STOP:UPD  
UPD:DCHN

Output Messages

REPT:UPD-DCHN  
STOP:UPD  
UPD:DCHN

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... OP:UTIL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] OP UTIL COMPLETED

DTIME = a

DCYCLE = b

DEATH DELAY = c

{NO FLAGS DEFINED

| BPTNUM | UID X' | PID | ADDR X' | L | MODE | (IMP) | STATE |
|--------|--------|-----|---------|---|------|-------|-------|
| d      | e      | f   | g       | h | i    | (j)   | k }   |

{NO TRACE DEFINED

| TRACE | UID X' | PID | ADDR X' | L | STORE | (IMP) | STATE |
|-------|--------|-----|---------|---|-------|-------|-------|
| l     | m      | n   | o       | p | q     | (r)   | s }   |

#t

[2] OP UTIL NOT STARTED

INVALID ACTION FIELD INVALID KEYWORD

[3] OP UTIL NOT STARTED

RETRY LATER THE SYSTEM IS IN AN OVERLOAD CONDITION

## 2. REASON FOR OUTPUT

To print a summary status report of the Generic Access Package (GRASP). This is in response to an OP:UTIL input message. The effective values of the dynamic and static thresholds, defined breakpoints and their attributes, and the transfer trace attributes are printed.

## 3. VARIABLE FIELD DEFINITIONS

- a Threshold value of dynamic real time usage at which GRASP will take overload recovery. Expressed as a percentage.
- b Interval of time over which GRASP real time usage is accumulated. Expressed in milliseconds.
- c Length of time of debugging inactivity through which GRASP will wait before terminating itself. Expressed in minutes.
- d Breakpoint number.
- e Utility ID (UID) of the process in which the breakpoint is planted. The value is enclosed in parentheses if the breakpoint definition specified a process ID instead of a utility ID.

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|   |                                                                                                                                                                                                                                                              |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| f | Process ID (PID) of the process in which the breakpoint is planted. The value is enclosed in parentheses if the breakpoint definition specified a utility ID instead of a process ID. The field will be blank if no suitable process has been found.         |
| g | Address of the breakpoint.                                                                                                                                                                                                                                   |
| h | Length of the match interval. Execution breakpoints indicate one byte.                                                                                                                                                                                       |
| i | Breakpoint condition as specified in the WHEN input message.                                                                                                                                                                                                 |
| j | Implementation of the breakpoint.<br>H — Hardware implemented breakpoints.<br>(*) — Range matcher is marked with an asterisk.<br>(#) — Hardware execution matcher is marked with a pound sign.<br>(blank) — Software implemented breakpoints are not marked. |
| k | Breakpoint state:<br>DISABLED<br>ENABLED                                                                                                                                                                                                                     |
| l | Stop condition of the trace:<br>CIRC — The trace will run indefinitely, replacing the oldest data with the newest.<br>STOP FULL — The trace will stop when the memory fills up.                                                                              |
| m | Utility ID to which the trace is restricted. The value will be enclosed in parentheses if the INIT:UMEM message specified a process ID. If no restriction was given, will be blank.                                                                          |
| n | Process ID to which the trace is restricted. If no PID restriction was given, will be blank.                                                                                                                                                                 |
| o | Beginning address to which the trace is restricted.                                                                                                                                                                                                          |
| p | Length of the address interval to which the trace is restricted.                                                                                                                                                                                             |
| q | Storage mode:<br>DATA<br>DFPAR<br>DTRANS<br>FPARAM<br>TRANS<br>UID                                                                                                                                                                                           |

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|   |                                                                                                                                                                                                                                                                  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| r | Implementation of the trace. Indicates which matcher is used:<br><br>H* — Range matcher.<br><br>H — Execution matcher.                                                                                                                                           |
| s | Trace state:<br><br>DUMPED — The trace is not running and its data has already been dumped.<br>NEW — The trace is not running and does not contain data.<br>RUNNING — The trace is collecting data.<br>STOPPED — The trace is not running but does contain data. |
| t | number range. Other GRASP operations have higher priority than OP:UTIL, some may occur during OP:UTIL formatting.                                                                                                                                                |

#### 4. ACTION TO BE TAKEN

None.

#### 5. REFERENCES

OMDB Key

Format 1 has OMDB key of 515.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*  
*3B20D/3B21D Processor*

Input Messages

IN:DTIME

INIT:UMEM

OP:ST-PROC

OP:UTIL

Output Messages

WHEN:PID

WHEN:UID

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... OP:VERSION  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

```
OP VERSION [MISMATCH] a [PART b [COMPLETED]]
 PARTITION VERSION BWM
 c d e
 .
 .
 .
[DISK CONFIGURATION: f]
```

## 2. REASON FOR OUTPUT

To respond to the input message OP:VERSION.

## 3. VARIABLE FIELD DEFINITIONS

|           |                                                                                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| MISMATCH  | The generic versions and / or software-update levels do not match.                                                                                       |
| PART      | Indicates multipart message.                                                                                                                             |
| COMPLETED | Final part of multipart message.                                                                                                                         |
| a         | Version and level to which date partitions were set.                                                                                                     |
| b         | Message part number.                                                                                                                                     |
| c         | Partition name. The pseudo-partition ECD refers to the 'systype' and 'genid' items from the 'eaiopt' form in the Equipment Configuration Database (ECD). |
| d         | Generic version of this partition.                                                                                                                       |
| e         | Software-update level of this partition. The ECD partition does not have a software-update level.                                                        |
| f         | Office disk configuration.                                                                                                                               |

## 4. ACTION TO BE TAKEN

None. This message is for information only.

## 5. REFERENCES

Input Messages  
OP:VERSION  
UPD:VERSION

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message  
UPD:VERSION

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... OP:VTOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has 22 formats.

- [1] OP VTOP ABORTED. CANNOT FIND PROCESS UID= a
- [2] OP VTOP ABORTED. ERROR INITIALIZING SPY
- [3] OP VTOP ABORTED. ERROR READING DCT COUNT
- [4] OP VTOP ABORTED. Unable to open /dev/pmem
- [5] OP VTOP ABORTED. Unable to read low core.
- [6] OP VTOP ABORTED. Unable to read kernel sgt.
- [7] OP VTOP ABORTED. Address out of range.
- [8] OP VTOP ABORTED. Invalid segment.
- [9] OP VTOP ABORTED. Unable to seek to page entry.
- [10] OP VTOP ABORTED. Unable to read page entry.
- [11] OP VTOP ABORTED. Desired address not in core.
- [12] OP VTOP ABORTED. Process id out of range.
- [13] OP VTOP ABORTED. Process does not exist.
- [14] OP VTOP ABORTED. Unable to seek sgt for process b.
- [15] OP VTOP ABORTED. Unable to read sgt for process b.
- [16] OP VTOP ABORTED. Process is not in memory.
- [17] OP VTOP ABORTED. Unable to seek to page.
- [18] OP VTOP ABORTED. Unable to read pcb at location c.
- [19] OP VTOP ABORTED. Failed to read d bytes at physad e  
parsing message.

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- [20] OP VTOP- UID a VIRTUAL ADDRESS f --  
PHYSICAL ADDRESS=g
- [21] OP VTOP- PID b VIRTUAL ADDRESS f --  
PHYSICAL ADDRESS=g
- [22] OP VTOP- KERN VIRTUAL ADDRESS f  
PHYSICAL ADDRESS=g

## 2. REASON FOR OUTPUT

To report the result of executing an OP:VTOP command that had been successfully parsed.

## 3. VARIABLE FIELD DEFINITIONS

- a Input utility id.
- b Input process id.
- c Address that attempted to read pcb from.
- d Number of bytes attempted to read.
- e Memory location where attempted to read.
- f Input virtual address.
- g Output physical address.

## 4. ACTION TO BE TAKEN

The last three messages indicate a successful command. The remaining messages indicate some error. Check input information.

## 5. REFERENCES

Input Message  
OP:VTOP

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ID ..... ORD:SCSD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] ORD SCSD UNIT a PT b[bbbbbbb] f g
- [2] ORD SCSD GRPN c DUPID d PT e[eeeeee] f g
- [3] ORD SCSD NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS

## 2. REASON FOR OUTPUT

To indicate the result of a distribute operation requested by an ORD:SCSD input message. The operations are: set, clear, flash for eight seconds, and flash continuously.

Format 1 is used when a distribute point is identified by physical location.

Format 2 is used when a distribute point is identified by logical address.

Format 3 indicates the Scanner and Signal Distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number of SCSD unit.
- b Physical scan point number on an SCSD (0-31).
- c Name of the logical group.
- d Duplex group ID (0-1).
- e Number of a point within a logical group.
- f Distribute operation.
  - OPERATE — Set.
  - RELEASE — Clear.
  - REPEAT — Flash continuously.
  - STEP — Flash for eight seconds, which it terminates in the cleared state.

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- g Termination status.
- COMPLETED — Action completed.
- FAILED — Action could not be completed by SCSD administrator:
- SCSD unit number is invalid.
  - Point number is invalid for the logical group. If more than one point number is specified, at least one of them is invalid. Operation will complete for all valid point numbers if there are no other errors.
  - Logical group name is invalid and either the SCSD unit is Out Of Service (OOS) or is in an inactive state to the SCSD administrator.

#### 4. ACTION TO BE TAKEN

Issue the OP:OOS input message to determine if the SCSD unit is listed as out-of-service. Otherwise, enter Recent Change And Verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the results are negative, seek technical assistance.

#### 5. REFERENCES

OMDB Key

Formats 1 and 2 have an OMDB key of 229.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Input Messages

OP:OOS

ORD:SCSD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... PRM:0  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] PRM\_a bcde ffgg gg gggg hi jk lm
- [2] PRM\_a b6de 10u nnn ooo ppp hi jk lm
- [3] PRM\_a b6de 20u nnn ooo ppp hi jk lm
- [4] PRM\_a b6de 3qr nnn ooo ppp hi jk lm
- [5] PRM\_a b6de 40t ttt nnn ooo hi jk lm
- [6] PRM\_a b6de 60q uss nnn ooo hi jk lm
- [7] PRM\_a b6de 7qr uss nnn ooo hi jk lm

## 2. REASON FOR OUTPUT

To report the completion status of each computer process during processor recovery. The report is called a Processor Recovery Message (PRM). See the *UNIX® RTR Operating System Processor Recovery Messages Guide* for detail on specific PRMs printed on the Read Only Printer (ROP).

Successful execution produces a success PRM. If a process encounters a failure, a failure PRM is produced to indicate which process failed, the reason for the failure, and, in some cases, the failing data.

Format 1 is printed for all processes except the disk driver.

Formats 2 - 7 are disk driver failure PRMs.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number of the Control Unit (CU) which output the PRM (0-1).
- b Type of PRM:
  - E — Success.
  - F — Failure.

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- c Major step or process that output PRM:
- 0 — Microboot.
  - 1 — Little Boot and load disk from tape.
  - 2 — Processor Initialization (PINIT).
  - 3 — Big Boot.
  - 4 — Kernal Boot (KBOOT).
  - 5 — Error Interrupt Handler (EIH).
  - 6 — Disk Driver.
  - 7 — Input / Output Processor (IOP) Driver.
  - 8 — File Manager.
  - 9 — UNIX® RTR Processes: kernel, scheduler, memory manager, capabilities manager, or utilities manager.
  - A — Process Manager.
  - B — System Integrity Monitor (SIM).
  - C — SIM recovery complete.
  - D-E — Not used by UNIX® RTR. Could be an application process. See application documentation.
- d UNIX® RTR level of initialization.
- e Application level of initialization.
- f Two-digit code for function within major step.
- g 10 digits of failure data or other information.
- h Emergency Action Interface (EAI) status digit bits numbered right to left:
- 3 — Power up.
  - 2 — Central Control (CC) run.
  - 1 — CC active.
  - 0 — EAI All Seems Well (ASW).
- i EAI status digit, bits numbered right to left:
- 3 — New PRM.
  - 2 — Maintenance Reset Function (MRF) start.
  - 1 — Pulse point 23.
  - 0 — Pulse point 22.

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- j                    EAI status digit, bits numbered right to left:
- 3 — IPB received.
  - 2 — EAI enabled.
  - 1 — Primary disk.
  - 0 — Secondary disk.
- k                    EAI status digit, bits numbered right to left:
- 3 — CC forced on.
  - 2 — CC forced off.
  - 1 — Timer disable.
  - 0 — CC MRF.
- l                    Current status of inhibits, bits numbered right to left:
- 3 — Hardware checks are inhibited.
  - 2 — UNIX® RTR error interrupts are inhibited.
  - 1 — Cache is bypassed (inhibited).
  - 0 — Software checks are inhibited (SIM inhibited).
- m                    Configuration control options, bits numbered right to left:
- 3 — Backup root file system being used.
  - 2 — Minimum configuration being used.
  - 1 — Unused.
  - 0 — Unused.

#### 4. ACTION TO BE TAKEN

Refer to the *Processor Recovery Message Guide* for detailed information. If additional information is required, contact the product engineering control center.

#### 5. REFERENCES

CIC Select Code 303-007 *Lucent Technologies 3B20D/3B21D Computer UNIX®  
RTR Operating System Processor Recovery Messages User's Guide*

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... PUMP:ATP  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] PUMP:ATP COMPLETED FOR LNa b (c ms)
- [2] PUMP:ATP REQUEST DENIED BY LNa b
- [3] PUMP:ATP ABORTED BY LNa b
- [4] PUMP:ATP ABORTED BY 3B
- [5] PUMP:ATP FAILED AT LNa b
- [6] PUMP:ATP TIMED OUT WAITING FOR LNa b

## 2. REASON FOR OUTPUT

Format 1 indicates a successful pump of the node specified. Formats 2-6 indicate various errors.

Format 2 indicates that the node is not ready to be pumped due to a pump or node initialization already in progress.

Formats 3 and 4 indicate that a pump in progress had to be aborted due to a fatal error condition or preemption by recent change. Preemption by recent change will always result in a 3B initiated abort (format 4). Fatal errors may occur in the 3B or the node. On the 3B, fatal errors will be accompanied by a REPT:ATPCM PROC(Data\_base) message describing the error (failed disk read, database not initialized etc.)

The ATP node checks the administrative block of the database before applying it for use by call processing on the node. Format 5 indicates that the ATP node failed to apply the newly pumped database due invalid administrative data in the database.

Format 6 indicates that the node is not responding to pump messages from the 3B.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                               |
|---|-----------------------------------------------|
| a | ATP node group number(00-63)                  |
| b | ATP node member number(0-15)                  |
| c | Elapsed time during the pump in milliseconds. |

## 4. ACTION TO BE TAKEN

If the node is initializing a format 2 output may result. The best approach in this case is to wait a few seconds and retry.

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Recent change has priority over PUMP:ATP when updating the database. A format 4 message may result if PUMP:ATP had to be aborted to allow a recent change to go through. For the recent change abort case, no REPT:ATPCM PROC(Data\_base) error message should appear. Seek technical assistance if such messages occur since they indicate fatal errors occurring during the pump.

Formats 3, 5, and 6 do not occur under normal circumstances; seek technical assistance if they appear.

## **5. REFERENCES**

Input Message  
PUMP:ATP

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ID ..... RC:GTT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] RC GTT TT 252 ccccccccc COMPLETE  
?I - COMMAND NOT RECOGNIZED
- [2] RC GTT TT 252 ccccccccc COMPLETE  
RL - INTERNAL ERROR - ERRNO aaaa
- [3] RC GTT TT 252 ccccccccc COMPLETE  
NG - INVALID DATA - b
- [4] RC GTT TT 252 ccccccccc COMPLETE  
RC FOR ORDER ccccccccc COMPLETE UPD CODE ddd

## 2. REASON FOR OUTPUT

- [1] Message format is wrong, usually missing Keywords. Re-enter the message.
- [2] Retry Later. This is an internal error due to a failure in sending the delete request to the HOME DLN. and ERROR number will be printed to indicate where the failure happened
- [3] The format of the message is wrong, check the input message and retype the correct format. A string will be printed to indicate where the where is the failure.
- [4] The 3B successfully send the delete request to the DLN. The result of attempting to delete the entry from the database will be printed in ddd.

## 3. VARIABLE FIELD DEFINITIONS

aaaa DLNCM Failures:

- 15 — Failed to getport to DLNCM
- 16 — Failed to Find OUTBOUND DLN

Failure to OPEN IMS Channel:

- 1 — Can't open because msg switch is down
- 7 — Out of read queues to allocate
- 8 — Out of old write queues to allocate
- 103 — Maximum open channels
- 104 — Bad function name in the argument

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-109 — Channel already open wait 2 minutes and retry

Failure to Set IMS Channel Controls:

- 3 — Not your channel.
- 6 — Out of read queues to allocate.
- 9 — No new message lists available.
- 17 — No block read lists available.
- 101 — Bad Channel number.
- 102 — Channel is closed.
- 106 — Could Not Make open request.

Failure to send Msg to DLN:

- 294 — Not enough space to satisfy the request.
- 299 — Can't open because msg switch is down.
- 247 — Chan number out of range.
- 198 — Channel is close.
- 199 — Bad Channel number.
- 296 — Bad length of the msg.
- 343 — Internal error, retry.

b

ANI

NPT

ORDER NO.

TT

OPERATION

HHHH less than LLLL

MISSING KEYWORD TT

MISSING KEYWORD ORNU

MISSING KEYWORD NUM

CCCCCCCC

Order number.

ddd

Supplementary data to indicate the result of attempting to delete the database:

- 0 — Successful Operation.
- 4 — Time-out waiting for the DLN to response.
- 101 — General database failure, unsuccessful completion.

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- 102 — Database initialization in progress.
- 105 — Item to be modified was not located.
- 123 — The ANI being searched for was not found.
- 124 — Specified NPA-NXX combination was not found.
- 127 — Associated point code sub-system information does not exist.
- 141 — File descriptor is out of range.
- 143 — Error on reading from the database.
- 144 — Error on writing to the database.
- 154 — Database inconsistencies have been detected.
- 155 — Cache inconsistencies have been detected.
- 156 — The ADMINTOC or DBTOC magic number is invalid.
- 157 — Invalid database type for this application.
- 160 — Clump number is out of range for application.
- 178 — Database inconsistencies have been detected.
- 179 — Invalid input parameters detected at DLN.
- 180 — The ANI was not found.
- 181 — Invalid database address detected.
- 182 — Invalid database pointer detected.
- 183 — Invalid database range detected.
- 186 — Delete failed.
- 187 — Invalid database pointer detected.
- 188 — Invalid request detected at DLN.
- 190 — The application database value is invalid.
- 192 — The specified access mode is invalid.
- 193 — The specified customer identification number is invalid.
- 194 — The compaction table search chain exceeded maximum length.
- 195 — The ANI table search chain exceeded maximum.
- 196 — The DLN user buffer address is invalid.
- 197 — Invalid table specified.

#### **4. ACTION TO BE TAKEN**

- [1] Check the format of the input message and enter the right format.
- [2] Wait few minutes, retry the message for a second time. If the problem persist, seek technical assistance.

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- [3] Message format is not good, check the data and the format of the input message and re-enter it.
- [4] The code returned in the message will reflect the result of the data services attempting to delete the entry from the table. No action is needed for codes 0, 105 since they reflect normal operation. Any other code MAY reflect a problem with the data base, seek technical assistance.

## **5. REFERENCES**

Input Messages  
RC: GTT

Output Messages  
RC: GTT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RC:MISC-FHT-FTA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

The following variations of the format describe the ways in which information can be represented in the output message.

For messages preceded by ?I (invalid) or RL (retry later) the output will be as follows:

**NOTE:** [ ]'s are not included in error message.

[1] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb COMPLETE  
[ERROR MESSAGE]

where [ERROR MESSAGE] can be one of the following:

### USER ERRORS:

- (1) ?I - MESSAGE FORMAT = RC:MISC;FHT,FTA
- (2) ?I - INVALID FUNCTION AND TT TYPE
- (3) ?I - THIS OPTION IS NOT SUPPORTED - Use RC:GTT
- (4) RL - ANOTHER RC or VER IS ACTIVE
- (5) RL - INHIBIT ACTIVE

### PROGRAM ERRORS:

- (1) RL - CAN'T ATTACH CNIPAS

For messages produced by invalid user syntax the output will be as follows:

[2] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
[ERROR MESSAGE]

[11] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb COMPLETE  
RC FOR ORDER bbbbbbbbbb REJECTED

where [ERROR MESSAGE] can be one of the following:

- (1) NG - MUST SUPPLY AN ORDER NUMBER
- (2) NG - ORDER NUMBER LONGER THAN 9
- (3) NG - FIRST 4 CHARS OF ORDER# MUST BE ALPHABETIC
- (4) NG - MISSING DATA: COMMAND
- (5) NG - INVALID COMMAND
- (6) NG - ERROR ON COMMAND SPECIFICATION
- (7) NG - MISSING DATA: PROCESSING FLAG
- (8) NG - INVALID PROCESSING FLAG
- (9) NG - MISSING KEYWORD NUM

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- (10) NG - MISSING DATA: RC RELATION
- (11) NG - INVALID RC/VER RELATION
- (12) NG - MISSING DATA: PRIM SSN
- (13) NG - PRIM SSNPC CONTAINS LETTERS
- (14) NG - PRIM SSNPC NOT 12 BYTES
- (15) NG - PRIM SSN OUT OF RANGE
- (16) NG - PRIM PC OUT OF RANGE
- (17) NG - CNI UNROUTABLE FOR PRIM NCP INFO
- (18) NG - MISSING DATA: SEC SSNPC
- (19) NG - SEC SSNPC CONTAINS LETTERS
- (20) NG - SEC SSNPC NOT 12 BYTES
- (21) NG - SEC SSN OUT OF RANGE
- (22) NG - SEC PC OUT OF RANGE
- (23) NG - CNI UNROUTABLE FOR SEC NCP INFO
- (24) NG - RECKEY HAS INVALID LENGTH
- (25) NG - RECKEY MUST BE 10 OR 6 DIGITS FOR APN ANIS
- (26) NG - RECORD KEY CONTAINS LETTERS
- (27) NG - RECKEY MIXES LENGTH
- (28) NG - TOO MANY RECKEYS: MAX OF 10 ALLOWED
- (29) NG - INVALID RANGE SPECIFIED
- (30) NG - RECORD KEY MUST BE ZERO
- (31) NG - ONLY ONE RECORD KEY ALLOWED
- (32) NG - POINT CODE HAS INVALID NETWORK ID
- (33) NG - POINT CODE HAS INVALID CLUSTER ID
- (34) NG - POINT CODE HAS INVALID REGION
- (35) NG - POINT CODE HAS INVALID MEMBER
- (36) NG - NO ROUTING DATA EXISTS FOR POINT CODE
- (37) NG - CHANGE NOT ALLOWED WITH RELATION 4
- (38) NG - INVALID COMMAND
- (39) NG - INVALID DATA: OLD PRIMARY NCP
- (40) NG - INVALID DATA: OLD SECONDARY NCP
- (41) NG - INVALID DATA: PRIMARY NCP
- (42) NG - INVALID DATA: SECONDARY NCP
- (43) NG - INVALID OR MISSING ORDER NUM
- (44) NG - INVALID PROCESSING FLAG
- (45) NG - INVALID RANGE SPECIFIED
- (46) NG - INVALID RC/VER RELATION
- (47) NG - INVALID RECKEY cccccccccc
- (48) NG - INVALID RELATION
- (49) NG - MISSING DATA: COMMAND
- (50) NG - MISSING DATA: OLD PRIMARY NCP
- (51) NG - MISSING DATA: OLD SECONDARY NCP
- (52) NG - MISSING DATA: PRIMARY NCP
- (53) NG - MISSING DATA: PROCESSING FLAG
- (54) NG - MISSING DATA: RC RELATION
- (55) NG - MISSING DATA: SECONDARY NCP
- (56) NG - MISSING KEYWORD NUM
- (57) NG - ONLY ONE RECKEY ALLOWED
- (58) NG - RECKEY cccccccccc HAS INVALID LENGTH
- (59) NG - RECKEY MUST BE ZERO

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- (60) NG - RELATION 4 NOT USED FOR DELETE
- (61) NG - TOO MANY RECKEYS: MAX OF 2 ALLOWED
- (62) NG - TOO MANY RECORD KEYS SPECIFIED

For messages produced by errors while performing database searching or database actions (add, delete, change) before any data has been written to the database, the output will be as follows:

- [3] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
[ERROR MESSAGE]
- [4] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
ERR xxx yyy RECKEY cccccccccc
- [5] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb COMPLETE  
RC FOR ORDER bbbbbbbbbb COMPLETE - DLN UNCHANGED

where [ERROR MESSAGE] can be one of the following:

USER ERRORS:

- (1) NG - ANIs EXIST IN THIS RANGE
- (2) NG - RANGE INVALID WHEN STARTED WITH LIST
- (3) NG - USER DATA DOES NOT REFLECT CHANGE
- (4) NG - NO CUST DATA FOUND
- (5) NG - NO NCP DATA FOUND
- (6) NG - CANNOT SPLIT RANGE ON CHANGE
- (7) NG - ANI DATA PREVIOUSLY EXISTS
- (8) NG - NO ANI DATA FOUND
- (9) NG - NO AVAILABLE NCP ENTRIES
- (10) NG - CUST DATA PREVIOUSLY EXISTS
- (11) NG - DATA PREVIOUSLY EXISTS
- (12) NG - ERROR ALLOCATING RECORD ENTRY
- (13) NG - NO ANI DATA FOUND
- (14) NG - NO AVAILABLE NCP ENTRIES
- (15) NG - NO NCP DATA FOUND
- (16) NG - OLD DATA DOES NOT MATCH

PROGRAM ERRORS:

- (1) DB - ERROR ACCESSING DATA TABLE
- (2) DB - ERROR ALLOCATING HEAD TABLE
- (3) DB - ERROR POPULATING DLN UPD ARRAY
- (4) DB - ERROR LSEEKING TO BINK ZERO
- (5) DB - ERROR READING BINK ZERO
- (6) DB - ERROR LSEEKING TO DATA TABLE
- (7) DB - ERROR ALLOCATING HEAD TABLE
- (8) DB - ERROR DEALLOCATING DATA TABLE
- (9) DB - ERROR WRITING BINK ZERO
- (10) DB - ERROR OPENING DATABASE
- (11) DB - ERROR CLOSING DATABASE
- (12) DB - ERROR WRITING DATA TABLE

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- (13) DB - ERROR SORTING DATA TABLE
- (14) DB - INVALID ANI TABLE POINTER
- (15) DB - ERROR SENDING RC MESSAGE TO ARTS
- (16) DB - ERROR GETTING ARTS PORT
- (17) DB - ERROR CREATING ROLLBACK FILE
- (18) DB - ERROR ALLOCATING RC STRUCTURE
- (19) DB - RC:MISC;FHT,FTA VERSION ERROR
- (20) DB - ERROR FORMATTING INTERNAL CMD
- (21) DB - ERROR CONNECTING TO RCV PROCESS
- (22) DB - ERROR WRITING TO RCV PROCESS
- (23) DB - ERROR READING RCV PROCESS
- (24) DB - ERROR DECODING INTERNAL RESPONSE

For messages produced by errors while performing database adding, deleting, or changing after data has been written to the database, the output will be as follows:

- [3] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
[ERROR MESSAGE]
- [6] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
ROLLING BACK DATABASE
- [7] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
ORDER HAS BEEN ROLLED BACK
- [4] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
ERR xxx yyy RECKEY cccccccccc
- [5] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb COMPLETE  
DLN ERROR CODE = X'dddddddd

For messages produced by errors while performing database adding, deleting, or changing after data has been written to the database and the rollback function was not successful, the output will be as follows:

- [3] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
[ERROR MESSAGE]
- [6] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
ROLLING BACK DATABASE
- [8] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
[ERROR MESSAGE1]
- [9] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
DB-AUTOMATIC ROLLBACK FAILED
- [4] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
ERR xxx yyy RECKEY cccccccccc

SEE PROPRIETARY NOTICE ON COVER PAGE



[5] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb COMPLETE  
DLN ERROR CODE = X'dddddddd

and where [ERROR MESSAGE1] can be one of the following:

PROGRAM ERRORS:

- (1) DB - ERROR UNLOCKING DATABASE
- (2) DB - ERROR OPENING ROLLBACK FILE
- (3) DB - ERROR CLOSING ROLLBACK FILE
- (4) DB - ROLLBACK FILE DOES NOT EXIST
- (5) DB - ERROR READING DATABASE
- (6) DB - ERROR WRITING DATABASE
- (7) DB - ERROR LSEEKING DATABASE

On a successful recent change the following output will be produced:

[10] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb COMPLETE  
RC FOR ORDER bbbbbbbbbb COMPLETE UPD CODE = X'dddddddd

On a successful recent change, but the DLN is not updated, the following output will be produced:

[5] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
DLN ERROR CODE = X'dddddddd

On a successful recent change, but catastrophic (i.e., a recent change causing all DLNs to be removed from service) errors resulted during DLN update, the following output will be produced for a four DLN office:

[12] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
DLN ERROR CODE = X'44444444

or, for a two DLN office:

[12] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb IN PROGRESS  
DLN ERROR CODE = X'44440707

In either case, the recent change causing this error message will be backed out (via rollback) and the "DLN Inhibit" trigger will be activated. This trigger will disallow any RCV activity (except VERIFYs) to the database until manual action (see ALW:RCV-APPDB) is taken to correct the trouble. The entire RC:MISC-FHT-FTA message will be echoed to the ROP.

For messages produced by errors while transferring RC requests from the switch I/O handlers to the RCV process handling RC requests, the output will be as follows:

[13] M S RC MISC FHT FTA GTT10Daaa bbbbbbbbbb COMPLETED  
RC FOR ORDER bbbbbbbbbb ERROR sss (ttt)

SEE PROPRIETARY NOTICE ON COVER PAGE

## 2. REASON FOR OUTPUT

To request the user to add, delete, verify, or change all record keys that are specified in the input message.

To verify the correctness of a message, acknowledge receipt of a message, to communicate with the user technician, and to perform the database routine specified in the message.

## 3. VARIABLE FIELD DEFINITIONS

|            |                                                                                                                                                                     |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| aaa        | Translation type: may have a value of 253 for 800 and 900 services, or 242 for PCPGTT. (aaa may also have APN appended if this was specified on the input message.) |
| bbbbbbbbbb | Order number: the first four characters signify where the RC originated; the last five characters signify a unique number for the recent change.                    |
| cccccccccc | Record key: indicates which record in the list or range was in error.                                                                                               |
| dddddddd   | 32-bit update code for DLNs which represents errors or success for 4 DLNs.                                                                                          |

Each byte is a positive 7-bit update return code:

- 0 — SUCCESS.
- 1 — appdb pump in progress.
- 2 — aci pump in progress.
- 3 — aci update in progress.
- 4 — dln is OOS.
- 5 — no TCB resources for child task.
- 6 — appdb update timeout (> 15 seconds).
- 7 — dln is UNEQUIPPED.
- 10 — Udlnappdb() failed to open the database.
- 30 — \_updappdb() # elements out of range.
- 31 — \_updappdb() dlnid out of range.
- 32 — \_updappdb() failed to send dln update start command.
- 33 — \_updappdb() bad dln response to update start command.
- 34 — \_updappdb() unable to Lseek() to appdb changed area.
- 35 — \_updappdb() unable to Read() to appdb changed area.
- 36 — \_updappdb() failed to send dln read start command.
- 37 — \_updappdb() bad dln response to read start command.
- 38 — \_updappdb() failed to send dln update complete command.
- 39 — \_updappdb() bad dln response to update complete command.

|     |                                                                 |
|-----|-----------------------------------------------------------------|
| sss | Error number. See Minor Error Codes at the end of this message. |
| S   | Number of seconds in current minute.                            |
| ttt | Error number. See Major Error Codes at the end of this message. |
| xxx | Error number. See Error Codes at the end of this message.       |

SEE PROPRIETARY NOTICE ON COVER PAGE

yyy  
ADDING  
CHANGING  
DELETING

#### 4. ACTION TO BE TAKEN

Format 1: These are responses that are out of the user's control. The user should retry the message.

Format 2: These are normal responses to format errors of the RC:MISC-FHT-FTA input message. The user should check the message typed on the screen against rules given in the input document message.

Formats 3, 6, 7, 8, and 9: These are error responses encountered from programs that are initiated by the recent change message. The user should check the correctness of the data entered in the message and the error code returned.

Format 4: Error message with a code indicating recent change error.

Format 5: Complete message on a failure.

Format 10: Represents success. No action taken.

Format 12: There was a problem with the DLNs.

#### 5. REFERENCES

##### Input Messages

ALW:RCV-APPDB  
CLR:DLNESC  
INH:RCV-APPDB  
OP:DLNESC  
OP:INH-APPDB  
RC:GTT  
RC:MISC-FHT-FTA

##### Output Messages

ALW:RCV-APPDB  
CLR:DLNESC  
INH:RCV-APPDB  
OP:DLNESC  
OP:INH-APPDB  
RC:GTT  
REPT:INH-RCV-APPD

SEE PROPRIETARY NOTICE ON COVER PAGE

# Error Codes for GTT Data Applications

## Major Error Codes

| Errno | Definition                                  |
|-------|---------------------------------------------|
| 4     | Input parameter error                       |
| 8     | Improper SKO action requested               |
| 10    | Record found                                |
| 11    | Record not found                            |
| 14    | Internal error failure                      |
| 17    | Database locked -- by manual action         |
| 23    | Database locked - "DLN Inhibit" lock is set |
| 24    | Database locked -- already in use           |
| 25    | SKO backed out                              |
| 26    | Backout failed for SKO                      |
| 27    | Improper key                                |
| 29    | Data error                                  |
| 31    | Improper database specified                 |

## Minor Error Codes

| Errno | Definition                                                                                                                                      |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 101   | Database service did not complete successfully.                                                                                                 |
| 105   | Item to be modified was not located.                                                                                                            |
| 110   | The 10-digit dialed number / ANI could not be added to the database because the hash table was full.                                            |
| 111   | A 10-digit dialed number / ANI could not be added to the database because the 10-digit compaction table was full.                               |
| 112   | The EPAV table is full.                                                                                                                         |
| 116   | The point code sub-system information associated with the dialed digit / ANI could not be added to the database because the NCP table was full. |
| 120   | An object could not be added to the database because it already existed.                                                                        |
| 123   | The dialed digit / ANI being searched for was not found.                                                                                        |
| 124   | The specified NPA-NXX combination was not found.                                                                                                |

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Error Codes for GTT Data Applications (continued)

Minor Error Codes

| Errno | Definition                                                                                      |
|-------|-------------------------------------------------------------------------------------------------|
| 127   | The point code sub-system information associated with the dialed digit / ANI does not exist.    |
| 130   | The customer's EPAV chain length has reached maximum length.                                    |
| 132   | The EPAV customer's ANI record does not exist.                                                  |
| 133   | The EPAV customer has no EPAVs / subaccounts.                                                   |
| 134   | The EPAV-ANI exists, but the associated subaccount does not exist.                              |
| 135   | Neither the EPAV-ANI nor the associated subaccount exists.                                      |
| 141   | File descriptor invalid.                                                                        |
| 143   | An error occurred during an attempted database read.                                            |
| 144   | An error occurred during an attempted database write.                                           |
| 154   | Database inconsistencies have been detected.                                                    |
| 155   | Cached inconsistencies have been detected.                                                      |
| 156   | The ADMINTOC or DBTOC magic number in the specified database is invalid.                        |
| 157   | Invalid database type for this customer.                                                        |
| 160   | Clump number is out of range for specified customer.                                            |
| 176   | All file descriptors are active, none available for assignment.                                 |
| 180   | The NPA-NXX value that is to replace an existing value already exists in the database.          |
| 189   | The number of subaccount digits to match on in request does not match stored digit count value. |
| 190   | The specified customer unit is invalid.                                                         |
| 191   | The specified user identification number is invalid.                                            |
| 192   | The specified access mode was something other than read_only or read_write.                     |
| 193   | The specified customer identification number is invalid.                                        |
| 194   | The compaction table search chain has exceeded maximum length.                                  |
| 195   | The dialed digit / ANI table search chain has exceeded maximum length.                          |
| 196   | The DLN user buffer address is invalid.                                                         |
| 201   | The argument 'object' is invalid                                                                |
| 202   | The argument passed in is invalid                                                               |

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Error Codes for GTT Data Applications (continued)

Minor Error Codes

| Errno | Definition                                                                          |
|-------|-------------------------------------------------------------------------------------|
| 203   | The instance does not exist                                                         |
| 204   | The instance cannot be created, since it existed already                            |
| 205   | End of object array, no more instance can be found or created                       |
| 206   | No free IR internal buffer                                                          |
| 207   | Request IMS buffer failed                                                           |
| 208   | Build IMS header failed                                                             |
| 209   | IMS write failed                                                                    |
| 212   | Data size + number of key > 480 bytes                                               |
| 213   | Domain exceeds its buffer quota                                                     |
| 215   | Argument 'domain' is invalid                                                        |
| 216   | Get _BAD_CHAN failure from IMS read                                                 |
| 217   | Get _RTNMSG failure from IMS read                                                   |
| 218   | Get _SRCMATCH failure from IMS read                                                 |
| 219   | Bad message type                                                                    |
| 220   | IR event length > 508 bytes                                                         |
| 223   | Wrong queue type                                                                    |
| 600   | Old data supplied does not match database values                                    |
| 601   | Improper customer unit specified by DS                                              |
| 602   | SLT object not found and cannot be created                                          |
| 603   | Buffer for writing to DLN full                                                      |
| 604   | Numbering plan type not APN or NANP                                                 |
| 605   | Invalid number in key portion                                                       |
| 606   | Invalid customer ID                                                                 |
| 608   | Data missing on add, modify, or modify_ucl                                          |
| 609   | Cannot backout a range                                                              |
| 610   | NPA NXX already exists on a split                                                   |
| 650   | Stuck in loop constantly deleting the same TR instance                              |
| 651   | Data from RC:MISC;FHT, FTA too large for buffer, SUPPL is size of data              |
| 652   | Did not read the expected amount of data from tmp file,<br>SUPPL is the amount read |
| 653   | Data does not exist, SUPPL is the customer unit                                     |
| 654   | Could not create TR instance, SUPPL is the IRerrno                                  |
| 655   | Failure in populating MT and SKO instances                                          |

SEE PROPRIETARY NOTICE ON COVER PAGE

Error Codes for GTT Data Applications (continued)

Minor Error Codes

| Errno | Definition                                                                           |
|-------|--------------------------------------------------------------------------------------|
| 656   | Failure to encode ASN message, SUPPL is the asn error string                         |
| 657   | No SLT instance exists                                                               |
| 658   | Customer database out of range                                                       |
| 659   | Error return from writing to DLNs                                                    |
| 660   | Could not create SLT instance, SUPPL is the IRerrno                                  |
| 661   | Invalid file descriptor for DS                                                       |
| 662   | Invalid choice of SKO - internal data problems, SUPPL is the SKO type                |
| 663   | An expected SKO does not exist                                                       |
| 664   | Could not create SKO instance, SUPPL is the IRerrno                                  |
| 665   | Stuck in loop constantly deleting the same MT instance                               |
| 666   | SKO instance in incorrect state - internal data failure, SUPPL is the state returned |
| 667   | DS file did not close                                                                |
| 668   | Could not create MT instance, SUPPL is the IRerrno                                   |
| 669   | An expected MT instance does not exist                                               |
| 670   | Could not create LOG instance, SUPPL is the IRerrno                                  |
| 671   | Could not create SPLT instance, SUPPL is the IRerrno                                 |
| 672   | Failure in populating SPLT instance                                                  |
| 673   | An expected MT instance does not exist                                               |
| 674   | An expected ONEA instance does not exist.                                            |
| 675   | Could not create ONEA instance, SUPPL is the IRerrno.                                |

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... RC:ORNU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] RC ORNU a ACTIVATED
- [2] RC ORNU a FAILED ACTIVATION  
FAILURE b, ADDRESS c  
ERROR MESSAGE

## 2. REASON FOR OUTPUT

Prints in response to the RC:PCP-CHG input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Order number in RC message.
- b Error message:
- 3 — Technical assistance required. General error, "catch all" for internal errors like "disk I/O error".
  - 23 — Translator is full. Indicates a common shared resource has been depleted.
  - 1000 — Bad RC:PCP header, must be RC:PCP;CHG;OPT(SAB),ACT:.
  - 1001 — Missing or invalid CANI keyword or argument.
  - 1002 — Missing or invalid TOA keyword or argument.
  - 1003 — Missing or invalid TSVC keyword or argument.
  - 1004 — Missing or invalid NUMPL keyword or argument.
  - 1005 — Missing or invalid ORNU keyword or argument.
  - 1006 — Missing or invalid action keyword or argument.
  - 1007 — Missing or invalid PAV keyword or argument.
  - 1008 — EPAV limit of 20 values per RC command.
  - 1467 — All preassigned values must be of the same length.
  - 1468 — Total number of preassigned values may not exceed 200. RC being processed will make the customer's EPAV list exceed length of 200.
  - 1709 — Customer entry is not assigned.

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c                      Detail reference to 4ESS™ software.

**4. ACTION TO BE TAKEN**

None

**5. REFERENCES**

Input Message  
RC:PCP-CHG

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCV:DMTECD-VFY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RCV DMTECD VFY STARTED
- [2] RCV DMTECD VFY DB a - PAGE b OF c
- [3] RCV DMTECD VFY DB a COMPLETED
- [4] RCV DMTECD VFY DB a ERROR MESSAGES
- [5] RCV DMTECD VFY DB a ABORTED INTERNAL ERROR
- [6] RCV DMTECD VFY DB a LOG - PAGE b OF c
- [7] RCV DMTECD VFY DB a ERRORS FOLLOW
- [8] RCV DMTECD VFY DB a TERMINATED WITH ERRORS

## 2. REASON FOR OUTPUT

To report the initiation or completion of an RCV:DMTECD;VFY session, preface error output, preface log file output, or to flag termination status.

## 3. VARIABLE FIELD DEFINITIONS

- a Database accessed by RCV:DMTECD;VFY input command.
- b Current page of output file.
- c Total pages of output file.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Keys

Formats 4,5,7, and 8 have an OMDB key of 721.

Formats 1,2,3, and 6 have an OMDB key of 722.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and  
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages  
RCV:DMTE-VFY  
RCV:M-RCVECD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCV:DMTSG-VFY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RCV DMTSG VFY STARTED
- [2] RCV DMTSG VFY DB a - PAGE b OF c
- [3] RCV DMTSG VFY DB a COMPLETED
- [4] RCV DMTSG VFY DB a ERROR MESSAGES
- [5] RCV DMTSG VFY DB a ABORTED INTERNAL ERROR
- [6] RCV DMTSG VFY DB a LOG - PAGE b OF c
- [7] RCV DMTSG VFY DB a ERRORS FOLLOW
- [8] RCV DMTSG VFY DB a TERMINATED WITH ERRORS

## 2. REASON FOR OUTPUT

To report the initiation or completion of an RCV:DMTSG;VFY session, preface error output, preface log file output, or to flag termination status.

## 3. VARIABLE FIELD DEFINITIONS

- a Database accessed by RCV:DMTSG;VFY input command.
- b Current page of output file.
- c Total pages of output file.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Keys

Formats 4,5,7, and 8 have an OMDB key of 721.

Formats 1,2,3, and 6 have an OMDB key of 722.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and  
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages  
RCV: DMTS-VFY  
RCV: M-RCVSG

SEE PROPRIETARY NOTICE ON COVER PAGE

## 1. FORMAT

## 2. REASON FOR OUTPUT

### 3. VARIABLE FIELD DEFINITIONS

SEE PROPRIETARY NOTICE ON COVER PAGE

FORK FAILED — MENU finds system call failure.

INTERNAL ERROR — Recent change activity encountered an internal error; error message logged to error file named for the activity.

ODIN FORM CHECK FAILED FOR BATCH — Special error return from RCV3B to indicate a failure in batch mode.

OUT OF MEMORY — MENU cannot find main memory for setup.

PIPE FAILED — System call failed.

READ FAILED — System call failed.

SETTRAP STDIN FAILED — System call failed.

WRITE FAILED — System call failed.

d Error number after system call failure. See System Error Codes Output Appendix, APP:SYSERR.

#### 4. ACTION TO BE TAKEN

Check the input messages and the output messages version of the message to see if an error log file exists.

If INTERNAL ERROR is printed, examine the error log file. If an error log file does not exist, check the Read Only Printer (ROP).

Seek assistance to restore the system to sanity if any other system-related or library-related message is printed.

Refer to input message document and reenter the correct input format for any other error messages.

#### 5. REFERENCES

OMDB Key

This message has an OMDB key of 169.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and  
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

Output Appendix

APP:SYSERR

Input Messages

RCV:M-BROWSE

RCV:M-CREATEECD

RCV:M-CREATESG

RCV:M-EVOL

RCV:M-LOADF3B

RCV:M-RCVECD

RCV:M-RCVSG

SEE PROPRIETARY NOTICE ON COVER PAGE



RCV:M-TRANSGEN  
RCV:M-TREEBLD

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RCVRY:CU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY CU a COMPLETE

## 2. REASON FOR OUTPUT

To report that the initialization interval of the active Control Unit (CU) is complete.

## 3. VARIABLE FIELD DEFINITIONS

a Member number (0 or 1).

## 4. ACTION TO BE TAKEN

The cause of the initialization can be determined by accessing the most recent post-mortem dump from PMLOG. (Use the OP:LOG input message and specify the current date.)

## 5. REFERENCES

Input Message  
OP:LOG

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RCVRY:DUI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY DUI a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Direct User Interface (DUI) subdevice recovery attempt. The DUI, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Termination status:
- ABORTED — An error occurred: recovery failed.  
COMPLETED — Recovery was successful.
- c Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-110 *Input/Output Processor Peripheral Controllers -  
Description and Theory of Operation*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: DUIC  
RMV: DUI  
RST: DUI

Output Messages  
REPT: DUI  
REPT: DUIC

SEE PROPRIETARY NOTICE ON COVER PAGE

**4ESS/APS**  
**OM-4A001-01**

**RCVRY DUI**

REPT: IOP  
RCVRY: DUIC  
RCVRY: IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

**RCVRY:DUI-2**

**Issue 9.4**  
**September 2001**

ID ..... RCVRY:DUIC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY DUIC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Direct User Interface Controller (DUIC) recovery attempt. The DUIC, initially in the active state, transitions to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                    Member number.
- b                    Termination status:
- ABORTED    — An error occurred: recovery failed.
- COMPLETED — Recovery was successful.
- c                    Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-110 *Input/Output Processor Peripheral Controllers - Description and Theory of Operation*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: DUIC  
RMV: DUIC  
RST: DUIC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
REPT:DUIC  
REPT:IOP  
RCVRY:IOP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RCVRY:EAI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY EAI a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of an Emergency Action Interface (EAI) circuit pack recovery attempt. The EAI, initially in the active state, transitions to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Member number.
- b                      Termination status:
- ABORTED    — An error occurred: recovery failed.  
                        COMPLETED — Recovery was successful.
- c                      Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit. Before running diagnostics on the EAI, clear it using the CLR:EAI command on the Emergency Action Page. Phases 61 and 93 of the DGN:CU a, CC command are EAI diagnostics.

## 5. REFERENCES

OMDB Keys  
This Format has an OMDB key of 196.

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: CU  
RMV: CU  
RST: CU

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

REPT:EAI  
REPT:IOP  
REPT:MTTYC  
RCVRY:IOP  
RCVRY:MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCVRY:IOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY IOP a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of an Input / Output Processor (IOP) recovery attempt. The IOP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Member number.
- b                      Termination status:
- ABORTED    — An error occurred: recovery failed.
- COMPLETED — Recovery was successful.
- c                      Additional error information. (See Output Appendix APP:IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-105 *Input/Output Processor - Description and Theory of Operation*

Output Appendix

APP:IOP-F

Input Messages

CLR:IODRV

DGN:IOP

RMV:IOP

RST:IOP

Output Messages

RCVRY:IOP

REPT:IOP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RCVRY:MT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY MT a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Magnetic Tape (MT) unit recovery attempt. The MT, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Termination status:
- ABORTED — An error occurred: recovery failed.  
COMPLETED — Recovery was successful.
- c Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys  
This Format has an OMDB key of 196.

Practice 254-301-220 *Magnetic Tape System - General Description*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: MTC  
RMV: MT  
RST: MT

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
RCVRY:IOP  
RCVRY:MTC  
REPT:IOP  
REPT:MT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCVRY:MTC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY MTC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Magnetic Tape Controller (MTC) recovery attempt. The MTC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Member number.
- b                      Termination status:
- ABORTED    — An error occurred: recovery failed.
- COMPLETED — Recovery was successful.
- c                      Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-220 *Magnetic Tape System - General Description*

Output Appendix

APP: IOP-F

Input Messages

CLR: IODRV

DGN: MTC

RMV: MTC

RST: MTC

Output Messages

RCVRY: IOP

REPT: IOP

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... RCVRY:MTTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY MTTY a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Maintenance Teletypewriter (MTTY) recovery attempt. The MTTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                    Member number.
- b                    Termination status:
- ABORTED    — An error occurred: recovery failed.  
                    COMPLETED — Recovery was successful.
- c                    Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

PA-4C001-01 *Craft Interface User's Guide*

Practice 254-301-115 *Teletypewriter/Printer System - Description*

Output Appendix

APP: IOP-F

Input Messages

CLR: IODRV

DGN: MTTYC

RMV: MTTY

RST: MTTY

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

RCVRY:IOP  
RCVRY:MTTYC  
REPT:IOP  
REPT:MTTY  
REPT:MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCVRY:MTTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY MTTYC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Maintenance Teletypewriter Controller (MTTYC) recovery attempt. The MTTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                    Member number.
- b                    Termination status:
- ABORTED    — An error occurred: recovery failed.
- COMPLETED — Recovery was successful.
- c                    Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-115 *Teletypewriter/Printer System - Description*

Practice 254-301-110 *Input/Output Processor Peripheral Controllers - Description and Theory of Operation*

Output Appendix

APP: IOP-F

Input Messages

CLR: IODRV

DGN: MTTYC

RMV: MTTYC

RST: MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
RCVRY: IOP  
REPT: IOP  
REPT: MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCVRY:ROP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY ROP a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Receive-Only Printer (ROP) recovery attempt. The ROP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Member number.
- b                      Termination status:
- ABORTED    — An error occurred: recovery failed.
- COMPLETED — Recovery was successful.
- c                      Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-115 *Teletypewriter/Printer System - Description*

PA-4C001-01 *Craft Interface User's Guide*

Output Appendix

APP: IOP-F

Input Messages

CLR: IODRV

DGN: MTTYC

RMV: ROP

RST: ROP

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

RCVRY:IOP  
RCVRY:MTTYC  
REPT:IOP  
REPT:MTTYC  
REPT:ROP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCVRY:SCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY SCC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Switching Control Center (SCC) recovery attempt. The SCC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Member number.
- b                      Termination status:
- ABORTED    — An error occurred: recovery failed.
- COMPLETED — Recovery was successful.
- c                      Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys  
This Format has an OMDB key of 196.

PA-4C001-01 *Craft Interface User's Guide*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: MTTYC  
RMV: SCC  
RST: SCC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

RCVRY:IOP  
RCVRY:MTTYC  
REPT:IOP  
REPT:MTTYC  
REPT:SCC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RCVRY:SCSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY SCSDC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Scanner And Signal Distributor (SCSD) recovery attempt. The SCSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                    Member number.
- b                    Termination status:
- ABORTED    — An error occurred: recovery failed.
- COMPLETED — Recovery was successful.
- c                    Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-110 *Input/Output Processor Peripheral Controllers - Description and Theory of Operation*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
RMV: SCSDC  
RST: SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
RCVRY: IOP  
REPT: IOP  
REPT: SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCVRY:SDL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY SDL a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Synchronous Datalink (SDL) recovery attempt. The SDL, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Member number.
- b                      Termination status:
- ABORTED    — An error occurred: recovery failed.  
                        COMPLETED — Recovery was successful.
- c                      Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-110 *Input/Output Processor Peripheral Controllers - Description and Theory of Operation*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: SDLC  
RMV: SDL  
RST: SDL

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

RCVRY: IOP  
RCVRY: SDLC  
REPT: IOP  
REPT: SDL  
REPT: SDLC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCVRY:SDLC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY SDLC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Synchronous Datalink Controller (SDLC) recovery attempt. The SDLC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Termination status:
- ABORTED — An error occurred: recovery failed.  
COMPLETED — Recovery was successful.
- c Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-110 *Input/Output Processor Peripheral Controllers - Description and Theory of Operation*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: SDLC  
RMV: SDLC  
RST: SDLC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
RCVRY: IOP  
REPT: IOP  
REPT: SDLC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RCVRY:TTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY TTY a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Teletypewriter (TTY) recovery attempt. The TTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                  |
|---|------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                   |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br>COMPLETED — Recovery was successful. |
| c | Additional error information. (See Output Appendix APP: IOP-F.)                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys  
This Format has an OMDB key of 196.

Practice 254-301-115 *Teletypewriter/Printer System - Description*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: TTYC  
RMV: TTY  
RST: TTY

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

RCVRY: IOP  
RCVRY: TTYC  
REPT: IOP  
REPT: TTY  
REPT: TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RCVRY:TTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RCVRY TTYC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Teletypewriter Controller (TTYC) recovery attempt. The TTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful, or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

a                    Member number.

b                    Termination status:

                    ABORTED    — An error occurred: recovery failed.

                    COMPLETED — Recovery was successful.

c                    Additional error information. (See Output Appendix APP: IOP-F.)

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service because of a high error count, run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Keys

This Format has an OMDB key of 196.

Practice 254-301-110 *Input/Output Processor Peripheral Controllers - Description and Theory of Operation*

Output Appendix

APP: IOP-F

Input Messages

CLR: IODRV

DGN: TTYC

RMV: TTYC

RST: TTYC

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Output Messages  
RCVRY: IOP  
REPT: IOP  
REPT: TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REKEY:SLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has two output formats.

- [1] REKEY SLK a b STARTED  
SLK a b REKEY REQUEST SENT
- [2] REKEY SLK a b ABT  
SLK a b REKEY REQUEST FAILED

## 2. REASON FOR OUTPUT

Format 1: Response to the user input command REKEY:SLK and indicates that the request for a new key on the link has been accepted.

Format 2: Response to REKEY:SLK when the request has not been accepted because the message could not be sent.

## 3. VARIABLE FIELD DEFINITIONS

- a Group number (0-63).
- b Member number (1-15).

## 4. ACTION TO BE TAKEN

In the case of Format 2, check ERRLOG report for further self-explanatory message.

## 5. REFERENCES

Input Message  
REKEY:SLK

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REMACS:AUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

[1] REMACS AUD ERR STARTED  
X' a, WIN X' b, OFS X' c, 3B DATA  
d e  
d e  
d e

REMACS AUD ERR IN PROG  
X' a, WIN X' b, OFS X' c, ND DATA  
d e  
d e  
d e  
REMACS AUD ERR COMPL

[2] REMACS AUD ERR SUM STARTED  
WIN b, OFS c, NODES:  
f,[f,[...f]], OTHER g  
WIN b, OFS c, NODES:  
f,[f,[...f]], OTHER g

REMACS AUD ERR SUM IN PROG  
WIN b, OFS c, NODES:  
f,[f,[...f]], OTHER g  
WIN b, OFS c, NODES:  
f,[f,[...f]], OTHER g

REMACS AUD ERR SUM IN PROG  
WIN b, OFS c, NODES:  
f,[f,[...f]], OTHER g  
h OTHER ERRORS IN i NODES

REMACS AUD ERR SUM COMPL

## 2. REASON FOR OUTPUT

These message formats are used to identify the results of an audit error being detected by the Remote Access Subsystem (REMACS) software between replicated data in the 3B20D/3B21D data memory and the data memory in the nodes on the Interprocess Message Switch (IMS) ring. Normally, the REMACS audits will run continually because of the criticality of the data involved.

The purpose of these printouts is to aid the software designers in identifying and correcting any software errors involving the data being audited.

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Format 1 is used to identify that an audit error has been detected between 3B20D/3B21D data and the same replicated data in one or more nodes on the IMS ring. Normally, only the first node that responds with the audit error will have its faulty data displayed on the printout. After detecting the audit error, the REMACS software will broadcast correction data to the node(s) to get the 3B20D/3B21D and node data back into conformance. It is always assumed that the 3B20D/3B21D data is the correct data while the audit is running.

Format 2 is used to summarize the results of the previous audit cycle in which an audit error was detected. Only as much information as needed is printed out on this summary to give the results of the audit. If no audit errors are detected, messages of this type will not occur.

**NOTE:** These formats represent the fullest expansion of the printouts that can occur. Some fields may not print out under certain circumstances which are described in the Variable Field Definitions.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                                                                                                                                                                                       |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | The hexadecimal ring node address of a node on the IMS ring which reported an audit error.                                                                                                                                                                                                                                                                                                            |
| b | The hexadecimal window number in which an audit error was detected. REMACS uses window numbers to identify unique sets of data (i.e. tables) that are to be audited. It is necessary to contact technical personnel in order to identify the affected data.                                                                                                                                           |
| c | A hexadecimal address which is relative to the start of the data window. It represents a start point for a chunk of data to be audited. The relative to the start of the data window address will be on the next line will be within the range of the chunk of data being audited.                                                                                                                    |
| d | A hexadecimal address that is relative to the start of the data window.                                                                                                                                                                                                                                                                                                                               |
| e | Up to 16 bytes of hexadecimal data may be displayed on each line and it represents actual data contents of 3B20D/3B21D data or node data at the time the audit error was detected. One must compare the differences between the 3B20D/3B21D data image and the node data image in order to find the byte(s) in error. It is always expected that the 3B20D/3B21D data is the correct data to be used. |
| f | Identifies the specific node ring node addresses for nodes that reported an audit error to the REMACS software.                                                                                                                                                                                                                                                                                       |
| g | If greater than 10 nodes are identified, this field gives a count of those nodes exceeding 10.                                                                                                                                                                                                                                                                                                        |
| h | A count of audit errors that were detected by the REMACS software, but could not be stored in the audit error buffers because of a lack of resources. The OTHER ERRORS line will not print out if there are sufficient audit error buffers to contain the detected audit errors.                                                                                                                      |
| i | In conjunction with the error count field, this field will identify the number of nodes that have reported audit errors while the audit error buffers are congested.                                                                                                                                                                                                                                  |

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#### **4. ACTION TO BE TAKEN**

The REMACS audit software is designed to automatically correct the data inconsistency between the 3B20D/3B21D memory and the memory of the affected nodes on the IMS ring, therefore no further action is required. Since the cause of these printouts is most likely a software problem in the 3B20D/3B21D or the nodes, it is recommended that the information in the printouts be collected and the customer support personnel be notified.

#### **5. REFERENCES**

Input Message  
AUD:REMACS

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:3BN-DMA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT 3BN DMA RSTRT  
UNEXPECTED ERR DURING DLN DMA RESTART ON a b, STATE = c
- [2] REPT 3BN DMA RSTRT  
a b RESTART DMA TIMEOUT

## 2. REASON FOR OUTPUT

Format 1 is printed when a hardware command fails in the sequence of DMA restart on the specified node.

Format 2 is printed when the sequence of restart DMA on the specified node times out.

**NOTE:** A 3B node is defined to be a node that is not an RPC and yet connected directly to the 3B.

## 3. VARIABLE FIELD DEFINITIONS

- a The 3B Node name (e.g., DLN) and group number (00-63).
- b The 3B Node member number (1-15).
- c The reason for the complaint:
- 1 — Attach interrupt failure.
  - 2 — Clear ddsbs failure.
  - 3 — Cannot send reset 3BI pio.
  - 4 — Fail to program the DMAC to the user's area.
  - 5 — Cannot enable interrupt.
  - 6 — Cannot send NP level 1 restart pio.

## 4. ACTION TO BE TAKEN

Use normal maintenance procedures; diagnose the 3B node. If ATP, contact IMS technical personnel and restore the node to service.

**NOTE:** Unless inhibited, the Automatic Ring Recovery (ARR) routine will attempt (up to 3 times) automatic recovery of Out Of Service (OOS) 3B nodes, if the node maintenance state is not marked MANUAL.

## 5. REFERENCES

Practice 234-100-120 *CNI System Description* (non-AT&T) -  
Practice 234-100-120AC *CNI System Description* (AT&T only) -  
D-Channel and Special Access Data Channel Signaling

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*  
*Link Operating Procedures Section*

Output Message  
REPT: INIT-3BN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:ADB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has 11 formats.

- [1] REPT ADB STOPPED IBGTT DATABASE REPORTED AUDIT ERROR
- [2] REPT ADB STOPPED DLN INHIBIT ACTIVE
- [3] REPT ADB STOPPED WAITED ONE HOUR FOR DATABASE
- [4] REPT ADB STOPPED NOT ALLOWED
- [5] REPT ADB STOPPED COULD NOT INH RCV
- [6] REPT ADB STOPPED INH RCV ALREADY ACTIVE
- [7] REPT ADB STOPPED DLNAUD IS ALREADY INHIBITED
- [8] REPT ADB STOPPED COULD NOT INH DLNAUD
- [9] REPT ADB STOPPED COULD NOT COPY THE DATABASE
- [10] REPT ADB STOPPED COULD NOT ALW DLNAUD
- [11] REPT ADB STOPPED COULD NOT ALW RCV

## 2. REASON FOR OUTPUT

Response to the ADB CRON job.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

Format 1: The database will not be backed up when APPDB Audits is finding errors.

Format 2: The database will not be backed up when the DLN Inhibit is active.

Format 3: The database was in use for an hour, i.e., a user was making a copy.

Format 4: The ADB is inhibited; see ALW:ADB input command to allow ADB.

Format 5: The ADB process could not INH:RCV; try again ADB (see START:ADB).

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Format 6: If the ADB process is to run, then RCV needs to be allowed.

Format 7: If the ADB process is to run, then DLNAUD needs to be allowed.

Format 8: The ADB process could not INH:DLNAUD; try rerunning ADB (see START:ADB).

Format 9: The ADB process could not COPY:APPDB; try rerunning ADB (see START:ADB).

Format 10: The ADB process could not INH:DLNAUD; run ALW:DLNAUD (with IBGTT AUD ALL option).

Format 11: The ADB process could not INH:RCV; run ALW:RCV;APPDB (with the IBGTT option).

## **5. REFERENCES**

### Input Messages

START:ADB

STOP:ADB

### Output Messages

START:ADB

STOP:ADB

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:ADP-AUTFAIL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ADP AUTORST FAILURE FOR a b [c] [d]
- [2] REPT ADP MAJOR ALARM AUTORST FAILURE FOR a b [c] [d]
- [3] REPT ADP MINOR ALARM AUTORST FAILURE FOR a b [c] [d]
- [4] REPT ADP NO AUTORST, UNIT IS MAN RMV FOR a b [c] [d]
- [5] REPT ADP NO AUTORST, UNIT IS FLT RMV FOR a b [c] [d]
- [6] REPT ADP NO AUTORST, UNIT IS NOT OOS FOR a b [c] [d]

## 2. REASON FOR OUTPUT

The Automatic Diagnostic Process (ADP) after fault branch was unable to restore a suspected faulty hardware unit, and ADP will no longer attempt to diagnose or restore the hardware unit or community.

Format 1 is output to report that the suspected faulty hardware unit or community has exceeded its error threshold.

Format 2 is output when the hardware unit or community is essential.

Format 3 is output when the hardware unit or community is a unit or community whose top unit is an Input/Output Processor (IOP).

Format 4 is output to report that the unit will not be automatically restored because it was manually removed.

Format 5 is output to report that the unit will not be automatically restored because it was fault removed.

Format 6 is output to report that the unit will not be automatically restored because it was not out of service.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name.
- b Unit number.
- c Subunit name.

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d Subunit number.

#### 4. ACTION TO BE TAKEN

For Format 1, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

For Formats 2 and 3, if the hardware unit or community failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

The Maintenance Input Request Administrator (MIRA) process might not start or complete ADP's restore requests for one of the reasons (use the OP:DMQ input message to check the Deferred Maintenance Queue [DMQ]):

- The DMQ already has a restore request for the hardware unit, community, or top unit. MIRA canceled ADP's restore request as a duplicate.
- Request source ADP is inhibited in the DMQ. Determine why ADP was inhibited and, if practical, use the ALW:DMQ input message to remove the inhibit.
- An initialization interval is in the progress. MIRA aborted tasks in the active queue. Tasks in the waiting queue are started at the end of the initialization interval. ADP may generate another restore request.
- ADP's internal request timer may have expired if there is a large number of manual requests and/or there is a high system load. ADP's request might still be in the DMQ. MIRA defers ADP requests in favor of manual requests, and part of the active queue is for manual requests only.

Request a restore on the hardware unit or community if the hardware unit, community, or top unit does not have a restore request in the queue. No further action is required if the restore is successful.

For Format 4, if the hardware unit should be restored, then restore the unit manually.

For Format 5, if the hardware unit should be restored, determine what is wrong with the unit using diagnostics, correct the problem, and manually restore the unit.

For Format 6, if the hardware unit is not active and not Out Of Service (OOS), and if the hardware unit should be restored, then move the unit to OOS using Recent Change And Verify (RC/V) Unit Control Block (UCB) and manually restore the unit.

#### 5. REFERENCES

##### OMDB Keys

Formats 1, 4, 5, and 6 have an OMDB key of 474.

Format 2 has an OMDB key of 475.

Format 3 has an OMDB key of 476.

##### Input Messages

ALW:DMQ-A

DGN:CU

DGN:DFC

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DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
OP:DMQ  
RST:CU  
RST:DFC  
RST:DUI  
RST:DUIC  
RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

Output Messages

DGN:AUDIT  
DGN:CU  
DGN:CU-MASC  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:IOP  
DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
OP:DMQ  
REPT:ADPAB  
REPT:AUTORST  
RMV:CU  
RMV:DFC  
RMV:DUI

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RMV:DUIC  
RMV:HSD  
RMV:HSDC  
RMV:IOP  
RMV:MHD  
RMV:MT  
RMV:MTC  
RMV:MTTY  
RMV:MTTYC  
RMV:ROP  
RMV:SBUS  
RMV:SCC  
RMV:SCSDC  
RMV:SDL  
RMV:SDLC  
RMV:TTY  
RMV:TTYC  
RST:CU  
RST:DFC  
RST:DUI  
RST:DUIC  
RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

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ID ..... REPT:ADP-AUTHRESH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT ADP AUTORST THRESHOLD EXCEEDED FOR a b [c] [d]

## 2. REASON FOR OUTPUT

To report that the specified faulty hardware unit or community of units has exceeded its error threshold. The Automatic Diagnostic Process (ADP) will no longer attempt to diagnose or restore the unit or community of units. The maximum number of restorations allowed is found in the max\_restorable field in the ucbdyn form in the Equipment Configuration Database (ECD).

**NOTE:** The ucbdyn form is a review-only form.

## 3. VARIABLE FIELD DEFINITIONS

|   |                 |
|---|-----------------|
| a | Unit name.      |
| b | Unit number.    |
| c | Subunit name.   |
| d | Subunit number. |

## 4. ACTION TO BE TAKEN

Manual diagnosis and restoration of the unit is required. This can be accomplished by using the RST input command for a restoration on a specified unit with or without running diagnostics. The DGN input command will run diagnostics on the specified unit with no restoration.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 405.

### Input Messages

DGN:CU  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC

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RST:CU  
RST:DFC  
RST:DUI  
RST:DUIC  
RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

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ID ..... REPT:ADP-INHIBIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT ADP INHIBIT ACTIVE a b [c] [d]

## 2. REASON FOR OUTPUT

To report that the Automatic Diagnostic Process (ADP) attempted to diagnose and restore the specified hardware unit or community but was inhibited from doing so by the diagnostics subsystem, Maintenance Input Request Administrator (MIRA).

## 3. VARIABLE FIELD DEFINITIONS

|   |                 |
|---|-----------------|
| a | Unit name.      |
| b | Unit number.    |
| c | Subunit name.   |
| d | Subunit number. |

## 4. ACTION TO BE TAKEN

Manual action is required to diagnose, repair, and restore the unit to service. Diagnostic inhibit status can be determined via the OP:DMQ input message. The diagnostic inhibit on ADP can be allowed via the ALW:DMQ input message.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 405.

### Input Messages

ALW:DMQ-A  
DGN:CU  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MT  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
INH:DMQ-A  
OP:DMQ  
RST:CU

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RST:DFC  
RST:DUI  
RST:DUIC  
RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

Output Messages

DGN:AUDIT  
DGN:CU  
DGN:CU-MASC  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:IOP  
DGN:MHD  
DGN:MT  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
DGN:TTYC  
OP:DMQ  
REPT:ADP-AUTFAIL  
REPT:ADP-AUTHRESH  
REPT:ADP-INT  
REPT:ADPAB  
REPT:AUTORST  
REPT:DMQ  
RMV:CU  
RMV:DFC  
RMV:DUI  
RMV:DUIC  
RMV:HSD  
RMV:HSDC  
RMV:IOP

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RMV:MHD  
RMV:MT  
RMV:MTC  
RMV:MTTY  
RMV:MTTYC  
RMV:ROP  
RMV:SBUS  
RMV:SCC  
RMV:SCSDC  
RMV:SDL  
RMV:SDLC  
RMV:TTY  
RMV:TTYC  
RST:SBUS  
RST:MTTYC  
RST:TTYC  
RST:CU  
RST:MT  
RST:DUI  
RST:SCC  
RST:IOP  
RST:MTTY  
RST:DUIC  
RST:MTC  
RST:MHD  
RST:SDLC  
RST:ROP  
RST:SDL  
RST:HSD  
RST:TTY  
RST:DFC  
RST:SCSDC  
RST:HSDC

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ID ..... REPT:ADP-INT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT ADP INTERFACE ERROR a [b][c][d][e]

## 2. REASON FOR OUTPUT

To report that the Automatic Diagnostic Process (ADP) has encountered a problem interfacing with another part of the UNIX® RTR system while attempting to restore a hardware unit or community of units.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Error codes:
- 1 — ADP could not open the Equipment Configuration Database (ECD).
  - 2 — ADP could not obtain a Unit Control Block (UCB).
  - 3 — ADP could not set a value in a UCB.
  - 4 — ADP could not enable messages.
  - 5 — ADP could not send a message to the port that is assigned to the Maintenance Input Request Administrator (MIRA).
  - 6 — MIRA could not execute a request that was sent to it by ADP.
  - 7 — ADP could not retrieve an Input/Output Peripheral Controller (IOPC) UCB.
- b                      Unit name.
- c                      Unit number.
- d                      Subunit name.
- e                      Subunit number.

## 4. ACTION TO BE TAKEN

For error code 6, use the OP:DMQ input message to determine the status of the MIRA process. If automatic diagnostics are inhibited in MIRA, the ALW:DMQ input message may be used to remove the inhibit. If the problem persists, obtain technical assistance.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 405.

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Input Messages

ALW:DMQ-A  
INH:DMQ-A  
OP:DMQ

Output Messages

DGN:AUDIT  
DGN:CU  
DGN:CU-MASC  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:IOP  
DGN:MHD  
DGN:MT  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
DGN:TTYC  
OP:DMQ  
REPT:ADP-AUTFAIL  
REPT:ADP-AUTHRESH  
REPT:ADP-INHIBIT  
REPT:ADPAB  
REPT:AUTORST  
REPT:DMQ  
RMV:CU  
RMV:DFC  
RMV:DUI  
RMV:DUIC  
RMV:HSD  
RMV:HSDC  
RMV:IOP  
RMV:MHD  
RMV:MT  
RMV:MTC  
RMV:MTTY  
RMV:MTTYC  
RMV:ROP  
RMV:SBUS  
RMV:SCC  
RMV:SCSDC  
RMV:SDL  
RMV:SDLC  
RMV:TTY  
RMV:TTYC  
RST:SBUS  
RST:MTTYC

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RST:TTYC  
RST:CU  
RST:MT  
RST:DUI  
RST:SCC  
RST:IOP  
RST:MTTY  
RST:DUIC  
RST:MTC  
RST:MHD  
RST:SDLC  
RST:ROP  
RST:SDL  
RST:HSD  
RST:TTY  
RST:DFC  
RST:SCSDC  
RST:HSDC

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ID ..... REPT:ADPAB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ADPAB MAJOR ALARM RESTORE FAILURE  
FOR a b [c] [d]
- [2] REPT ADPAB MINOR ALARM RESTORE FAILURE  
FOR a b [c] [d]
- [3] REPT ADPAB - COMMAND LINE ERROR

## 2. REASON FOR OUTPUT

The Automatic Diagnostic Process (ADP) After Boot (AB) branch was unable to restore a hardware unit left Out Of Service (OOS) after a bootstrap. ADPAB will no longer attempt to diagnose or restore the hardware unit or community.

Format 1 is output when the hardware unit or community is essential.

Format 2 is output when the hardware unit or community is a unit or community whose top unit is an Input/ Output Processor (IOP).

Format 3 is output when there is an error with the wait time option is used to invoke adp.ab. The -w option is used when the application wants to extend the wait time before restoring the units after an initialization without extending the initialization interval. If an other option is used then an error will occur. The range of the wait time is between 0 and 3600 seconds. If the option is under 0 seconds, the wait time will be set to 0 and this message will be output. If the option is over 3600 seconds, then the wait time will be set to 3600 seconds and this message will be output.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name.
- b Unit number.
- c Subunit name.
- d Subunit number.

## 4. ACTION TO BE TAKEN

If the hardware unit or community actually failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

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The Maintenance Input Request Administrator (MIRA) process might not start or complete ADPAB's restore requests for one of the reasons (use the OP:DMQ input message to check the Deferred Maintenance Queue [DMQ]):

- The DMQ already has a restore request for the hardware unit, community, or top unit. MIRA canceled ADP's restore request as a duplicate.
- Request source ADP is inhibited in the DMQ. Determine why ADP was inhibited and, if practical, use the ALW:DMQ input message to remove the inhibit.
- An initialization interval is in the progress. MIRA aborted tasks in the active queue. Tasks in the waiting queue are started at the end of the initialization interval. ADP may generate another restore request.
- ADP's internal request timer may have expired if there is a large number of manual requests and/or there is a high system load. ADP's request might still be in the DMQ. MIRA defers ADP requests in favor of manual requests, and part of the active queue is for manual requests only.

Request a restore on the hardware unit or community if the hardware unit, community, or top unit does not have a restore request in the queue. No further action is required if the restore is successful.

For Format 3 examine the User Level Automatic Restart Process (ULARP) record in the Equipment Configuration Database (ECD) that is used to create ADP and correct the command line. If the -w option is used then it must include a value in the range of 0 to 3600.

## 5. REFERENCES

### OMDB Keys

- Format 1 has an OMDB key of 475.
- Format 2 has an OMDB key of 476.
- Format 3 has an OMDB key of 742.

### Input Messages

ALW:DMQ-A  
DGN:CU  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MT  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
OP:DMQ  
RST:CU  
RST:DFC  
RST:DUI

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RST:DUIC  
RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

Output Messages

DGN:AUDIT  
DGN:CU  
DGN:CU-MASC  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:IOP  
DGN:MHD  
DGN:MT  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
DGN:TTYC  
OP:DMQ  
REPT:ADP-AUTFAIL  
REPT:ADP-AUTHRESH  
REPT:ADP-INHIBIT  
REPT:ADP-INT  
REPT:AUTORST  
RMV:CU  
RMV:DFC  
RMV:DUI  
RMV:DUIC  
RMV:HSD  
RMV:HSDC  
RMV:IOP  
RMV:MHD  
RMV:MT  
RMV:MTC

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RMV:MTTY  
RMV:MTTYC  
RMV:ROP  
RMV:SBUS  
RMV:SCC  
RMV:SCSDC  
RMV:SDL  
RMV:SDLC  
RMV:TTY  
RMV:TTYC  
RST:SBUS  
RST:MTTYC  
RST:TTYC  
RST:CU  
RST:MT  
RST:DUI  
RST:SCC  
RST:IOP  
RST:MTTY  
RST:DUIC  
RST:MTC  
RST:MHD  
RST:SDLC  
RST:ROP  
RST:SDL  
RST:HSD  
RST:TTY  
RST:DFC  
RST:SCSDC  
RST:HSDC

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ID ..... REPT:AIM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT AIM KERNEL STACK DUMP X'a b  
ACTIVE CU: CU c  
TIME OF ERROR: d

PA: eeeeeeee      SAVE STATE  
PSW: ffffffff      PSBR: gggggggg      SSBR: hhhhhhhh

GENERAL REGISTERS  
0: iiiiiiii      1: jjjjjjjj      2: kkkkkkkk      3: llllllll  
4: mmmmmmmm      5: nnnnnnnn      6: oooooooooo      7: pppppppp  
8: qqqqqqqq      9: rrrrrrrr      A: ssssssss      B: tttttttt  
C: uuuuuuuu      D: vvvvvvvv      E: wwwwwwww      F: xxxxxxxx  
UTILITY ID: yyyyyyyy      PROCESS NUMBER: zzzzzzzz

## 2. REASON FOR OUTPUT

To dump the contents of the DMERT interrupt stack when either a kernel level lockout occurs or a DMERT application process (DAP) created by Application Integrity Monitor (AIM) does not get its required entries. The kernel level lockout can be identified by a SIMCHK identifying kernel level lockout or an AIM phase (panic code 0x28) when kernel level lockout is not cleared in an appropriate amount of time. DAP monitoring failing can be identified by an AIM phase (panic code 0x22).

This message will also be sent to the APLOG log file.

## 3. VARIABLE FIELD DEFINITIONS

- a      Event number. This is a number between 0x01 and 0xff uniquely identifying a stack dump member.
- b      Stack dump progress:
  - STARTED      — Stack dump started for stack back trace.
  - IN PROGRESS — Stack dump in progress for stack back trace.
  - COMPLETED — Stack dump completed for stack back trace.
- c      Active CU at time of event.
- d      Time of error.
- e      Program Address for process at time of event.
- f      Program status word (PSW) for process at time of event. See 3B20D DMERT Error Messages Users Guide (PA-4C004-01) for layout of PSW.

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|   |                                                                                                                         |
|---|-------------------------------------------------------------------------------------------------------------------------|
| g | Primary segment base register (PSBR) at time of event. See 3B20D DMERT Error Messages Users Guide for layout of PSBR.   |
| h | Secondary segment base register (SSBR) at time of event. See 3B20D DMERT Error Messages Users Guide for layout of SSBR. |
| i | General register r0 for process.                                                                                        |
| j | General register r1 for process.                                                                                        |
| k | General register r2 for process.                                                                                        |
| l | General register r3 for process.                                                                                        |
| m | General register r4 for process.                                                                                        |
| n | General register r5 for process.                                                                                        |
| o | General register r6 for process.                                                                                        |
| p | General register r7 for process.                                                                                        |
| q | General register r8 for process.                                                                                        |
| r | General register r9 for process.                                                                                        |
| s | General register r10 for process.                                                                                       |
| t | General register r11 for process.                                                                                       |
| u | General register r12 for process.                                                                                       |
| v | General register r13 for process.                                                                                       |
| w | General register r14 for process.                                                                                       |
| x | General register r15 for process.                                                                                       |
| y | Utility ID of process.                                                                                                  |
| z | Process number of process.                                                                                              |

#### **4. ACTION TO BE TAKEN**

No action is necessary. If error persists, obtain technical assistance.

#### **5. REFERENCES**

Pident  
AIM

Input Message  
OP: LOG

Output Messages  
PRM: 0  
REPT: AIMCHK-ERR  
REPT: SIMCHK

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ID ..... REPT:AIM-ACTION  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AIM ACTION TASK a X'c ACTIVATED
- [2] REPT AIM ACTION TASK a X'c COMPLETED RC=b

## 2. REASON FOR OUTPUT

Format 1 indicates that an internal AIM action has been activated. This may be output after a manually input EXC:AIM;ACTION command has been executed, or it may be output after the action is run internally by AIM for recovery purposes. A list of available actions is given in the Table.

Format 2 indicates that an internal AIM action has completed.

## 3. VARIABLE FIELD DEFINITIONS

- a Action name (see Table).
- c Internal AIM action code.
- b Return code from task operation:
- FAILURE
- IN PROGRESS
- RETRY LATER
- SUCCESS

## 4. ACTION TO BE TAKEN

Normally no manual action needed. If Format 2 returns FAILURE, seek technical assistance.

## 5. REFERENCES

Input Messages  
EXC:AIM  
OP:AIM

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TABLE 1  
AIM ACTION DEFINITIONS

| Action  | Action Definition                                       |
|---------|---------------------------------------------------------|
| init0   | AIM runs this action on UNIX® RTR Phase 50.             |
| init1   | AIM runs this action on UNIX® RTR Phase 51.             |
| init2   | AIM runs this action on UNIX® RTR Phase 52.             |
| init3   | AIM runs this action on UNIX® RTR Phase 53.             |
| init4   | AIM runs this action on UNIX® RTR Phase 54.             |
| minboot | Starts APDRV, CNI/IMS.                                  |
| phase0  | Execute UNIX® RTR Phase 50.                             |
| phase1  | Execute UNIX® RTR Phase 51.                             |
| phase2  | Execute UNIX® RTR Phase 52.                             |
| phase3  | Execute UNIX® RTR Phase 53.                             |
| stopaim | Stop AIM utility processes.                             |
| stopnsc | Stop Network Services Complex processes.                |
| stopnm  | Stop Nemos processes.                                   |
| stopcft | Stop craft processes.                                   |
| zampas  | Zero AMA PAS segments.                                  |
| zapama  | Stop AMA processes, zero AMA PAS, and restart AMA.      |
| stopama | Stop AMA processes.                                     |
| runaim  | Run AIM utility processes.                              |
| runnsc  | Run Network Services Complex processes.                 |
| runnm   | Run Nemos processes.                                    |
| runcft  | Run craft processes.                                    |
| runama  | Run AMA processes.                                      |
| boot    | Common task run by all bootstrap levels.                |
| trace   | Execute an interrupt stack dump to PAS.                 |
| pdboot  | Enable PANIC DUMP and have it phase system.             |
| pdenabl | Enable PANIC DUMP for next phase (but no phase called). |
| rstama  | Restart AMA processes.                                  |
| rstnsc  | Restart Network Services Complex processes.             |
| rstnm   | Restart Nemos processes.                                |
| rstunix | Kill off all UNIX® processes (system-wide).             |
| rstaim  | Restart AIM utility processes.                          |
| rstcft  | Restart craft processes.                                |

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:AIM-AMA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT AIM AMA FORMATTER NOT ACTIVE

**2. REASON FOR OUTPUT**

To indicate that AMA formatter is not active. This is output only when the application parameter 42-N-50 is entered on the MCRT.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

Seek technical assistance.

**5. REFERENCES**

EAI Command  
42-N-50

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:AIM-CNI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT AIM CNI INIT  
CNI DOWN t SECONDS

**2. REASON FOR OUTPUT**

Format indicates that AIM has written a line into the PMLOG, so that field support can follow up on, when a boot occurred.

**3. VARIABLE FIELD DEFINITIONS**

t                      Indicates time.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:AIM-EVENT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AIM EVENT a X'b TRIGGERED BY TASK X'c ON LINE d
- [2] REPT AIM EVENT a X'b ESCALATING BY TIMEOUT
- [3] REPT AIM EVENT a X'b CLEARED

## 2. REASON FOR OUTPUT

Format 1 indicates that an internal AIM event has been triggered. See Table for a list of valid event names.

Format 2 indicates that an internal AIM event has escalated to the next higher severity because it has timed out. See Table.

Format 3 indicates that an internal AIM event has been cleared. See Table.

## 3. VARIABLE FIELD DEFINITIONS

- a Event name (see Table).
- b Internal AIM event code.
- c AIM task ID.
- d Line number.

## 4. ACTION TO BE TAKEN

Action to be taken depends on how critical the event is. Seek technical assistance for Formats 1 and 2. No action needed for Format 3.

## 5. REFERENCES

Input Messages  
CLR:AIM  
OP:AIM

SEE PROPRIETARY NOTICE ON COVER PAGE

TABLE 1  
AIM EVENT DEFINITIONS

| Event   | Event Definition                                |
|---------|-------------------------------------------------|
| badidx  | Internal error; an out-of-range index was used. |
| monfai  | Process repetitive monitoring failed.           |
| schdfl  | Could not schedule a task.                      |
| towait  | Timed out while waiting for event.              |
| badafle | No aimfile.d exists or it is corrupt.           |
| badevnt | Internal error; task received unexpected event. |
| tskfail | Task failed to complete.                        |
| msgbuf  | UNIX® RTR mesg buffer overload.                 |
| memlow  | UNIX® RTR memory (mod 0) overload.              |
| swaplow | UNIX® RTR swap space overload.                  |
| sdelow  | UNIX® RTR SDE overload.                         |
| dctlow  | UNIX® RTR DCTE overload.                        |
| mem1low | UNIX® RTR memory (mod 1) overload.              |
| klock   | UNIX® RTR kernel lockout detected.              |
| teovld  | UNIX® RTR timed event overload.                 |
| suovld  | UNIX® RTR supervisor / user overload.           |
| fmgovld | UNIX® RTR file manager overload.                |
| dfcovld | UNIX® RTR disk driver overload.                 |
| iopboot | UNIX® RTR IOP bootstrapped due to overload.     |
| iopovld | UNIX® RTR IOP overload.                         |
| dlopovl | UNIX® RTR data link output overload.            |
| dlinovl | UNIX® RTR data link input overload.             |
| sopovld | UNIX® RTR Spooler Output overload.              |
| eilvl0  | Mapped to 42-0-50.                              |
| eilvl1  | Mapped to 42-1-50.                              |
| eilvl2  | Mapped to 42-2-50.                              |
| eilvl3  | Mapped to 42-3-50.                              |
| eilvl4  | Mapped to 42-4-50.                              |
| eilvl5  | Mapped to 42-5-50.                              |
| eilvl6  | Mapped to 42-6-50.                              |
| eilvl7  | Mapped to 42-7-50.                              |
| eilvl8  | Mapped to 42-8-50.                              |
| eilvl9  | Mapped to 42-9-50.                              |
| reqrtr0 | AIM child requested UNIX® RTR Phase 50.         |
| reqrtr1 | AIM child requested UNIX® RTR Phase 51.         |
| reqrtr2 | AIM child requested UNIX® RTR Phase 52.         |
| reqrtr3 | AIM child requested UNIX® RTR Phase 53.         |
| no1acom | Loss of 1B Communications.                      |
| nostrea | Loss of DLN stream.                             |
| noidle  | No idle time for ?? minutes.                    |

SEE PROPRIETARY NOTICE ON COVER PAGE



TABLE 1 (cont'd)  
AIM EVENT DEFINITIONS

| Event   | Event Definition                                    |
|---------|-----------------------------------------------------|
| fmgrrt  | File Manager Real-Time overload detected.           |
| ioprt   | IODRV Real-Time overload detected.                  |
| amarbuf | AMA receive buffer load pointer movement timeout.   |
| amafbuf | AMA receive buffer unload pointer movement timeout. |
| amasbuf | AMA SDS buffer load pointer movement timeout.       |
| amasdbu | AMA SDS buffer unload pointer movement timeout.     |
| nodrv   | Cannot run APDRV.                                   |

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ID ..... REPT:AIM-FAULT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AIM FAULT CODE X'g VA X'f

## 2. REASON FOR OUTPUT

Format indicates that AIM has received an unknown fault code. If AIM receives 5 such faults in a 32-second interval, a phase will occur.

## 3. VARIABLE FIELD DEFINITIONS

g                      UNIX® RTR fault code received by AIM kfault entry point.  
f                      Virtual address in AIM at the point fault code was generated.

## 4. ACTION TO BE TAKEN

Seek technical assistance.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:AIM-KERNEL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AIM KERNEL LOCKOUT CREATING PROCESS STACK TRACE

SAVE STATE  
UTILITY ID: aaaaaaaa PA: bbbbbbbb

GENERAL REGISTERS  
0: cccccccc 1: dddddddd 2: eeeeeeee 3: ffffffff  
4: gggggggg 5: hhhhhhhh 6: iiiiiiii 7: jjjjjjjj  
8: kkkkkkkk 9: llllllll A: mmmmmmm B: nnnnnnnn  
C: ooooooooo D: pppppppp E: qqqqqqqq F: rrrrrrrr  
PID: ssssssss PSW: tttttttt PSBR: uuuuuuuu SSBR: vvvvvvvv

BACK TRACE PROGRAM ADDRESSES  
PA1: wwwwww PA2: wwwwww PA3: wwwwww PA4: wwwwww PA5: wwwwww

PERCENTAGES OF TIME (xxxx ms) AT EXC LEVELS  
L03:yy L04:yy L05:yy L06:yy L07:yy  
L08:yy L09:yy L10:yy L11:yy L12:yy  
L13:yy L14:yy L15:yy

## 2. REASON FOR OUTPUT

To dump the contents of the RTR interrupt stack when a kernel level lockout occurs.

## 3. VARIABLE FIELD DEFINITIONS

- a Utility ID of process.
- b Program Address for process at time of fault.
- c General purpose register 0 for process.
- d General purpose register 1 for process.
- e General purpose register 2 for process.
- f General purpose register 3 for process.
- g General purpose register 4 for process.
- h General purpose register 5 for process.
- i General purpose register 6 for process.
- j General purpose register 7 for process.

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|   |                                                                 |
|---|-----------------------------------------------------------------|
| k | General purpose register 8 for process.                         |
| l | General purpose register 9 for process.                         |
| m | General purpose register 10 for process.                        |
| n | General purpose register 11 for process.                        |
| o | General purpose register 12 for process.                        |
| p | General purpose register 13 for process.                        |
| q | General purpose register 14 for process.                        |
| r | General purpose register 15 for process.                        |
| s | Process number of process.                                      |
| t | Program Status Word for process at time of fault.               |
| u | Primary Segment Base Register at time of fault.                 |
| v | Secondary Segment Base Register at time of fault.               |
| w | Stack back trace to determine 5 most recently called functions. |
| x | Elapsed time between two snaps.                                 |
| y | Percent of real time consumed at execution level.               |

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

None.

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ID ..... REPT:AIM-PROC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AIM PROC TASK a X'b ACTIVATED
- [2] REPT AIM PROC TASK a X'b COMPLETED RC = c
- [3] REPT AIM PROCESS TASK a X'b AUDIT FAILURE

## 2. REASON FOR OUTPUT

Format 1 indicates that an AIM child process has been told to either initialize or terminate. This is only printed after a manual request to either initialize or terminate a process, so the craft response message will indicate which operation is to be performed (see Table).

Format 2 indicates that an AIM child process has completed either an initialization or termination operation.

Format 3 indicates a process that AIM thought was alive was found to be dead. The process is put back into a restart state. See Table for a list of valid process names.

## 3. VARIABLE FIELD DEFINITIONS

- a Process name (see Table).
- b Internal AIM process code.
- c Return code from task operation:
  - FAILURE
  - IN PROGRESS
  - RETRY LATER
  - SUCCESS

## 4. ACTION TO BE TAKEN

No action needed for Format 1.

If Format 2 returns FAILURE or if Format 3 appears, see technical assistance.

## 5. REFERENCES

Display / Menu Page Name  
135 Page  
1106 Page  
1107 Page

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW:AIM  
EXC:AIM  
INH:AIM  
OP:AIM  
STOP:AIM

TABLE 1  
AIM PROCESS DEFINITIONS

| Process | Process Definition                       |
|---------|------------------------------------------|
| aimstub | aim: AIM UNIX® agent.                    |
| apdrv   | minboot: API device driver interface.    |
| rusdhou | craft: measurements.                     |
| ovldcnt | craft:                                   |
| rtkern  | aim:                                     |
| recovda | aim: panic dump handler.                 |
| nscosm  | coams: nsc_to_osm process.               |
| lnkmon  | coams: link monitor process.             |
| hustat  | coams:                                   |
| indir   | coams: input director.                   |
| nm5min  | nemos: 5 min session.                    |
| nm30sec | nemos: 30 sec session.                   |
| nmdmd   | nemos: demand session.                   |
| nmecho  | nemos: echo session.                     |
| nmcntl  | nemos: control process.                  |
| iras    | iras: IRrcv1a process.                   |
| rexwarn | craft:                                   |
| apsmeas | craft: 1B measurements.                  |
| aplupd  | craft:                                   |
| arp     | craft: alarm retire process.             |
| apsdup  | craft: 135 page.                         |
| arts    | craft: 1106,1107 page (and others).      |
| ammonin | ama: ICDR tape/tele monitor.             |
| ammonoc | ama: OC stream tape/tele monitor.        |
| ammonic | ama: IC stream tape/tele monitor.        |
| amdwin  | ama: ICDR disk writer.                   |
| amdwoc  | ama: OC stream disk writer.              |
| amdwic  | ama: IC stream disk writer.              |
| amforma | ama: formatter process.                  |
| aminit  | ama: file system initialization process. |
| amarcvr | ama: receiver process.                   |
| dlncm   | ring: DLN manager.                       |
| ringini | ring: RInginit/RIngmon.                  |
| ksdump  | aim: istack dump process.                |

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ID ..... REPT:AIM-PROCESS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AIM PROCESS TASK a AUDIT FAILURE
- [2] REPT AIM EVENT b TRIGGERED
- [3] REPT AIM EVENT b ESCALATING BY TIMEOUT
- [4] REPT AIM EVENT b CLEARED
- [5] REPT AIM ACTION TASK c ACTIVATED
- [6] REPT AIM PROC TASK a ACTIVATED
- [7] REPT AIM ACTION TASK c COMPLETED RC = d
- [8] REPT AIM PROC TASK p COMPLETED RC = d
- [9] REPT AIM FAULT CODE X'e VA X'f
- [10] REPT AIM RTR INIT g AT h  
RTR DOWN h  
4EAP DOWN h  
CNI DOWN h
- [11] REPT AIM RTR INIT g AT h  
RTR DOWN UNK  
4EAP DOWN h  
CNI DOWN h
- [12] REPT AIM CNI INIT  
CNI DOWN h SECONDS
- [13] REPT AIM AMA FORMATTER NOT ACTIVE

## 2. REASON FOR OUTPUT

Format 1 indicates a process that AIM thought was alive was found to be dead. The process is put back into a restart state. See Table 3 for a list of valid process names.

Format 2 indicates that an internal AIM event has been triggered. See Table 1 for a list of valid event names.

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Format 3 indicates that an internal AIM event has escalated to the next higher severity because it has timed out. See Table 1.

Format 4 indicates that an internal AIM event has been cleared. See Table 1.

Format 5 indicates that an internal AIM action has been activated. This may be output after a manually input `EXC:AIM;ACTION` command has been executed or it may be output after the action is run internally by AIM for recovery purposes. A list of available actions is given in Table 2.

Format 6 indicates that an AIM child process has been told to either initialize or terminate. This is only printed after a manual request to either initialize or terminate a process, so the user response message will indicate which operation is to be performed. See Table 3.

Format 7 indicates that an internal AIM action has completed.

Format 8 indicates that an AIM child process has completed either an initialization or termination operation.

Format 9 indicates that AIM has received an unknown fault code. If AIM receives 5 such faults in a 32-second interval, a phase will occur.

Format 10 indicates that AIM has written a line into the PMLOG, so that field support can follow up on, when a boot occurred; g stands for level of the boot, and h indicate time.

Format 11 indicates that AIM has written a line into the PMLOG, so that field support can follow up on, when a boot occurred; g stands for level 4 boot, and h indicate time. RTR down time is unknown because of the level 4 boot.

Format 12 indicates that AIM has written a line into the PMLOG, so that field support can follow up on, when a boot occurred; h stands for down time.

Format 13 indicates that AMA formatter is not active. This is output only when the application parameter 42-N-50 is entered on the MCRT.

### **3. VARIABLE FIELD DEFINITIONS**

|   |                                                                                      |
|---|--------------------------------------------------------------------------------------|
| b | Event name (see Table 1).                                                            |
| c | Action name (see Table 2).                                                           |
| a | Process name (see Table 3).                                                          |
| d | Return code from task operation:<br>FAILURE<br>IN PROGRESS<br>RETRY LATER<br>SUCCESS |

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|   |                                                           |
|---|-----------------------------------------------------------|
| e | UNIX® RTR fault code received by AIM kfault entry point.  |
| f | Virtual address in AIM at point fault code was generated. |
| g | Level of the boot.                                        |
| h | Time.                                                     |

#### **4. ACTION TO BE TAKEN**

Action to be taken depends on severity of message. See Tables 1 and 2.

#### **5. REFERENCES**

Display / Menu Page Name  
135 Page  
1106 Page  
1107 Page

Input Messages  
ALW:AIM  
CLR:AIM  
EXC:AIM  
INH:AIM  
OP:AIM  
STOP:AIM

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TABLE 1  
AIM EVENT DEFINITIONS

| Event   | Event Definition                                |
|---------|-------------------------------------------------|
| badidx  | Internal error; an out of range index was used. |
| monfai  | Process repetitive monitoring failed.           |
| schdfl  | Could not schedule a task.                      |
| towait  | Timed out while waiting for event.              |
| badafle | No aimfile.d exists or it is corrupt.           |
| badevnt | Internal error; task received unexpected event. |
| tskfail | Task failed to complete.                        |
| msgbuf  | UNIX® RTR® mesg buffer overload.                |
| memlow  | UNIX® RTR memory (mod 0) overload.              |
| swaplow | UNIX® RTR swap space overload.                  |
| sdelow  | UNIX® RTR SDE overload.                         |
| dctlow  | UNIX® RTR DCTE overload.                        |
| mem1low | UNIX® RTR memory (mod 1) overload.              |
| klock   | UNIX® RTR kernel lockout detected.              |
| teovld  | UNIX® RTR timed event overload.                 |
| suovld  | UNIX® RTR supervisor / user overload.           |
| fmgovld | UNIX® RTR file manager overload.                |
| dfcovld | UNIX® RTR disk driver overload.                 |
| iopboot | UNIX® RTR IOP bootstrapped due to overload.     |
| iopovld | UNIX® RTR IOP overload.                         |
| dlopovl | UNIX® RTR data link output overload.            |
| dlinovl | UNIX® RTR data link input overload.             |
| sopovld | UNIX® RTR Spooler Output overload.              |
| eilvl0  | Mapped to 42-0-50.                              |
| eilvl1  | Mapped to 42-1-50.                              |
| eilvl2  | Mapped to 42-2-50.                              |
| eilvl3  | Mapped to 42-3-50.                              |
| eilvl4  | Mapped to 42-4-50.                              |
| eilvl5  | Mapped to 42-5-50.                              |
| eilvl6  | Mapped to 42-6-50.                              |
| eilvl7  | Mapped to 42-7-50.                              |
| eilvl8  | Mapped to 42-8-50.                              |
| eilvl9  | Mapped to 42-9-50.                              |
| reqrtr0 | AIM child requested UNIX® RTR Phase 50.         |
| reqrtr1 | AIM child requested UNIX® RTR Phase 51.         |
| reqrtr2 | AIM child requested UNIX® RTR Phase 52.         |
| reqrtr3 | AIM child requested UNIX® RTR Phase 53.         |
| no1acom | Loss of 1B Communications.                      |
| nostrea | Loss of dln stream.                             |
| noidle  | No idle time for ?? minutes.                    |
| fmgrrt  | File Manager Real-Time overload detected.       |
| ioprtr  | IODRV Real-Time overload detected.              |

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TABLE 1 (cont'd)  
AIM EVENT DEFINITIONS

| Event   | Event Definition                                    |
|---------|-----------------------------------------------------|
| amarbuf | AMA receive buffer load pointer movement timeout.   |
| amafbuf | AMA receive buffer unload pointer movement timeout. |
| amasbuf | AMA SDS buffer load pointer movement timeout.       |
| amasdbu | AMA SDS buffer unload pointer movement timeout.     |
| nodrv   | Cannot run APDRV.                                   |

TABLE 2  
AIM ACTION DEFINITIONS

| Action  | Action Definition                                       |
|---------|---------------------------------------------------------|
| init0   | AIM runs this action on UNIX® RTR® Phase 50.            |
| init1   | AIM runs this action on UNIX® RTR Phase 51.             |
| init2   | AIM runs this action on UNIX® RTR Phase 52.             |
| init3   | AIM runs this action on UNIX® RTR Phase 53.             |
| init4   | AIM runs this action on UNIX® RTR Phase 54.             |
| minboot | Starts APDRV, CNI/IMS.                                  |
| phase0  | Execute UNIX® RTR Phase 50.                             |
| phase1  | Execute UNIX® RTR Phase 51.                             |
| phase2  | Execute UNIX® RTR Phase 52.                             |
| phase3  | Execute UNIX® RTR Phase 53.                             |
| stopaim | Stop AIM utility processes.                             |
| stopnsc | Stop Network Services Complex processes.                |
| stopnm  | Stop Nemos processes.                                   |
| stopcft | Stop craft processes.                                   |
| zampas  | Zero AMA PAS segments.                                  |
| zapama  | Stop AMA processes, zero AMA PAS, and restart AMA.      |
| stopama | Stop AMA processes.                                     |
| runaim  | Run AIM utility processes.                              |
| runnsc  | Run Network Services Complex processes.                 |
| runnm   | Run Nemos processes.                                    |
| runcft  | Run craft processes.                                    |
| runama  | Run AMA processes.                                      |
| boot    | Common task run by all bootstrap levels.                |
| trace   | Execute an interrupt stack dump to PAS.                 |
| pdboot  | Enable PANIC DUMP and have it phase system.             |
| pdenabl | Enable PANIC DUMP for next phase (but no phase called). |
| rstama  | Restart AMA processes.                                  |
| rstnsc  | Restart Network Services Complex processes.             |
| rstnm   | Restart Nemos processes.                                |

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TABLE 2 (cont'd)  
AIM ACTION DEFINITIONS

| Event   | Event Definition                            |
|---------|---------------------------------------------|
| rstunix | Kill off all UNIX® processes (system-wide). |
| rstaim  | Restart AIM utility processes.              |
| rstcft  | Restart craft processes.                    |

TABLE 3  
AIM PROCESS DEFINITIONS

| Process | Process Definition                       |
|---------|------------------------------------------|
| aimstub | aim: AIM UNIX® agent.                    |
| apdrv   | minboot: API device driver interface.    |
| rusdhou | craft: measurements.                     |
| ovldcnt | craft:                                   |
| rtkern  | aim:                                     |
| recovda | aim: panic dump handler.                 |
| nscosm  | coams: nsc_to_osm process.               |
| lnkmon  | coams: link monitor process.             |
| hustat  | coams:                                   |
| indir   | coams: input director.                   |
| nm5min  | nemos: 5 min session.                    |
| nm30sec | nemos: 30 sec session.                   |
| nmdmd   | nemos: demand session.                   |
| nmecho  | nemos: echo session.                     |
| nmcntl  | nemos: control process.                  |
| iras    | iras: IRrcv1a process.                   |
| rexwarn | craft:                                   |
| apsmeas | craft: 1B measurements.                  |
| aplupd  | craft:                                   |
| arp     | craft: alarm retire process.             |
| apsdup  | craft: 135 page.                         |
| arts    | craft: 1106,1107 page (and others).      |
| ammonin | ama: ICDR tape/tele monitor.             |
| ammonoc | ama: OC stream tape/tele monitor.        |
| ammonic | ama: IC stream tape/tele monitor.        |
| amdwin  | ama: ICDR disk writer.                   |
| amdwoc  | ama: OC stream disk writer.              |
| amdwic  | ama: IC stream disk writer.              |
| amforma | ama: formatter process.                  |
| aminit  | ama: file system initialization process. |
| amarcvr | ama: receiver process.                   |
| dlncm   | ring: DLN manager.                       |
| ringini | ring: RInginit/RIngmon.                  |
| ksdump  | aim: istack dump process.                |

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ID ..... REPT:AIM-RTR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AIM RTR INIT x AT t  
RTR DOWN i  
4EAP DOWN j  
CNI DOWN k
- [2] REPT AIM RTR INIT x AT t  
RTR DOWN UNK  
4EAP DOWN i  
CNI DOWN j

## 2. REASON FOR OUTPUT

Formats 1 and 2 indicate that AIM has written a line into the PMLOG, so that field support can follow up on, when a boot occurred.

## 3. VARIABLE FIELD DEFINITIONS

|   |                    |
|---|--------------------|
| x | Level of the boot. |
| t | Indicates time.    |
| i | Indicates time.    |
| j | Indicates time.    |
| k | Indicates time.    |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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ID ..... REPT:AIMCHK-ERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AIMCHK ERR X'a
- [2] REPT AIMCHK ERR X'a DATA X'b
- [3] REPT AIMCHK ERR X'a NAME c

## 2. REASON FOR OUTPUT

To report an Application Integrity Monitor (AIM) error condition. Format 2 prints a supplementary data word to identify erroneous data. Format 3 is used to report an error while administering a child process.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code (see Table A).
- b Supplementary data word (see Table A for definition of this item based on the error code a).
- c Process name found in error.

## 4. ACTION TO BE TAKEN

No action is necessary. If error persists, obtain technical assistance.

## 5. REFERENCES

PIDENT  
AIM

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TABLE A  
APPLICATION INTEGRITY MONITOR ERRORS REPORTED

| Code  | Function        | Description                                                                         |
|-------|-----------------|-------------------------------------------------------------------------------------|
| 0x100 | kevent          | invalid event received<br>b = invalid event flags (see DMERT header file evflags.h) |
| 0x101 | fmgr_msg        | open of /aps/etc/aimfile failed<br>b = ms_stat field of FM_OPEN message             |
| 0x102 | fmgr_msg        | read of /aps/etc/aimfile failed<br>b = ms_stat field of FM_READ message             |
| 0x103 | fmgr_msg        | close of /aps/etc/aimfile failed<br>b = ms_stat field of FM_CLOSE message           |
| 0x104 | fmgr_msg        | invalid FMGR message type<br>b = ms_type of invalid FMGR message                    |
| 0x105 | read_init_file  | lock of segment failed<br>b = segment number to be locked                           |
| 0x106 | parse_buf       | process name too large<br>c = process name                                          |
| 0x107 | init_msg        | unexpected SYSIMSG                                                                  |
| 0x108 | init_msg        | bad phase number in SYSIMSG                                                         |
| 0x109 | aim_init        | invalid AIM initialization option<br>b = invalid option                             |
| 0x10a | sndapflt        | cant find process to fault<br>c = process name to fault                             |
| 0x10b | msgs            | invalid message from process<br>b = from Process ID                                 |
| 0x10c | sim_msg         | invalid MSACK from SIM<br>b = ms_type field of SIM message                          |
| 0x10d | init_task_queue | invalid task queue initialization option<br>b = task queue initialization option    |
| 0x10e | msgs            | invalid DMERT message type<br>b = ms_type field of DMERT message                    |
| 0x10f | sim_msg         | invalid SIM message type<br>b = ms_type field of SIM message                        |
| 0x110 | pmgr_msg        | failed to create process<br>c = process name                                        |
| 0x111 | pmgr_msg        | creation of unknown process                                                         |
| 0x112 | pmgr_msg        | death of unknown process                                                            |
| 0x113 | pmgr_msg        | invalid PMGR message type                                                           |

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TABLE A (cont'd)  
APPLICATION INTEGRITY MONITOR ERRORS REPORTED

---

| Code  | Function     | Description                                                                        |
|-------|--------------|------------------------------------------------------------------------------------|
| 0x114 | kost         | invalid OST code<br>b = ost code                                                   |
| 0x115 | feature_on   | failed to attach to ECD                                                            |
| 0x116 | feature_on   | failed to get eaiopt record                                                        |
| 0x117 | feature_on   | no ID for eaiopt record                                                            |
| 0x118 | feature_on   | failed to get eaiopt record                                                        |
| 0x119 | feature_on   | failed to release eaiopt record                                                    |
| 0x11a | feature_on   | failed to release eaiopt record                                                    |
| 0x11b | feature_on   | failed to release eaiopt record                                                    |
| 0x11c | feature_on   | failed to release eaiopt record                                                    |
| 0x11d | aimerr       | invalid AIM error option<br>b = error option flag                                  |
| 0x11e | req_msg      | failed to add task to time SYSMSG                                                  |
| 0x11f | req_ast      | failed to add task to time AST request                                             |
| 0x120 | feature_on   | invalid feature bit in /aps/etc/aimfile<br>b = ASCII representation of feature bit |
| 0x121 | pmgr_msg     | failed to add task to time DAP initialization                                      |
| 0x122 | start        | failed to add task to time DAP creation                                            |
| 0x123 | pmgr_msg     | failed to add task to time DAP restart                                             |
| 0x124 | execute_task | failed to add task to set up DAP recreation                                        |
| 0x125 | parse_buf    | warning: no process mode for process in aimfile                                    |
| 0x126 | kill         | alocmsg failed for DAP termination message                                         |
| 0x127 | kill         | queuem failed for DAP termination message                                          |
| 0x128 | execute_task | in task queue<br>b = DAP id in task queue                                          |
| 0x129 | parse_buf    | invalid process mode in aimfile<br>b = ASCII representation of process mode found  |

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ID ..... REPT:AIMCHK-FS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT AIMCHK - FILE SYSTEM OVERFLOW a: [(LOWER CASE)] b

## 2. REASON FOR OUTPUT

To report that a DMERT file system is full or nearly full.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Severity of overflow condition:
- CRITICAL — File system is completely full.  
                        WARNING — File system is in danger of overflowing, possibly  
                                         within two hours.
- b                      File system name.

## 4. ACTION TO BE TAKEN

Manual action may be required to remove data from the file system named. In order to remove data safely, the craft must know which files in the file system are permanent and which are temporary. Refer to the application's specific document for file system maintenance and trouble-clearing procedures.

## 5. REFERENCES

PIDENT  
AIM

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem and Description*  
*3B Processor.*

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ID ..... REPT:AIMCHK-NOFAU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

### 1. FORMAT

- [1] REPT AIMCHK a NON-HANDLED OVERLOAD X'b
- [2] REPT AIMCHK STRAY FAULT X'c

### 2. REASON FOR OUTPUT

To report an Application Integrity Monitor (AIM) fault condition. Format 1 reports an overload status change fault from the System Integrity Monitor (SIM) not handled by AIM. Format 2 reports an invalid fault received by AIM.

### 3. VARIABLE FIELD DEFINITIONS

- a Error code.
- 602 — Overload status change.
- b Overload condition.
- 0x81 — Spooler output process overload cleared.
- 0x82 — Spooler output process overload.
- 0x85 — Data link input buffer overload cleared.
- 0x86 — Data link input buffer overload.
- 0x87 — Data link output buffer overload cleared.
- 0x88 — Data link output buffer overload.
- 0x8b — IOP overload cleared.
- 0x8c — IOP command queue overload.
- 0x8f — DFC overload cleared.
- 0x90 — DFC overload.
- 0x91 — File manager overload cleared.
- 0x92 — File manager overload.
- 0x95 — User/supervisor level program lockout cleared.
- 0x96 — User/supervisor level program lockout overload.
- 0x97 — Timed event overload cleared.
- 0x98 — Timed event overload condition.
- 0x99 — Kernel level lockout cleared.
- 0x9a — Kernel level lockout overload condition.
- 0x9f — DCT entries allocation reduced to 50%.
- 0xa0 — DCT entries at 70% allocation.
- 0xa1 — DCT entries at 100% allocation.
- 0xac — Message buffers recovered to 50% allocation.
- 0xad — Message buffers at 70% allocation.
- c Stray fault code.
- 0xbc — Fault for queued error messages.

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0xbd — Fault for non-queued error messages.  
0xd1 — Page invalid or not in memory.  
0xd2 — Page index too large.  
0xd3 — Segment invalid.  
0xd4 — Segment index too large.  
0xd5 — Illegal DMERT operating system trap call.  
0xd6 — Protection violation.  
0xd7 — Byte of halfword addressing violation.  
0xd8 — Instruction privilege violation.  
0xd9 — Illegal op-code.  
0xda — Illegal switch between kernel and private stacks.

#### **4. ACTION TO BE TAKEN**

No action is necessary. If error persists, obtain technical assistance.

#### **5. REFERENCES**

PIDENT  
AIM

Output Messages  
REPT:AIMCHK-ERR  
REPT-SIMCHK

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ID ..... REPT:AIMCHK-ST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

- [1] REPT AIMCHK STATUS PART m
- [2] REPT AIMCHK STATUS COMPLETED
- [3] REPT AIMCHK - FILE SYSTEM OVERFLOW WARNING k j
- [4] REPT AIMCHK - FILE SYSTEM OVERFLOW CRITICAL k j

### 2. REASON FOR OUTPUT

Formats 1 and 2 are printed as a result of the OP:AIM user command. The following section will be printed if event status is desired:

EVENTS/ERRORS  
ID NAME TASK SET TLEFT CURTRIG NEXTRIG LAST SET  
X'dd eeee llll yyy nnnnn cccccc gggggg tttttt

If action status is desired, the following section is printed next, one line per action:

ACTIONS/TASKS  
ID NAME RUNNABLE TIME LAST EXC  
X'dd aaaa bbbbbbb tttttttttt

Finally, if process status is desired, the following section is printed, one line per process:

PROCESSES/TASKS  
ID NAME INCAR STATE FSTAT PROCESSID UTILID RST LAST CREAT  
X'dd pppp iiii ssss ffff rrrrrrrr uuuuu zzz 000000000

Formats 3 and 4 are printed when AIM receives file system overload messages from SIM. The variable fields describe the file system in overload.

### 3. VARIABLE FIELD DEFINITIONS

- d AIM internal ID for the event, action or process.
- e Internal AIM event name.
- l Invoking task name (action or process).
- y YES or NO, indicating the event is set or not.
- n Time left for the event to time out.

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|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| c | Current action triggered because of the event.                                                                       |
| g | Next action which will be triggered because of the event.                                                            |
| t | Last timestamp.                                                                                                      |
| a | Internal AIM Action name.                                                                                            |
| b | YES or NO, indicating whether or not AIM will let this action run.                                                   |
| p | Internal AIM process name.                                                                                           |
| i | Process incarnation count. Counts the number of times the process has died.                                          |
| s | Process State. Possible values are<br>DEAD<br>INIT1<br>INIT2<br>INIT3<br>LIVE<br>RESTART<br>ABORTING                 |
| f | Feature Bit Number and feature is ON or OFF.                                                                         |
| r | UNIX® RTR Process ID, or zero if process not running.                                                                |
| u | Utility ID of the process.                                                                                           |
| z | YES or NO, indicating whether the process is restartable or not.<br>INH:AIM and ALW:AIM will SET and CLR this field. |
| o | UNIX® clock when process started.                                                                                    |
| j | File system name.                                                                                                    |
| k | (UPPER CASE) or (lower case).                                                                                        |
| m | Output segment number.                                                                                               |

#### 4. ACTION TO BE TAKEN

No action is necessary for Format 1 or 2. Seek technical assistance for Formats 3 and 4.

#### 5. REFERENCES

Input Messages  
ALW:AIM  
CLR:AIM  
EXC:AIM  
INH:AIM  
OP:AIM  
STOP:AIM

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ID ..... REPT:AIMCHK-TASK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AIMCHK TASK QUEUE AUDIT FAILURE  
a TASK QUEUE: b ERRORS, CODE = X'c
- [2] REPT AIMCHK AUDITS INHIBITED
- [3] REPT AIMCHK AUDITS ALLOWED

## 2. REASON FOR OUTPUT

Format 1 reports an Application Integrity Monitor (AIM) task queue audit failure. All audit failures are corrected.

Format 2 reports that task queue audits are inhibited. This message is printed when audits are first inhibited (via application parameter A) and about every 17 minutes thereafter.

Format 3 reports that task queue audits have been allowed. This message is printed when audits are first allowed after being inhibited (via application parameter B).

## 3. VARIABLE FIELD DEFINITIONS

- a Task queue:
  - ACTIVE — active task queue.
  - FREE — free task queue.
- b Number of errors found.
- c Error code mask. One bit for each error:
  - X'00000001 — Lost ACTIVE task buffer.
  - X'00000002 — Lost FREE task buffer.
  - X'00000004 — Task number invalid in ACTIVE task buffer.
  - X'00000008 — Task duplicated on ACTIVE task list.
  - X'00000010 — Invalid task header (head or tail null).
  - X'00000020 — Task buffer state invalid.
  - X'00000040 — Tail pointer invalid for list.
  - X'00000080 — Invalid previous pointer for list.
  - X'00000100 — Invalid state detected while Processing.
  - X'00000200 — Invalid task number detected while Processing.
  - X'00010000 — Duplicate Application Sanity Timer (AST) reset task on active task queue.
  - X'00020000 — Invalid DMERT application process (DAP) id for monitoring DAP on active task queue.
  - X'00040000 — Duplicate or invalid monitoring task.

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X'00080000 — No AST reset task on active task queue.  
X'00100000 — Lost monitoring task for DAP.

**4. ACTION TO BE TAKEN**

No action is necessary. If error persists, obtain technical assistance.

**5. REFERENCES**

PIDENT  
AIM

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ID ..... REPT:AIMSTUB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AIMSTUB S

## 2. REASON FOR OUTPUT

Error messages are printed by the AIMSTUB process to indicate problems servicing requests for the AIM process. Typically these are caused by an invalid AIMFILE in PAS. Messages include:

### INVALID AIMFILE IN PAS - CANNOT ADOPT CHILDREN

Whenever the AIMSTUB process dies and gets recreated, it must re-adopt all UNIX® children that were left behind. If an invalid PAS AIMFILE exists, AIMSTUB cannot determine who was alive. In this case, AIM has an audit that should find these orphans.

### CANNOT OPEN OUTPUT FILE

AIMSTUB spools long messages to the ROP by breaking them up and placing them in temporary files in /tmp. If these files cannot be created, /tmp could possibly be full or some other file system error might have occurred. This can be ignored, however, no output will result from OP:AIM commands.

### INVALID AIMFILE IN PAS - CANNOT LIST STATUS

AIMSTUB must be able to read the AIMFILE in PAS in order to print status information. This can be ignored, but no OP:AIM information will be printed.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Messages

ALW:AIM  
CLR:AIM  
EXC:AIM  
INH:AIM  
OP:AIM  
STOP:AIM

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ID ..... REPT:AMA-C-ALM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA CRITICAL ALARM DOWNGRADED TO A MINOR ALARM FOR a STREAM  
DISK IS b% FULL

## 2. REASON FOR OUTPUT

To inform the user that the automatic message accounting (AMA) disk space occupancy has dropped from a critical level (100 percent full) to below 65 percent full.

## 3. VARIABLE FIELD DEFINITIONS

- a                      IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
                         OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b                      Current amount of AMA disk space occupied by primary data.  
                         Expressed as a percentage.

## 4. ACTION TO BE TAKEN

Refer to AMA TOPS procedures for specific actions.

## 5. REFERENCES

Input Message  
OP:AMA-DISK

Output Messages  
REPT:AMA-D-STO  
REPT:AMA-D-SUM

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ID ..... REPT:AMA-CDR-FIFO  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

- [1] REPT AMA CDR FIFO BAD RDW (FIFO FLUSHED)  
ULP = a \*ULP = b \*(ULP+1) = c
- [2] REPT AMA CDR FIFO PTRS BAD  
ULP = d LP = e END = f (FIFO FLUSHED)

## 2. REASON FOR OUTPUT

Format 1: When accessing an AMA record in the CDR FIFO, the size of the record is specified in the AMA Record Descriptor Word (RDW). The CDR FIFO unload pointer always points to an AMA RDW. An AMA RDW is a 32-bit field. The most significant 16 bits is the record length in bytes (including the RDW). The least significant 16 bits are zero. This message is printed when an RDW length is found to be less than or equal to 0 or greater than 512.

Format 2: When accessing an AMA record in the CDR FIFO and a CDR FIFO pointer is found to be out of range, then this message is printed. The legal range for CDR FIFO pointers is 0 to 169999.

The CDR FIFO is flushed. All AMA records (if any) in the FIFO are lost. No count is kept of the number of records lost.

The CDR FIFO is administered with three pointers: a load pointer, an unload pointer, and an end pointer. The load pointer points to the next FIFO location to be loaded with a new AMA record. If an AMA record will not fit between the load pointer and the FIFO end, then the end pointer is made equal to the load pointer and the load pointer is set to the FIFO top. The unload pointer points to the next AMA record to be unloaded from the FIFO. If the unload pointer is equal to the end pointer, then the unload pointer is set to the FIFO top.

## 3. VARIABLE FIELD DEFINITIONS

- a The value of the CDR FIFO unload pointer.
- b Hex value of the first 32 bits pointed to by the CDR FIFO unload pointer.
- c Hex value of the second 32 bits pointed to by the CDR FIFO unload pointer.
- d The value of the CDR FIFO unload pointer.

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- |   |                                                                            |
|---|----------------------------------------------------------------------------|
| e | Hex value of the first 32 bits pointed to by the CDR FIFO unload pointer.  |
| f | Hex value of the second 32 bits pointed to by the CDR FIFO unload pointer. |

#### **4. ACTION TO BE TAKEN**

Information only, the CDR FIFO has been flushed. There exists no count of the number of AMA records lost due to the FIFO flush.

#### **5. REFERENCES**

None.

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ID ..... REPT:AMA-CDR-SESS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has nine formats.

- [1] REPT AMA CDR SESSION UNKNOWN INDICATOR a
- [2] REPT AMA CDR SESSION CONNECT REFUSED - b
- [3] REPT AMA CDR SESSION CONNECTED
- [4] REPT AMA CDR SESSION FAR END DISCONNECT  
FAR END USERDATA X'c  
RECORDS d BYTES e BUFS f
- [5] REPT AMA CDR SESSION FAR END ABORT FROM g(h)  
FAR END USERDATA X'i  
RECORDS d BYTES e BUFS f
- [6] REPT AMA CDR SESSION ABORT CODE j k  
RECORDS d BYTES e BUFS f
- [7] REPT AMA CDR SESSION ERROR l FROM m CAUSING RE-INIT  
RECORDS d BYTES e BUFS f
- [8] REPT AMA CDR SESSION MANUAL INHIBIT WRONG - n  
MANUAL INHIBIT CLEARED
- [9] REPT AMA CDR SESSION ERROR - TOO MANY INDICATIONS

## 2. REASON FOR OUTPUT

Format 1: When the AMA formatter is made aware of a Call Detail Recording (CDR) session indication, the specific indication is fetched from the session services manager. The indication fetched is processed. If an unknown indication is fetched from the session services manager, then this output message is generated.

Format 2: When the AMA formatter receives a Call Detail Recording (CDR) request for session connection and the connection cannot be honored, this message is printed.

Format 3: When the AMA formatter receives a Call Detail Recording (CDR) request for session connection and the connection is made, this message is printed. At this point the AMA formatter sends selected AMA records to the far end CDR processor over the CDR datalink or its backup. The selected AMA CDR records are buffered through a CDR FIFO before being written to the CDR session.

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Format 4: The AMA formatter has processed a Call Detail Recording (CDR) session disconnect message. At this point no CDR datalink session exists. The AMA formatter can accept another CDR session connect request. Any AMA CDR selected records are held in the CDR FIFO until the next CDR session connect is made.

Format 5: The AMA formatter has processed a Call Detail Recording (CDR) session abort message. At this point no CDR datalink session exists. The AMA formatter can accept another CDR session connect request. Any AMA CDR selected records are held in the CDR FIFO until the next CDR session connect is made.

Format 6: The AMA formatter has sent a Call Detail Recording (CDR) session abort message. The abort was caused by a reason internal to the AMA formatter. At this point no CDR datalink session exists. The AMA formatter can accept another CDR session connect request. Any AMA CDR selected records are held in the CDR FIFO until the next CDR session connect is made.

Format 7: The AMA formatter has lost communication with the local session manager for the Call Detail Recording (CDR) session. The abort was caused by a reason internal to the AMA formatter. At this point no CDR datalink session exists, and none can be established until communication with local session services is restored. The AMA formatter takes automatic steps to restore communication with local session management. An attempt to send a session abort is made. The one-byte user data field in the session abort message is set to the value 5.

Any AMA CDR selected records are held in the CDR FIFO until the next CDR session connect is made.

Format 8: Every two seconds the AMA formatter audits the value of the manual inhibit flag. If the value is not 0 or 1, then this output message is generated.

Format 9: When the AMA formatter is given more than 8 indications from the session manager, this output is printed. The AMA formatter limits the number of indications processed to 8, to avoid spending too much kernel time processing indications. No more than 8 indications should arrive at any given time. If more than 8 indications are detected, the session is aborted with user data reason 5. The AMA formatter proceeds as if communication with the session manager was lost.

### 3. VARIABLE FIELD DEFINITIONS

- a                    Decimal value of the session indicator given to the AMA formatter by the session services manager.
- b                    One of the following phrases:  
  
                      CDR SESSION AUTO INHIBIT  
                      A CDR connection request is refused because an automatic inhibit is active. An automatic inhibit is activated whenever the CNI ring is going through recovery.

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**CDR SESSION MAN INHIBIT**

A CDR session connection request is refused because a manual inhibit is active. A manual inhibit is activated by an INPUT command.

**CDR SESSION IP**

A CDR session connection request is refused because a CDR session is already in progress.

**INVALID USER DATA**

A CDR session connection request is refused because the user data associated with the session connect request is not valid. Session connect user data is a 2-byte field. Either the user data field length is wrong or the contents of the user data field are invalid.

- c Hex value of the first byte of user data associated with the session disconnect message.
- d Decimal number of AMA records sent to the CDR processor.
- e Decimal number of bytes sent to the CDR processor.
- f Decimal number of session buffers sent to the CDR processor.
- g A string indicating the source of the far end abort.
  - RMTUSER — Abort initiated by the remote user.
  - RMTSL — Abort initiated by remote session manager.
  - LOCSL — Abort initiated by local session manager.
  - FORCED — Session aborted for some other reason.
  - UNKN-SRC — Unknown abort source.
- h Negative decimal value of the abort source.
- i Hex value of the first byte of user data associated with the session abort message.
- j Decimal value of the abort reason. This is the value of the abort message user data field sent by the far end CDR processor (one byte).
- k A string describing the abort.

**MANUAL INH STARTED**

CDR session abort because of a manual inhibit.

**LOST LOCAL SESSION SYNC**

CDR session abort caused by failure to communicate with the local session manager.

**DATALOST**

CDR session abort due to data lost indication from the local session manager.

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|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | <b>NOINPUT</b><br>CDR session abort because an input was received. The CDR session is output only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|          | <b>PROC TERM</b><br>CDR session abort because the AMA formatter is terminating.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          | <b>UNKWN</b><br>CDR session abort for an unknown reason.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>l</b> | Decimal value of the error return code from local session management software.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>m</b> | A string describing the local session management routine that failed:<br><br><b>BXSKOPEN</b> — Send an RTR open message to the session manager.<br><b>BXSACK</b> — Process an RTR ack message from the session manager.<br><b>BXSATTACH</b> — Attach the AMA formatter to the CDR session.<br><b>BXSQUERY</b> — Get local session events from the session manager.<br><b>BXSACCEPT</b> — Accept a CDR session connection.<br><b>BXSREFUSE</b> — Refuse a CDR session connection.<br><b>BXSSEND</b> — Send a buffer of AMA records to the far end CDR session.<br><b>BXSABORT</b> — Send a CDR session abort message.<br><b>BXSDISC</b> — Send a CDR session disconnect message. |
| <b>n</b> | The corrupted value of the CDR manual inhibit flag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

#### 4. ACTION TO BE TAKEN

None. Information only; to be used if contacted by personnel from the far end CDR processor to debug CDR session connect problems.

#### 5. REFERENCES

None.

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ID ..... REPT:AMA-CONFIG  
WORK CENTER.. MOC  
GENERIC ..... 4AP18 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA CONFIG FILE  
STREAM INDICATOR INVALID OR MISSING
- [2] REPT AMA CONFIG FILE FOR a STREAM  
b
- [3] REPT AMA CONFIG FILE FOR a STREAM  
RETRY EQUIP/UNEQUIP REQUEST LATER  
c
- [4] REPT AMA CONFIG FILE FOR a STREAM  
NUMBER OF EQUIPPED PARTITIONS d  
TOTAL NUMBER OF AMA BLOCKS e  
[ f g h ]
- [5] REPT AMA CONFIG FILE FOR a STREAM  
NUMBER OF EQUIPPED PARTITIONS i  
TOTAL NUMBER OF s BLOCKS j  
[k l m]

## 2. REASON FOR OUTPUT

To provide responses to the OP:AMA-CONFIG and SET:AMA-CONFIG input messages.

## 3. VARIABLE FIELD DEFINITIONS

- a
  - DF — Deferred Formatting data stream.
  - DM — Disk Mode data stream.
  - IC — Inter-LATA automatic message accounting (AMA) data stream.
  - OC — Operating company AMA data stream.
- b Text phrase indicating the outcome of the operation requested by either the OP:AMA-CONFIG or SET:AMA-CONFIG input message.
- c Text phrase indicating why the EQUIP or UNEQUIP request must be tried at a later time.
- d Number of AMA partitions equipped for this stream.
- e Total number of AMA blocks for this stream.
- f AMA partition number.

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|   |                                                                                   |
|---|-----------------------------------------------------------------------------------|
| g | AMA partition file name.                                                          |
| h | Number of AMA blocks in this partition.                                           |
| i | Number of Deferred Formatting (or Disk Mode) partitions equipped for this stream. |
| j | Total number of Deferred Formatting (or Disk Mode) blocks for this stream.        |
| k | Deferred Formatting (or Disk Mode) partition number.                              |
| l | Deferred Formatting (or Disk Mode) partition file name.                           |
| m | Number of Deferred Formatting (or Disk Mode) blocks in this partition.            |
| s | Deferred Formatting or Disk Mode.                                                 |

If  $d = 0$ , then  $f$ ,  $g$ , and  $h$  will not appear in the output message.  $f$ ,  $g$ , and  $h$  will only be printed for each AMA partition that is equipped for this stream.

If  $i = 0$ , then  $k$ ,  $l$ , and  $m$  will not appear in the output message.  $f$ ,  $g$ , and  $h$  will only be printed for each AMA partition that is equipped for this stream.

#### 4. ACTION TO BE TAKEN

If Format 1 is printed, the SET:AMA-CONFIG message should be tried again, and either IC, OC, DF, or DM should be specified depending on which AMA data stream the user wishes to work on.

For Format 2, if  $b =$

CONFIG FILE COULD NOT BE OPENED  
Refer to AMA TOPS procedures for resolution.

CONFIG FILE COULD NOT BE READ  
Refer to AMA TOPS procedures for resolution.

COULD NOT ATTACH TO ECD DATABASE  
Seek technical assistance immediately.

COULD NOT OBTAIN INFORMATION ABOUT THE PARTITION  
Seek technical assistance.

COULD NOT RELEASE ECD DATABASE  
Seek technical assistance immediately.

COULD NOT RETRIEVE ECD ORIGIN RECORD  
Seek technical assistance immediately.

COULD NOT RETRIEVE ECD ORIGIN RECORD AND RELEASE ECD DATABASE  
Seek technical assistance immediately.

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**COULD NOT RETRIEVE MDCT RECORD**

Seek technical assistance immediately.

**COULD NOT RETRIEVE UCB RECORD**

Seek technical assistance.

**DEVICE DOES NOT HAVE MAJOR/MINOR NUMBERS**

Seek technical assistance.

**EQUIP OR UNEQUIP OPTION MISSING FROM INPUT MESSAGE**

Be sure to include either the EQUIP or UNEQUIP option in the SET:AMA-CONFIG input message when it is reentered.

**EQUIP/UNEQUIP REQUEST FOR DM PARTITION STOPPED NOT AN AT&T SWITCH**

Check whether this is an AT&T switch before trying again.

**INVALID COMBINATION OF INPUT PARAMETERS**

Check for one of two errors in the SET:AMA-CONFIG message. First make sure only one of the following options is used - EQUIP or UNEQUIP, not both. Second, make sure the NOINIT option is not being used with the UNEQUIP option. Try the message again.

**INVALID ERROR CODE RECEIVED**

Refer to AMA TOPS procedures for resolution. **INVALID KEYWORD IN INPUT MESSAGE**

Check the last SET:AMA-CONFIG message to determine which keyword is invalid. Be sure to leave out the invalid keyword when the SET:AMA-CONFIG message is reentered.

**INVALID PARTITION NUMBER IN INPUT MESSAGE**

The SET:AMA-CONFIG input message should be reentered using a valid AMA partition number. If AMA SCSI Disk Capacity Expansion (585) feature is active, the valid partition numbers are 0 through 38. Otherwise the valid partition numbers are 0 through 23.

**INVALID SPECIAL DEVICE TYPE**

Seek technical assistance.

**NO INPUT DATA SPECIFIED**

The SET:AMA-CONFIG input message should be reentered. Be sure to include the fields needed after the second colon.

**NO UCB FOR THE DEVICE**

Seek technical assistance.

**PARTITION x WAS SUCCESSFULLY UNEQUIPPED**

Where x is the partition number (0-38). Indicates that the specified partition was successfully unequipped. No action is necessary.

**PARTITION NOT EQUIPPED FOR THIS STREAM**

The AMA partition specified in the SET:AMA-CONFIG message is not equipped for the requested stream. Enter the OP:AMA-CONFIG input message to determine the state of the configuration file(s) and proceed accordingly.

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**PARTITION NUMBER IN INPUT MESSAGE NOT VALID FOR THIS OFFICE**  
Seek technical assistance.

**PARTITION NUMBER MISSING FROM INPUT MESSAGE**  
Reenter the SET:AMA-CONFIG input message and be sure to specify the PART keyword and a valid AMA partition number .

**REQUESTED PARTITION IS ALREADY EQUIPPED**  
The SET:AMA-CONFIG input message attempted to equip an already equipped partition. Use the OP:AMA-CONFIG input message to determine the state of the configuration file(s) and proceed accordingly.

**TEMPORARY FILE COULD NOT BE CREATED**  
A file could not be created to print the appropriate output message. Enter the OP:AMA-CONFIG input message to determine the state of the configuration file(s) and proceed accordingly.

**EQUIPPING PARTITION WOULD RESULT IN TOO MANY BLOCKS FOR THIS STREAM**  
The MSN (Maximum Sequence Number) of the control file indicates the maximum number of blocks that can be used for this stream. Equipping the partition would result in more than this number of blocks. If the HOC used for this stream is capable of processing blocks with higher sequence numbers than the MSN, then the control file MSN can be increased and the partition can be equipped; otherwise, no more partitions can be equipped for this stream.

**UNEQUIP REQUEST STOPPED  
CANNOT UNEQUIP THE LAST PARTITION  
ASSIGNED IN A [DF|DM] SWITCH**  
The UNEQUIP operation was stopped because this is the last partition assigned to the Deferred Formatting or Disk Mode data stream. For DF, Deferred Formatting capability must first be disabled using the SET:AMA-CONTROL input message. For DM, the 3B recording mode must be in APS. The recording mode can be changed by using the SET:AMA-RECMODE input message. Once Deferred Formatting or Disk Mode capability has been disabled, the partition can be unequipped.

**UNEQUIP REQUEST STOPPED  
THERE IS PRIMARY DATA ON THIS PARTITION**  
The UNEQUIP operation was stopped because there is primary data on the partition. Once all the primary data has been removed, the partition can be unequipped.

**UNEQUIP REQUEST STOPPED  
THERE IS DATA ON THIS PARTITION**  
The UNEQUIP operation was stopped because there is data on the Deferred Formatting or Disk Mode partition. Once all the data has been removed, the partition can be unequipped.

SEE PROPRIETARY NOTICE ON COVER PAGE

WARNING - AMA PARTITION COULD NOT BE OPENED  
UNEQUIP OPERATION CONTINUING

In this case, the AMA partition map could not be opened to determine if there was any primary data on the partition; therefore, the next time this partition is equipped it should be equipped using the NOINIT option so any primary data can be retrieved. IF THE NOINIT OPTION IS NOT USED, ANY PRIMARY DATA THAT WAS ON THIS PARTITION WILL BE LOST.

WARNING - AMA PARTITION COULD NOT BE READ  
UNEQUIP OPERATION CONTINUING

In this case, the AMA partition map could not be read to determine if there was any primary data on the partition; therefore, the next time this partition is equipped it should be equipped using the NOINIT option so any primary data can be retrieved. IF THE NOINIT OPTION IS NOT USED, ANY PRIMARY DATA THAT WAS ON THIS PARTITION WILL BE LOST.

WARNING - REQUESTED STREAM CONFLICTS  
WITH CURRENT AMA STREAM INDICATOR  
EQUIPPING PROCESS IS IN PROGRESS  
LOOK FOR FURTHER OUTPUT

This message indicates that an AMA partition is being equipped for an AMA stream that currently does not exist in the office. No action need be taken.

WARNING - THIS IS NOT A DEFERRED  
FORMATTING SWITCH  
EQUIPPING PROCESS IS IN PROGRESS  
LOOK FOR FURTHER OUTPUT

This message indicates that Deferred Formatting capability has not been enabled for this office. See the SET:AMA-CONTROL input message, if Deferred Formatting capability is desired. Otherwise, no action need be taken.

For Format 3, if C =

AMA PARTITION COULD NOT BE OPENED  
Refer to AMA TOPS procedures for further resolution.

AMA PARTITION COULD NOT BE WRITTEN  
Refer to AMA TOPS procedures for further resolution.

CONFIG FILE COULD NOT BE OPENED  
Refer to AMA TOPS procedures for further resolution.

CONFIG FILE COULD NOT BE READ  
Refer to AMA TOPS procedures for further resolution.

CONFIG FILE COULD NOT BE WRITTEN  
Refer to AMA TOPS procedures for further resolution.

COULD NOT ATTACH TO PAS  
Seek technical assistance immediately.

SEE PROPRIETARY NOTICE ON COVER PAGE

**DISK NOT AVAILABLE FOR NORMAL OPERATIONS**

When the disk that the requested AMA partition resides on returns to the ACTIVE or STANDBY state, the AMA partition can be equipped.

**IC CONFIG FILE COULD NOT BE OPENED**

Refer to AMA TOPS procedures for further resolution.

**IC CONFIG FILE COULD NOT BE READ**

Refer to AMA TOPS procedures for further resolution.

**IC CONFIG FILE COULD NOT BE WRITTEN**

Refer to AMA TOPS procedures for further resolution.

**OC CONFIG FILE COULD NOT BE OPENED**

Refer to AMA TOPS procedures for further resolution.

**OC CONFIG FILE COULD NOT BE READ**

Refer to AMA TOPS procedures for further resolution.

**OC CONFIG FILE COULD NOT BE WRITTEN**

Refer to AMA TOPS procedures for further resolution.

**VTOC FILE COULD NOT BE OPENED**

Refer to AMA TOPS procedures for further resolution.

**VTOC FILE COULD NOT BE READ**

Refer to AMA TOPS procedures for further resolution.

**ICDR CONFIG FILE COULDN'T BE OPENED**

Refer to AMA TOPS procedures for further resolution (for generics 4AP9 and later).

**ICDR CONFIG FILE COULDN'T BE READ**

Refer to AMA TOPS procedures for further resolution (for generics 4AP9 and later).

For Formats 4 and 5 no action need be taken.

**5. REFERENCES**

Input Messages

OP:AMA-CONFIG

OP:AMA-STREAM

SET:AMA-CONFIG

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ID ..... REPT:AMA-CONT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA CONTROL FILE AUDIT FOR a STREAM  
OFFICE ID b  
DAYS UNTIL EXPIRATION c  
PROCESS START TIME d  
PROCESS STOP TIME e  
DEFAULT MT FOR AUTO TAPE START f  
g  
h  
AMAT PASSWORD i  
HOC PASSWORD j  
BACKUP HOC PASSWORD k  
PASSWORD FROM LAST SESSION l  
m  
n  
o  
DISK SPACE OCCUPANCY s  
TAPE SEQUENCE NUMBER p  
TAPE DATA SET ID r
- [2] REPT AMA CONTROL FILE AUDIT FOR a STREAM  
AMA CONTROL FILE COULD NOT BE q
- [3] REPT AMA CONTROL FILE AUDIT FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To indicate the state of the Automatic Message Accounting (AMA) control file after its audit has been run (Format 1), that the control file could not be opened or read (Format 2), or that the system could not allocate a temporary file to print the audit results (Format 3). This message is accompanied by a minor alarm.

## 3. VARIABLE FIELD DEFINITIONS

- a IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b Office identification.
- c Number of days until the tape expires.

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|   |                                                                                                                    |
|---|--------------------------------------------------------------------------------------------------------------------|
| d | Start time in hours and minutes for automatic tape writing or teleprocessing.                                      |
| e | Stop time in hours and minutes for automatic tape writing or teleprocessing.                                       |
| f | Default tape drive for the AMA function.                                                                           |
| g | Indicates the AMA option in effect.                                                                                |
| h | Indicates whether or not the AMA data transfer sessions have been manually inhibited via the INH:AMA-SESS message. |
| i | Automatic message accounting teleprocessing (AMAT) password.                                                       |
| j | Host collector (HOC) password.                                                                                     |
| k | Backup HOC password.                                                                                               |
| l | Password of the last HOC that polled this AMAT.                                                                    |
| m | Indicates whether or not a tape writing or verification session is currently in progress.                          |
| n | Indicates whether or not a teleprocessing session is currently in progress.                                        |
| o | Indicates whether or not automatic tape writing has been inhibited via the INH:AMA-AUTOST message.                 |
| p | Next AMA tape sequence number.                                                                                     |
| q | OPENED — Control file could not be opened.<br>READ — Control file could not be read.                               |
| r | Tape data set ID.                                                                                                  |
| s | Indicates percentage of disk space containing primary data.                                                        |

#### 4. ACTION TO BE TAKEN

For Format 1, examine the values that the audit assigned to the fields in the control file. If any values need to be corrected, use the input messages listed under References.

If Format 2 prints, refer to the AMA TOPS procedure for further resolution.

If Format 3 prints, use the OP:AMA-CNTLFIL input message to check the contents of the control file. If any of the values are invalid, correct them using the input messages listed under References.

#### 5. REFERENCES

Input Messages

ALW:AMA-AUTOST

ALW:AMA-SESS

INH:AMA-AUTOST

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**4ESS/APS**  
**OM-4A001-01**

**REPT AMA CONTROL**

INH:AMA-SESS  
OP:AMA-CNTLFIL  
SET:AMA-CONTROL

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**REPT:AMA-CONT-3**

**Issue 9.4**  
**September 2001**





ID ..... REPT:AMA-CONTL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA CONTROL FILE FOR a STREAM  
OFFICE ID b  
DAYS UNTIL EXPIRATION c  
PROCESS START TIME d  
PROCESS STOP TIME e  
DEFAULT MT FOR AUTO TAPE START f  
g  
h  
AMAT PASSWORD i  
HOC PASSWORD j  
BACKUP HOC PASSWORD k  
PASSWORD FROM LAST SESSION l  
m  
n  
o  
TAPE SEQUENCE NUMBER p  
TAPE DATA SET ID q  
MAXIMUM DISK WRITE DELAY r SECONDS  
s  
THE FAST STREAM IS t  
DEFERRED FORMATTING IS u  
THE 3B APS RECORDING MODE IS v
- [2] REPT AMA CONTROL FILE FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED
- [3] REPT AMA CONTROL FILE FOR a STREAM  
OC STREAM CANNOT BE USED - MUST SPECIFY IC STREAM
- [4] REPT AMA CONTROL FILE FOR a STREAM  
NO INPUT DATA SPECIFIED
- [5] REPT AMA CONTROL FILE FOR a STREAM  
INVALID NUMBER OF CHARACTERS IN AN INPUT FIELD
- [6] REPT AMA CONTROL FILE FOR a STREAM  
INVALID KEYWORD IN INPUT MESSAGE

## 2. REASON FOR OUTPUT

To report the current state of the automatic message accounting (AMA) control file (Format 1). Format 2 indicates that the system could not allocate a temporary file to print

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the control file information. Formats 3, 4, 5, and 6 print in response to input message SET:AMA-CONTROL and indicate that the user made an error while entering that input message.

### 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                                                                                                         |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | IC — Indicates that the control file data is for the Inter-LATA revenue accounting office data stream.<br>OC — Indicates that the control file data is for the operating company revenue accounting office data stream. |
| b | Office identification.                                                                                                                                                                                                  |
| c | Number of days until tape expires.                                                                                                                                                                                      |
| d | Start time in hours and minutes for automatic tape writing or teleprocessing.                                                                                                                                           |
| e | Stop time in hours and minutes for automatic tape writing or teleprocessing.                                                                                                                                            |
| f | Default tape drive for AMA function.                                                                                                                                                                                    |
| g | Indicates the AMA option in effect.                                                                                                                                                                                     |
| h | Indicates whether or not the AMA data transfer sessions have been manually inhibited via the INH:AMA;SESS message.                                                                                                      |
| i | AMA teleprocessing (AMAT) password.                                                                                                                                                                                     |
| j | Host collector (HOC) password.                                                                                                                                                                                          |
| k | Backup HOC password.                                                                                                                                                                                                    |
| l | Password of last HOC that polled this AMAT.                                                                                                                                                                             |
| m | Indicates whether or not a tape writing or verification session is currently in progress.                                                                                                                               |
| n | Indicates whether or not a teleprocessing session is currently in progress.                                                                                                                                             |
| o | Indicates whether or not automatic tape writing has been inhibited via the INH:AMA-AUTOST message.                                                                                                                      |
| p | Next AMA tape sequence number.                                                                                                                                                                                          |
| q | Tape data set ID.                                                                                                                                                                                                       |
| r | Maximum delay from when a record is created until it is written to disk.                                                                                                                                                |
| s | Indicates whether or not SDN call detail recording records are being sent directly to CDDS II via the CDR link. This is only printed if the control file is for the Inter-LATA Carrier (IC) stream.                     |
| t | Identifies which stream is the fast stream. This only prints for the IC stream control file.                                                                                                                            |

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- |   |                                                                                                                                                           |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| u | Indicates whether deferred formatting is turned off (NOT ALLOWED) or turned on (ALLOWED). This only prints for the IC stream control file.                |
| v | Identifies the 3B APS recording mode which are 3B, Call Detail Recording Platform (CDRP), or Transition. This only prints for the IC stream control file. |

#### **4. ACTION TO BE TAKEN**

If Format 1 prints, take no action. If Format 2 is output, reenter input message OP:AMA-CNTLFIL. If Formats 3, 4, 5, or 6 are output, reenter input message SET:AMA-CONTROL.

#### **5. REFERENCES**

Input Messages  
ALW:AMA-AUTOST  
ALW:AMA-SESS  
INH:AMA-AUTOST  
INH:AMA-SESS  
OP:AMA-CNTLFIL  
SET:AMA-CONTROL

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ID ..... REPT:AMA-CRIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA CRIT ALARM DOWNGRADED TO A MAJOR ALARM FOR a STREAM  
DISK IS b% FULL

## 2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) disk space occupancy has dropped to below 98 percent full. Major alarm is sounded.

## 3. VARIABLE FIELD DEFINITIONS

- a                      IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
                         OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b                      Percent of current disk space occupancy.

## 4. ACTION TO BE TAKEN

Refer to AMA TOPS procedures for specific actions.

## 5. REFERENCES

Input Message  
OP:AMA-DISK

Output Messages  
REPT:AMA-D-STO  
REPT:AMA-D-SUM

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ID ..... REPT:AMA-D-ALM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT AMA DISK ALARM CONDITION HAS BEEN CLEARED FOR a STREAM  
DISK IS b% FULL

### 2. REASON FOR OUTPUT

To inform the user that the amount of primary automatic message accounting (AMA) data on the disk has dropped to below 65 percent full.

### 3. VARIABLE FIELD DEFINITIONS

- a                    IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
                     OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b                    Current amount of AMA disk space occupied by primary data.  
                     Expressed as a percentage.

### 4. ACTION TO BE TAKEN

Refer to AMA TOPS procedures for specific actions.

### 5. REFERENCES

Input Message  
OP:AMA-DISK

Output Messages  
REPT:AMA-D-STO  
REPT:AMA-D-SUM

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ID ..... REPT:AMA-D-MAPS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA DISK MAPS FOR {IC|OC} STREAM  
WRITE PARTITION a READ PARTITION GLOBAL MAP NOT b  
PARTITION c DISK MAP:  
FP0: d LP0: e FPS: f LPS: g  
FS0: h LS0: i FSS: j LSS: k  
FB0: l LB0: m FBS: n LBS: o
  
- [2] REPT AMA DISK MAPS FOR {IC|OC} STREAM  
WRITE PARTITION a READ PARTITION GLOBAL MAP NOT b  
PARTITION c DISK MAP {UNAVAILABLE|NOT READABLE}
  
- [3] REPT AMA DISK MAPS FOR DF STREAM  
WRITE PARTITION a READ PARTITION GLOBAL MAP NOT b  
PARTITION c DISK MAP:  
ULD0: p LD0: q  
SD0: r ED0: s
  
- [4] REPT AMA DISK MAPS FOR DF STREAM  
WRITE PARTITION a READ PARTITION GLOBAL MAP NOT b  
PARTITION c DISK MAP {UNAVAILABLE|NOT READABLE}
  
- [5] REPT AMA DISK MAPS FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED
  
- [6] REPT AMA DISK MAPS FOR a STREAM  
COULD NOT OPEN CONFIGURATION FILE
  
- [7] REPT AMA DISK MAPS FOR a STREAM  
COULD NOT READ CONFIGURATION FILE

## 2. REASON FOR OUTPUT

To output the disk map(s) associated with a data stream.

For the data stream requested, the global map partition that is currently being written is output first, and then for each equipped partition in the configuration file, the partition's disk map is output.

Format 1 and Format 2 is printed for each equipped Automatic Message Accounting (AMA) partition.

Format 3 and Format 4 is printed for each equipped Deferred Formatting AMA partition.

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### 3. VARIABLE FIELD DEFINITIONS

|    |                                                                                                                                         |
|----|-----------------------------------------------------------------------------------------------------------------------------------------|
| DF | Revenue accounting office data stream that the information is for Deferred Formatting (DF).                                             |
| IC | Revenue accounting office data stream that the information is for Inter-LATA (IC).                                                      |
| OC | Revenue accounting office data stream that the information is for Operating Company (OC).                                               |
| a  | Global map partition currently being written.                                                                                           |
| b  | Global map partition that contains oldest primary data that will be read first by tape/teleprocessing:<br><br>AVAILABLE<br><br>READABLE |
| c  | Partition number.                                                                                                                       |
| d  | First primary block offset.                                                                                                             |
| e  | Last primary block offset.                                                                                                              |
| f  | First primary block sequence number.                                                                                                    |
| g  | Last primary block sequence number.                                                                                                     |
| h  | First secondary block offset.                                                                                                           |
| i  | Last secondary block offset.                                                                                                            |
| j  | First secondary block sequence number.                                                                                                  |
| k  | Last secondary block sequence number.                                                                                                   |
| l  | First block in partition offset.                                                                                                        |
| m  | Last block in partition offset.                                                                                                         |
| n  | First block in partition sequence number.                                                                                               |
| o  | Last block in partition sequence number.                                                                                                |
| p  | Unload offset. The disk block offset into the partition which marks the beginning of Deferred Formatting data.                          |
| q  | Load offset. The disk block offset into the partition which marks the end of Deferred Formatting data.                                  |
| r  | Start of data area offset.                                                                                                              |
| s  | End of data area offset.                                                                                                                |

### 4. ACTION TO BE TAKEN

If the disk map or global map is not available or readable, see AMA TOPS procedures. Otherwise, no action is required.

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**5. REFERENCES**

Practice 234-151-002 *AT&T Maintenance Operations Center*

Input Message  
OP:AMA-MAPS

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ID ..... REPT:AMA-D-READ  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA DISK READER FOR a STREAM PARTITION b,  
AMA BLOCK WITH SEQ NO c IS OUT OF SEQUENCE  
EXPECTED SEQUENCE NUMBER IS d  
OFFSET OF BLOCK INTO AMA PARTITION IS e DISK BLOCKS
- [2] REPT AMA DISK READER FOR a STREAM PARTITION b,  
AMA BLOCK WITH SEQ NO a IS BEING IGNORED
- [3] REPT AMA DISK READER FOR a STREAM PARTITION b,  
SIZE OF f DATA AREA IS NOT A MULTIPLE OF 3 DISK BLOCKS
- [4] REPT AMA DISK READER FOR a STREAM,  
END OF SESSION UPDATING OF DISK MAPS FAILED.  
SEQUENCE NUMBERS g THROUGH h  
MUST BE RETRIEVED AGAIN AS SECONDARY DATA.
- [5] REPT AMA DISK READER FOR a STREAM  
CAN NOT i j

## 2. REASON FOR OUTPUT

To report that an automatic message accounting (AMA) block is out of sequence and to report the disposition of the block (Formats 1 and 2); to report an invalid disk map (Format 3); or to report that the disk reader was unable to update some primary blocks to secondary status, and indicate which primary blocks were already marked secondary when the error occurred (Format 4).

## 3. VARIABLE FIELD DEFINITIONS

- a AMA data stream to which message applies:
  - IC — Inter-LATA AMA data stream.
  - OC — Operating company AMA data stream.
- b AMA partition number to which message applies.
- c Sequence number of AMA block that is out of sequence.
- d Sequence number that should have been in the AMA block.
- e Offset in disk blocks where the AMA block is located (from start of partition).
- f Data area (PRIMARY or SECONDARY) that is not a multiple of 3 disk blocks.

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|   |                                                                                |
|---|--------------------------------------------------------------------------------|
| g | Sequence number of first AMA block that must be reretrieved as secondary data. |
| h | Sequence number of last AMA block that must be reretrieved as secondary data.  |
| i | OPEN<br>READ                                                                   |
| j | CONFIGURATION FILE<br>GLOBAL MAP                                               |

#### **4. ACTION TO BE TAKEN**

For Format 4 messages, the indicated blocks should be retrieved as secondary data according to local procedures. If Format 1, 3, or 4 messages are seen repeatedly, seek technical assistance (Several Format 2 messages may accompany each Format 1 message). If Format 5, seek technical assistance.

#### **5. REFERENCES**

None.

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ID ..... REPT:AMA-D-STO  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA DISK STORAGE IS a% FULL FOR b STREAM

## 2. REASON FOR OUTPUT

To report the potential loss of billing data. A major, minor, or critical alarm may accompany this message.

## 3. VARIABLE FIELD DEFINITIONS

a                      Percentage of automatic message accounting (AMA) disk space occupied by primary data.

**NOTE:** If a = 70-89, a minor alarm occurs.  
          If a = 90-99, a major alarm occurs.  
          If a = 100, a critical alarm occurs.

b                      IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
                        OC — Indicates that the information is for the operating company revenue accounting office data stream.

## 4. ACTION TO BE TAKEN

Refer to AMA TOPS procedures for specific instructions.

## 5. REFERENCES

Output Messages  
REPT:AMA-C-ALM  
REPT:AMA-CRIT  
REPT:AMA-D-ALM  
REPT:AMA-MAJOR  
REPT:AMA-MINOR

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ID ..... REPT:AMA-D-SUM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA DISK SUMMARY FOR a STREAM  
DISK IS CURRENTLY b% FULL

## 2. REASON FOR OUTPUT

To report the amount of automatic message accounting (AMA) disk space currently occupied by the primary AMA records and/or the amount of disk space currently occupied by Deferred Formatting raw billing data. This message prints in response to the OP:AMA-DISK input message.

## 3. VARIABLE FIELD DEFINITIONS

- a                      IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
                         OC — Indicates that the information is for the operating company revenue accounting office data stream.  
                         DF — Indicates that the information is for the Deferred Formatting data stream.
- b                      Percentage of disk occupancy.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
OP:AMA-DISK

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:AMA-D-WRIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA DISK WRITER FOR a STREAM INITIALIZATION COMPLETE
- [2] REPT AMA DISK WRITER FOR a STREAM ERROR CODE b [c]
- [3] REPT AMA DISK WRITER FOR a STREAM TERMINATION CODE d
- [4] REPT AMA DISK WRITER FOR a STREAM FAULT CODE e [VIRT ADDR f]
- [5] REPT AMA DISK WRITER FOR a STREAM  
g
- [6] REPT AMA DISK WRITER PRIMARY DATA FOR a STREAM  
h

## 2. REASON FOR OUTPUT

To report an automatic message accounting (AMA) disk writer related software error condition (messages 1-4), or status of AMA data stored on disk (messages 5-6).

## 3. VARIABLE FIELD DEFINITIONS

- a AMA stream to which the message applies:
  - IC — Inter-LATA AMA data stream.
  - OC — Operating company AMA data stream.
- b Disk writer error type:
  - 1 — Unexpected event received.
  - 2 — Unexpected message received.
  - 3 — Too many unexpected messages received.
  - 4 — Primary disk copy of disk map was corrupted.
  - 6 — Both disk copies of disk map were corrupted.
  - 7 — Could not allocate a message buffer.
  - 8 — Could not queue a message.
  - 9 — Could not attach the equipment configuration database (ECD).
  - 10 — Could not release the ECD.
  - 11 — Could not read ucb record from ECD.
  - 12 — Could not read eiapt record from ECD.
  - 13 — Could not read mdct record from ECD.
  - 14 — Could not get partition logical device identification number (LDIN) from file manager.
  - 15 — Could not read partition disk map.
  - 16 — Could not write partition disk map.

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- 17 — Could not write data from shared segment (SDS) buffer.
- 18 — Configuration file open failed.
- 19 — Configuration file read failed.
- 20 — Configuration file audit failed.
- 21 — Global map open failed.
- 22 — Global map read failed.
- 23 — Global map create failed.
- 24 — Global map write failed.
- 25 — Global map audit failed.
- 26 — Global map was rebuilt.
- 27 — No AMA partitions are equipped.

c Additional information about the error:

If b = 4, 6, or 14 through 17,  
c = AMA partition number to which message applies.

If b = 18 through 25,  
c = copy of file to which message applies:

PRIM — Primary copy.  
BKUP — Backup copy.

d Disk writer termination code:

- 1 — Could not connect to a message port.
- 2 — A terminate request was received from another process.
- 3 — Disk writer was faulted during initialization.
- 4 — Disk writer was faulted during an internal audit.
- 5 — Disk writer was faulted when it was running.
- 6 — Disk writer memory corruption detected.
- 8 — Too many unexpected faults received.
- 9 — IOBADMSG returned from the disk driver.
- 10 — FLT\_BADOST return from the disk driver.
- 11 — BADPORT returned from a kportid kernel call.
- 21 — An internal sanity check failed.
- 22 — Both copies of configuration file were inaccessible or unusable.
- 101 — Too many type 1 errors.
- 102 — Too many type 2 errors.
- 104 — Too many type 4 errors.
- 106 — Too many type 6 errors.
- 107 — Too many type 7 errors.
- 108 — Too many type 8 errors.

e Hexadecimal number representing the fault code of the disk writer.  
See Output Appendix APP:DFC-F for a description of the fault codes.

f Hexadecimal number representing the virtual address if the writer was running.

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- g Current read and write partition numbers. Values are:
- WRITE PARTN a READ PARTN b
- a — Partition currently being written.
  - b — Partition that contains oldest primary data that will be read first by tape/teleprocessing.
- h Location primary AMA data on a disk partition. Printed for each AMA partition equipped for this stream. Values are:
- PRTN a:
- FPR b LPO c FPS d LPS e  
FBO f LBO g FBS h LBS i
- a — Partition number.
  - b — First primary block offset.
  - c — Last primary block offset.
  - d — First primary block sequence number.
  - e — Last primary block sequence number.
  - f — First block in partition offset.
  - g — Last block in partition offset.
  - h — First block in partition sequence number.
  - i — Last block in partition sequence number.

#### 4. ACTION TO BE TAKEN

If b=6, or 9-27; d=1, 9, or 22; or anytime format 4 is output, refer to AMA TOPS procedures for further resolution. Formats 5 and 6 are status information messages only; no specific action is required. If any message appears several times, seek technical assistance.

#### 5. REFERENCES

Output Appendix  
APP:DFC-F

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ID ..... REPT:AMA-FORM  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA FORMATTER COULD NOT CONNECT TO ITS PORT
- [2] REPT AMA FORMATTER TERMINATING
- [3] REPT AMA FORMATTER a RECORD LOST - CALL CODE b AT X'c
- [4] REPT AMA FORMATTER STOPPING FOR FIELD UPDATE
- [5] REPT AMA FORMATTER STILL STOPPED FOR FIELD UPDATE
- [6] REPT AMA FORMATTER START AFTER FIELD UPDATE TIME EXCEEDED
- [7] REPT AMA FORMATTER START AFTER FIELD UPDATE BACKOUT
- [8] REPT AMA FORMATTER d PTR ERROR PAS e OFFSET f
- [9] REPT AMA FORMATTER a SDS PTRS ERROR LOAD g UNLOAD g
- [10] REPT AMA FORMATTER a SDS SAVE ERROR
- [11] REPT AMA FORMATTER PROCESS ERROR
- [12] REPT AMA FORMATTER a RECORD RECEIVED - CALL CODE b
- [13] REPT AMA FORMATTER a SDS FULL
- [14] REPT AMA FORMATTER FAULT CODE h
- [15] REPT AMA FORMATTER INITIALIZATION COMPLETE
- [16] REPT AMA FORMATTER COULD NOT i CINMAP FILE
- [17] REPT AMA FORMATTER MUTILATED CINMAP RECORD
- [18] REPT AMA FORMATTER LOST CINMAP RECORD
- [19] REPT AMA FORMATTER CINMAP BUFFER OVERFLOW
- [20] REPT AMA FORMATTER TRUNK AUDIT TIMEOUT

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- [21] REPT AMA FORMATTER RECORDING REGISTER USAGE IS j
- [22] REPT AMA FORMATTER e EVENTS DISCARDED
- [23] REPT AMA FORMATTER UNKNOWN CALL EVENT AT k WITH  
FIRST WORD l
- [24] REPT AMA FORMATTER FLUSHED AMA RECORDS
- [25] REPT AMA FORMATTER CALL UP m MIDNIGHTS ON TSN n
- [26] REPT AMA FORMATTER: UNABLE TO ATTACH ECD
- [27] REPT AMA FORMATTER: UNABLE TO GET UCB RECORD, MHD UNIT=o
- [28] REPT AMA FORMATTER: a STREAM DISK WRITER NOT ATTACHED TO PORT
- [29] REPT AMA FORMATTER: a STREAM NOT SET UP
- [30] REPT AMA FORMATTER: DISK STATUS  
MHD UNIT p:q
- [31] REPT AMA FORMATTER: PAS  
[RECORDING REGS: r ACTIVE s]  
[t SDS LD u UNLD v]
- [32] REPT AMA FORMATTER REQUEST CHANGE FROM w TO x MODE SUCCEEDED
- [33] REPT AMA FORMATTER NODE y CANNOT BE REMOVED,  
IN LINK IS IN SERVICE
- [34] REPT AMA FORMATTER e ICDR EVENTS  
DISCARDED
- [35] REPT AMA FORMATTER NO z PARTITIONS EQUIPPED, z CANNOT  
BE INITIALIZED
- [36] REPT AMA FORMATTER COULD NOT ALLOCATE z MESSAGE BUFFER
- [37] REPT AMA FORMATTER AUDIT OF a1 z CONFIG FILE FAILED
- [38] REPT AMA FORMATTER AUDIT OF z JOB QUEUE FAILED
- [39] REPT AMA FORMATTER z MEMORY CONFIG FILE IS CORRUPT
- [40] REPT AMA FORMATTER AUDIT OF a1 DISK MAP FOR z  
PARTITION b1 FAILED

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- [41] REPT AMA FORMATTER DISK MAP FOR z PARTITION b1 INITIALIZED
- [42] REPT AMA FORMATTER AUDIT OF a1 z GLOBAL MAP FILE FAILED
- [43] REPT AMA FORMATTER UNEXPECTED z MESSAGE RECEIVED
- [44] REPT AMA FORMATTER REBUILDING z GLOBAL MAP FILE
- [45] REPT AMA FORMATTER c1 INITIALIZATION COMPLETE
- [46] REPT AMA FORMATTER z ERROR, IOQUEUE FAILURE
- [47] REPT AMA FORMATTER COULD NOT d1 z CONFIG FILE
- [48] REPT AMA FORMATTER NO USEABLE z CONFIG FILE, z CANNOT  
BE INITIALIZED
- [49] REPT AMA FORMATTER FM\_STAT REQUEST FAILED FOR PARTITION b1
- [50] REPT AMA FORMATTER COULD NOT d1 z GLOBAL MAP FILE
- [51] REPT AMA FORMATTER I/O ERROR X'e1 TRYING TO d1 z PARTITION b1  
- SKIPPING PARTITION
- [52] REPT AMA FORMATTER I/O ERROR X'e1 TRYING TO d1 DISK MAP  
FOR z PARTITION b1
- [53] REPT AMA FORMATTER RETIRE c1 DISK ALARM AT f1% FULL
- [54] REPT AMA FORMATTER c1 DISK IS f1% FULL
- [55] REPT AMA FORMATTER DOWNGRADE c1 DISK ALARM TO g1 AT f1% FULL
- [56] REPT AMA FORMATTER DEFERRED FORMATTING BUFFER OVERFLOWED
- [57] REPT AMA FORMATTER DEFERRED FORMATTING IS NOT ACTIVE
- [58] REPT AMA FORMATTER DEFERRED FORMATTING DELAY FAILED  
BECAUSE DEFERRED FORMATTING IS NOT ACTIVE
- [59] REPT AMA FORMATTER DEFERRED FORMATTING DELAY ERROR: h1  
MIN ALLOWABLE RECORDS IS 1  
MAX ALLOWABLE RECORDS IS 1000

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- [60] REPT AMA FORMATTER DEFERRED FORMATTING DELAY:  
MAX DEFER DELAY i1 HRS, j1 MINS, k1 SECS  
MIN DEFER DELAY i1 HRS, j1 MINS, k1 SECS  
MEAN DEFER DELAY i1 HRS, j1 MINS, k1 SECS
- [61] REPT AMA FORMATTER BEGIN READING EVENT DATA FROM DISK
- [62] REPT AMA FORMATTER DISK MODE IS TURNED OFF
- [63] REPT AMA FORMATTER SET SKIP DISK FLAG
- [64] REPT AMA FORMATTER CAN NOT TURN OFF DISKMODE l1
- [65] REPT AMA FORMATTER CANNOT ALLOCATE MESSAGE BUFFER FOR  
DISK ALARM UPDATE
- [66] REPT AMA FORMATTER DISK MAP READ AUDIT FAIL FOR DM PARTITION b1
- [67] REPT AMA FORMATTER DM PARTITION b1 HAS m1 PARTITION b1 UNEQUIP
- [68] REPT AMA FORMATTER CANNOT GET DISKMAP FOR DM PARTITION b1  
CANNOT REBUILD DM GLOBAL MAP
- [69] REPT AMA FORMATTER CANNOT ACCESS DM DISK PARTITION b1  
FOR WRITING
- [70] REPT AMA FORMATTER CANNOT ACCESS DM DISK PARTITION b1  
FOR READING  
MANUAL INTERVENTION IS REQUIRED
- [71] REPT AMA FORMATTER REJECTING IN LINK STATE CHANGE REQUEST
- [72] REPT AMA FORMATTER 3B/IN STATUS TABLE AUDIT ERROR
- [73] REPT AMA FORMATTER IN LINK STATE CHANGE: IN0 = n1, IN1 = n1
- [74] REPT AMA FORMATTER CAN'T ATTACH TO ECD
- [75] REPT AMA FORMATTER IN 0|1 LINK ACT/STBY BUT NODE NOT ACT
- [76] REPT AMA FORMATTER IN 0|1 POLLING ERROR
- [77] REPT AMA FORMATTER BAD IN 0|1 MAJ\_ST
- [78] REPT AMA FORMATTER FAILED TO GET ECD RECORD
- [79] REPT AMA FORMATTER CANNOT ALLOCATE MESSAGE BUFFER TO SEND  
FLTR EVNT
- [80] REPT AMA FORMATTER CANNOT CLOSE IN CHANNEL

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- [81] REPT AMA FORMATTER STATUS TABLE MSG PTR ERROR
- [82] REPT AMA FORMATTER BOTH IN LINKS INS
- [83] REPT AMA FORMATTER STATUS TABLE LOAD PTR ERROR
- [84] REPT AMA FORMATTER STATUS TABLE UNLOAD PTR ERROR
- [85] REPT AMA FORMATTER IN ARE ACTIVE
- [86] REPT AMA FORMATTER IN LINKS ARE NOW SIMPLEX FAILED
- [87] REPT AMA FORMATTER IN LINKS ARE NOW DUPLEX FAILED
- [88] REPT AMA FORMATTER UNKNOWN MESSAGE FROM IMS
- [89] REPT AMA FORMATTER - FAILED TO GET MSG BUFFER TO WRITE MSG TO  
IN NODE
- [90] REPT AMA FORMATTER - CANNOT OPEN IMS CHANNEL TO IN NODE
- [91] REPT AMA FORMATTER - FAILED TO WRITE IMS MSG TO IN NODE
- [92] REPT AMA FORMATTER - FAILED TO BUILD IMS HDR TO WRITE MSG TO  
IN NODE
- [93] REPT AMA FORMATTER IN 0|1 MAJ\_ST = o1, MIN\_ST = n1
- [94] REPT AMA FORMATTER - CANNOT SEND EVNT FLTR MSG, NO IN NODE
- [95] REPT AMA/ICDR FORMATTER  
p1  
[UNLOAD: PASNUM q1 OFFSET r1  
LOAD: PASNUM s1 OFFSET t1  
BUFFER OCCUPANCY: u1% AM\_rcvbuf ALARM: v1]  
[w1]
- [96] REPT AMA FORMATTER CANNOT PING, LINK NOT OOS
- [97] REPT AMA FORMATTER PING SUCCESSFUL
- [98] REPT AMA FORMATTER PING FAILED: x1, ERRNO=y1, IP\_ADDR=z1
- [99] REPT AMA FORMATTER PING UNSUCCESSFUL: CHECK ERRNO, ERRNO=y1,  
IP\_ADDR=z1
- [100] REPT AMA FORMATTER PING UNSUCCESSFUL RTNCDE=a2
- [101] REPT AMA FORMATTER PING REQUEST REJECTED, LINK NOT OOS FOR  
IN 0|1

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- [102] REPT AMA FORMATTER CANNOT OPEN IMS CHANNEL FOR PING MSG  
TO IN NODE
- [103] REPT AMA FORMATTER - CANNOT SEND PING MSG, IN NODE NOT AVAILABLE
- [104] REPT AMA FORMATTER - FAILED TO GET MSG BUFFER TO WRITE PING  
MSG TO IN NODE
- [105] REPT AMA FORMATTER - FAILED TO BUILD IMS HDR TO WRITE PING MSG  
TO IN NODE
- [106] REPT AMA FORMATTER - FAILED TO WRITE IMS PING MSG TO IN NODE
- [107] REPT AMA FORMATTER CANNOT ALLOCATE MESSAGE BUFFER TO SEND RC  
MESSAGE TO MONITOR
- [108] REPT AMA FORMATTER CANNOT SEND MSG TO MONITOR TO UPDATE DISKFILE
- [109] REPT AMA FORMATTER CANNOT OPEN IMS CHANNEL FOR RC REQ TO IN NODE
- [110] REPT AMA FORMATTER - CANNOT SEND RC REQ MSG, IN NODE NOT AVAILABLE
- [111] REPT AMA FORMATTER - FAILED TO GET MSG BUFFER TO WRITE RC REQ  
MSG TO IN NODE
- [112] REPT AMA FORMATTER - FAILED TO BUILD IMS HDR TO WRITE RC REQ  
MSG TO IN NODE
- [113] REPT AMA FORMATTER - FAILED TO WRITE IMS RC REQ MSG TO IN NODE

## **2. REASON FOR OUTPUT**

To report error conditions encountered by the Automatic Message Accounting (AMA) formatting routine.

Format 1 is printed when the AMA formatter cannot attach to its port.

Format 2 is printed when the AMA formatter has been notified to terminate.

Format 3 is printed when the AMA formatter discards a billing record that contains invalid data.

Format 4 is printed when field update notifies the AMA formatter to stop. This should occur for a system update.

Format 5 is printed when field update has taken too long. It also is a warning that AMA data is being buffered and if field update takes too long, AMA data will be lost on the 1B.

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Format 6 is printed when the AMA formatter is still stopped after waiting an hour for field update to complete. The AMA formatter has started processing AMA data again.

Format 7 is printed when field update has notified the AMA formatter to continue processing. The AMA formatter has started processing AMA data again.

Format 8 is printed when the receive buffer load or unload pointer is found out of range.

Format 9 is printed when either one or both of the Shared Data Segment (SDS) pointers for the given stream is found out of range on initialization.

Format 10 is printed when the formatter cannot save records in the SDS for the given stream on initialization.

Format 11 is printed when the formatter encounters an error.

Format 12 is printed when a record is received for the given stream and the office is not set up for the given stream.

Format 13 is printed when the SDS for the given stream becomes full.

Format 14 is printed when AMA formatter receives a fault event.

Format 15 is printed when AMA formatter completes initialization.

Format 16 is printed when AMA formatter could not access CINMAP file.

Format 17 is printed when a mutilated CINMAP record is encountered.

Format 18 is printed when AMA formatter detects that a CINMAP record is lost.

Format 19 is printed when a CINMAP buffer overflows.

Format 20 is printed if AMA formatter did not receive an expected trunk status event.

Format 21 is printed when the usage of AMA recording register reaches 90% (100%).

Format 22 is printed to show the number of call events discarded in a 5-minute period due to loss of answer event or no available register.

Format 23 is printed when AMA formatter receives an unexpected call event.

Format 24 is printed during a retrofit to indicate that all the AMA records have been written to disk.

Format 25 is printed when a call has been up over two or more midnights.

Format 26 is printed when the formatter is unable to access the Equipment Configuration Database (ECD) to report AMA disk status.

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Format 27 is printed when the formatter is unable to access the Equipment Configuration Database Unit Control Block for an AMA disk to report its status.

Format 28 is printed when the formatter is unable to determine the process ID of an AMA / International Call Detailed Recording (ICDR) disk writer process, because the writer is not attached to its application port. It is likely that the indicated disk writer process is not running.

Format 29 is printed when the formatter is reporting AMA status as a result of SDS buffer overflow or in response to a user request. It indicates that an AMA/ICDR stream is not activated for recording.

Formats 30 and 31 are printed when the formatter is reporting AMA status as a result of SDS buffer overflow, or in response to a user request on the Emergency Action Interface (EAI) page.

Format 32 is printed when the recording mode is changed.

Format 33 is printed when a request to remove a Interface Node (IN) node is denied because the link is in service.

Format 34 is printed to show the number of ICDR call events discarded in a 5-minute period due to loss of answer event or no available register.

Format 35 is printed when the switch is administered for deferred formatting or disk mode stream capability, but there are no disk partitions equipped for deferred formatting or disk mode.

Format 36 is printed when the formatter is unable to obtain a message buffer to send a Deferred Formatting (DF) or Disk Mode (DM) Input/Output (I/O) message to Real Time Reliable (RTR).

Format 37 is printed when the specified deferred formatting or disk mode config file is mutilated.

Format 38 is printed when the deferred formatting or disk mode job queue is mutilated.

Format 39 is printed when the formatter's copy of the config file is mutilated.

Format 40 is printed when the specified copy of a deferred formatting or disk mode disk map is mutilated.

Format 41 is printed when the specified deferred formatting or disk mode disk map has been initialized. Any data that was previously stored on that partition is no longer accessible to the formatter. The formatter will only initialize a disk map, if both the primary and the backup disk maps have been mutilated.

Format 42 is printed when the specified copy of the deferred formatting or disk mode global map file is mutilated.

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Format 43 is printed when the formatter receives an unexpected deferred formatting or disk mode message from RTR.

Format 44 is printed when the formatter rebuilds the deferred formatting or disk mode global map file. Every office will see this message when the formatter first builds the global map file, and any time the file is re-built because the file is mutilated.

Format 45 is printed when the formatter has successfully completed the initialization sequence for deferred formatting or disk mode. If Deferred formatting initialization is complete, its capability is now exists and can be activated by the formatter, if necessary.

Format 46 is printed when the formatter is unable to send a deferred formatting or disk mode message type to RTR.

Format 47 is printed when the formatter cannot access the deferred formatting or disk mode config file.

Format 48 is printed when deferred formatting or disk mode capability does not exist, because the formatter could not obtain a useable copy of the deferred formatting or disk mode config file.

Format 49 is printed when the formatter cannot get the specified partition's Logical Device Identification Number (LDIN) from the file manager.

Format 50 is printed when the formatter is unable to complete the specified I/O request.

Format 51 is printed when the formatter receives an I/O error trying to read or write a deferred formatting partition.

Format 52 is printed when the formatter receives an I/O error trying to read or write a deferred formatting partition disk map.

Format 53 is printed when the formatter has retired the deferred formatting or disk mode disk alarm. Disk occupancy has fallen below the MINOR alarm threshold.

Format 54 is printed when the formatter sounds an alarm, because the deferred formatting or disk mode disk occupancy has surpassed an alarmable threshold.

Format 55 is printed when the formatter downgrades the alarm status of the deferred formatting or disk mode disk.

Format 56 is printed when the deferred formatting write buffer has overflowed.

Format 57 is printed when deferred formatting is no longer active, i.e., records are not being deferred.

Format 58 is printed when the AMA formatter rejected the input command because deferred formatting is not active.

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Format 59 is printed when the input message specifies a record limit greater than 1000, or less than 1. The deferred formatting delay can be studied only in groups of 1000 or less.

Format 60 is printed when deferred formatting is active, and the record limit is any number in the range of 1 to 1000. The maximum, minimum and mean deferred delay time are values sampled in the next given number of records limit when input message is entered. The mean of deferred delay is the average of all deferred delay time in the given number of records limit. These values are printed in the form of hours(s), minutes(s), and second(s).

Format 61 is printed when the AMA formatter begins to read event data from DM disk at the first time.

Format 62 is printed when the AMA formatter turns off disk mode

Format 63 is printed when the AMA formatter was signaled by the AIM process that EAI application parameter is set.

Format 64 is printed when the AMA formatter attempts to turn off disk mode while skip disk is set or disk mode status is not available

Format 65 is printed when the AMA formatter could not allocate a buffer that will hold message to be sent to the Inter-Lata Carrier (IC) monitor for updating DM disk alarm

Format 66 is printed after an audit fail of a DM disk map for resetting skip disk flag.

Format 67 is printed when a DM disk partition has its forward or backward pointer pointing to a non equipped partition.

Format 68 is printed when the AMA formatter is rebuilding the DM global map and an attempt to read disk map for the read partition was failed.

Format 69 is printed when the DM writing partition cannot be accessed for writing.

Format 70 is printed when the DM read partition cannot be accessed for reading.

Format 71 is printed when a IN link state change request is deemed invalid.

Format 72 is printed when an error is detected in the Call Detail Recording Platform (CDRP) 3B/IN Status Table.

Format 73 is printed when the IN links change states.

Format 74 is printed when the formatter can't attach to the ECD.

Format 75 is printed when a IN link is in the active or standby state, but the IN node is not active.

Format 76 is printed when a polling error is detected on the IN node.

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Format 77 is printed when a IN node major state in the ECD is determined to be invalid.

Format 78 is printed when the formatter is able to attach to the ECD, but is not able to get the ECD record.

Format 79 is printed when the formatter cannot allocate a message buffer to send the filter event information.

Format 80 is printed when the formatter cannot close the IN channel.

Format 81 is printed when an audit of the CDRP 3B/IN Status Table has detected an invalid message pointer.

Format 82 is printed when an audit of the CDRP 3B/IN Status Table has detected both IN links as being in the in-service state.

Format 83 is printed when an audit of the CDRP 3B/IN Status Table has detected an invalid load pointer.

Format 84 is printed when an audit of the CDRP 3B/IN Status Table has detected an invalid unload pointer.

Format 85 is printed when a IN link becomes active.

Format 86 is printed when one of the IN links of a duplex pair goes out of service.

Format 87 is printed when both of the IN links of a duplex pair go out of service.

Format 88 is printed when the formatter receives an unknown message from Interprocess Message Switch (IMS).

Format 89 is printed when the formatter fails to get a message buffer to write a message to the IN node.

Format 90 is printed when the formatter cannot open the IMS channel to the IN node.

Format 91 is printed when the formatter fails to write an IMS message to the IN node.

Format 92 is printed when the formatter fails to build an IMS header to write a message to the IN node.

Format 93 is printed when an audit of the CDRP 3B/IN Status Table has detected an inconsistency between the IN link major state in the ECD and its minor state in the status table.

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Format 94 is printed when the formatter cannot send the event filter message, because there is no IN node.

Format 95 is printed in response to a situation detected by the AMA and ICDR receiver process.

Format 96 is printed when a START:PING command is issued from the craft to an Ethernet® Interface Node (EIN) node with a link which is not Out Of Service (OOS).

Format 97 is printed when a START:PING command is successful.

Format 98 is printed when a START:PING command is unsuccessful due to bad Internet Protocol (IP) address, timer expired, network unreachable or port unreachable.

Format 99-100 is printed when a START:PING command is failed, check the error number or return code

Format 101 is printed when a START:PING command rejected by EIN 0 or EIN 1 because it's link is not OOS (link state can change to In Service (IS) / Standby (STBY) from OOS between the craft input time and the time EIN receives the request).

Format 102-106 is printed when the formatter can not send the PING request from craft to the EIN due to IMS problems.

Format 107-108 is printed when the formatter can not send a recent change update notice to the monitor so that the monitor can update the disk file.

Format 109-113 is printed when the formatter can not send a recent change update notice to the EIN due to IMS problems.

### **3. VARIABLE FIELD DEFINITIONS**

- a Stream type:
  - IC — Inter- Local Access Transport Area (LATA) carrier AMA data stream.
  - ICDR — ICDR stream.
  - OC — Operating company AMA data stream.
- b Record call code.
- c Address of the record lost.
- d Receive buffer pointer type:
  - LOAD — Load pointer.
  - UNLOAD — Unload pointer.
- e PAS in the receive buffer.

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|   |                                                                                                                                                                                                                 |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| f | Offset in the receive buffer.                                                                                                                                                                                   |
| g | Offset into the SDS.                                                                                                                                                                                            |
| h | Fault event code.                                                                                                                                                                                               |
| i | <b>CLOSE</b> — Can't close CINMAP file.<br><b>OPEN</b> — Can't open CINMAP file.<br><b>SWITCH</b> — Can't switch temporary CINMAP file with official CINMAP file.<br><b>WRITE</b> — Can't write on CINMAP file. |
| j | <b>CRITICAL</b> — If usage reaches 100%.<br><b>HIGH</b> — If usage over 90%.                                                                                                                                    |
| k | Pointer to receive buffer where the unknown event occurred.                                                                                                                                                     |
| l | First word of the unknown event.                                                                                                                                                                                |
| m | Number of midnights the call has been up.                                                                                                                                                                       |
| n | TSN of the call's incoming trunk.                                                                                                                                                                               |
| o | AMA Moving Head Disk (MHD) unit number.                                                                                                                                                                         |
| p | MHD unit number.                                                                                                                                                                                                |
| q | <b>ACT</b><br><b>GROW</b><br><b>INIT</b><br><b>OFL</b><br><b>OOS</b><br><b>STBY</b><br><b>UNAV</b><br><b>UNEQIP</b><br><b>UNKNOWN</b> — AMA formatter cannot determine the MHD status.                          |
| r | Total number of AMA recording registers.                                                                                                                                                                        |
| s | Number of AMA recording registers currently in use.                                                                                                                                                             |
| t | <b>IC</b><br><b>ICDR</b><br><b>OC</b>                                                                                                                                                                           |
| t | AMA Shared Data Segment (SDS) buffer load pointer for the indicated stream.                                                                                                                                     |
| u | AMA SDS buffer unload pointer for the indicated stream.                                                                                                                                                         |

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|    |                                                                                    |
|----|------------------------------------------------------------------------------------|
| v  | AMA SDS buffer occupancy for the indicated stream.                                 |
| w  | Old recording mode:<br>3B APS<br>CDRP<br>TRANSITION                                |
| x  | New recording mode:<br>3B APS<br>CDRP<br>TRANSITION                                |
| y  | Ring node address of the IN node with the in service link.                         |
| z  | DF — DF stream.<br>DM — DM stream.                                                 |
| a1 | Copy of file to which the message applies to.                                      |
| b1 | Deferred Formatting or Disk Mode partition number to which the message applies to. |
| c1 | Stream:<br>DEFERRED FORMATTING<br>DISK MODE                                        |
| d1 | Type of I/O error that occurred.                                                   |
| e1 | The I/O error code:<br>X'fe — IOFAIL<br>X'fc — IOBADMSG<br>X'fa — IONOTRDY         |
| f1 | Current occupancy of the deferred formatting disk space.                           |
| g1 | Disk alarm type.                                                                   |
| h1 | Deferred formatting record number.                                                 |
| i1 | Hours of delay time.                                                               |
| j1 | Minutes of delay time.                                                             |
| k1 | Seconds of delay time.                                                             |
| l1 | Reason why diskmode cannot be turned off                                           |
| m1 | BW — Backward pointer of DM partition.<br>FW — Forward pointer of DM partition.    |

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n1 IN link minor state:  
GROW  
IS  
MOOS  
OOS  
STBY  
TEST  
UNEQM

o1 IN link major state:  
GROW  
OOS  
UNEQM

p1 3B TURNS ON DISK MODE — The receiver turns on disk mode.  
COULD NOT ATTACH TO MESSAGE HANDLER — The receiver could not attach to the message handler and therefore could not converse with 1B programs.  
COULD NOT DEVELOP RECEIVE BUFFER — The segments that make up the receiving buffer could not be indexed or locked into memory.  
DISKMODE RECEIVE BUFFER POINTER OUT OF RANGE — Some part of the disk mode receiving buffer's load, process, and/or unload pointers failed a range check.  
DM DISK STATUS UNAVAILABLE CANNOT TURN ON DISK MODE — The receiver could not turn on disk mode due to DM disk status not available at the moment.  
FAULT THRESHOLD REACHED f1 — An internal fault counter has reached its threshold.  
MESSAGE HANDLER PROCESS ID HAS CHANGED — Previous attachment to message handler is invalid because message handler appears to have been killed and restarted.  
RECEIVE BUFFER POINTER OUT OF RANGE — Some part of the receiving buffer's load and/or unload pointers failed a range check.  
RECEIVE BUFFER POINTERS — The current status of the AMA/ICDR receive buffer.

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|    |                                                                                                                                                                 |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | RECEIVED FAULT EVENT WHILE RUNNING — The process received a fault entry while it was running and a problem in the receiver was probably the cause of the fault. |
|    | RESTARTING FLOW TO 3B AFTER RETROFIT — A retrofit procedure has completed or has been aborted. The receiver is once again accepting data from the 1B.           |
|    | SKIPDISK IS SET CANNOT TURN ON DISK MODE — The receiver could not turn on disk mode due to skip disk is set.                                                    |
|    | STOPPING FLOW TO 3B FOR RETROFIT — A retrofit procedure has begun and so the receiver is not accepting data from the 1B.                                        |
|    | TERMINATION HAS BEEN REQUESTED — A manual request to terminate has been received.                                                                               |
| q1 | Receive buffer unload pointer segment number.                                                                                                                   |
| r1 | Receive buffer unload pointer offset into segment.                                                                                                              |
| s1 | Receive buffer load pointer segment number.                                                                                                                     |
| t1 | Receive buffer load pointer offset into segment.                                                                                                                |
| u1 | Receive buffer occupancy.                                                                                                                                       |
| v1 | State of receive buffer alarm.                                                                                                                                  |
|    | DEFERRED FORMATTING DISK STATUS IS NOT AVAILABLE CANNOT ACTIVATE DEFERRED FORMATTING — The deferred formatting feature cannot be activated.                     |
|    | DEFERRED FORMATTING IS ACTIVE — The Deferred Formatting feature has been activated.                                                                             |
| w1 | PROCESS TERMINATING AND RESTARTING — This message prints whenever the error situation is such that the receiver must be killed and restarted.                   |
| x1 | Error number<br>BAD IP ADDRESS<br>PORT UNREACHABLE<br>PROTOCOL UNREACHABLE<br>TIMER EXPIRED                                                                     |
| y1 | Error number(see <code>ein_ping.h</code> and <code>errno.h</code> )                                                                                             |
| z1 | IP address from input command                                                                                                                                   |
| a2 | Return code(see <code>ein_ping.h</code> and <code>errno.h</code> )                                                                                              |

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#### **4. ACTION TO BE TAKEN**

For formats 1-5 and 10-15, refer to AMA Task Oriented Procedures (TOPS) document for specific actions.

Formats 6-9 should only occur during a system update. If one of these messages is output and a system update is not being done, seek technical assistance.

Format 6 is output when the AMA formatter stops when notified by field update, and indicates that it is no longer processing AMA data.

Format 7 is a warning that field update has taken too long and AMA data will probably be lost if field update does not complete quickly. If a problem exists, first get the AMA formatter process ID by using the `OP:ST-PROC` input message and look for the process `AMformat`. Then kill the AMA formatter by using the `STOP:E-USER` input message with the process ID for `AMformat`.

Formats 8 and 9 indicate that the AMA formatter has started processing data again. In both cases, field update must be run again.

For formats 16-19, if one of these messages is seen, use the manual input message on the 1B to restart the update. If the message is seen again, kill the formatter as described in the previous paragraph. Try the manual update again. If problems still exist, seek technical assistance.

For format 20, check to see if Attached Processor Interface (API) is out of service. If the message is repeatedly seen, seek technical assistance.

For formats 21, 23, 24, 25, 26 and 27 no action need be taken.

For formats 22 and 34, a possible receive buffer overflow may be indicated. Check to see if disk writer (`AMDwriteroc/ic`) is running.

Format 28 indicates that an AMA/ICDR disk writer may not be running. If possible, determine by means of the `OP:AIM-PROC` command whether the indicated process is running; if the process is not running and this condition persists, attempt to re-start the process manually by means of the `EXC:AIM` command (with `PROC` option).

Formats 29, 30 and 31 are status information messages; no specific action is required.

Format 32 is a response to a request to change the recording mode. No action is required.

For format 33, the link must be changed to the standby state before the node can be removed. This can be done via the `CHG:SLK` input message.

For format 35, no disk partition has been equipped for the Deferred Formatting feature. Enter the `OP:AMA-CONFIG` input message to determine the current state of the configuration file(s), and then enter the `SET:AMA-CONFIG` message accordingly.

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Format 36-46 are status information messages; no specific action is required. However, if any of the messages appear several times, seek technical assistance.

For formats 47-56 seek technical assistance.

Format 57-58 is a status message; no specific action is required.

Format 59, record limit from input message is out of range, retry input message with new value.

Format 60 is an information message responding to requested input; no specific action is required.

Format 61-63 is a status message; no specific action is required.

Format 64-67 are status information messages; no specific action is required. However, if any of the messages appear several times, seek technical assistance.

Format 68-70 seek technical assistance.

Format 71 is an information message; no specific action is required.

Format 72 seek technical assistance.

Format 73 is an information message; no specific action is required.

Format 74-81 seek technical assistance.

Format 82 is an information message; no specific action is required.

Format 83-84 seek technical assistance.

Format 85 is an information message; no specific action is required.

Format 86 one of the IN links have been taken out of service. Restore the other link via CHG:SLK (xx,y);ARST to resume duplex operation and retire the alarm condition.

Format 87 both of the IN links have been taken out of service. Restore the links via CHG:SLK (xx,y);ARST to resume normal operation and retire the alarm condition.

Format 88 is an information message; no specific action is required.

Format 89-92 seek technical assistance.

Format 93-94 is an information message; no specific action is required.

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Format 95 requires the following actions: STOPPING FLOW..., and RESTARTING FLOW..., and 3B TURN ON DISKMODE, and RECEIVE BUFFER POINTERS are information only messages. No action is required by these messages.

DEFERRED FORMATTING DISK STATUS IS NOT AVAILABLE CANNOT ACTIVATE DEFERRED FORMATTING - Seek technical assistance.

DM STATUS UNAVAILABLE CANNOT TURN ON DISKMODE - Seek technical assistance.

DEFERRED FORMATTING IS ACTIVE - Is an information-only message; no action is required.

Format 96,101, take link OOS and try again.

Format 97, No action required.

Format 98-100, check the IP address and the error number.

Format 102-113 seek technical assistance.

For the rest of the messages, no action is needed for isolated incidents. If problem persists, seek technical assistance.

## **5. REFERENCES**

### Input Messages

CHG:SLK  
EXC:AIM  
OP:AIM  
OP:AMA-CONFIG  
OP:AMA-RC  
OP:ST-PROC  
SET:AMA-CONFIG  
SET:AMA-RC  
START:PING  
STOP:E-USER

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ID ..... REPT:AMA-ICDR-TRN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA/ICDR TRANSFER BUFFER ALARM  
a

## 2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) and international call detail recording (ICDR) (if office is so equipped) receiving buffer has encountered an alarm situation.

## 3. VARIABLE FIELD DEFINITIONS

a                      BUFFER IS x% FULL  
A minor alarm accompanies this message if the buffer is 25%-74% full.  
A major alarm accompanies this message if the buffer is 75%-94% full.  
A critical alarm is made if the buffer is 95% full or more.

DOWNGRADE 3B BUFFER ALARM TO MAJOR AT x% FULL  
A critical alarm is downgraded to a major alarm if the buffer occupancy has fallen to between 71% and 90% full.

DOWNGRADE 3B BUFFER ALARM TO MINOR AT x% FULL  
A major alarm is downgraded to a minor alarm if the buffer occupancy has fallen to between 21% and 70% full.

RETIRE 3B BUFFER ALARM AT x% FULL  
A minor alarm is retired if the buffer is under 20% full.

## 4. ACTION TO BE TAKEN

For downgrades, no action is necessary. Alarm messages are most often preceded by AMA disk alarms. If so, handle the disk alarm situation. Otherwise, make sure the AMformat, AMdwriteric, and AMdwriteroc are running. If these actions don't work, refer to AMA/ICDR TOPS procedure.

## 5. REFERENCES

None.

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ID ..... REPT:AMA-MAJOR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT AMA MAJOR ALARM DOWNGRADED TO A MINOR ALARM FOR a STREAM  
DISK IS b% FULL

### 2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) disk space occupancy has dropped to below 87 percent full. Minor alarm is sounded.

### 3. VARIABLE FIELD DEFINITIONS

- a                      IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
                         OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b                      Percent of current AMA disk space occupancy.

### 4. ACTION TO BE TAKEN

Refer to AMA TOPS procedures for specific actions.

### 5. REFERENCES

Input Message  
OP:AMA-DISK

Output Messages  
REPT:AMA-D-STO  
REPT:AMA-D-SUM

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:AMA-MINOR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA MINOR ALARM HAS BEEN RETIRED FOR a STREAM  
DISK IS b% FULL

## 2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) disk space occupancy has dropped to below 65 percent full.

## 3. VARIABLE FIELD DEFINITIONS

- a                      IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
                         OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b                      Percent of current AMA disk space occupancy.

## 4. ACTION TO BE TAKEN

Refer to AMA TOPS procedures for specific actions.

## 5. REFERENCES

Input Message  
OP:AMA-DISK

Output Messages  
REPT:AMA-D-STO  
REPT:AMA-D-SUM

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ID ..... REPT:AMA-MON  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA MONITOR FOR a STREAM b  
[c]  
[d]

## 2. REASON FOR OUTPUT

To print in response to an Automatic Message Accounting (AMA) input message or an event detected by the AMA monitor process.

## 3. VARIABLE FIELD DEFINITIONS

- a                    IC — Inter- Local Access Transport Area (LATA) AMA data stream.  
                    OC — Operating company AMA data stream.
- b                    AMA AUTO TAPE SESSION ABORTED — Indicates that the auto tape session was not successfully started or was terminated abnormally.
- AMA MAINTENANCE FILE INITIALIZED — The AMA maintenance file could not be opened. A new maintenance file was created and initialized.
- AMA SESSION ABORTED — Indicates that a tape or teleprocessing session was not successfully started or was terminated abnormally.
- CANNOT CREATE AMA MAINTENANCE FILE — The AMA maintenance file could not be opened and a new file could not be created.
- CONTROL FILE BACKUP FAILED — Indicates that the memory copy of the AMA control file could not be backed up to disk; if this prints in response to an input message, the most recent change to the control file will probably not be permanent.
- CONTROL FILE CHANGE ABORTED — The control file was not updated because an AMA session was in progress or because the control file was audited.
- CONTROL FILE INITIALIZED — During initialization, the disk copy of the control file did not exist or was unreadable; a new control file was created and initialized with default values.
- INIT COMPLETE — The AMA monitor process was successfully started or restarted.

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INIT FAILED—The AMA monitor process was not successfully started or restarted.

INVALID MESSAGE RECEIVED FROM DISK WRITER—A disk occupancy message from the AMA disk writer process contained garbled information. The disk occupancy information reported by the REPT:AMA-D-SUM output message may no longer be accurate.

SANITY CHECK FAILURE—An internal sanity check failed.

SOME AMA MTC RECORDS UNREADABLE—Some or all of the AMA maintenance file could not be read. Attempt to read maintenance file returned less than 7 full maintenance records.

STREAM FILE INITIALIZED—The AMA data stream file could not be opened. A new stream file was created and initialized.

RECENT CHANGE DISK FILE COULDN'T BE OPENED—The recent change disk file containing the Internet Protocol (IP) addresses, Call Detail Recording Platform (CDRP) ID and passwords for Ethernet® Interface Node (EIN) / CDRP configuration can not be opened.

FAILED TO WRITE RC PARAMETERS TO DISK FILE—The recent change parameters for EIN/CDRP configuration can not be written to disk file from PAS.

OPEN FAILED FOR RC FILE, RECREATING RC FILE—The recent change disk file containing parameters for EIN/CDRP configuration can not be opened so that monitor is recreating the file with default values.

CANNOT CREATE RC FILE—The recent change disk file containing parameters for EIN/CDRP configuration can not be created.

CANNOT WRITE RC FILE—The recent change disk file containing parameters for EIN/CDRP configuration can not be written.

C

Reason for abort or failure:

AMA SESSIONS ARE INHIBITED

AMA SESSION ALREADY IN PROGRESS

AMA SESSION IN PROGRESS

BAD PROCESS-TYPE PARAMETER IN AMSTART\_PROC

BAD TIMER DURATION PARAMETER IN AMSET\_TIMER

BAD TIMER INDEX PARAMETER IN AMSET\_TIMER

BAD TIME PARAMETER IN AMTIME\_UNTIL

CONTROL FILE WAS AUDITED

COULD NOT ATTACH TO PROTECTED APPLICATION SEGMENT

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COULD NOT CONNECT TO MESSAGE PORT  
COULD NOT CREATE CHILD PROCESS  
COULD NOT ENABLE MESSAGE RECEPTION  
COULD NOT INITIALIZE CONTROL FILE  
COULD NOT INITIALIZE STREAM FILE  
COULD NOT START WITHIN AUTOSTART WINDOW  
INTERNAL INCONSISTENCY FOLLOWING CONTROL FILE AUDIT  
OFFICE-DEPENDENT VALUES MUST BE RESET  
OFFICE OPTION IS NOT TAPE  
RECVW CALL FAILED  
SANITY TIMER RUNOUT  
STREAM VALUE MUST BE RESET  
d MONITOR TERMINATING AND RESTARTING AFTER 60 SECS

#### 4. ACTION TO BE TAKEN

If variable b = AMA AUTO TAPE SESSION ABORTED and:

variable c is COULD NOT START WITHIN AUTOSTART WINDOW, manually establish a tape session if one is desired before the next scheduled auto tape session.

variable c is AMA SESSIONS ARE INHIBITED, AMA sessions must first be allowed, and then a session must be manually established if one is desired before the next scheduled auto tape session. If automatic tape sessions are not desired at all, then the autostart feature should be inhibited to suppress this message in the future.

variable c is CONTROL FILE WAS AUDITED, verify that the control file is correct following the audit, and manually establish a tape session if one is desired before the next scheduled auto tape session.

If variable b = AMA SESSION ABORTED and:

variable c is AMA SESSION ALREADY IN PROGRESS, take no action.

variable c is OFFICE OPTION IS NOT TAPE or AMA SESSIONS ARE INHIBITED, change the appropriate item in the control file and retry the operation.

variable c is COULD NOT CREATE PROCESS, retry the operation and seek technical assistance if the error persists.

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variable c is SANITY TIMER RUNOUT and a tape session was in progress, manually establish a new tape session using a different tape. The aborted session will not have closed off the tape properly.

If variable b = CONTROL FILE BACKUP FAILED,  
the most recent changes to the control file may not be permanent and may have to be redone if the AMA monitor process restarts for any reason. Seek technical assistance if the problem persists.

If variable b = CONTROL FILE CHANGE ABORTED and:

variable c is AMA SESSION IN PROGRESS, retry the operation after the AMA session is complete.

variable c is CONTROL FILE WAS AUDITED, verify that the control file is correct following the audit and retry the operation.

If variable b = CONTROL FILE INITIALIZED,  
set office-dependent data before any AMA sessions are established. The control file will contain default values. If the office option is tape, notify the Regional Accounting Office that the tape sequence number has been reset to 1.

If variable b = INIT COMPLETE, take no action.

If variable b = INIT FAILED,  
AMA MAINTENANCE FILE INITIALIZED,  
CANNOT CREATE AMA MAINTENANCE FILE,  
SOME AMA MTC RECORDS UNREADABLE, or  
INVALID MESSAGE RECEIVED FROM DISK WRITER,  
take no action for isolated instances. If the problem persists, seek technical assistance.

**NOTE:** Ignore the message, SOME AMA MTC RECORDS UNREADABLE, when it appears after the message, AMA MAINTENANCE FILE INITIALIZED, with AMATPS being run for the very first time.

If variable b = SANITY CHECK FAILURE  
and a tape session was in progress, reestablish the tape session manually using a different tape. The aborted session will not have closed off the tape properly. Seek technical assistance if the problem persists.

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If variable b = STREAM FILE INITIALIZED,  
set the office-dependent stream value.

If variable b = RECENT CHANGE DISK FILE COULDN'T BE OPENED,  
Seek technical assistance

If variable b = FAILED TO WRITE RC PARAMETERS TO DISK FILE,  
Seek technical assistance

If variable b = OPEN FAILED FOR RC FILE, RECREATING RC FILE,  
Use SET:AMA;RC command to store the correct values.

If variable b = CANNOT CREATE RC FILE,  
Seek technical assistance

If variable b = CANNOT WRITE RC FILE,  
Seek technical assistance

## **5. REFERENCES**

### Input Messages

ALW:AMA-AUTOST  
ALW:AMA-SESS  
INH:AMA-AUTOST  
INH:AMA-SESS  
OP:AMA-CNTLFIL  
OP:AMA-DISK  
OP:AMA-RC  
OP:AMA-STREAM  
SET:AMA-CONTROL  
SET:AMA-RC  
SET:AMA-STREAM

### Output Messages

REPT:AMA-CONT  
REPT:AMA-CONTL  
REPT:AMA-D-SUM  
REPT:AMA-STREAM

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:AMA-S-CON  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA SESSION CONNECT FAILED FOR a STREAM  
REASON b

## 2. REASON FOR OUTPUT

To report that an automatic message accounting (AMA) data teleprocessing session could not be started. A minor alarm is sounded.

## 3. VARIABLE FIELD DEFINITIONS

a                    IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
                     OC — Indicates that the information is for the operating company revenue accounting office data stream.

b                    Reason for failure:

INVALID SESSION CONNECT MESSAGE  
INCORRECT PASSWORD  
UNRECOGNIZABLE MESSAGE RECEIVED  
AMAT PORT UNAVAILABLE  
HIGHER LEVEL FAILURE

## 4. ACTION TO BE TAKEN

Refer to the AMA TOPS procedures for all cases.

## 5. REFERENCES

None.

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```
ID REPT:AMA-S-EST
WORK CENTER.. MOC
GENERIC 4AP12 and later
APPLICATION .. 4E
TYPE Output
```

## 1. FORMAT

REPT AMA SESSION ESTABLISHED FOR a STREAM

## 2. REASON FOR OUTPUT

To indicate the start of an automatic message accounting (AMA) teleprocessing session.

### 3. VARIABLE FIELD DEFINITIONS

- a
- |    |                                                                                                      |
|----|------------------------------------------------------------------------------------------------------|
| IC | — Indicates that the information is for the Inter-LATA revenue accounting office data stream.        |
| OC | — Indicates that the information is for the operating company revenue accounting office data stream. |

#### 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
ALW:AMA-SESS

Output Message  
REPT:AMA-S-CON

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ID ..... REPT:AMA-S-TER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

- [1] REPT AMA SESSION TERMINATED FOR a STREAM  
b TERMINATION [c]  
FIRST BLOCK TRANSMITTED d  
LAST BLOCK TRANSMITTED e  
BLOCKS TRANSMITTED f  
AMA RECORDS TRANSMITTED g  
PRIMARY POLLS REJECTED h  
SECONDARY POLLS REJECTED i  
CURRENT DISK SPACE OCCUPANCY IS j  
SESSION START TIME k  
SESSION STOP TIME l  
SESSION LENGTH m
- [2] REPT AMA SESSION TERMINATED FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED

### 2. REASON FOR OUTPUT

To report the termination of a teleprocessing session (Format 1). Format 2 indicates that the system could not create a temporary file to print the termination message.

### 3. VARIABLE FIELD DEFINITIONS

- a IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b Type of termination:  
  
NORMAL  
  
ABNORMAL
- c Text phrase that prints if b = ABNORMAL:  
  
REASON UNRECOGNIZABLE MESSAGE  
REASON MESSAGE NOT ALLOWED  
REASON HIGHER LEVEL ERROR  
REASON HIGHER LEVEL FAILURE  
REASON TIMEOUT OR ATTEMPT COUNTER REACHED
- d Sequence number of the first block transmitted.

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|   |                                                                                                                                                                            |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| e | Sequence number of the last block transmitted.                                                                                                                             |
| f | Total number of blocks transmitted.                                                                                                                                        |
| g | Total number of automatic message accounting (AMA) records transmitted.                                                                                                    |
| h | Total number of primary polls rejected.                                                                                                                                    |
| i | Total number of secondary polls rejected.                                                                                                                                  |
| j | Current amount of disk space occupied by primary data. Expressed as a percentage.                                                                                          |
| k | Start time of the session, where k = mmm dd hh:nn:ss, as follows:<br>mmm — Start month.<br>dd — Start day.<br>hh — Start hour.<br>nn — Start minute.<br>ss — Start second. |
| l | Stop time of the session, where l = mmm ddd hh:nn:ss, as follows:<br>mmm — Stop month.<br>ddd — Stop day.<br>hh — Stop hour.<br>nn — Stop minute.<br>ss — Stop second.     |
| m | Session length, where m = hh:mm:ss, as follows:<br>hh — Hours of session length.<br>mm — Minutes of session length.<br>ss — Seconds of session length.                     |

#### 4. ACTION TO BE TAKEN

Refer to AMA TOPS procedures if the session terminated abnormally (b = ABNORMAL). If Format 2 was output, use input message OP:AMA-SESS to get information on the status of the session.

#### 5. REFERENCES

Input Message  
OP:AMA-SESSION

Output Message  
REPT:AMA-TELE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:AMA-SESS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA SESSIONS ARE MANUALLY INHIBITED FOR a STREAM

## 2. REASON FOR OUTPUT

To indicate that automatic message accounting (AMA) data transfers (teleprocessing or 3B tape writing) have been inhibited for a particular AMA data stream.

## 3. VARIABLE FIELD DEFINITIONS

- a                      IC — Indicates that AMA data transfers have been inhibited for the Inter-LATA revenue accounting office data stream.
- OC — Indicates that AMA data transfers have been inhibited for the operating company revenue accounting office data stream.

## 4. ACTION TO BE TAKEN

To remove the inhibit, and thus allow AMA data transfers, use input message ALW:AMA-SESS.

## 5. REFERENCES

Input Messages  
ALW:AMA-SESS  
INH:AMA-SESS

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ID ..... REPT:AMA-SSPUNAS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA SSPUNAS IS a

## 2. REASON FOR OUTPUT

To print in response to an Automatic Message Accounting (AMA) input message.

## 3. VARIABLE FIELD DEFINITIONS

a                      INHIBITED — The BOC SSP unanswered Telco study indicator is turned off, therefore the unanswered AMA records will not be generated.

**NOTE:** The Telco records are intra-LATA records.

ALLOWED — The BOC SSP unanswered Telco study indicator is turned on, therefore the unanswered AMA records will be generated.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Messages

ALW:AMA-SSPUNAS

INH:AMA-SSPUNAS

OP:AMA-SSPUNAS

Output Messages

ALW:AMA-SSPUNAS

INH:AMA-SSPUNAS

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:AMA-STR-FILE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT AMA STREAM FILE DOES NOT EXIST  
AMA MONITOR MUST BE KILLED AND RESTARTED TO CREATE THE FILE

## 2. REASON FOR OUTPUT

To indicate that the Automatic Message Accounting (AMA) stream file does not exist on disk.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

Enter the OP:ST,PROC,ALL! input message to get process ID of either AMmonoc or AMmonic. Then use the STOP:EXC:USER,PID! command to kill either AMmonoc or AMmonic. Look for the REPT AMA MONITOR INITIALIZATION message, and then re-enter the SET:AMA-STREAM input message.

## 5. REFERENCES

Practice 234-151-002 *Maintenance Operations Center*

### Input Messages

OP:ST-PROC  
SET:AMA-STREAM  
STOP:E-USER

### Output Messages

OP:ST-PROC  
REPT:AMA-MON  
STOP:E-USER

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ID ..... REPT:AMA-STREAM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA STREAM INDICATOR IS a

## 2. REASON FOR OUTPUT

To indicate whether the office is a dual or a single data stream automatic message accounting (AMA) office.

## 3. VARIABLE FIELD DEFINITIONS

|   |         |                                                                                                                     |
|---|---------|---------------------------------------------------------------------------------------------------------------------|
| a | IC      | — Indicates a single data stream office with all AMA data going to the Inter-LATA revenue accounting office.        |
|   | OC      | — Indicates a single data stream office with all AMA data going to the operating company revenue accounting office. |
|   | DUAL    | — Indicates both an IC and an OC AMA data stream.                                                                   |
|   | INVALID | — Indicates an invalid value was found.                                                                             |

## 4. ACTION TO BE TAKEN

If the data stream indicator is INVALID, use input message SET:AMA-STREAM to set the indicator to the proper value.

## 5. REFERENCES

Input Message  
SET:AMA-STREAM

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ID ..... REPT:AMA-TA-SE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA TAPE SESSION FOR a STREAM  
b AMA TAPE SESSION STATUS  
VOL SER NUMBER c  
START TIME d  
e  
FIRST BLOCK f g  
LAST BLOCK h i  
TAPE is j% FULL  
RECORDS WRITTEN k  
[l]
- [2] REPT AMA TAPE SESSION FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To output the status of the current or most recent automatic message accounting (AMA) tape session if the tape option is in effect. This message prints in response to the OP:AMA-SESSION input message.

## 3. VARIABLE FIELD DEFINITIONS

- a IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b Status of tape session:  
CURRENT — Tape writing is currently in progress.  
PREVIOUS — Tape writing is not currently in progress.
- c Serial number of the tape.
- d Start time in month, day, hours, minutes, and seconds.
- e Indicates whether primary or secondary data was written to tape.
- f Sequence number of the first block of data written to tape.
- g Time of first block in month, day, hour, and minute.
- h Sequence number of the last block of data written to tape.
- i Time of last block in month, day, hour, and minute.

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- |   |                                                                                                                                                  |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------|
| j | Current percentage of tape occupancy.                                                                                                            |
| k | Total number of AMA records written to tape.                                                                                                     |
| l | Text phrase indicating the outcome of the previous AMA tape writing session. This variable prints if this is the status of the previous session. |

#### **4. ACTION TO BE TAKEN**

If Format 1 prints, take no action. If Format 2 prints, reenter the OP:AMA-SESSION input message.

#### **5. REFERENCES**

Input Message  
OP:AMA-SESSION

Output Message  
REPT:AMA-TA-SU

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ID ..... REPT:AMA-TA-SU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA TAPE SUMMARY FOR a STREAM  
SESSIONS b  
NORMAL TERMINATIONS c  
ABNORMAL TERMINATIONS d  
PRIMARY RECORDS WRITTEN e  
SECONDARY RECORDS WRITTEN f  
ORIGINATIONS g  
ANSWERED CALLS h  
UNANSWERED CALLS i  
MUTILATED RECORDS j  
LONG DURATION CALLS k  
RECORDS LOST l  
TOTAL BLOCKS WRITTEN m  
RECORDS WRITTEN TO DISK n
- [2] REPT AMA TAPE SUMMARY FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To output a summary of automatic message accounting (AMA) tape activity for one day (Format 1). This message prints automatically, once every 24 hours. Format 2 indicates that the system could not create a temporary file to print the summary information.

## 3. VARIABLE FIELD DEFINITIONS

- a IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b Total number of AMA tape sessions conducted today.
- c Total number of AMA tape sessions that terminated normally.
- d Total number of AMA tape sessions that terminated abnormally.
- e Number of primary records written to tape.
- f Number of secondary records written to tape.
- g Number of calls where dialing is complete and AMA treatment is required.
- h Number of answered calls.

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|   |                                                                       |
|---|-----------------------------------------------------------------------|
| i | Number of calls where dialing is complete but no answer was received. |
| j | Number of records containing mutilated data.                          |
| k | Number of long duration calls in progress.                            |
| l | Number of records lost.                                               |
| m | Total number of blocks written to tape over the past 24 hours.        |
| n | Number of records written to disk.                                    |

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:AMA-TELE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA TELEPROCESSING a b

## 2. REASON FOR OUTPUT

To detect an abnormal condition for the automatic message accounting (AMA) teleprocessing operation.

## 3. VARIABLE FIELD DEFINITIONS

- a                    FOR IC STREAM — Inter-LATA AMA data stream.
- FOR OC STREAM — Operating company AMA data stream.
- b                    Cause of condition:
- AMA DATA UNREADABLE - NEXT PARTITION OOS  
                    AMA MAINTENANCE FILE UNREADABLE  
                    CANNOT READ DATA - DISK OUT OF SERVICE  
                    ERROR DURING OPEN OF AMA TEST FILE  
                    ERROR DURING WRITE OF AMA MAINTENANCE FILE  
                    ERROR IN READING AMA TEST FILE  
                    FAILED TO ATTACH TO PAS  
                    FAILED TO CREATE TEST FILE  
                    FAILED TO WRITE ENTIRE TEST FILE  
                    FILE REJECTED BY HOC  
                    HOC REJECTED SESSION - CHECK AMAT PASSWORD  
                    INITIALIZATION COMPLETE  
                    MAINTENANCE FILE INITIALIZED  
                    UNEXPECTED DISK READER FAILURE

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Message  
REPT:AMA-TELE-SE

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ID ..... REPT:AMA-TELE-SE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA TELEPROCESSING SESSION FOR a STREAM  
b AMA TELEPROCESSING SESSION STATUS  
START TIME c  
d TIME e  
BLOCKS TRANSMITTED f  
PRIMARY POLLS REJECTED g  
SECONDARY POLLS REJECTED h  
[i]
- [2] REPT AMA TELEPROCESSING SESSION FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To report the status of the current or previous automatic message accounting (AMA) teleprocessing session (Format 1). This message prints in response to the OP:AMA-SESSION input message if the teleprocessing option is in effect. Format 2 indicates that the system could not create a temporary file to print the status information.

## 3. VARIABLE FIELD DEFINITIONS

- a IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b CURRENT — Session is in progress at this time.  
PREVIOUS — No session is in progress now.
- c Start time in month, day, hour, minute, and second.
- d CURRENT — Session is in progress at this time.  
STOP — This report is for the previous session.
- e Current time or stop time in month, day, hour, minute, and second.
- f Total number of blocks transmitted.
- g Number of primary file polls that were rejected.
- h Number of secondary file polls that were rejected.

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- i                      Text phrase indicating the outcome of the previous AMA teleprocessing session. This line only prints if this is the status of the previous session. Possible text phrases are:

NORMAL TERMINATION

ABNORMAL TERMINATION - UNRECOGNIZABLE MESSAGE

ABNORMAL TERMINATION - MESSAGE NOT ALLOWED

ABNORMAL TERMINATION - HIGHER LEVEL ERROR

ABNORMAL TERMINATION - HIGHER LEVEL FAILURE

ABNORMAL TERMINATION - TIMEOUT OR ATTEMPT COUNTER  
REACHED

#### **4. ACTION TO BE TAKEN**

If Format 1 prints, take no action. If Format 2 prints, reenter input message  
OP:AMA-SESSION.

#### **5. REFERENCES**

Input Message  
OP:AMA-SESSION

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ID ..... REPT:AMA-TELE-SU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMA TELEPROCESSING SUMMARY FOR a STREAM  
SESSIONS b  
NORMAL TERMINATIONS c  
ABNORMAL TERMINATIONS d  
SESSIONS REJECTED e  
PRIMARY BLOCKS TRANSMITTED f  
SECONDARY BLOCKS TRANSMITTED g  
PRIMARY POLLS REJECTED h  
SECONDARY POLLS REJECTED i  
ORIGINATIONS j  
ANSWERED CALLS k  
UNANSWERED CALLS l  
MUTILATED RECORDS m  
RECORDS WRITTEN TO DISK n  
RECORDS SENT TO LINK o  
LONG DURATION CALLS p  
RECORDS LOST q  
MINOR DISK ALARMS r  
MAJOR DISK ALARMS s  
CRITICAL DISK ALARMS t  
FIRST BLOCK TRANSMITTED u  
LAST BLOCK TRANSMITTED v
- [2] REPT AMA TELEPROCESSING SUMMARY FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To summarize automatic message accounting (AMA) teleprocessing activity for the past 24 hours (Format 1). If Format 2 is output, the system could not create a temporary file to print the summary information.

## 3. VARIABLE FIELD DEFINITIONS

- a IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b Total number of AMA teleprocessing sessions conducted today.
- c Number of sessions that terminated normally.

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|   |                                                                            |
|---|----------------------------------------------------------------------------|
| d | Number of sessions that terminated abnormally.                             |
| e | Number of sessions that were rejected.                                     |
| f | Number of primary data blocks transmitted.                                 |
| g | Number of secondary data blocks transmitted.                               |
| h | Number of primary file polls that were rejected.                           |
| i | Number of secondary file polls that were rejected.                         |
| j | Number of calls where dialing is complete and AMA treatment is required.   |
| k | Number of answered calls.                                                  |
| l | Number of calls where dialing is completed but answer was not received.    |
| m | Number of records containing mutilated data.                               |
| n | Number of records written to disk.                                         |
| o | Number of records sent to the data link.                                   |
| p | Number of long duration calls in progress.                                 |
| q | Number of records lost.                                                    |
| r | Number of minutes that primary data occupied 70% of AMA disk space.        |
| s | Number of minutes that primary data occupied 90% of AMA disk space.        |
| t | Number of minutes that primary data occupied 100% of AMA disk space.       |
| u | Sequence number of first primary block transmitted over the past 24 hours. |
| v | Sequence number of last primary block transmitted over the past 24 hours.  |

#### 4. ACTION TO BE TAKEN

None.

#### 5. REFERENCES

Input Message  
OP:AMA-TELE

SEE PROPRIETARY NOTICE ON COVER PAGE

## 1. FORMAT

## 2. REASON FOR OUTPUT

### 3. VARIABLE FIELD DEFINITIONS

#### 4. ACTION TO BE TAKEN

## 5. REFERENCES

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:AMA-TRANS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMA/ICDR TRANSFER BUFFER ALARM  
a

## 2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) and international call detail recording (ICDR) receiving buffer has encountered an alarm situation.

## 3. VARIABLE FIELD DEFINITIONS

a                      BUFFER IS x% FULL  
A minor alarm accompanies this message if the buffer is 25%-74% full.  
A major alarm accompanies this message if the buffer is 75%-94% full.  
A critical alarm is made if the buffer is 95% full or more.

DOWNGRADE 3B BUFFER ALARM TO MAJOR AT x% FULL  
a critical alarm is downgraded to a major alarm if the buffer occupancy has fallen to between 71% and 90% full.

DOWNGRADE 3B BUFFER ALARM TO MINOR AT x% FULL  
A major alarm is downgraded to a minor alarm if the buffer occupancy has fallen to between 21% and 70% full.

RETIRE 3B BUFFER ALARM AT x% FULL  
A minor alarm is retired if the buffer is under 20% full.

## 4. ACTION TO BE TAKEN

For downgrades, no action is necessary. Alarm messages are most often preceded by AMA disk alarms. If so, handle the disk alarm situation. Otherwise, make sure the AMformat, AMdwriteric, and AMdwriteroc are running. If these actions don't work, refer to AMA/ICDR TOPS procedure.

## 5. REFERENCES

None.

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ID ..... REPT:AMATAP-CO  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMATAPE COMPLETE FOR a STREAM  
VOL SER NUMBER b  
TAPE DRIVE NUMBER c  
START TIME d  
e  
START BLOCK f g  
END BLOCK h i  
RECORDS WRITTEN j  
TAPE SEQUENCE NUMBER k  
l
- [2] REPT AMATAPE COMPLETE FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To output the termination of an automatic message accounting (AMA) tape writing session. Format 1 indicates the outcome of the tape writing session. Format 2 indicates that the system could not create a temporary file to print the outcome of the tape writing session.

## 3. VARIABLE FIELD DEFINITIONS

- a IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b Serial number of the tape.
- c Tape drive number.
- d Start time in month, day, hours, minutes, and seconds.
- e Indicates whether primary or secondary data was written to tape.
- f Sequence number of the first block of data written to tape.
- g Time stamp for start block in month, day, hour, and minute.
- h Sequence number of the last block of data written to tape.
- i Time stamp for last block in month, day, hour, and minute.
- j Total number of AMA records written to tape.
- k AMA tape sequence number.

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l                      Text phrase indicating the outcome of the tape writing session.

#### **4. ACTION TO BE TAKEN**

If a normal termination occurs and more AMA data is to be written to tape; then mount, verify, and write a new tape. If the trailer labels could not be written, refer to AMA TOPS procedures for further resolution. For other reasons of termination, take no action. If Format 2 prints, enter the OP:AMA-SESSION input message to determine the outcome of the tape writing session. Determine the final disposition of the tape based on the text phrase that shows how the tape session was terminated.

#### **5. REFERENCES**

Input Messages

COPY:AMATAPE

OP:AMA-SESSION

STOP:AMATAPE

VER:AMATAPE

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ID ..... REPT:AMATAP-ER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMATAPE ERROR-a FOR b STREAM

## 2. REASON FOR OUTPUT

To report that an error has occurred during the automatic message accounting (AMA) tape writing process. A minor alarm is sounded.

## 3. VARIABLE FIELD DEFINITIONS

- a Text phrase indicating the AMA tape error that was found.
- b
  - IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.
  - OC — Indicates that the information is for the operating company revenue accounting office data stream.

## 4. ACTION TO BE TAKEN

Mount and verify another tape before writing any more AMA data. Also refer to AMA TOPS procedures for more information on what to do with the current tape.

## 5. REFERENCES

Input Messages  
COPY:AMATAPE  
VER:AMATAPE

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ID ..... REPT:AMATAP-VF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AMATAPE VERIFY FOR a STEAM  
VOL SER NUMBER b  
DATA SET ID CCCCCCCCCCCCCC  
EXPIRATION DATE dd-eee  
TAPE DRIVE NUMBER f  
g
- [2] REPT AMATAPE VERIFY FOR a STREAM  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To print in response to input message VER:AMATAPE. Format 1 indicates the outcome of the verification process. Format 2 is used to indicate that the system could not create a temporary file to print the outcome of the verification process.

## 3. VARIABLE FIELD DEFINITIONS

- a IC — Indicates that the information is for the Inter-LATA revenue accounting office data stream.  
OC — Indicates that the information is for the operating company revenue accounting office data stream.
- b Serial number of the tape.  
xx...xx — Tape header is not in correct format.
- c Data set ID.  
xx...xx — Tape header is not in correct format.
- d Year of expiration date.  
xx — Tape header is not in correct format.
- e Day of expiration (1-365).  
xxx — Tape header is not in correct format.
- f Tape drive number.
- g Text phrase that indicates the outcome of the verification process.

## 4. ACTION TO BE TAKEN

If an error has been detected, mount and verify another tape. Also refer to the AMA TOPS procedures for additional actions that may be required. If the automatic message accounting (AMA) tape can be written, manually initiate the writing process using the COPY:AMATAPE input message. If Format 2 prints, reverify the tape before attempting to write AMA data to it.

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**5. REFERENCES**

Input Message  
VER:AMATAPE

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:AMCNI-CHI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT AMcniopen: cHioctl rcode=a, AMcnid=b

**2. REASON FOR OUTPUT**

To indicate the AMA CNI channel was opened but the I/O control options could not be modified.

**3. VARIABLE FIELD DEFINITIONS**

a                      The return code from the CNI cHioctl function.  
b                      The AMA CNI channel identification.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:AMCNI-CHK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT AMcniopen: cHkopen rcode=a, AMcnicd=b

## 2. REASON FOR OUTPUT

To indicate the AMA CNI channel could not be opened. This message will normally be output once when the AMA formatter process (AMformat) dies and the CNI ring processes have not died.

## 3. VARIABLE FIELD DEFINITIONS

a                    The return code from the CNI cHopen function.  
b                    The AMA CNI channel identification.

## 4. ACTION TO BE TAKEN

If this message is output when the AMA formatter has not died and has been reinitialized, seek technical assistance.

## 5. REFERENCES

None.

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ID ..... REPT:ANL-TLP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ANALY TLP NULL PACK LIST
- [2] REPT ANALY TLP CANNOT FIND PACK LOCATION a
- [3] REPT ANALY TLP UNABLE TO OPEN TLDB b
- [4] REPT ANALY TLP UNABLE TO READ HEADER FROM DATABASE b
- [5] REPT ANALY TLP ILLEGAL ARGUMENT c
- [6] REPT ANALY TLP CONNSEG FAILED ERRNO d
- [7] REPT ANALY TLP CANNOT OPEN INPUT FILE e
- [8] REPT ANALY TLP CANNOT OPEN DIRECTORY ../datatbl/tlp/misc
- [9] REPT ANALY TLP NO KEYS SET FOR INPUT TO TLP

## 2. REASON FOR OUTPUT

To report error conditions encountered by a Trouble Locating Procedure (TLP).

Format 1 is printed when a search of the Trouble Locating Database (TLDB) found no suspected faulty circuit packs. The fault signature from first failing phase is substantially different from fault signatures in the trouble location database file.

Format 2 is printed when a circuit-pack location cannot be found by the TLP.

Format 3 is printed when the TLP search program cannot open the trouble-locating database file associated with the diagnostic phase that failed.

Format 4 is printed when the trouble-locating database could be opened, but the header information was not there.

Format 5 is printed when the Diagnostic Monitor (DIAMON) passes an illegal argument to TLP.

Format 6 is printed when TLP cannot connect to the diagnostic control block segment.

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Format 7 is printed when TLP cannot open the file created by the diagnostic control process, which contains the diagnostic fault signatures.

Format 8 is printed when the directory `/diag/datatbl/tlp/misc` cannot be opened. This directory contains the pack location file for each subunit.

Format 9 is printed when a diagnostic failure did not set any TLP keys and consequently sent a null signature to TLP.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                 |
|---|---------------------------------------------------------------------------------------------------------------------------------|
| a | Pack number.                                                                                                                    |
| b | Pathname that specifies the filename of the TLDB.                                                                               |
| c | Illegal argument passed by DIAMON to TLP.                                                                                       |
| d | Error code returned by the operating system call <code>connseg</code> . See the System Error Codes Output Appendix, APP:SYSERR. |
| e | Name of TLP file containing the diagnostic fault signatures.                                                                    |

### 4. ACTION TO BE TAKEN

Retry the request to determine if the condition is repeatable. If it is, perform the actions appropriate for each output message format. If that fails to clear the problem, seek technical assistance.

For Formats 1, 2, 5, 6, and 7, check trouble location process file `/diag/dgnc/tlp`, and restore from backup file system.

Also, for Formats 5, 6, and 7, check diagnostic monitor process file `/diag/dgnc/ppdiamon`, and restore from backup file system.

In addition, for Format 2, check pack location file, and restore from backup file system. Pack location files are in `/diag/datatbl/tlp/misc` and are named `p.unit_number_number`. For example, `p.cu.0_10` and `p.dfc.21_22`.

For Formats 1, 3, and 4, check TLDB file, and restore from backup file system. TLDB files are in directory `/diag/datatbl/tlp/unit[c|e|s|v|x]` and are named `unitphase.db`. For example: `/diag/databl/tlp/dmac/dca10.db` (see the `unit/subunit` UCB mv value and the `tlb` lines in the `/diag/util/cu|pu/unit` file for the TLDB directory).

For Formats 1 and 9, check the diagnostic data table file and offline main store file; if these are missing or corrupted, restore them from backup file system. Data table files are in directories under `/diag/datatbl` (see the `unit/subunit` UCB mv value and the `dgn` lines in the `unit/subunit` util file under `/diag/util` for the `dpt` file name, then the `dpt` file under `/diag/dtp` for the data table file names). Offline main store files are in directories under `/diag/offcode/mas` (see `excofl` statements in the diagnostic listing file to identify the offline main store files - executed).

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For Format 8, verify that the directory and files exist and have correct permissions.  
Restore directory and files from backup file system, if necessary.

## **5. REFERENCES**

### OMDB Keys

Formats 1, 8, and 9 have an OMDB key of 21.

Formats 2 and 6 have an OMDB key of 22.

Formats 3, 4, 5, and 7 have an OMDB key of 20.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual, Volume 6*

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

### Output Appendix

APP:SYSERR

### Output Message

ANALY:TLPFILE-B

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ID ..... REPT:APDRV-ER-436  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT:APDRV ERR X'436 RTC: a'

0000aaaa 00000bbb c d e f 00000ggg 00000hhh

## 2. REASON FOR OUTPUT

An error has been found in the global table that translates the Attached Processor ID of a process to its UNIX® RTR process ID. The error was corrected by copying the valid local static table information.

## 3. VARIABLE FIELD DEFINITIONS

|    |                                                                                                                                                                             |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a' | System real time clock.                                                                                                                                                     |
| a  | Action being performed at the time of the error.<br>1000 — Table lookup.<br>2000 — Insertion of process ID into the table.<br>3000 — Deletion of process ID from the table. |
| b  | The Attached Processor ID of the process involved.                                                                                                                          |
| c  | Process ID at that point in the global table.                                                                                                                               |
| d  | Process ID at that point in the local table.                                                                                                                                |
| e  | The checksum on the global table.                                                                                                                                           |
| f  | The checksum on the local table.                                                                                                                                            |
| g  | The number of entries in the global table.                                                                                                                                  |
| h  | The number of entries in the local table.                                                                                                                                   |

## 4. ACTION TO BE TAKEN

The table has been corrected. No manual action is necessary. Follow local trouble reporting procedures.

## 5. REFERENCES

None.

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ID ..... REPT:APDRV-ER-437  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT:APDRV ERR X'437 RTC: a'

0000aaaa 00000bbb c d e f 00000ggg 00000hhh

## 2. REASON FOR OUTPUT

An error has been found in the local table that translates the Attached Processor ID of a process to its UNIX® RTR process ID. The error was corrected by copying the valid global table information.

## 3. VARIABLE FIELD DEFINITIONS

|    |                                                                                                                                                                             |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a' | System real time clock when error occurred.                                                                                                                                 |
| a  | Action being performed at the time of the error.<br>1000 — Table lookup.<br>2000 — Insertion of process ID into the table.<br>3000 — Deletion of process ID from the table. |
| b  | The Attached Processor ID of the process involved.                                                                                                                          |
| c  | Process ID at that point in the global table.                                                                                                                               |
| d  | Process ID at that point in the local table.                                                                                                                                |
| e  | The checksum on the global table.                                                                                                                                           |
| f  | The checksum on the local table.                                                                                                                                            |
| g  | The number of entries in the global table.                                                                                                                                  |
| h  | The number of entries in the local table.                                                                                                                                   |

## 4. ACTION TO BE TAKEN

The table has been corrected. No manual action is necessary. Follow local trouble reporting procedures.

## 5. REFERENCES

None.

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ID ..... REPT:APDRV-ER-4aa  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

```
REPT: APDRV ERR X'4aa RTC: b
 00aacc cc 00ddeeee ffffffff 00gghh ii j k l m
[00a1c1 c1 00d1e1 e1 f1f1f1 f1 00g1h1 i1 j1 k1 l1 m1]
[00a2c2 c2 00d2e2 e2 f2f2f2 f2 00g2h2 i2 j2 k2 l2 m2]
[00a3c3 c3 00d3e3 e3 f3f3f3 f3 00g3h3 i3 j3 k3 l3 m3]
[00a4c4 c4 00d4e4 e4 f4f4f4 f4 00g4h4 i4 j4 k4 l4 m4]
APDRV TIMED OUT nn DMA JOBS
```

## 2. REASON FOR OUTPUT

To report the timing out of Direct Memory Access (DMA) buffers by the Attached Processor Driver (APDRV) process. The total number of DMA buffers timed out will be reported, but only the first five DMA buffers will be printed. All data dumps will be in hexadecimal format.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                            |
|---|----------------------------------------------------------------------------|
| a | State vector for DMA buffer:                                               |
|   | X'00 — DMA buffer is idle.                                                 |
|   | X'02 — DMA buffer is in READ state (DMA was activated).                    |
|   | X'03 — DMA buffer is in WRITE state (DMA was activated).                   |
|   | X'04 — DMA buffer is in RD_RSV state (DMA not yet activated).              |
|   | X'05 — DMA buffer is in WT_RSV state (DMA not yet activated).              |
|   | X'06 — DMA buffer is in CANCEL1 state (canceled by originator).            |
|   | X'07 — DMA buffer is in CANCEL2 state (canceled by other than originator). |
| b | System real time clock.                                                    |
| c | Number of words of DMA job.                                                |
| d | DMA index.                                                                 |
| e | Job address (starting block).                                              |
| f | Details of request (client identification).                                |
| g | Attached processor system (APS) link ID of originator.                     |
| h | 1B Attached Processor Message Handler (APMH) job buffer number.            |
| i | Holding time. ctime field of Attached Processor (AP) message.              |

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|   |                                            |
|---|--------------------------------------------|
| j | Elapsed time.                              |
| k | Spare.                                     |
| l | Spare.                                     |
| m | Checksum.                                  |
| n | Total number of DMA job buffers timed out. |

#### **4. ACTION TO BE TAKEN**

No action is necessary.

#### **5. REFERENCES**

Output Message  
REPT:APDRV-ERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:APDRV-ER-5aa  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

```

REPT: APDRV ERR X'5aa RTC: b
aacc0000 dddddddd eeffgg00 hhhhiijj klllmnn ooooooooo ppppqrr s
ttuuvvw xx000000 yyyyyyyy yyyyyyyy yyyyyyyy yyyyyyyy y
[a1c10000 d1d1d1d1 e1f1g100 h1h1i1j1 k1l1m1n1 o1o1o1o1 p1p1q1r1 s1
t1u1v1w1 x1000000 y1y1y1y1 y1y1y1y1 y1y1y1y1 y1y1y1y1 y1]
[a2c20000 d2d2d2d2 e2f2g200 h2h2i2j2 k2l2m2n2 o2o2o2o2 p2p2q2r2 s2
t2u2v2w2 x2000000 y2y2y2y2 y2y2y2y2 y2y2y2y2 y2y2y2y2 y2]
[a3c30000 d3d3d3d3 e3f3g300 h3h3i3j3 k3l3m3n3 o3o3o3o3 p3p3q3r3 s3
t3u3v3w3 x3000000 y3y3y3y3 y3y3y3y3 y3y3y3y3 y3y3y3y3 y3]
[a4c40000 d4d4d4d4 e4f4g400 h4h4i4j4 k4l4m4n4 o4o4o4o4 p4p4q4r4 s4
t4u4v4w4 x4000000 y4y4y4y4 y4y4y4y4 y4y4y4y4 y4y4y4y4 y4]
APDRV TIMED OUT zz FMI JOBS

```

## 2. REASON FOR OUTPUT

To report the timing out of File Manager Interface (FMI) buffers by the Attached Processor Driver (APDRV) process. The total number of timed out buffers is reported, but only the first five FMI buffers are printed. All data dumps will be in hexadecimal format.

## 3. VARIABLE FIELD DEFINITIONS

- a Attached Processor System (APS) link ID of originating client.
- b System real time clock.
- c Size, in words, or ap\_data field.
- d The ap\_ident field of 1B client.
- e The ap\_options field of Attached Processor (AP) message.
- f Direct Memory Access (DMA) job number for remote 1B client.
- g DMA job number for local FMI client.
- h The ap\_nwds field of AP message.
- i Present status of FMI buffer:
  - X'00 FMI buffer is idle.
  - X'01 1B file write job.
  - X'02 1B file non-write job.
  - X'03 3B file job.
  - X'04 1B job has been canceled.
  - X'05 1B write job has been canceled.
  - X'06 Job (any type) has been canceled.

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|   |                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------|
|   | X'07 Timing audit has timed out buffer.                                                                               |
|   | X'08 Job has been canceled because of timeout.                                                                        |
| j | Capability number of file used by job.                                                                                |
| k | Disk buffer allocation status:<br><br>0 — No disk buffer allocated.<br>1 — Disk buffers allocated.                    |
| l | Write jobs in progress allocation status.                                                                             |
| m | Tells if job is from receive message buffer or from queue (a 1 means it's from queue).                                |
| n | Write job is a block write if this flag is on.                                                                        |
| o | Starting block number on disk file.                                                                                   |
| p | Number of blocks.                                                                                                     |
| q | Index of disk buffer segment.                                                                                         |
| r | Starting block number in disk buffer.                                                                                 |
| s | Virtual address of disk buffer.                                                                                       |
| t | Forward link used by caching routines to link FMI buffers to cache control blocks or to blocked address list entries. |
| u | Previous link used by caching routines.                                                                               |
| v | Pointer to Cache Control Block (CCB).                                                                                 |
| w | Pointer to Blocked Address List (BAL) entry.                                                                          |
| x | READ or WRITE indicator:<br><br>X'02 — READ job.<br>X'03 — WRITE job.                                                 |
| y | First six words of ap_data field of DMA request.                                                                      |
| z | Total number of FMI jobs timed out.                                                                                   |

#### 4. ACTION TO BE TAKEN

No action is necessary.

#### 5. REFERENCES

Output Message  
REPT:APDRV-ERR

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ID ..... REPT:APDRV-ER-5cc  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT: APDRV ERR X'5cc RTC: a  
bbbbbbbbb cccccccc dddddddd eeeeeeee ffffffff gghhhhhh hhhhhhhh hhhhhhhh  
hhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh  
hhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh  
hhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh  
hhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhiijjkk llmnnnoo ppqrr00

## 2. REASON FOR OUTPUT

To report the timing out of a Cache Control Block (CCB) by the Attached Processor Driver (APDRV). When this structure times out, all File Manager Interface (FMI) jobs associated with this CCB will be rejected indicating that they were timed out. Data dumps associated with this message will be in hexadecimal format.

## 3. VARIABLE FIELD DEFINITIONS

- a System real time clock.
- b 3B computer memory address of cache buffer.
- c Index into APDRV Direct Memory Access Controller (DMAC) table.
- d Segment ID.
- e Index into seglist.
- f 1B disk address in cache (starting block).
- g CCB state:  
X'28 — BUSY (this should be value in CCB).  
X'32 — AVAILABLE.  
X'1e — FREE.
- h Write in progress flags. For each block in the cache buffer, these flags indicate the state of a Direct Memory Access (DMA) of the block into the cache buffer (DMA write):  
X'00 — No writes into this CCB for this block (idle).  
X'01 — Disk write pending.  
X'02 — DMA pending.
- i Read in progress flag. Set implies that a read from disk into this CCB is pending.
- j Index of CCB waiting for this CCB's current task to complete.

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|   |                                                                                      |
|---|--------------------------------------------------------------------------------------|
| k | Second possible CCB waiting.                                                         |
| l | Index of Blocked Address List (BAL) waiting for this CCB's current task to complete. |
| m | Second possible BAL waiting.                                                         |
| n | Number of CCBs that this CCB is waiting on.                                          |
| o | DMA read jobs in progress out of this CCB.                                           |
| p | Index of last FMI buffer on queue for this CCB.                                      |
| q | Index of first FMI buffer on queue for this CCB.                                     |
| r | Timing byte for BUSY CCB.                                                            |

#### **4. ACTION TO BE TAKEN**

No action is necessary.

#### **5. REFERENCES**

Output Messages  
REPT:APDRV-ERR  
REPT:APDRV-ER-5aa

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ID ..... REPT:APDRV-ER-5dd  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT: APDRV ERR X'5dd RTC: i  
aaaaaaaa bbbbbbbb ccddeeff gghh0000 00000000 00000000 00000000 00000000

## 2. REASON FOR OUTPUT

To report the timing out of a cache blocked address list entry. When a blocked address list (BAL) entry is timed out, all file manager interface (FMI) jobs associated with the entry are rejected, indicating that they were timed out. Data dumps associated with this message are in hexadecimal format.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                     |
|---|---------------------------------------------------------------------|
| a | Beginning disk address of job (start block).                        |
| b | End disk address of job (start block).                              |
| c | Number of cache control blocks (CCBs) this BAL entry is waiting on. |
| d | Index of last FMI buffer on queue for this BAL entry.               |
| e | Index of first FMI buffer on queue for this BAL entry.              |
| f | Next BAL pointer.                                                   |
| g | Previous BAL pointer.                                               |
| h | Timing byte for active BAL entries.                                 |
| i | System real time clock.                                             |

## 4. ACTION TO BE TAKEN

No action is necessary.

## 5. REFERENCES

Output Messages  
REPT:APDRV-ERR  
REPT:APDRV-ER-5aa

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ID ..... REPT:APDRV-ERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT: APDRV ERR aaa RTC b

## 2. REASON FOR OUTPUT

To report an Attached Processor Driver (APDRV), Attached Processor Message Handler (APMH) or File Manager Interface (FMI) related software or hardware error condition. This error report indicates an error condition which could result in a unit out of service.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code (see Table A).
- b System real time clock at the moment the error occurred.

## 4. ACTION TO BE TAKEN

Repair and restore to service any units that are removed.

## 5. REFERENCES

Output Messages  
REPT:APDRV-FAU  
REPT:APDRV-MEM

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TABLE A  
ATTACHED PROCESSOR DRIVER DETECTED ERRORS

INITIALIZATION ERRORS

|       |           |                                                                              |
|-------|-----------|------------------------------------------------------------------------------|
| 0x300 | kevent    | FMI initialization failed (phase 3 or 4 required).                           |
| 0x303 | aptime    | APDRV failed to service interrupts pending over 60 ms.                       |
| 0x310 | apinit    | Equipment Configuration Data (ECD) attach failed.                            |
| 0x311 | apinit    | Configuration open process failed.                                           |
| 0x312 | apinit    | ATCHDATA (function to give data to attach to interrupts) call to ECD failed. |
| 0x313 | apinit    | Too many Attached Processor Interfaces (APIs).                               |
| 0x314 | apinit    | No APIs in ECD.                                                              |
| 0x315 | apinit    | Record ID (RID) to Unit Control Block (UCB) conversion failed.               |
| 0x316 | apinit    | Failed to attach to APDRV port.                                              |
| 0x317 | apinit    | Failed to detach from interrupts.                                            |
| 0x318 | apinit    | Failed to attach to interrupts.                                              |
| 0x319 | apinit    | Failed to enable interrupts.                                                 |
| 0x31a | apinit    | Failed to get segment page table address.                                    |
| 0x31b | apinit    | Write to Direct Memory Access Random Access Memory (DMAC RAM) failed.        |
| 0x31c | link_init | Unable to set up timeout entry.                                              |
| 0x31d | link_init | Unable to start timer to initialize audits.                                  |
| 0x31e | int_han   | Failed to disable interrupts.                                                |
| 0x320 | fmi_init  | Segment does not map into segment number.                                    |
| 0x320 | getpta    | Virtual address does not map into segment number.                            |
| 0x321 | getpta    | Segment ID not valid, not in memory, or too many locks.                      |
| 0x322 | getpta    | Unlock segment for I/O failed.                                               |
| 0x32a | int_trbl  | API detach RID numbers do not match.                                         |
| 0x32b | int_trbl  | Failed to detach from interrupts.                                            |
| 0x32c | int_trbl  | Attach to interrupts failed.                                                 |
| 0x32d | int_trbl  | Failed to enable interrupts.                                                 |
| 0x32e | int_trbl  | API attach RID numbers do not match.                                         |
| 0x330 | apmsg     | Unexpected API status.                                                       |
| 0x330 | switch_cu | Could not get rid of channel 0.                                              |
| 0x331 | apmsg     | Warning, diagnostic control message too big.                                 |
| 0x331 | switch_cu | Could not get rid of channel 1.                                              |
| 0x332 | switch-cu | Bad data for channel rid.                                                    |
| 0x333 | apmsg     | Invalid API number requested.                                                |

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TABLE A (cont'd)  
ATTACHED PROCESSOR DRIVER DETECTED ERRORS

SOFTWARE DETECTED ERRORS

|       |           |                                                                                                                                         |
|-------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 0x    | apmsg     | Unimplemented message type.                                                                                                             |
| 0x335 | apmsg     | Unimplemented diagnostic control message type.                                                                                          |
| 0x336 | apmsg     | Unimplemented message (ap type) type.                                                                                                   |
| 0x337 | apmsg     | Request to diagnose API that is not OOS.                                                                                                |
| 0x339 | drvmsg    | Undeveloped message code.                                                                                                               |
| 0x33b | initapi   | Invalid initialization option.                                                                                                          |
| 0x33d | initbuf   | Unexpected initialization option.                                                                                                       |
| 0x33e | initbuf   | Unexpected initialization type.                                                                                                         |
| 0x341 | kevent    | Found in disable error report mode.                                                                                                     |
| 0x342 | kevent    | Received unexpected event.                                                                                                              |
| 0x343 | kfault    | Unimplemented fault code.                                                                                                               |
| 0x347 | picinit   | Unknown initialization type.                                                                                                            |
| 0x348 | pio       | Unimplemented Program Input/Output (PIO) type.                                                                                          |
| 0x349 | ridup     | Record ID (RID) update and release failure.                                                                                             |
| 0x34a | int_han   | Invalid API pointer                                                                                                                     |
| 0x34a | link_init | Invalid API pointer                                                                                                                     |
| 0x34b | int_han   | Invalid API number                                                                                                                      |
| 0x34c | int_han   | Invalid API number                                                                                                                      |
| 0x34d | sendcmd   | Timeout: could not send command to 1B.                                                                                                  |
| 0x34f | sendcmd   | 1B failed 3B command.                                                                                                                   |
| 0x350 | sintint   | Command loop terminated due to interrupt.                                                                                               |
| 0x351 | sintint   | Timeout for 1B command loop.                                                                                                            |
| 0x352 | sintint   | Received SINT (interrupt to initiate high priority interprocessor maintenance message protocol), but interprocessor word is not a SYNC. |
| 0x353 | sintint   | Undefined API status.                                                                                                                   |
| 0x354 | sintint   | Unequipped API.                                                                                                                         |
| 0x355 | sintint   | Invalid interprocessor command.                                                                                                         |
| 0x35a | kevent    | Failed to initialize event to set up audits.                                                                                            |
| 0x35c | kevent    | Failed to initialize event to allow audit.                                                                                              |
| 0x35d | kevent    | Failed to set routine timer for duplex fail warning.                                                                                    |
| 0x360 | userint   | Invalid message body type.                                                                                                              |
| 0x361 | plntadm   | Unexpected plant measurement type.                                                                                                      |
| 0x36a | loadmsg   | Invalid circular buffer address.                                                                                                        |
| 0x36b | loadmsg   | Invalid load pointer range.                                                                                                             |
| 0x36c | loadmsg   | Invalid unload pointer range.                                                                                                           |
| 0x36e | loadmsg   | Attempt to load invalid size message.                                                                                                   |

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TABLE A (cont'd)  
ATTACHED PROCESSOR DRIVER DETECTED ERRORS

SOFTWARE DETECTED ERRORS

|       |            |                                                                                          |
|-------|------------|------------------------------------------------------------------------------------------|
| 0x370 | getmsg     | Invalid load pointer range.                                                              |
| 0x371 | getmsg     | Invalid unload pointer range.                                                            |
| 0x372 | getmsg     | Invalid message size.                                                                    |
| 0x374 | getmsg     | Invalid size or invalid load / unload pointer.                                           |
| 0x375 | getmsg     | Invalid CHECKSUM ("exclusive or" of each word in message to verify validity of message). |
| 0x377 | getmsg     | Invalid relationship of sequence numbers.                                                |
| 0x37b | dmsgshndl  | Unexpected message identification from audit manager.                                    |
| 0x37c | dmsgshndl  | Invalid audit request type.                                                              |
| 0x37d | dmsgshndl  | Unexpected message type.                                                                 |
| 0x37e | dmsgshndl  | Unexpected AUD_SETUP message response.                                                   |
| 0x37f | dmsgshndl  | Unexpected AUD_ALW message response.                                                     |
| 0x380 | audinit    | Failed to send AUD_SETUP message.                                                        |
| 0x384 | audallow   | Failed to send AUD_ALW message.                                                          |
| 0x38f | apint      | Given invalid RID for API.                                                               |
| 0x390 | aud_cntrl  | Invalid buffer allocation audit request.                                                 |
| 0x390 | apint      | Given invalid RID for API interrupt.                                                     |
| 0x3a5 | clk_sync   | Received unexpected MSG_ACK.                                                             |
| 0x3ae | ipd_rd     | Verify IPD checksum failure.                                                             |
| 0x3af | rd_ipd     | IPD_1APR PIO failure.                                                                    |
| 0x3b0 | bld_cnibuf | Failed to get valid segment number for CNI buffer.                                       |
| 0x3b1 | bld_cnibuf | Failed to lock CNI buffer segment.                                                       |
| 0x3b2 | bld_cnibuf | Failed to enter CNI buffer segment into DMAC table.                                      |
| 0x3b3 | cni_mh     | Invalid direction in stream request.                                                     |
| 0x3b4 | cni_mh     | PIO type IPD_1APR for CCS7 failed.                                                       |
| 0x3b5 | cni_mh     | Invalid direction in stream start request.                                               |
| 0x3b6 | cni_mh     | PIO type IPD_1APR for CCS7 failed.                                                       |
| 0x3b7 | cni_mh     | Invalid CNI message type.                                                                |
| 0x3b8 | snd_pio    | PIO failed.                                                                              |
| 0x3b9 | cni_pio    | No active API or PIO failed.                                                             |
| 0x3ba | sintint    | Invalid data on INIT_COM command.                                                        |
| 0x3bb | rd_ipd     | Invalid ipd op code.                                                                     |
| 0x3c0 | iomaint    | Diagnostic is not opened.                                                                |
| 0x3c1 | iomaint    | Diagnostic process number not open process number.                                       |
| 0x3c2 | iomaint    | Diagnostic (DGN) RID not equal open RID.                                                 |
| 0x3c3 | iomaint    | DGN RID does not match valid RID.                                                        |
| 0x3c4 | iomaint    | Failed to attach to interrupts.                                                          |
| 0x3c5 | iomaint    | Failed to enable interrupts.                                                             |
| 0x3c6 | iomaint    | DGN RID does not match valid RID.                                                        |
| 0x3c7 | iomaint    | Failed to detach from interrupts.                                                        |

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TABLE A (cont'd)  
ATTACHED PROCESSOR DRIVER DETECTED ERRORS

SOFTWARE DETECTED ERRORS

|       |            |                                                               |
|-------|------------|---------------------------------------------------------------|
| 0x3c8 | iomaint    | Get Direct Memory Access Address (DMAA) function failed.      |
| 0x3c9 | iomaint    | Get DMAA function failed.                                     |
| 0x3ca | iomaint    | DGN state error.                                              |
| 0x3cb | iomaint    | Failed to unlock DGN segment.                                 |
| 0x3cc | iomaint    | DGN state error.                                              |
| 0x3cd | iomaint    | Failed to unlock DGN segment.                                 |
| 0x3ce | iomaint    | Failed to unlock DGN segment.                                 |
| 0x3cf | iomaint    | Invalid OPERCODE (operation to be performed for diagnostics). |
| 0x3d5 | dmsg handl | Unexpected logical device number.                             |
| 0x3d6 | dmsg handl | Diagnostics not opened.                                       |
| 0x3da | apopen     | API unequipped.                                               |
| 0x3db | apopen     | API not OOS.                                                  |
| 0x3dc | apopen     | API previously opened.                                        |
| 0x3e0 | aprdwt     | Failed to lock DGN segment.                                   |
| 0x3e1 | aprdwt     | Invalid diagnostic state.                                     |
| 0x3e2 | aprdwt     | Failed to initialize API for DGN message.                     |
| 0x3ea | dgntime    | Invalid diagnostic state.                                     |
| 0x3ed | kfault     | Error reporting turned off on entry to kfault.                |
| 0x3ee | kfault     | Abort diagnostic process.                                     |
| 0x3ef | apclose    | Not opening process.                                          |
| 0x400 | apmsg_rcv  | Illegal AP message type.                                      |
| 0x404 | resv_dma   | Illegal AP type.                                              |
| 0x405 | reserve_dm | Illegal AP type.                                              |
| 0x406 | apmsg_send | Illegal message.                                              |
| 0x407 | apmsg_send | Illegal AP message.                                           |
| 0x408 | apmsg_send | Illegal AP message.                                           |
| 0x409 | apmsg_send | Illegal AP message type.                                      |
| 0x40a | reserve_dm | Illegal origtype (source of origination: remote or local).    |
| 0x40b | reserve_dm | Illegal AP type.                                              |
| 0x40c | activ_dmab | Improper jb_sv field.                                         |
| 0x40d | activ_dmab | Improper jb_sv field.                                         |
| 0x40e | activ_dmab | Illegal AP type.                                              |
| 0x40f | audit_dma  | Failed to send AUD_RESP message.                              |
| 0x410 | audit_dma  | Idle DMA job on active list.                                  |
| 0x411 | vfy_sndmsg | AP_FROM does not match.                                       |
| 0x412 | vfy_sndmsg | AP_RBN does not match.                                        |
| 0x414 | enter_dmac | Direct Memory Access Controller (DMAC) table full.            |
| 0x416 | apmsg_rcv  | Message and DMA buffer inconsistent.                          |
| 0x417 | apmsg_rcv  | Message and DMA buffer inconsistent.                          |
| 0x418 | apmsg_rcv  | Message and DMA buffer inconsistent.                          |

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TABLE A (cont'd)  
ATTACHED PROCESSOR DRIVER DETECTED ERRORS

MESSAGE HANDLER ERRORS

|       |             |                                                                                          |
|-------|-------------|------------------------------------------------------------------------------------------|
| 0x419 | apmsg_send  | Illegal AP message.                                                                      |
| 0x421 | apmsg_send  | AP_NWDS too large.                                                                       |
| 0x422 | apmsg_send  | AP_NWDS too large.                                                                       |
| 0x423 | vfy_rcvmsg  | Improper DMA job number.                                                                 |
| 0x424 | vfy_rcvmsg  | Improper DMA job number.                                                                 |
| 0x425 | vfy_rcvmsg  | Improper DMA job number.                                                                 |
| 0x426 | mh_handler  | Improper AP type.                                                                        |
| 0x427 | apmsg_send  | AP size too small.                                                                       |
| 0x429 | route_apms  | Client's message queue is full.                                                          |
| 0x42a | apmsg_send  | AP size too large.                                                                       |
| 0x42b | rcv_3bmsg   | AP size too large, AP block.                                                             |
| 0x42c | rcv_3bmsg   | AP size too large, not block.                                                            |
| 0x42d | ack_remote  | AP size too large.                                                                       |
| 0x42f | rcv_3bmsg   | AP size too large.                                                                       |
| 0x430 | rcv_3bmsg   | Client I/O message too small.                                                            |
| 0x431 | rcv_3bmsg   | Client message too small.                                                                |
| 0x432 | rcv_3bmsg   | Client message too small.                                                                |
| 0x434 | rcv_3bmsg   | Illegal message type.                                                                    |
| 0x435 | copy_buffer | Invalid message size.                                                                    |
| 0x436 | pnum_mgr    | Global pnum tbl bad, corrected. (See REPT:APDRV ERR X'436 message for more information.) |
| 0x437 | pnum_mgr    | Local pnum tbl bad, corrected. (See REPT:APDRV ERR X'437 message for more information.)  |
| 0x438 | apmsg_rcv   | Illegal API message destination.                                                         |
| 0x43a | route_apms  | Illegal AP message destination.                                                          |
| 0x43c | ack_locdma  | Improper AP type.                                                                        |
| 0x43f | reserve_dm  | Illegal origination type.                                                                |
| 0x442 | rej_locapm  | AP size too large.                                                                       |
| 0x443 | rej_locapm  | Illegal AP type.                                                                         |
| 0x44a | time_dma    | Failed to send AUD_RESP message.                                                         |
| 0x4ca | dlnrpt      | Failed to get message buffer for dc_report message.                                      |
| 0x4cb | dlnrpt      | DLN_CM message queue is full.                                                            |
| 0x500 | fmi_handle  | No File Manager Interface (FMI) buffers available.                                       |
| 0x501 | fmi_handle  | FMI activate message rejected.                                                           |
| 0x502 | fmi_handle  | FMI Read Activate type 1 (RDA1) failed.                                                  |
| 0x503 | fmi_handle  | FMI Write Activate type 2 (WTA2) failed.                                                 |
| 0x504 | fmi_init    | Cannot get Page Table Pointer (PTA) for BLK0.                                            |
| 0x505 | activ_fmib  | FMI buffer free list empty.                                                              |
| 0x506 | ret_fmgr    | Illegal FMI type.                                                                        |
| 0x507 | ret_fmgr    | Null job status.                                                                         |
| 0x508 | fmi_handle  | Null job status.                                                                         |

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TABLE A (cont'd)  
ATTACHED PROCESSOR DRIVER DETECTED ERRORS

FILE MANAGER INTERFACE ERRORS

|       |            |                                                                             |
|-------|------------|-----------------------------------------------------------------------------|
| 0x509 | route_req  | Illegal FMI type.                                                           |
| 0x50a | alloc_dbuf | Disk queue full.                                                            |
| 0x50b | ret_diskbu | Bad FMI type.                                                               |
| 0x50c | fmi_init   | Cannot get PTA for disk buffer for large jobs (BLK1).                       |
| 0x50d | get_segid  | Bad segment number given.                                                   |
| 0x50e | ret_opcr   | Unspecified File Manager (FMGR) error status.                               |
| 0x50f | bld_close  | Access checks failed.                                                       |
| 0x511 | ret_read   | Unexpected FMGR error.                                                      |
| 0x512 | ret_write  | Unexpected FMGR error.                                                      |
| 0x513 | ret_write  | Unexpected FMGR error.                                                      |
| 0x515 | ret_access | Unexpected FMGR error return.                                               |
| 0x516 | bld_fsize  | Access checks failed.                                                       |
| 0x517 | ret_falloc | Unexpected FMGR return status.                                              |
| 0x518 | ret_fsize  | Unexpected FMGR error return.                                               |
| 0x519 | bld_fstat  | Access checks failed.                                                       |
| 0x51a | ret_stat   | Unexpected FMGR error.                                                      |
| 0x51d | fm_queueem | FMGR message queue is full.                                                 |
| 0x51e | ret_close  | Unexpected FMGR error return.                                               |
| 0x51f | ret_fmmove | Unexpected FMGR error return.                                               |
| 0x520 | ret_mount  | Unexpected FMGR error return.                                               |
| 0x521 | ret_umount | Unexpected FMGR error return.                                               |
| 0x522 | op_1afile  | FMGR message queue full.                                                    |
| 0x523 | op_1afile  | Bad 1B file capability number.                                              |
| 0x524 | ret_fmgr   | Bad original message type on FMI message.                                   |
| 0x525 | ret_fmgr   | Cannot open 1B file.                                                        |
| 0x528 | fmi_handle | DMA job timeout.                                                            |
| 0x529 | fmi_handle | FMI message acknowledgment returned.                                        |
| 0x52a | fmi_init   | Cannot get PTA for XBLK0 (disk buffer for small maintenance jobs).          |
| 0x52b | fmi_init   | Cannot get PTA for XBLK1 (disk buffer for large maintenance jobs).          |
| 0x52c | fmi_init   | Cannot get PTA for PCBUF (disk buffer for PS0).                             |
| 0x52d | rd_pcrvpum | Could not lock common segment for 1B Process Recovery Pump (PCRVPUMP) read. |
| 0x52e | rd_pcrvpum | Could not get message buffer for PCRVPUMP read.                             |
| 0x52f | ret_fmgr   | Failure of 3B PCRVPUMP read.                                                |
| 0x530 | ret_fmgr   | Command (interprocessor) acknowledgment (CACK) after SR_REQ failed.         |
| 0x531 | ret_fmgr   | Program store 0 (PS0) read failed.                                          |
| 0x532 | ret_fmgr.c | 1B status file write failed.                                                |
| 0x540 | rd_ps0     | Could not lock processor configuration (PC) segment.                        |
| 0x541 | rd_ps0     | Could not get message buffer.                                               |

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TABLE A (cont'd)  
ATTACHED PROCESSOR DRIVER DETECTED ERRORS

FILE MANAGER INTERFACE ERRORS

|       |            |                                                        |
|-------|------------|--------------------------------------------------------|
| 0x542 | rd_ps0     | Bad option.                                            |
| 0x543 | snd_ps0    | Bad option.                                            |
| 0x547 | ack_client | Improper AP type.                                      |
| 0x548 | activ_fmib | Bad AP type.                                           |
| 0x54b | alloc_dbuf | Bad disk buffer segment index.                         |
| 0x54c | alloc_dbuf | Bad xcommon buffer index                               |
| 0x550 | rel_wtjob  | Write job not on write list.                           |
| 0x551 | rel_wtjob  | Write job not on write list.                           |
| 0x570 | rdwt_stat  | Could not lock FMI segment for status read or write.   |
| 0x571 | rdwt_stat  | Could not get message buffer for status read or write. |
| 0x574 | rdwt_stat  | Could not get message buffer for status read or write. |
| 0x575 | ret_ioread | Unexpected DFCDRV error.                               |
| 0x576 | ret_iowrit | Unexpected DFCDRV error.                               |
| 0x577 | dd_queueu  | DFCDRV message queue is full.                          |
| 0x57a | ioqueueu f | Read PC pump.                                          |
| 0x57b | ioqueueu f | Read PS0.                                              |
| 0x580 | ret_fmgr   | Cannot open SPEC00.                                    |
| 0x581 | ret_fmgr   | Cannot open SPEC01.                                    |
| 0x582 | ret_fmgr   | Cannot open SPEC10.                                    |
| 0x583 | ret_fmgr   | Cannot open SPEC11.                                    |
| 0x584 | ret_fmgr   | Failure of 1B PCRVPUMP read.                           |
| 0x585 | ret_fmgr   | Status file read failed.                               |
| 0x586 | ret_fmgr   | Bad 1B status file.                                    |
| 0x588 | rel_fmibuf | Invalid (NULL) FMI buffer referenced.                  |
| 0x58a | audit_dma  | Failed to send AUD_RESP message.                       |
| 0x58c | audit_adm  | Unexpected loop error.                                 |
| 0x58d | audrep     | Failed to send AUD_RESP message.                       |
| 0x590 | bld_ddmsg  | Request overflowed C_SMALL segment.                    |
| 0x591 | bld_ddmsg  | Request overflowed C_LARGE segment.                    |
| 0x592 | bld_ddmsg  | Request overflowed XC_BUF0 segment.                    |
| 0x593 | bld_ddmsg  | Request overflowed XC_BUF1 segment.                    |
| 0x594 | bld_ddmsg  | Request overflowed XC_BUF2 segment.                    |
| 0x5fe | chk_lastat | Unknown check type.                                    |

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ID ..... REPT:APDRV-FAU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT: APDRV FAULT CODE a [VIRT ADDR b] RTC: c

## 2. REASON FOR OUTPUT

To report a fault in the attached processor driver (APDRV). A fault indicates an error condition which could result in a unit out of service.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                      |
|---|--------------------------------------------------------------------------------------|
| a | Fault code (see Table A).                                                            |
| b | Virtual address within APDRV where fault occurred, if APDRV was running at the time. |
| c | The system real time clock when APDRV received the fault.                            |

## 4. ACTION TO BE TAKEN

Repair and restore to service any units that are removed.

## 5. REFERENCES

Output Messages  
REPT:APDRV-ERR  
REPT:APDRV-MEM

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TABLE A  
FAULT CODES RECOGNIZED BY APDRV

| Code | Symbol        | Description                                                               |
|------|---------------|---------------------------------------------------------------------------|
| 0x00 | NOFLT         | No fault.                                                                 |
| 0xb1 | FLT_DREP      | Peripheral interface controller (PIC) blamed - with programmed I/O (PIO). |
| 0xb2 | FLT_PICP      | PIC blamed - with PIO.                                                    |
| 0xb3 | FLT_CCP       | System recovery - PIC not blamed, with PIO.                               |
| 0xb4 | FLT_DRED      | PIC blamed.                                                               |
| 0xb5 | FLT_ADRD      | PIC blamed.                                                               |
| 0xb6 | FLT_PICD      | PIC blamed - with direct memory access (DMA).                             |
| 0xb7 | FLT_CCD       | System recovery - PIC not blamed.                                         |
| 0xb8 | FLT_NDREP     | Device reported error - PIO.                                              |
| 0xb9 | FLT_NPICP     | PIC blamed - with PIO.                                                    |
| 0xba | FLT_NADRP     | Addressing error - PIO in progress.                                       |
| 0xbc | FLT_QMSAUD    | Message buffer audit for queued error messages.                           |
| 0xbd | FLT_NONQMSAUD | Message buffer audit for non-queued error messages.                       |
| 0xc4 | FLT_CMA       | Remove unit - excessive errors.                                           |
| 0xc5 | FLT_CMB       | Try to bring up OOS, usable unit.                                         |
| 0xc6 | FLT_CMC       | Try to bring up OOS, not usable unit.                                     |
| 0xc7 | FLT_CMD       | Limp along - no replacement available.                                    |
| 0xc8 | FLT_CMAN      | Remove unit manual request.                                               |
| 0xc9 | FLT_UCLRMV    | Unconditional remove.                                                     |
| 0xcb | FLT_SOFTSW    | Routine soft switch - PCPEIH only.                                        |
| 0xd1 | FLT_PINV      | Memory management - page invalid or not in memory.                        |
| 0xd2 | FLT_PIND      | Memory management - page index too large.                                 |
| 0xd3 | FLT_SINV      | Memory management - segment invalid.                                      |
| 0xd4 | FLT_SIND      | Memory management - segment index too large.                              |
| 0xd5 | FLT_BADOST    | Illegal operating system trap (OST).                                      |
| 0xd6 | FLT_PROT      | Protection violation.                                                     |
| 0xd7 | FLT_ADDR      | Byte of half word addressing violation.                                   |
| 0xd8 | FLT_PRIV      | Instruction privilege violation.                                          |
| 0xd9 | FLT_OPCD      | Illegal op code.                                                          |
| 0xda | FLT_STACK     | Illegal switch between kernel or private stack.                           |
| 0xe0 | FLT_PHASE0    | Phase level 0 initialization.                                             |
| 0xe1 | FLT_SINIT     | System initialization (possible CU switch).                               |
| 0xe2 | FLT_SCRIT     | Critical system initialization.                                           |

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ID ..... REPT:APDRV-INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT: APDRV a INITIALIZATION REQUESTED
- [2] REPT: APDRV INITIALIZATION - APDRV WAS DOWN b MSEC

## 2. REASON FOR OUTPUT

1. To report that a request to initialize the Attached Processor Driver (APDRV) process has been received. This message will be preceded by a REPT:APDRV-FAU CODE X'70 output message and will be succeeded by a REPT: API x ERR X'1a0 and REPT: API x ERR X'1a1 message for each API indicating that the APIs were detached (X'1a0) and attached (X'1a1) from/to interrupts. Also, processor recovery messages (PRMs) will follow, indicating that the APDRV process set up for repetitive timer monitoring and completed initialization.
2. Printed on phase 0 and phase 1. Downtime is the interval between the beginning of the phase and the restart entry into the APDRV process.

## 3. VARIABLE FIELD DEFINITIONS

- a Initialization level performed:
  - FPI — Full Process Initialization,
  - APII — API+DATA Initialization, or
  - DATAI — DATA Initialization.
- b APDRV downtime in milliseconds.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Messages  
PRM:0  
REPT:APDRV-FAU  
REPT:API-ERR

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ID ..... REPT:APDRV-IPC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E, 3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT:APDRV IPC 000abbcc dddddddd [000abbcc dddddddd] [000abbcc dddddddd]

## 2. REASON FOR OUTPUT

This message reports IPC interprocessor commands from the 1B to the 3B APDRV process. These commands are used to configure the API, request PS 0 pumps, initialize the com and xcom buffers, report errors to DLNCM, APDRV full process initialization, and 3B20D phases.

The commands are stored in a buffer and metered out during the APDRV one second entries. Up to three commands are reported on each output message. One message is printed during each timed entry until all entries have been printed.

## 3. VARIABLE FIELD DEFINITIONS

- a API member number which received the command.
- b Interprocessor command. (See INTERPROCESSOR COMMANDS table.)
- c Interprocessor data.
- d 3B real time clock value in msec when command arrived.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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# INTERPROCESSOR COMMANDS

| Symbol     | Hex**<br>Value | Description                                                 |
|------------|----------------|-------------------------------------------------------------|
| NULLCMD    | p0             | Null command                                                |
| IACK       | p1             | Invalid command received                                    |
| SYNC       | p2             | Synchronization command*                                    |
| SACK       | p3             | Sync acknowledgement command*                               |
| CACK       | p4             | Command acknowledgement*                                    |
| INIT_COM   | p5             | Reinitialize all com_buf resources including API. (TABLE A) |
| ACT_COM    | p6             | Initialize API to com_buf                                   |
| INIT_XCOM  | p7             | Reinitialize all xcom_buf resources including API           |
| CONF_API   | p8             | Configure API pair as specified. (TABLE B)                  |
| ERR_RPT    | p9             | APS error has been detected                                 |
| PS0_REQ    | pa             | PS0 pump request. (TABLE C)                                 |
| UPD_REQ    | pb             | Select logical 1B_file (1 = norm, 2 = update). (TABLE D)    |
| SR_REQ     | pc             | Load 1k words of PCR1A into 3B main memory                  |
| BUF_STATE  | pd             | Tell if common buffers are initialized. (TABLE F)           |
| INIT_APDRV | pe             | APDRV Full Process Initialization                           |
| PHASEREQ   | pf             | Request 3B20D computer phase level. (TABLE E)               |

\* SYNC, SACK, and CACK are used for 1B/3B protocol and are never printed.

\*\* p is the processor type indicator. It is 8 for 1B

TABLE A: INIT\_COM cc

| Symbol  | Value | Description                                |
|---------|-------|--------------------------------------------|
| COMALL  | 00    | Initialize all COM buffers                 |
| CNIALl  | 01    | Initialize all CNI buffers                 |
| COMCNI  | 02    | Initialize all COM and all CNI buffers     |
| COMCNII | 03    | Initialize the COM and incoming CNI buffer |
| COMCNIO | 04    | Initialize the COM and outgoing CNI buffer |
| CNIIN   | 05    | Initialize the incoming CNI buffer         |
| CNIOU   | 06    | Initialize the outgoing CNI buffer         |

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TABLE B: CONF\_API cc

For the CONF\_API command the two hexadecimal Interprocessor digits (cc) are two separate four bit items, state and mem (ssssmmmm). State is the new configuration state and mem is the api to configure (0 or 1) to that state.

| Symbol | Hex*<br>Value | Description                      |
|--------|---------------|----------------------------------|
| NOACT  | 0p            | No action                        |
| ACT    | 1p            | Configure api 'p' Active         |
| SBY    | 2p            | Configure api 'p' Standby        |
| OOS    | 3p            | Configure api 'p' Out Of Service |
| UNQ    | 4p            | Configure api 'p' Unequipped     |

\* p (0/1), is the api to configure.

TABLE C: PS0\_REQ cc (Pump Request)

| Action          | Quadrant |
|-----------------|----------|
| Pump first 16K  | 1        |
| Pump second 16K | 2        |
| Pump third 16K  | 3        |
| Pump fourth 16K | 4        |
| Pump fifth 16K  | 5        |

TABLE D: UPD\_REQ cc

| Symbol | Value | Description        |
|--------|-------|--------------------|
| NORMAL | 1     | Normal file access |
| UPDATE | 2     | Update file access |

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TABLE E: PHASEREQ cc

| Value | Description                     |
|-------|---------------------------------|
| 1     | Phase 3B with requested level 1 |
| 2     | Phase 3B with requested level 2 |
| 3     | Phase 3B with requested level 3 |

TABLE F: BUF\_STATE cc

In all cases this command returns the state of the send and receive com buffers i.e., initialized (BUF\_INIT) or not initialized (NO\_BUF\_INIT).

For BUF\_STATE the Interprocessor data (cc) are five different binary items: efgghiii. These items have meaning if the flt\_type item is non-zero. Otherwise they are ignored and just the state of the send and receive com buffers are returned.

| Name     | Item | Num<br>Bits | Comment                                  |
|----------|------|-------------|------------------------------------------|
| str_stp  | e    | 1           | Stop CNI Message Stream. 0 = No, 1 = Yes |
| Buf_Init | f    | 1           | Initialize CNI Buffer. 0 = No, 1 = Yes   |

TABLE F: BUF\_STATE cc (continued)

| Name     | Item | Num<br>Bits | Comment                                                      |
|----------|------|-------------|--------------------------------------------------------------|
| Direct   | g    | 2           | CNI Message direction at the time of the error. See TABLE G. |
| side     | h    | 1           | Side with error. 0 = 3B, 1 = 1B                              |
| flt_type | i    | 3           | See TABLE H.                                                 |

TABLE G: Stream Direction

| Name   | Value | Comment          |
|--------|-------|------------------|
| DIR_NA | 0     | Not applicable   |
| 1AIN   | 1     | Incoming to 1B   |
| Direct | 2     | Outgoing from 1B |
| Both   | 3     | Both Directions  |

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TABLE H: Fault Type Table

| Value | Comment                           |
|-------|-----------------------------------|
| 0     | No fault                          |
| 1     | CNI Self Pointer fault            |
| 2     | CNI Unload Pointer fault          |
| 3     | 1B APMH detected bad CNI buffer   |
| 4     | CNI load /end pointer fault       |
| 5     | 1B client detected message error  |
| 6     | 1B APMH detected message error.   |
| 7     | No actions assigned to this value |

#### EXAMPLES

The following is the typical sequence of 1B to 3B interprocessor commands for a Hard-A PC to the Norm file. For a 1B 'p' will be 8.

```

REPT:APDRV PCRV 0001pb01 d80d2187 0001pa02 d80d218f 0001pa03 d80d234b
 api 1 api 1 api 1
 norm file ps0 quad 2 ps0 quad 3

REPT:APDRV PCRV 0001pa04 d80d2477 0001pa05 d80d2585 0001pa01 d80d2693
 api 1 api 1 api 1
 ps0 quad 4 ps0 quad 5 ps0 quad 1

REPT:APDRV PCRV 0001p811 d80d2cb8 0001p700 d80d2cd3 0001p600 d80d32ea
 api 1 api 1 api 1
 configure api init xcom mode init com mode

```

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ID ..... REPT:APDRV-MEM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

```
REPT: a APDRV MEMORY DUMP
b c d e f g h i
j k l m n o p q
r s t u v w x y
z a1 b1 c1 d1 e1 f1 g1
h1 i1 i1 i1 i1 i1 j1 j1
```

## 2. REASON FOR OUTPUT

To supplement the report that the active Attached Processor Interface (API) appears to have given the Attached Processor Driver (APDRV) faulty data or the APDRV has detected a software error.

**NOTE:** Variables z, a1 through j1 consist of six hexadecimal digits (24 bits) for 1B/3BAPS, while variables b through y consist of eight hexadecimal digits (32 bits) for 3B/APS.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                    |
|---|----------------------------------------------------------------------------------------------------|
| a | FULL — All lines will be printed.<br>PARTIAL — Only first line (API status) will be printed.       |
| b | BICCMD — Command to Bus Interface Controller (BIC). (See TABLE B of output message REPT:API-DUMP.) |
| c | BICSTAT — BIC status word.                                                                         |
| d | BICDATA — Data returned from BIC. (See TABLE B of output message REPT:API-DUMP.)                   |
| e | CHANSTAT — API channel status.                                                                     |
| f | APISTAT — API 0 and API 1 status. (See TABLE A.)                                                   |
| g | APIFLAGS — APDRV software flags. (See TABLE A.)                                                    |
| h | FLAGS — Recovery flags. (See REPT:API-DUMP TABLE D.)                                               |
| i | API Trouble Flags. (See TABLE A.)                                                                  |
| j | DMSGPTR — Pointer to diagnostic message.                                                           |
| k | IORWCMD — I/O read or write indicator.                                                             |
| l | RAMADDR — Random Access Memory (RAM) address.                                                      |
| m | DGNADDR — Diagnostic Direct Memory Access (DMA) address.                                           |

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|    |                                                                           |
|----|---------------------------------------------------------------------------|
| n  | DMASIZE — Size of diagnostic DMA request.                                 |
| o  | IORWSTAT — Status of I/O read or write.                                   |
| p  | CHSTATUS — Dual Serial Channel (DSCH) status.                             |
| q  | WDSAVE0 — Special DMA word for diagnostics.                               |
| r  | WDSAVE — Special DMA word for diagnostics.                                |
| s  | SEGIDPTR — Segment ID of diagnostic process.                              |
| t  | DUCBPTR — Unit Control Block (UCB) record pointer of API being diagnosed. |
| u  | DGNRID — Record ID (RID) of API being diagnosed.                          |
| v  | DGNHND13 — Thirteenth word of diagnostic structure. (See Figure 1.)       |
| w  | DGNPNUM — Process number of diagnostic program.                           |
| x  | DGNHND15 — Fifteenth word of diagnostic structure. (See Figure 1.)        |
| y  | DGNSPARE — Unused space in diagnostic structure.                          |
| z  | APMSG1 — First word of APS message. (See Figure 1.)                       |
| a1 | APMSG2 — Second word of APS message. (See Figure 1.)                      |
| b1 | APIDENT — ID information used only by client.                             |
| c1 | APSPARE — Spare message word reserved for future growth.                  |
| d1 | APCKSUM — Code to verify message contents.                                |
| e1 | APMSG6 — Sixth word of the APS message. (See Figure 1.)                   |
| f1 | APNWDS — Number of words to be transferred for DMA operations.            |
| g1 | APADR — Address information of DMA type transfer operation.               |
| h1 | APETIME — Starting time used to calculate elapsed time of DMA job.        |
| i1 | APSPARE — Spare message word reserved for future growth.                  |
| j1 | APDATA — Data field containing message body. (See Table B.)               |

#### 4. ACTION TO BE TAKEN

None.

#### 5. REFERENCES

Output Message  
REPT:API-ERR

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Figure 1

APDRV STRUCTURE FORMATS

APS Message Format

|       |           |  |        |  |          |  |
|-------|-----------|--|--------|--|----------|--|
|       | APFROM    |  | APTO   |  | APSIZE   |  |
| ----- |           |  |        |  |          |  |
|       | APTYPE    |  | APSTAT |  | APSEQNUM |  |
| ----- |           |  |        |  |          |  |
|       | APIDENT   |  |        |  |          |  |
| ----- |           |  |        |  |          |  |
|       | APSPARE   |  |        |  |          |  |
| ----- |           |  |        |  |          |  |
|       | APCKSUM   |  |        |  |          |  |
| ----- |           |  |        |  |          |  |
|       | APOPTION  |  | APRBM  |  | APSBN    |  |
| ----- |           |  |        |  |          |  |
|       | APCTIME   |  | APNWDS |  |          |  |
| ----- |           |  |        |  |          |  |
|       | APADR     |  |        |  |          |  |
| ----- |           |  |        |  |          |  |
|       | APETIME   |  |        |  |          |  |
| ----- |           |  |        |  |          |  |
|       | APSPARE   |  |        |  |          |  |
| ----- |           |  |        |  |          |  |
|       | APDATA(n) |  |        |  |          |  |

DMA Job Control Buffer Format

|       |            |  |        |  |
|-------|------------|--|--------|--|
|       | JBSV       |  | JBNWDS |  |
| ----- |            |  |        |  |
|       | JBADR      |  |        |  |
| ----- |            |  |        |  |
|       | JBIDENT    |  |        |  |
| ----- |            |  |        |  |
|       | JBFROM     |  | JBSBN  |  |
| ----- |            |  |        |  |
|       | JBATIME    |  |        |  |
| ----- |            |  |        |  |
|       | JBSPARE[2] |  |        |  |
| ----- |            |  |        |  |
|       | JBCKSUM    |  |        |  |
| ----- |            |  |        |  |

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Figure 1 (cont'd)

Diagnostic Administration Structure Format

|  |          |  |
|--|----------|--|
|  | DMSGPTR  |  |
|  | IORWCMD  |  |
|  | RAMADDR  |  |
|  | DGNADDR  |  |
|  | DMASIZE  |  |
|  | IORWSTAT |  |
|  | CHSTATUS |  |
|  | WDSAVE   |  |
|  | WDSAVE   |  |
|  | SEGIDPTR |  |
|  | DUCBPTR  |  |
|  | DGNRID   |  |
|  | DGNTIME  |  |
|  | DGNSTATE |  |
|  | DGNPNUM  |  |
|  | ABTCODE  |  |
|  | DGNSPARE |  |

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Table A  
APDRV DATA WORD LAYOUTS

APISTATS Word Layout: aaaabbbb

a = Status of API 0.  
b = Status of API 1.

Status = S\_ACT = 0x00  
S\_STBY = 0x01  
S\_UNAV = 0x02  
S\_OFL = 0x03  
S\_OOS = 0x04  
S\_UNEQIP = 0x05  
S\_INIT = 0x06

| Bit       | APIFLAGS Word Layout                                                                                                                           |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 0         | Block 3B diagnostics set by 1B message.                                                                                                        |
| 1         | Active API is initialized to common buffers.                                                                                                   |
| 2         | Do not report any more errors.                                                                                                                 |
| 3         | Receiving interrupt errors.                                                                                                                    |
| 6         | Switch CU as possible recovery action.                                                                                                         |
| 7         | In initialization of the File Manager Interface (FMI).                                                                                         |
| 8         | Initializing APIs - both are detached from interrupts.                                                                                         |
| 9         | A non-serviced interrupt is pending.                                                                                                           |
| 10        | Next API to run the Link Integrity Monitor or first.                                                                                           |
| 0 = API 0 |                                                                                                                                                |
| 1 = API 1 |                                                                                                                                                |
| 11        | Interrupt processing is non-operational - will result in a full initialization of APDRV - this bit will never be set unless bit 9 is also set. |
| 12        | DIOP processing in effect.                                                                                                                     |
| 13        | Attempting to inform 1B Processor of DIOP state.                                                                                               |
| 31        | Indicates LIM or an OOS API was entered recursively. Used to break the recursion.                                                              |

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Table A (cont'd)  
APDRV DATA WORD LAYOUTS

API Trouble Flags Layout: aaaabbbb

a = API 0 Trouble Flags.  
b = API 1 Trouble Flags.

Flags =

0x0001 = Detached from interrupts  
0x0002 = This API is babbling  
0x0010 = Unable to form link to 1B  
          through this API  
0x0100 = API Status error found

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Table B  
APS MESSAGE BODY LAYOUTS  
for messages with AP\_TYPE = MSG  
MSG\_ACK  
API\_MSG  
API\_MSG\_ACK

COMBUF

Define the send and receive common buffers size and location to the API.

Used by: Attached processor message handler (APMH)  
and attached processor driver (APDRV)

Buffer used: Maintenance buffer

msg\_type = \_COMBUF = 0x001  
data[1] = Send common buffer address.  
data[2] = Receive common buffer address.  
data[3] = Common buffer size in words.

XCOMBUF

Define the send and receive xcommon buffers size and location for the API. To the API, this message appears the same as the COMBUF message.

Used by: APMH and APDRV  
Buffer used: Maintenance buffer

msg\_type = \_XCOMBUF = \_COMBUF  
data[1] = Send extra common buffer address.  
data[2] = Receive extra common buffer address.  
data[3] = Extra common buffer size in words.

JOBBUFC

Define the common job buffer location, size, and number to the API.

Used by: APMH and APDRV  
Buffer used: Maintenance buffer

msg\_type = \_JOBBUFC = 0x002  
data[1] = Job buffer start address.  
data[2] = Maximum number of job buffers.  
data[3] = Size of each buffer.

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Table B (cont'd)  
APS MESSAGE BODY LAYOUTS

JOBBUF

Define the maintenance job buffer location, size, and number to the API.

Used by: APMH and APDRV  
Buffer used: Maintenance buffer

msg\_type = \_JOBBUF = 0x003  
data[1] = Job buffer start address.  
data[2] = Maximum number of job buffer.  
data[3] = Size of each buffer.

PCPUMP

Request to pump PS0 data (one-sided DMA).

Used by: APDRV  
Buffer used: Maintenance buffer

msg\_type = \_PCPUMP = 0x004  
data[1] = 1B address of process recovery  
program pump (PCRVPUMP).  
data[2] = 3B address of PCRVPUMP.  
data[3] = Number of words to DMA.  
data[4] = PC complete flag option.  
  
option = NPCCPLT = 0x000  
PCCPLT = 0x001

DMADGN

Diagnostic request for DMA read or write of PIC RAM.

Used by: APDRV  
Buffer used: Maintenance buffer

msg\_type = \_DMADGN = 0x005  
data[1] = READ = 0x005  
= WRITE = 0x006  
data[2] = 3B address.  
data[3] = RAM address.  
data[4] = Size.

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Table B (cont'd)  
APS MESSAGE BODY LAYOUTS

DGNINST

Diagnostic instruction to PIC.

Used by: APDRV

Buffer used: Maintenance buffer

msg\_type = \_DGNINST = 0x006

DGNCNTL

Diagnostic message used to control 3B diagnostic activity.

START1A causes any in-progress API diagnostic to be aborted. A 3B block diagnostic flag is set which prevents diagnostics from being originated from the 3B side.

STOP1A causes any in-progress API diagnostic to be aborted. The 3B block diagnostic flag is reset, thus allowing diagnostics to be originated from the 3B side.

Used by: APFR,1B diagnostic program

Buffer used: Common buffer

|          |           |         |
|----------|-----------|---------|
| msg_type | = DGNCNTL | = 0x006 |
| data[1]  | = API 0   | = 0x000 |
|          | = API 1   | = 0x001 |
| data[2]  | = START1A | = 0x001 |
|          | = STOP1A  | = 0x002 |

TESTMSG

Test message used to verify link communication.

Used by: APMH and APDRV

Buffer Used: Common buffer

msg\_type = TESTMSG = 0x007

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Table B (cont'd)  
APS MESSAGE BODY LAYOUTS

APISTAT

Define the 1B API status to 3B.

Used by: APMH

Buffer used: Common buffer

|          |             |         |
|----------|-------------|---------|
| msg_type | = APISTAT   | = 0x008 |
| data[1]  | = API0 stat |         |
| data[2]  | = API1 stat |         |
| stat     | = NOACT     | = 0x000 |
|          | ACT         | = 0x001 |
|          | SBY         | = 0x002 |
|          | OOS         | = 0x003 |
|          | UNQ         | = 0x004 |

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ID ..... REPT:API-DGN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT:API DGN AUDIT  
R=aa  
DRIVER DATA  
D=b  
PHASE DATA  
T=ccc A=dddd S=eee I=ff
- [2] REPT:API DGN AUDIT  
R=aa  
SYSTEM DATA  
D=gg  
PHASE DATA  
T=ccc A=ddd S=eee I=ff
- [3] REPT:API DGN AUDIT  
R=aa  
LEXEC DATA  
D=hh ERRNO=ii  
PHASE DATA  
T=ccc A=ddd S=eee I=ff

## 2. REASON FOR OUTPUT

Format 1 is used to report an Attached Processor System (APS) driver error encountered by the Attached Processor Interface (API) diagnostic program.

Format 2 is used to report an error encountered by the API diagnostic programs.

Format 3 is used to report a LEXEC (off-line code execution) function failure encountered by the API diagnostic program.

## 3. VARIABLE FIELD DEFINITIONS

- a Reason for audit:
- 41 — Open special device file failed.
  - 42 — Set Input/Output (SETIO) failed.
  - 43 — MAKESEG (make a segment of memory) function call failed.
  - 44 — SENDPW (send a message to a port and wait for reply) function call failed.
  - 46 — Driver operation failed.
  - 48 — MSGENAB (enable message reception) function call failed.
  - 49 — MSGDISAB (disable message reception) function call failed.

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- 4A — Open PCPMD (control unit maintenance driver) failed.
  - 4B — Write to PCPMD failed.
  - 4C — Execute Off-Line (EXCOFL) timed out.
  - 4D — Open Equipment Configuration Database (ECD) manager failed.
  - 4E — Unit control block number function failed.
  - 4F — Peripheral Interface Controller (PIC) micro store size not in Unit Control Block (UCB).
  - 50 — Receive wait failed.
  - 51 — LEXEC (off-line code execution) function failed.
  - 64 — Cannot open data table file.
  - 65 — Cannot share Diagnostic Control Block (DCB) from Diagnostic Monitor (DIAMON).
  - 66 — Error in the data table.
  - 67 — Invalid number of parameters from DIAMON.
  - 68 — Open spooler failed.
  - 6A — Invalid interactive mode command.
  - 6C — Open Trouble Locating Procedure (TLP) file failed.
  - 6D — Illegal instruction signal.
  - 6E — Bus error signal.
  - 6F — Segment violation signal.
  - 70 — Software termination signal.
- b APS driver error code. Refer to the DIAGNOSTIC ERRORS section of Table A in REPT:APDRV-ERR for any other APS driver error codes. Values:
- 1 — Request by 1B to abort diagnostic.
  - 2 — Link integrity monitor test fault.
  - 3 — API being restored.
- c Last test executed.
- d Data table address.
- e Data table statement number.
- f Task routine index.
- g Error number value returned on a failing system call or ECD function call.
- h Error code returned by LEXEC function call.
- i Error code from a PCPMD (the control unit (CU) maintenance driver) function call.

#### 4. ACTION TO BE TAKEN

Correct the error that caused the audit.

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**5. REFERENCES**

Input Message  
DGN:API

Output Messages  
DGN:API  
REPT:APDRV-ERR

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ID ..... REPT:API-DUMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

```

REPT: a API b DUMP
 c d e f g h h h
 i j k l m n o p
 q r s t u v w x
 y z a1 b1 c1 d1 e1 f1
g1 h1 i1 j1 k1 l1 m1 n1
o1 p1 q1 r1 s1 t1 u1 v1
w1 x1 y1 z1 a2 b2 c2 d2
e2 f2 g2 h2 i2 j2 k2 l2
m2 n2 o2 p2 q2 r2 s2 t2
u2 v2 w2 x2 y2 z2 a3 b3
c3 d3 e3 f3 g3 h3 i3 j3
k3 l3 m3 n3 o3 p3 q3 r3
s3 t3 u3 v3 w3 x3 y3 z3
a4 b4 c4 d4 e4 f4 g4 h4
i4 j4 k4 l4 m4 n4 o4 p4
q4 r4 s4 t4 u4 v4 w4 x4
y4 z4 a5 a5 a5 a5 a5 a5
[API RAM DUMP UNAVAILABLE]

```

## 2. REASON FOR OUTPUT

To supplement data for a report that an API has detected an error.

Variables c through a5 are data dump information.

Variables c through h are selected hardware related data from the Attached Processor Driver (APDRV).

Variables i through p4 are the dump of the PIC RAM from the API that detected the error.

Variables q4 through a5 are the contents of the last message processed by the API.

## 3. VARIABLE FIELD DEFINITIONS

- a                      FULL     — All applicable lines will be printed.  
                        Partial — Only the first line (API status) will be printed.
- b                      Member number of the API that detected the error.
- c                      BICCMD - Command to Bus Interface Controller (BIC). (See Table B).
- d                      BICDATA - Data returned from BIC (See Table B).

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|    |                                                                                  |
|----|----------------------------------------------------------------------------------|
| e  | BICSTAT - BIC status (See Table C).                                              |
| f  | CHSTATUS - Dual serial channel (DSCH) status.                                    |
| g  | APISTATS - API 0 and API 1 status. See Table A of output message REPT:APDRV-MEM. |
| h  | Spare.                                                                           |
| i  | Send COM/XCOM address offset.                                                    |
| j  | Send COM/XCOM size.                                                              |
| k  | Send COM/XCOM load pointer.                                                      |
| l  | Send COM/XCOM unload pointer.                                                    |
| m  | Receive COM/XCOM virtual offset.                                                 |
| n  | Receive COM/XCOM size.                                                           |
| o  | Receive COM/XCOM load pointer.                                                   |
| p  | Receive COM/XCOM unload pointer.                                                 |
| q  | Send job buffer state vector and number of words.                                |
| r  | Send job buffer DMA address.                                                     |
| s  | Send job buffer client information.                                              |
| t  | Send job buffer from, time and number.                                           |
| u  | Send auditing timing information.                                                |
| v  | Spare.                                                                           |
| w  | Spare.                                                                           |
| x  | Send job buffer checksum.                                                        |
| y  | Receive job buffer state vector and number of words.                             |
| z  | Receive job buffer DMA address.                                                  |
| a1 | Receive job buffer client information.                                           |
| b1 | Receive job buffer from, time, and number.                                       |
| c1 | Receive auditing timing information.                                             |
| d1 | Spare.                                                                           |
| e1 | Spare.                                                                           |
| f1 | Receive job buffer checksum.                                                     |
| g1 | PIC status register.                                                             |
| h1 | Error Status register.                                                           |
| i1 | Send Mtce Buffer virtual address for 3B.                                         |
| j1 | Receive Mtce Buffer virtual address for 3B.                                      |

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|    |                                                   |
|----|---------------------------------------------------|
| k1 | Send Mtce Buffer address for 1B.                  |
| l1 | Receive Mtce Buffer address for 1B.               |
| m1 | Send COM / XCOM Buffer virtual address for 3B.    |
| n1 | Receive COM / XCOM Buffer virtual address for 3B. |
| o1 | Send COM / XCOM Buffer address for 1B.            |
| p1 | Receive COM / XCOM Buffer address for 1B.         |
| q1 | Size of Mtce Buffer in 3B.                        |
| r1 | Size of Mtce Buffer in 1B.                        |
| s1 | Size of COM / XCOM Buffer in 3B.                  |
| t1 | Size of COM / XCOM Buffer in 1B.                  |
| u1 | Mtce Job Buffer offset in 3B.                     |
| v1 | Mtce Job Buffer address in 1B.                    |
| w1 | COM / XCOM Job Buffer offset in 3B.               |
| x1 | COM / XCOM Job Buffer offset in 1B.               |
| y1 | Size of Mtce Job Buffer in 3B.                    |
| z1 | Size of COM / XCOM Job Buffer in 3B.              |
| a2 | Size of Mtce Job Buffer in 1B.                    |
| b2 | Size of COM / XCOM Job Buffer in 1B.              |
| c2 | Number of Mtce Job Buffers in 3B.                 |
| d2 | Number of COM / XCOM Job Buffers in 3B.           |
| e2 | Number of Mtce Job Buffers in 1B.                 |
| f2 | Number of COM / XCOM Job Buffers in 1B.           |
| g2 | Interprocessor Word sent by 3B.                   |
| h2 | Interprocessor Word sent by 1B.                   |
| i2 | PIC Detailed Error Information.                   |
| j2 | API State word.                                   |
| k2 | Expanded DMA job number for Send Mtce Buffer.     |
| l2 | DMA Requested during CNI.                         |
| m2 | DMA In.                                           |
| n2 | DMA Out.                                          |
| o2 | Direction of Interrupted DMA job.                 |
| p2 | Common / CNI Buffer polling rate.                 |
| q2 | Firmware version date.                            |

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|    |                                          |
|----|------------------------------------------|
| r2 | Current 1B DMA job number.               |
| s2 | Current 3B DMA job number.               |
| t2 | Memory integrity check word.             |
| u2 | Send TB Headers address in 1B.           |
| v2 | Send TB Buffer address in 1B.            |
| w2 | Send TB Buffer end address in 1B.        |
| x2 | Send TB load pointer.                    |
| y2 | Send TB unload pointer.                  |
| z2 | Receive TB Headers address in 1B.        |
| a3 | Receive TB Buffer address in 1B.         |
| b3 | Receive TB Buffer end address in 1B.     |
| c3 | Receive TB load pointer.                 |
| d3 | Receive TB unload pointer.               |
| e3 | Pointer state during TB pointer update.  |
| f3 | Spare.                                   |
| g3 | Spare.                                   |
| h3 | Spare.                                   |
| i3 | Spare.                                   |
| j3 | Spare.                                   |
| k3 | API scanning status in 3B.               |
| l3 | DLN scanning status in 3B.               |
| m3 | Incoming TB start virtual address in 3B. |
| n3 | Incoming TB end virtual address in 3B.   |
| o3 | Outgoing TB start virtual address in 3B. |
| p3 | Outgoing TB end virtual address in 3B.   |
| q3 | Outgoing TB load pointer in 3B.          |
| r3 | Outgoing TB end pointer in 3B.           |
| s3 | Incoming TB unload pointer in 3B.        |
| t3 | Incoming TB load pointer in 3B.          |
| u3 | Incoming TB end pointer in 3B.           |
| v3 | Outgoing TB unload pointer in 3B.        |
| w3 | Spare.                                   |
| x3 | Spare.                                   |

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|    |                                                     |
|----|-----------------------------------------------------|
| y3 | Spare.                                              |
| z3 | Spare.                                              |
| a4 | Send TB Virtual address in 1B.                      |
| b4 | Receive TB Virtual Address in 1B.                   |
| c4 | Spare.                                              |
| d4 | Send and Receive TB Virtual Address in 3B.          |
| e4 | TB error threshold and TB DMA transfer size for 1B. |
| f4 | TB DMA transfer size for 3B.                        |
| g4 | TB Send Load and Receive Unload Error Count.        |
| h4 | TB Incoming Load and Outgoing Unload Error Count.   |
| i4 | Interprocessor Data Word going to 3B from 1B.       |
| j4 | Interprocessor Data Word going to 1B from 3B.       |
| k4 | TB Error and Status Word.                           |
| l4 | TB DMA segment index.                               |
| m4 | Spare.                                              |
| n4 | Spare.                                              |
| o4 | Spare.                                              |
| p4 | Spare.                                              |
| q4 | First word of APS message. (From, Size, To).        |
| r4 | Message AP Type and Sequence number.                |
| s4 | Message Client Identification.                      |
| t4 | Spare.                                              |
| u4 | Message Checksum.                                   |
| v4 | Message Options Field.                              |
| w4 | Message Time and number of words.                   |
| x4 | Message Address.                                    |
| y4 | Message ETIME field.                                |
| z4 | Spare.                                              |
| a5 | Message DATA.                                       |

#### 4. ACTION TO BE TAKEN

None.

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**5. REFERENCES**

Output Messages  
REPT:APDRV-MEM  
REPT:API-ERR

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TABLE A  
PIC WORD LAYOUTS

PIC STATUS (PICSTAT) WORD LAYOUT

| Bit | Description                                                                                                               |
|-----|---------------------------------------------------------------------------------------------------------------------------|
| 00  | Open.                                                                                                                     |
| 01  | Interrupt generated by a 1B alert.                                                                                        |
| 02  | Interrupt generated by a 3B alert.                                                                                        |
| 03  | Interrupt generated by a 3B SINT<br>(interrupt to initiate high priority<br>interprocessor maintenance message protocol). |
| 04  | 1B alert function disabled.                                                                                               |
| 05  | 3B alert function disabled.                                                                                               |
| 06  | 1B error checking disabled.                                                                                               |
| 07  | 3B error checking disabled.                                                                                               |
| 08  | 1B side API in loop around mode.                                                                                          |
| 09  | 3B side API in loop around mode.                                                                                          |
| 10  | DMA suspended by 1B.                                                                                                      |
| 11  | DMA suspended by 3B computer.                                                                                             |
| 12  | Interrupt generated by a peripheral<br>interface controller (PIC) error.                                                  |
| 13  | Interrupt generated by a PC.                                                                                              |
| 14  | Interrupt generated by a 1B SINT.                                                                                         |
| 15  | Interrupt generated by diagnostics.                                                                                       |

PIC ERROR (ERRSTAT) WORD LAYOUT

| Bit | Description                                  |
|-----|----------------------------------------------|
| 00  | Bus interface controller (BIC) timeout.      |
| 01  | Actual read in offset or size error.         |
| 02  | 1B command register inhibited.               |
| 03  | Auxiliary unit (AU) bus sequencer inhibited. |
| 04  | AU address range error.                      |
| 05  | Parity failure on AP bus.                    |
| 06  | Parity failure on PIC bus.                   |
| 07  | Pointer check failure.                       |
| 08  | Command check error.                         |
| 09  | Maintenance buffer address not loaded.       |
| 10  | Illegal PIC RAM address specified.           |
| 11  | PIC error.                                   |
| 12  | BIC error.                                   |
| 13  | DMA word count error.                        |
| 14  | Illegal circular buffer command.             |
| 15  | Illegal instruction.                         |

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TABLE B  
BIC AND PIC COMMANDS

APS INTERPROCESSOR LINK COMMANDS  
(BICDATA and upper 16 bits of BICCMD)

| Symbol    | Code   | Description                                 |
|-----------|--------|---------------------------------------------|
| NULLCMD   | 0x00   | Null command.                               |
| IACK      | 0x01   | Invalid command received.                   |
| SYNC      | 0x02   | Synchronization command.                    |
| SACK      | 0x03   | Sync acknowledgment command.                |
| CACK      | 0x04   | Command acknowledgment.                     |
| INIT_COM  | 0x05   | Initialize to com_buf resources.            |
| ACT_COM   | 0x06   | Initialize API to com_buf.                  |
| INIT_XCOM | 0x07   | Initialize to xcom_buf resources.           |
| CONF_API  | 0x08   | Configure API pair as specified.            |
| ERR_RPT   | 0x09   | APS error has been detected.                |
| PS0_REQ   | 0x0a   | PSO pump request as specified.              |
| UPD_REQ   | 0x0b   | Select logical 1B_file for normal requests. |
| SR_REQ    | 0x0c   | Load 1k words of PCRVUMP to 3B main memory. |
| BUF_STATE | 0x0d   | Tell if common buffers are initialized.     |
| VERFYLINK | 0xd34d | Verify APS link is operational.             |
| REQCONF   | 0xd555 | Request API configuration from 1B.          |

BIC COMMANDS (BICCMD)

| Symbol     | Code        | Description                                                     |
|------------|-------------|-----------------------------------------------------------------|
| BIC_CF     | 0x80000000L | BIC command present flag.                                       |
| BIC_TM     | 0x04000000L | BIC data transfer mode.                                         |
| BIC_CIP    | 0x40000000L | BIC command in progress flag.                                   |
| BIC_DF     | 0x20000000L | BIC data flag.                                                  |
| BIC_DAD    | 0x60000000L | BIC data fifo access denied<br>(BIC_DF AND BIC_CIP).            |
| BIC_INTP   | 0x00200000L | BIC interrupt.                                                  |
| PIC_RESET  | 0x00004000L | Reset the PIC.                                                  |
| BIC_CLR    | 0x00002000L | Clear the BIC.                                                  |
| BIC_CFIFO  | 0x00001000L | Clear BIC FIFO.                                                 |
| BIC_IFEN   | 0x00000800L | BIC-PIC interface enable.                                       |
| BIC_SWDM   | 0x00000200L | Set word mode.                                                  |
| BIC_RSINT  | 0x00000100L | Reset BIC interrupt.                                            |
| BIC_PIC_ER | 0x0000fff0L | BIC-PIC error mask.                                             |
| PICINIT    | 0x00007200L | Initialize PIC (PIC_RESET, BIC_CLR,<br>BIC_CFIFO and BIC_SWDM). |
| DBS_CLR    | 0x00000001L | Clear DDSBS.                                                    |
| DBS_NORM   | 0x0000000bL | Set DDSBS to normal mode.                                       |

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PIC COMMANDS  
(Lower 16 bits of BICCMD)

| Symbol  | Code   | Description                               |
|---------|--------|-------------------------------------------|
| MBSIZE  | 0x0106 | api mtc_buf size opcode.                  |
| INVALID | 0x0006 | api invalid opcode.                       |
| SMBADD  | 0x0206 | api send mtc_buf address opcode.          |
| DRVSEG  | 0x0306 | expanded DMA index for APDRV segment.     |
| RMBADD  | 0x0406 | api receive mtc_buf address opcode.       |
| LRAM    | 0x0606 | api load ram from mtc_buf opcode.         |
| DRAM    | 0x0706 | api dump ram to mtc_buf opcode.           |
| SMB     | 0x0806 | api send mtc_buf to 1B opcode.            |
| SMUP    | 0x0906 | api send mtc unload pointer to 1B opcode. |
| SINT    | 0x0a06 | api send MI to 1B opcode.                 |
| SHPIINT | 0x0b06 | api send high priority interrupt opcode.  |
| SDMA    | 0x0c06 | api suspend DMA opcode.                   |
| RDMA    | 0x0d06 | api resume DMA opcode.                    |
| RJOBNUM | 0x0e06 | api read DMA job numbers opcode.          |
| ABTDMA  | 0x0f06 | api abort DMA job in progress opcode.     |
| DLOOP   | 0x1006 | api disable PIC loop around mode opcode.  |
| ELOOP   | 0x1106 | api enable PIC loop around mode opcode.   |
| DERRCHK | 0x1206 | api disable error checks opcode.          |
| EERRCHK | 0x1306 | api enable error checks opcode.           |
| GETPICS | 0x1406 | api get PIC status word opcode.           |
| CLRPICS | 0x1506 | api clear PIC status word opcode.         |
| GETPICE | 0x1606 | api get PIC error word opcode.            |
| CLRPICE | 0x1706 | api clear PIC error word opcode.          |
| RSTATE  | 0x1806 | api read API state.                       |
| WSTATE  | 0x1906 | api write API state.                      |
| DALERT  | 0x1c06 | api disable alert function for "my" side. |
| EALERT  | 0x1d06 | api enable alert function for "my" side.  |
| WDATA   | 0x1e06 | api write data opcode.                    |
| RDATA   | 0x1f06 | api read data opcode.                     |

SEE PROPRIETARY NOTICE ON COVER PAGE

TABLE C  
BIC STATUS LAYOUT

| Bit | Description                          |         |
|-----|--------------------------------------|---------|
| 00  | Unit address.                        |         |
| 01  | Unit address.                        |         |
| 02  | Unit address.                        |         |
| 03  | Unit address.                        |         |
| 04  | DMA setup overwrite.                 |         |
| 05  | PBI parity error - byte 0.           | *       |
| 06  | PBI parity error - byte 1.           | *       |
| 07  | PBI parity error - byte 2.           | *       |
| 08  | PBI parity error - byte 3.           | *       |
| 09  | EOD error.                           | * ERROR |
| 10  | PIC fatal error summary.             | * FLAGS |
| 11  | PIC sanity error.                    | *       |
| 12  | PIC data bus parity error - lo byte. | *       |
| 13  | PIC data bus parity error - hi byte. | *       |
| 14  | Data FIFO overflow / underflow.      | *       |
| 15  | Command register overflow.           | *       |
| 16  | FIFO word count.                     |         |
| 17  | FIFO word count.                     |         |
| 18  | FIFO word count.                     |         |
| 19  | FIFO word count.                     |         |
| 20  | FIFO word count.                     |         |
| 21  | Interrupt.                           |         |
| 22  | Transfer.                            |         |
| 23  | Setup.                               |         |
| 24  | EOD expected.                        |         |
| 25  | EOD received.                        |         |
| 26  | Transfer mode (0=WRD, 1=BLK).        |         |
| 27  | Enable PIC data bus parity check.    |         |
| 28  | Interface enable.                    |         |
| 29  | Data flag (0=3B, 1=PIC).             |         |
| 30  | Command in progress (CIP).           |         |
| 31  | Command flag.                        |         |

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:API-ERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT: API a ERR bbb RTC: c

## 2. REASON FOR OUTPUT

To report an error detected by the attached processor driver (APDRV) which is directed to the attached processor interface (API), including possible software errors detected by the API. This error report indicates an error condition which could result in a unit out of service.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number of the API that caused or detected the error.
- b Error code (see Table A).
- c System real time clock at the moment the error occurred.

## 4. ACTION TO BE TAKEN

Repair and restore to service any units that are removed.

## 5. REFERENCES

Output Messages  
REPT:APDRV-ERR  
REPT:API-DUMP

SEE PROPRIETARY NOTICE ON COVER PAGE

TABLE A

API ERROR CODES GENERATED BY APDRV

| Code  | Function                                 | Explanation                                    |
|-------|------------------------------------------|------------------------------------------------|
| 0x100 | picint<br>interrupt received.            | Peripheral interface controller (PIC)          |
| 0x101 | pio<br>(BIC) failed.                     | Command to bus interface controller            |
| 0x102 | pio                                      | Command to PIC failed.                         |
| 0x103 | pio                                      | Command to PIC failed.                         |
| 0x104 | pio<br>selector (DD SBS) failed.         | Access to duplex dual serial bus               |
| 0x105 | pio                                      | Access to DDSBS failed.                        |
| 0x106 | pio                                      | Read first in / first out (FIFO) failed.       |
| 0x108 | pio                                      | Write to FIFO failed.                          |
| 0x109 | pio                                      | Sense status of BIC failed.                    |
| 0x10a | pio                                      | Sense status of BIC failed.                    |
| 0x110 | delay                                    | Delay timeout.                                 |
| 0x111 | d_loop                                   | BIC status indicates BIC / PIC errors.         |
| 0x112 | pi_delay                                 | BIC status register read failed.               |
| 0x113 | pi_delay                                 | Dummy command to PIC failed.                   |
| 0x114 | pi_delay                                 | d_loop() wait loop failed.                     |
| 0x115 | pi_delay                                 | d_loop() wait loop timed out.                  |
| 0x120 | piock                                    | PIC command failed.                            |
| 0x16a | int_trbl                                 | Unresolved interrupt.                          |
| 0x16b | int_trbl<br>(possible API power up).     | Repeated unresolved interrupts                 |
| 0x16c | int_trbl                                 | Bad interrupt on in-service API.               |
| 0x16d | int_trbl<br>stay attached to interrupts. | Babbling interrupt trouble is over,            |
| 0x1a0 | int_han                                  | Excessive errors: API interrupts detached.     |
| 0x1a1 | int_han                                  | API interrupts enabled.                        |
| 0x1a4 | lim                                      | Conflicting API status: API=ACT, 3B not API.   |
| 0x1a5 | lim                                      | Conflicting API status: API=STBY, 3B not STBY. |
| 0x1a6 | lim                                      | Conflicting API status: API=OOS, 3B not OOS.   |
| 0x1b2 | kfault                                   | Mark faulty API out of service.                |
| 0x1c4 | aptime<br>interrupt service problems.    | APIs detached and attached to correct          |
| 0x1cb | lim                                      | Link integrity monitor test failed.            |

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ID ..... REPT:APLUPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT: APLUPD FAILED TO OPEN TO ECD
- [2] REPT: APLUPD FAILED TO OPEN ECD SEQUENCE
- [3] REPT: APLUPD PORT CONNECT FAILURE
- [4] REPT: APLUPD FAILED TO a 1A FILE
- [5] REPT: APLUPD UNKNOWN TYPE OF b MESSAGE QUERY TYPE c

## 2. REASON FOR OUTPUT

To report a failure to access the Equipment Configuration Database (ECD) by the Attached Processor Lamp Update (APLUPD) process.

Format 1 is printed when APLUPD cannot "open" to the ECD / dev / ecd file.

Format 2 is printed when APLUPD fails to open the ECD for Unit Control Block (UCB) sequencing.

Format 3 is printed when there is an APLUPD port connect failure.

Format 4 is printed when the APLUPD fails to OPEN or READ the 1B file.

Format 5 is printed when the APLUPD receives unknown messages.

## 3. VARIABLE FIELD DEFINITIONS

- a General source of message:
  - Open — Could not OPEN the 1B file.
  - READ — Could not READ the 1B file.
- b General source of message:
  - INTERPROCESS — Could not determine RTR interprocess message type.
- c RTR message type:
  - APDRV — Could not determine APDRV message type.
  - 1A REQUEST — APLUPD received an unknown data request from the 1B Processor.

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#### **4. ACTION TO BE TAKEN**

For Format 1, check the /dev/ecd file for validity, that is, check that /dev/ecd exists and is writable.

For Format 2, no action is necessary.

APLUPD process, upon detection of one of these errors, will commit suicide after 30 seconds and reattempt ECD access. If errors persist, seek technical assistance.

For Format 3, seek technical assistance.

For Format 4, seek technical assistance.

For Format 5, seek technical assistance.

#### **5. REFERENCES**

None.

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ID ..... REPT:APPDB-DA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT APPDB DA a (3B) ERR  
RC DA PROBLEM CODE b
  
- [2] REPT APPDB DA a (3B) ERR  
RC DA PROBLEM CODE b SUPPL c
  
- [3] REPT APPDB DA a (3B) ERR  
RC DA CANNOT START TRANSACTION - DS OPEN FAILURE c
  
- [4] REPT APPDB DA a (3B) ERR  
CANNOT OPEN TMP FILE: d FOR DA TO RC:MISC - b(e)
  
- [5] REPT APPDB DA a (3B) ERR  
CANNOT WRITE FILE: d FOR DA TO RC:MISC - b(e)
  
- [6] REPT APPDB DA SK0 (3B) ERR  
RC DA - CANNOT APPLY DLN INHIBIT (b)
  
- [7] REPT APPDB DA TR (3B) ERR  
TRANSACTION CANNOT PROCEED - SEND FAST REPORT

## 2. REASON FOR OUTPUT

Prints errors in connection with the Database Administration (DA) for application databases.

## 3. VARIABLE FIELD DEFINITIONS

- a                      String representing the DA object that encountered the error:
- MT     — Controls application of database changes to the 3B disk.
  - SK0    — Single key operation.
  - SLT    — Controls application of database changes to the DLNs.
  - SPLT   — Controls changing database after an NPA Split.
  - TR     — Master controller for RC/V transactions.

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b

Error code indicating what the error was:

- 650 — TR object is stuck in loop constantly deleting the same instance.
- 651 — Data from RC:MISC too large for buffer.
- 652 — Did not read the expected amount of data from tmp file.
- 653 — Database does not exist.
- 654 — Could not create TR instance.
- 655 — Failure in populating MT and SKO instances.
- 656 — Failure to encode ASN message.
- 657 — No SLT instance exists.
- 658 — Customer Database out of range.
- 659 — DLNCM indicates an error trying to write to DLNs.
- 660 — Could not create SLT instance.
- 661 — Invalid File Descriptor for DS.
- 662 — Invalid Choice of SKO.
- 663 — An expected SKO does not exist.
- 664 — Could not create SKO instance.
- 665 — MT object is stuck in loop constantly deleting the same instance.
- 666 — SKO instance in incorrect state.
- 667 — DS File did not close.
- 668 — Could not create MT instance.
- 669 — An expected MT instance does not exist.
- 670 — Could not create LOG instance.
- 671 — Could not create SPLT instance.
- 672 — Failure in populating SPLT instance.
- 673 — An expected MT instance does not exist.
- 674 — An expected ONEA instance does not exist.
- 675 — Could not create ONEA instance.
- 676 — Waiting too long for FR to recalc CRCs.

c

Supplementary error code:

- 1-99 — UNIX RTR System error, see output Appendix APP:SYSERR.
- 101 — General database failure, unsuccessful completion.

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- 105 — Item to be modified was not located.
- 110 — Cannot add number, hash table full.
- 111 — Cannot add number, 10-digit compaction table full.
- 116 — Cannot add point code sub-system information, NCP table full.
- 120 — Cannot add record, it already exists.
- 123 — The dialed digit/ANI being searched for was not found.
- 124 — Specified NPA-NXX combination was not found.
- 127 — Associated point code sub-system information does not exist.
- 141 — File descriptor is out of range.
- 143 — Error on reading from the database.
- 144 — Error on writing to the database.
- 154 — Database inconsistencies have been detected.
- 155 — Cache inconsistencies have been detected.
- 156 — The ADMINTOC or DBTOC magic number is invalid.
- 157 — Invalid database type for this application.
- 160 — Clump number is out of range for application.
- 176 — All file descriptors are active, none available.
- 180 — The replacement NPA-NXX value already exists.
- 190 — The application database value is invalid.
- 191 — The specified user identification number is invalid.
- 192 — The specified access mode is invalid.
- 193 — The specified customer identification number is invalid.
- 194 — The compaction table search chain exceeded maximum length.
- 195 — The dialed digit/ANI table search chain exceeded maximum.
- 196 — The DLN user buffer address is invalid.
- 201 — The argument 'object' is invalid.
- 202 — The argument passed in is invalid.
- 203 — The instance does not exist.
- 204 — The instance cannot be created, it exists already.
- 205 — End of object array, no more instances.

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- 206 — No free IR internal buffer.
- 207 — Request IMS buffer failed.
- 208 — Build IMS header failed.
- 209 — IMS write failed.
- 212 — Data size + number of key > 480 bytes.
- 213 — Domain exceeds its buffer quota.
- 215 — Argument 'domain' is invalid.
- 216 — Get\_BAD\_CHAN failure from IMS read.
- 217 — Get\_RTNMSG failure from IMS read.
- 218 — Get\_SRCMATCH failure from IMS read.
- 219 — Bad message type.
- 220 — IR event length > 508 bytes.
- 223 — Wrong queue type.
- d Name of temporary file that cannot be opened.
- e Unix error code as a string.

#### 4. ACTION TO BE TAKEN

If repeated errors indicate problems, seek technical assistance. The utility command, irutil, may be useful in providing further information in tracking down a problem reported by the REPT:APPDB-DA output message. This command resides in /tools/irutil and has a usage statement that demonstrates how to use the command.

#### 5. REFERENCES

Output Appendix  
APP:SYSERR

Input Messages  
ALW:DLNAUD  
INH:DLNAUD  
OP:DLNAUD  
START:CRCUPD  
RC:MISC-FHT-FTA

Output Messages  
ALW:DLNAUD  
INH:DLNAUD  
OP:DLNAUD  
START:CRCUPD  
RC:MISC-FHT-FTA

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:APPDB-FR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT APPDB FR REHCAL (3B) ERR  
APP a CLUMP b DATA/CRC MISMATCH ON MASTER DEVICE  
CALCULATED DATA: c EXPECTED CRC: d
- [2] REPT APPDB FR REHCAL (3B) ERR  
APP a CLUMP b DATA/CRC MISMATCH ON LN<sub>g</sub> m  
CALCULATED DATA: c EXPECTED CRC: d
- [3] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a SUSPENDED DEVICE LIST ERR e  
SUPPL h FILE n LINE o
- [4] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a SUSPENDED ALL DEVICES 00S
- [5] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a SUSPENDED MASTER CRC DATA ERR f SUPPL h
- [6] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a SUSPENDED INVALID INHIBIT STATUS
- [7] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a MASTER DEVICE REHCAL SKIPPED CLUMP b REASON f SUPPL h
- [8] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a DEVICE g INVALID SKIPPED CLUMP b REASON f SUPPL h
- [9] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a MASTER DEVICE CLUMP b REASON f SUPPL h  
SKIPPING REST OF THIS DEVICE
- [10] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a LN<sub>g</sub> m CLUMP b REASON f SUPPL h  
SKIPPING REST OF THIS DEVICE
- [11] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a CLUMP NUMBER ERR f SUPPL h
- [12] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a MASTER CRC DATA ERR f SUPPL h

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- [13] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a UPDATE INFO ERR f SUPPL h
- [14] REPT APPDB FR SYSERR (3B) ERR  
REHAUD APP a WRITE CRC DATA ERR f SUPPL h
- [15] REPT APPDB FR (3B) ERR  
FRINIT() ERR e APPLICATION DATABASE LIST
- [16] REPT APPDB FR (3B) ERR  
FRINIT() DEVICE LIST ERR e  
SUPPL h FILE n LINE o
- [17] REPT APPDB FR (3B) ERR  
FRINIT() ERR i CREATE AUDIT OBJECT EVENTHAN
- [18] REPT APPDB FR (3B) ERR  
FRINIT() ERR i CREATE AUDIT OBJECT SYSERR
- [19] REPT APPDB FR (3B) ERR  
FRINIT() ERR i CREATE AUDIT OBJECT REHAUD
- [20] REPT APPDB FR (3B)  
REHASH AUDIT IS INHIBITED FOR APP a
- [21] REPT APPDB FR -- DATABASE IS CORRUPT

## 2. REASON FOR OUTPUT

Prints errors in connection with the fault recovery system for the application databases.

## 3. VARIABLE FIELD DEFINITIONS

- a Application database that is affected. Valid values are:
  - IBGTT — Inbound global title translation
  - OBGTT — Outbound global title translation
  - PCPGTT — Positive call processing global title translation
- b The number of the clump of data that is affected. Valid values are 0 - 1280.
- c The calculated CRC value for a clump. This is a hexadecimal value.
- d The stored CRC value for a clump. This is a hexadecimal value.
- e Error code indicating why the audit could not get information about devices. Possible values are:
  - 1 — Unable to get the information requested.
  - 1 — Retry later.

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- f Error code indicating a problem interfacing to the application database:
- 601 — Unable to get a filename for the master database.
  - 602 — Unable to attach to the database.
  - 603 — File descriptor is bad.
  - 604 — Unable to get next clump number.
  - 605 — Unable to get a clump of data.
  - 606 — Unable to determine the size of a clump.
  - 607 — Unable to determine the number of clumps.
  - 608 — Unable to determine the total number of clumps.
  - 609 — Unable to get CRC data.
  - 610 — Unable to access the DLN from the 3B20D.
  - 611 — Unable to get the device name of a DLN.
  - 612 — Unable to get the update information after a Recent Change.
  - 613 — Unable to get the master database file name.
  - 614 — Unable to write the CRC data.
  - 615 — Application database number is invalid.
- g Group number of a Direct Link Node. Possible values are 00 or 32.
- h Error code indicating a problem with attaching or using the application database.
- 1-99 — UNIX RTR System error, see output Appendix APP:SYSERR.
  - 101 — General database failure, unsuccessful completion.
  - 105 — Item to be modified was not located.
  - 110 — Cannot add number, hash table full.
  - 111 — Cannot add number, 10-digit compaction table full.
  - 116 — Cannot add point code sub-system information, NCP table full.
  - 120 — Cannot add record, it already exists.
  - 123 — The dialed digit/ANI being searched for was not found.
  - 124 — Specified NPA-NXX combination was not found.
  - 127 — Associated point code sub-system information does not exist.
  - 141 — File descriptor is out of range.
  - 143 — Error on reading from the database.
  - 144 — Error on writing to the database.
  - 154 — Database inconsistencies have been detected.
  - 155 — Cache inconsistencies have been detected.
  - 156 — The ADMINTOC or DBTOC magic number is invalid.
  - 157 — Invalid database type for this application.
  - 160 — Clump number is out of range for application.
  - 176 — All file descriptors are active, none available.
  - 180 — The replacement NPA-NXX value already exists.
  - 190 — The application database value is invalid.
  - 191 — The specified user identification number is invalid.
  - 192 — The specified access mode is invalid.

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- 193 — The specified customer identification number is invalid.
  - 194 — The compaction table search chain exceeded maximum length.
  - 195 — The dialed digit/ANI table search chain exceeded maximum.
  - 196 — The DLN user buffer address is invalid.
- i                      Error code indicating why an audit object was not able to be created.
- 201 — The argument 'object' is invalid.
  - 202 — A parameter is invalid.
  - 203 — The instance does not exist.
  - 204 — The instance cannot be created, it exists already.
  - 205 — End of object array, no more instances.
  - 206 — No free IR internal buffer.
  - 207 — Request IMS buffer failed.
  - 208 — Build IMS header failed.
  - 209 — IMS write failed.
  - 212 — Data size + number of key > 480 bytes.
  - 213 — Domain exceeds its buffer quota.
  - 215 — Argument 'domain' is invalid.
  - 216 — Get\_BAD\_CHAN failure from IMS read.
  - 217 — Get\_RTNMSG failure from IMS read.
  - 218 — Get\_SRCMATCH failure from IMS read.
  - 219 — Bad message type.
  - 220 — IR event length > 508 bytes.
  - 223 — Wrong queue type.
- m                      Member number of a Direct Link Node. Possible values are between 0 and 16.
- n                      Any valid filename.
- o                      Represents line number.

#### 4. ACTION TO BE TAKEN

If repeated errors indicate problems, seek technical assistance. The utility command, irutil, may be useful in providing further information in tracking down a problem reported by the REPT:APPDB-FR output message. This command resides in /tools/irutil and has a usage statement that demonstrates how to use the command.

#### 5. REFERENCES

Output Appendix  
APP:SYSERR

Input Messages  
ALW:DLNAUD  
INH:DLNAUD  
OP:DLNAUD

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START : CRCUPD  
RC : MISC - FHT - FTA

Output Messages

ALW : DLNAUD  
INH : DLNAUD  
OP : DLNAUD  
START : CRCUPD  
RC : MISC - FHT - FTA

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ID ..... REPT:APPDB-IR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT APPDB IR (3B) ERR  
INIT\_INST: OBJ a CAN'T BE CLEARED: IRERR b
  
- [2] REPT APPDB IR (3B) ERR  
UNKN OBJ X'c IRERR b
  
- [3] REPT APPDB IR (3B) ERR  
UNKN OBJ INST (d a) X'l IRERR b IDS (X')  
e e e e e
  
- [4] REPT APPDB IR (3B) ERR  
IR FLT EXIT (X') f AT g  
R8:h R7:h R0:h  
STKPA1: i  
STKPA2: i  
STKPA3: i
  
- [5] REPT APPDB IR (3B) ERR  
H0 EV NOT FOUND EV: X'l
  
- [6] REPT APPDB IR (3B) ERR  
FIND\_ODT: OBJECT X'c 00R
  
- [7] REPT APPDB IR (3B) ERR  
FIND\_INST: ODTPTR X'j 00R
  
- [8] REPT APPDB IR (3B) ERR  
ACT INTER (X') f AT g  
R8:h R7:h R0:h  
STKPA1: i  
STKPA2: i  
STKPA3: i
  
- [9] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN IRtimerq: INDX 00R
  
- [10] REPT APPDB IR (3B) ERR  
INIT\_Q IS CALLED IN IRtimerq: INDX 00R AFTER AUD\_Q
  
- [11] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN IRtimerq: WRONG Q TYPE

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- [12] REPT APPDB IR (3B) ERR  
INIT\_Q IS CALLED IN IRtimerq: WRONG Q TYPE AFTER AUD\_Q
- [13] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN IRtimerq: WRONG POINTER
- [14] REPT APPDB IR (3B) ERR  
INIT\_Q IS CALLED IN IRtimerq: WRONG POINTER
- [15] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN EMPTY\_Q
- [16] REPT APPDB IR (3B) ERR  
INIT\_Q IS CALLED IN EMPTY\_Q
- [17] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN GET\_Q: NO FREE BUFFER
- [18] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN GET\_Q: INDX OOR
- [19] REPT APPDB IR (3B) ERR  
INIT\_Q IS CALLED IN GET\_Q: INDX OOR AFTER AUD\_Q
- [20] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN GET\_Q: BUF[X'm] POINT TO ITSELF
- [21] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN GET\_Q: BUF[X'm] TYPE WRONG
- [22] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN RM\_QITEM: BUF[X'm] POINT TO ITSELF
- [23] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN RM\_QITEM: BUF[X'm] BACK POINT TO ITSELF
- [24] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN Q\_FINDN: BUF[X'm] POINT TO ITSELF
- [25] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN PUT\_Q: INDX OOR
- [26] REPT APPDB IR (3B) ERR  
INIT\_Q IS CALLED IN PUT\_Q: INDX OOR AFTER AUD\_Q
- [27] REPT APPDB IR (3B) ERR  
AUD\_Q IS CALLED IN EXP\_Q: INDX OOR
- [28] REPT APPDB IR (3B) ERR  
INIT\_Q IS CALLED IN EXP\_Q: INDX OOR AFTER AUD\_Q

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```
[29] REPT APPDB IR (3B) ERR
 FIX BACK POINTER FOR IR_Q[X'm]

[30] REPT APPDB IR (3B) ERR
 REALLOCATE BUFFER IR_Q[X'm] TO FREE_Q

[31] REPT APPDB IR (3B) ERR
 DOM_INIT INTER (X') f AT g
 R8:h R7:h R0:h
 STKPA1: i
 STKPA2: i
 STKPA3: i
```

## 2. REASON FOR OUTPUT

Prints errors in connection with the base 3B20D process that provides data administration and fault recovery of the application databases.

## 3. VARIABLE FIELD DEFINITIONS

- a A character string representing the object name.
- b Error code indicating why an object instance cannot be cleared.  
Possible values include:
  - 201 — The argument 'object' is invalid.
  - 202 — The argument passed in is invalid.
  - 203 — The instance does not exist.
  - 204 — The instance cannot be created, it exists already.
  - 205 — End of object array, no more instances.
  - 206 — No free IR internal buffer.
  - 207 — Request IMS buffer failed.
  - 208 — Build IMS header failed.
  - 209 — IMS write failed.
  - 212 — Data size + number of key > 480 bytes.
  - 213 — Domain exceeds its buffer quota.
  - 215 — Argument 'domain' is invalid.
  - 216 — Get\_BAD\_CHAN failure from IMS read.
  - 217 — Get\_RTNMSG failure from IMS read.
  - 218 — Get\_SRCMATCH failure from IMS read.
  - 219 — Bad message type.
  - 220 — IR event length > 508 bytes.
  - 223 — Wrong queue type.
- c Invalid destination object number.
- d A string representing either the fault recovery or the data administration. Possible values are "FR" or "DA".
- e A number representing the identifier for an object instance.
- f The fault code for supervisor fault entry. Refer to output Appendix APP:FAULT-CODE.

SEE PROPRIETARY NOTICE ON COVER PAGE

|   |                                                                                                           |
|---|-----------------------------------------------------------------------------------------------------------|
| g | The virtual memory address where the interrupt occurred.                                                  |
| h | Contents of a register when the interrupt occurred. R0 contains the return value of the fault subroutine. |
| i | Location of the stack when the interrupt occurred.                                                        |
| j | Value of object descriptor table pointer that is out of range.                                            |
| l | Invalid event number.                                                                                     |
| m | IR internal buffer index                                                                                  |

#### **4. ACTION TO BE TAKEN**

If repeated errors indicate problems, seek technical assistance. The utility command, `irutil`, may be useful in providing further information in tracking down a problem reported by the `REPT:APPDB-IR` output message. This command resides in `/tools/irutil` and has a usage statement that demonstrates how to use the command.

#### **5. REFERENCES**

Output Appendix  
APP:FAULT-CODE

Input Messages  
ALW:DLNAUD  
INH:DLNAUD  
OP:DLNAUD  
START:CRCUPD  
RC:MISC-FHT-FTA

Output Messages  
ALW:DLNAUD  
INH:DLNAUD  
OP:DLNAUD  
START:CRCUPD  
RC:MISC-FHT-FTA

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:APRMVRST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT APRMVRST ERROR a b

## 2. REASON FOR OUTPUT

To report an error condition in the attached processor remove/restore (APRMVRST) user process.

## 3. VARIABLE FIELD DEFINITIONS

- a                      The error condition:
- 1 — Message enable function call failure.
  - 2 — Receive wait function call failure.
  - 3 — Cannot open spooler process.
  - 4 — Cannot open equipment configuration data base (ECD) manager.
  - 5 — Cannot get unit control block (UCB) from ECD manager.
  - 6 — UCB not for requested unit.
  - 7 — Cannot open special device file.
  - 8 — SENDW (send a message and wait for reply) function call failure.
  - 9 — Cannot set unit number in UCB.
  - 10 — Cannot set manual restore request in UCB.
  - 11 — SENDPW (send a message to a port and wait for reply) function call failure.
  - 12 — Illegal instruction signal.
  - 13 — Bus error signal.
  - 14 — Segment violation signal.
  - 15 — Software termination signal.
  - 16 — Abort request via manual input.
- b                      The error code returned by the failing function call.

## 4. ACTION TO BE TAKEN

If an operating system function call is failing, obtain technical assistance to clear the trouble.

## 5. REFERENCES

Input Message  
DGN:API

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:APS-DELAY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 3B-APS  
TYPE ..... Output

## 1. FORMAT

| REPT APS DELAY STATISTICS |           |          |        |
|---------------------------|-----------|----------|--------|
| AVG DELAY                 | MAX DELAY | REQUESTS | PERIOD |
| a                         | b         | c        | d      |

## 2. REASON FOR OUTPUT

To report cumulative statistics from delay fields on APS display page.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                        |
|---|------------------------------------------------------------------------------------------------------------------------|
| a | Average delay as seen from a 1B client for disk job requests over the period of the requested display in milliseconds. |
| b | Maximum delay as seen from a 1B client for a disk job over the period of the requested display in milliseconds.        |
| c | Number of disk jobs requested over the period of requested display.                                                    |
| d | Period of display, that is the length of time in minutes, over which the statistics were collected.                    |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Display / Menu Page Display  
APS

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:APSM-CNTS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT:APSMEAS REJECTED

**2. REASON FOR OUTPUT**

To indicate a negative acknowledgment from the 1B (TRAFCLCT). Every 15 minutes, 3B API counts are sent to the 1B by process APSMEAS. The negative acknowledgment is caused by data mutilation during message delivery.

**3. VARIABLE FIELD DEFINITIONS**

See Reason for Output.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Output Message  
REPT:APSM-FAIL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:APSM-FAIL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT:APSMEAS FAILED TO COLLECT COUNTS

## 2. REASON FOR OUTPUT

To report that counts could not be extracted from the Attached Processor Driver (APDRV). Normally, counts are extracted every 15 minutes by process APSMEAS and sent to the 1B processor.

## 3. VARIABLE FIELD DEFINITIONS

See Reason for Output.

## 4. ACTION TO BE TAKEN

Verify that the APDRV is running and attached to port 75.

## 5. REFERENCES

Input Messages  
OP:ST-PORTS  
OP:ST-PROC

Output Messages  
OP:ST-PORTS  
OP:ST-PROC

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:APSMMSG-ERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT: APSMSG ERR X'a [ DATA X'b ]  
[ ccddeeff gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg  
gggggggg gggggggg gggggggg 00000000 00000000 00000000 00000000 00000000 ]

## 2. REASON FOR OUTPUT

To report an Attached Processor System Message Driver (APSMMSG) error condition. This message could report errors that are a result of losing a DMERT output message sent to the 1B processor.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                       |
|---|---------------------------------------------------------------------------------------|
| a | Error code. (See Table A).                                                            |
| b | Supplementary data word. (See Table A)                                                |
| c | Head of free large message buffer queue.                                              |
| d | Tail of free large message buffer queue.                                              |
| e | Head of active large message buffer queue.                                            |
| f | Tail of active large message buffer queue.                                            |
| g | Next buffer links (1 byte each) for large message buffers 0 through 39, respectively. |

## 4. ACTION TO BE TAKEN

For error codes 0x60n, the APSMSG process will be left in a state such that DMERT output messages will not be sent to the 1B processor. To recover from this condition, 'pkill' the APSMSG process. Otherwise, no action is necessary.

## 5. REFERENCES

Output Messages  
REPT: APDRV-ER-4aa  
REPT: APSMSG-FAU

SEE PROPRIETARY NOTICE ON COVER PAGE

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TABLE A  
ATTACHED PROCESSOR SYSTEM MESSAGE DRIVER ERRORS REPORTED  
FATAL ERRORS

---

| Code*  | Function   | Description                                                                              |
|--------|------------|------------------------------------------------------------------------------------------|
| 0x600  | drvinit    | Alocmsg failed for Attached Processor Driver (APDRV) open.                               |
| 0x601  | drvinit    | Queuem failed for APDRV open.                                                            |
| +0x602 | dmsghdlr   | Ms_stat returned bad status from AP_OPEN message.<br>b = Status returned from APDRV.     |
| 0x603  | dmsghdlr   | Unable to set up repetitive timer.                                                       |
| 0x604  | drvinit    | Unable to stop repetitive timer.                                                         |
| 0x605  | drvinit    | Unable to set up initialization timer.                                                   |
| 0x606  | dmsghdlr   | Unable to stop initialization timer.                                                     |
| 0x607  | kevent     | Initialization timer time out.                                                           |
| 0x608  | proc_omsg  | DMERT 'iomap' OST returned FAIL.                                                         |
| 0x609  | drvinit    | DMERT 'kgetsgn' OST returned invalid segment.                                            |
| +0x60a | alloc_mbuf | DMERT 'iolock' OST returned FAIL.<br>b = Segment number of large message buffer segment. |

**\*NOTE:** First two characters indicate which errors include supplementary data and/or link dumps:

- ' ' — No supplementary data and no link dump.
- '+' — Supplementary data but no link dump.
- '- ' — Link dump but no supplementary data.
- '-+' — Supplementary data and link dump.

#### SOFTWARE ERRORS

|        |         |                                                                        |
|--------|---------|------------------------------------------------------------------------|
| +0x610 | kevent  | APSMMSG driver received invalid event.<br>b = Invalid event flags.     |
| +0x611 | kfault  | APSMMSG driver received invalid fault code.<br>b = Invalid fault code. |
| +0x612 | drverr  | Invalid error print option.<br>b = Invalid error print option.         |
| +0x613 | drvinit | Invalid level of initialization.<br>b = Invalid level requested.       |

SEE PROPRIETARY NOTICE ON COVER PAGE

TABLE A (cont'd)  
MESSAGE PROCESSING ERRORS

| Code*   | Function   | Description                                                                                   |
|---------|------------|-----------------------------------------------------------------------------------------------|
| +0x620  | dmsghdlr   | Invalid ap_type from APDRV.<br>b = ap_type field.                                             |
| +0x621  | dmsghdlr   | Invalid message type from DMERT.<br>b = ms_type field of message.                             |
| +0x622  | dmsghdlr   | Illegal message buffer back on WT_ACK message.<br>b = ap_ident field (message buffer number). |
| 0x623   | dmsghdlr   | Read of / dev / apsmmsg invalid.                                                              |
| +0x624  | proc_omsg  | Message segment too large to process.<br>b = Size of message segment on IOWRITE.              |
| +0x625  | time_lmbuf | Large message buffer timed out.<br>b = Large message buffer index.                            |
| - 0x626 | alloc_mbuf | Tail of active message buffer list invalid.                                                   |
| - 0x627 | free_mbuf  | Tail of free message buffer list invalid.                                                     |
| +0x628  | dmsghdlr   | Illegal msg_type field from IOCP.<br>b = msg_type field from IOCP.                            |
| +0x629  | dmsghdlr   | IOCP rejected large output message.<br>b = msg_stat field from IOCP.                          |
| -+0x62a | free_mbuf  | Buffer to release not found on active list.<br>b = Large message buffer index.                |
| 0x62b   | free_mbuf  | Invalid message buffer index to be freed.                                                     |
| +0x62c  | drvinit    | Invalid apmsgptr field in message buffer header.<br>b = Large message buffer index.           |

MESSAGE HANDLING ERRORS

|       |            |                                                                    |
|-------|------------|--------------------------------------------------------------------|
| 0x630 | proc_large | Failed to queue large message buffer space.                        |
| 0x631 | proc_large | Failed to allocate message buffer space.                           |
| 0x632 | proc_small | Failed to queue small message buffer space.                        |
| 0x633 | proc_small | Failed to allocate message buffer space.                           |
| 0x634 | act_mbuf   | Failed to queue large message buffer space.                        |
| 0x635 | dmsghdlr   | Direct Memory Access (DMA) job buffer timed out by APDRV.          |
| 0x636 | dmsghdlr   | Failed to allocate message space for force end of segment message. |
| 0x637 | dmsghdlr   | Failed to queue force end of segment message for APDRV.            |

SEE PROPRIETARY NOTICE ON COVER PAGE

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TABLE A (cont'd)  
MESSAGE PROCESSING ERRORS

---

| Code*           | Function | Description                                                                                                    |
|-----------------|----------|----------------------------------------------------------------------------------------------------------------|
| FREQUENT ERRORS |          |                                                                                                                |
| 0x6f0           | dmsghdlr | Message retried maximum number of times and failed.                                                            |
| +0x6f1          | dmsghdlr | Failed to send large output message.<br>b = ap_stat field of Attached Processor System (APS) message returned. |
| +0x6f2          | dmsghdlr | Failed to send small output message.<br>b = ap_stat field of APS message returned.                             |

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:APSMMSG-FAU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT: APSMSG FAULT CODE X'a [ VIRT ADDR X'b ]

## 2. REASON FOR OUTPUT

To report a fault in the Attached Processor System Message Driver (APSMMSG). A fault indicated an error condition that could result in the loss of DMERT output messages sent to the 1B processor.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Fault code. (See Table A.)
- b                      Virtual address within APSMSG where fault occurred, if APSMSG was running at the time.

## 4. ACTION TO BE TAKEN

No action is necessary.

## 5. REFERENCES

Output Message  
REPT:APSMMSG-ERR

SEE PROPRIETARY NOTICE ON COVER PAGE

**TABLE A**  
**ATTACHED PROCESSOR SYSTEM MESSAGE DRIVER FAULTS HANDLED**

| Code | Symbol | Description |
|------|--------|-------------|
| 0x00 | NOFLT  | No fault.   |

**MESSAGE BUFFER AUDIT FAULTS**

|      |               |                                      |
|------|---------------|--------------------------------------|
| 0xbc | FLT_QMSAUD    | Fault for queued error messages.     |
| 0xbd | FLT_NONQMSAUD | Fault for non-queued error messages. |

**MEMORY MANAGEMENT FAULTS**

|      |          |                                |
|------|----------|--------------------------------|
| 0xd1 | FLT_PINV | Page invalid or not in memory. |
| 0xd2 | FLT_PIND | Page index too large.          |
| 0xd3 | FLT_SINV | Segment invalid.               |
| 0xd4 | FLT_SIND | Segment index too large.       |

**SOFTWARE FAULTS**

|      |            |                                                   |
|------|------------|---------------------------------------------------|
| 0xd5 | FLT_BADOST | Illegal DMERT Operating System Trap (OST) call.   |
| 0xd6 | FLT_PROT   | Protection violation.                             |
| 0xd7 | FLT_ADDR   | Byte or halfword addressing violation.            |
| 0xd8 | FLT_PRIV   | Instruction privilege violation.                  |
| 0xd9 | FLT_OPCODE | Illegal op-code.                                  |
| 0xda | FLT_STACK  | Illegal switch between kernel and private stacks. |

**SYSTEM INITIALIZATION FAULTS**

|      |            |                                   |
|------|------------|-----------------------------------|
| 0xe0 | FLT_PHASE0 | Phase level 0 initialization.     |
| 0xe1 | FLT_SINIT  | System initialization.            |
| 0xe2 | FLT_SCRIT  | System initialization - critical. |

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:ARR-AUTORST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has nine output formats:

- [1] REPT ARR AUTORST  
ACTIVATED
- [2] REPT ARR AUTORST  
a b FOR c STARTED
- [3] REPT ARR AUTORST  
a b FOR c SUCCEEDED
- [4] REPT ARR AUTORST  
a b FOR c ABORTED
- [5] REPT ARR AUTORST  
a b FOR c FAILED
- [6] REPT ARR AUTORST  
RECOVERY THRESHOLD EXCEEDED FOR c
- [7] REPT ARR AUTORST  
TIMEOUT AWAITING MIRA FOR c
- [8] REPT ARR AUTORST  
a b FOR c STOPPED <INHIBITED>
- [9] REPT ARR AUTORST  
ACNR CONFIGURATION REQUEST TO INCLUDE c d  
e

## 2. REASON FOR OUTPUT

Format 1: Reports that the timing interval following an IMS level 3 or 4 initialization has expired and that the Automatic Ring Recovery (ARR) system of the IMS driver is now active for recovery of inactive nodes. During the timing interval, ARR will recover only those inactive nodes which are designated by Application Critical Node Recovery (ACNR).

Format 2: Reports start of a node recovery.

Format 3: Reports success of a node recovery.

Format 4: Reports abort of a node recovery.

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Format 5: Reports failure of a node recovery.

Format 6: Reports exceeding the node recovery threshold.

Format 7: Reports timeout awaiting a reply from MIRA.

Format 8: Reports stop of a node recovery.

Format 9: Reports a configuration request to include an isolated node into the active ring for an ACNR unconditional restore.

### 3. VARIABLE FIELD DEFINITIONS

- a Source of the recovery.
- ARR — IMS Automatic Ring Recovery.
  - CNR — IMS Critical Node Recovery for inactive BISO/EISO.
  - ACNR — Application Critical Node Recovery.
- b Type of recovery.
- RSTRT — Restart.
  - UCL — Unconditional restore.
  - COND — Conditional restore.
- c Ring node name.  
(e.g., RPCN00 0).
- d Configuration inclusion direction.
- IN BISO DIRECTION  
Attempt to configure ACNR node into the BISO end of the active ring.
  - IN EISO DIRECTION  
Attempt to configure ACNR node into the EISO end of the active ring.
  - IN EISO DIRECTION  
Normal ring is requested.
- e The value of the real-time-clock at the time the report is formatted. The real-time-clock has a granularity of 1 ms. Used in correlation with other reports.

### 4. ACTION TO BE TAKEN

Formats 1-4: None.

Formats 5-7: If the node maintenance mode is MAN, manual diagnosis and restoral of the node are required. Refer to input messages RST:LN, RST:RPCN, DGN:LN, and DGN:RPCN.

Format 8: Remove the inhibits against ARR, CNR or ALL to permit the automatic node recovery. Refer to input message ALW:DMQ.

Format 9: None.

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**5. REFERENCES**

Input Messages

ALW:DMQ-B

DGN:LN

DGN:RPCN

OP:DMQ

RST:LN

RST:RPCN

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:ARTS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ARTS NOD AUTORST  
NOD RMV/UCL RST FOR LNaa bb STARTED
- [2] REPT ARTS NOD AUTORST  
NOD RMV FOR LNaa bb STOPPED <FAILED> - MANUAL ACTION REQUIRED
- [3] REPT ARTS NOD AUTORST  
RMV/UCL RST FOR LNaa bb STOPPED <INHIBITED>
- [4] REPT ARTS NOD AUTORST  
RMV/UCL RST FOR LNaa bb STOPPED <ABORTED>
- [5] REPT ARTS NOD AUTORST  
RMV/UCL RST FOR LNaa bb COMPLETE
- [6] REPT ARTS NOD AUTORST  
NOD UCL RST FOR LNaa bb STOPPED <FAILED> - MANUAL ACTION REQUIRED
- [7] REPT ARTS NOD AUTORST  
NOD UCL RST FOR LNaa bb STOPPED <INHIBITED> - NODE LEFT OOS
- [8] REPT ARTS NOD AUTORST  
NOD UCL RST FOR LNaa bb STOPPED <UNKNOWN> - e
- [9] REPT ARTS RST cc dd SENT TO MIRA

## 2. REASON FOR OUTPUT

The ARTS process on the 3B provides a watchdog function that looks for hardware that may be stuck in transitional or incorrect states or has been out of service for an unusually long period of time. As a prevention mechanism, the hardware is given either a remove and unconditional restoral or just an unconditional restoral, whichever is appropriate.

Two types of hardware are covered: 1) CNI ring nodes that have signaling links; and 2) IOP devices. For CNI ring nodes, if a CNI node has had an ECD node state of ACT and all signaling links on the node have a state of OOS for a period of at least 15 minutes, then the node is a candidate for a remove and unconditional restore. This is done as a prevention against potential network or signaling link anomalies. This is done for domestic and international CCS7, and all PBX node types.

For IOP devices, if the device has been out of service due to non-manual means for at least 15 minutes, then the device will be given an unconditional restoral.

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Both of these restoral mechanisms can be inhibited. To inhibit auto removal/unconditional restoral of CNI link nodes:

INH:DMQ;SRC NOD!

To inhibit auto unconditional restoral of IOP devices:

INH:DMQ;SRC ART!

Format [1] indicates that a CNI node is a candidate for removal/unconditional restore due to having been in the node ACT/link OOS condition for at least 15 minutes. No MIRA action has taken place at this point - the job is given to MIRA (the diagnostic manager in the 3B).

Formats [2] and [6] indicate that the removal or unconditional restore action for a CNI node has failed. The state of the node is in an unknown condition at this time. Manual action should be taken, see Action To Be Taken Section.

Format [3] indicates that the CNI node removal job was inhibited. This is the expected response if a INH:DMQ;SRC NOD! is in effect.

Format [4] indicates that an active CNI node removal or unconditional restoral was aborted by the user or ring initialization.

Format [5] is the success case. The CNI node has been removed and unconditionally restored. The node is currently in the ECD ACT state. The link state(s) is still dependent on network/facility/far end conditions.

Format [7] indicates that the removal of the CNI node has taken place, but the unconditional restoral has been inhibited by a INH:DMQ;SRC NOD! command.

Format [8] indicates that an unexpected action occurred in this mechanism. See Action To Be Taken Section.

Format [9] indicates that the IOP device unconditional restore job has been given to the diagnostic manager (MIRA).

### 3. VARIABLE FIELD DEFINITIONS

|         |                                                                                                                                                                                                                                                                                                                                  |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LNaa bb | UCB name of the node on the ring; i.e. LN00 1.                                                                                                                                                                                                                                                                                   |
| cc dd   | UCB name of IOP device to be restored; i.e. SDL 26.                                                                                                                                                                                                                                                                              |
| e       | Error in the interface with the diagnostic manager (MIRA). <ul style="list-style-type: none"><li>-3 — MIRA out of buffers.</li><li>-4 — MIRA can't spawn DIAMON.</li><li>-5 — Duplicate request already on queue.</li><li>-7 — Internal MIRA problem, request aborted.</li><li>-10 — Unit type is not a hardware type.</li></ul> |

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#### **4. ACTION TO BE TAKEN**

For Formats [1], [3], [5], and [9] there is no action required.

For Formats [2], [4], [6], and [7], the status of the CNI node should be checked using either 3B display pages 1105 or 1106 or input command **OP:NODES!** If the node is OOS, then the node should be put back in the ACT state. If there is any reason that the hardware status may be suspected faulty, then the restoral should be run conditionally. If in doubt, seek technical assistance.

For Format [8], if field 'e' has value -3 or -5, then no action is required. For other cases, seek technical assistance.

#### **5. REFERENCES**

Display / Menu Page Name

Page 1105

Page 1106

Page 1108

Page 114

Input Messages

OP:DMQ

OP:NODES

STOP:DMQ

Output Messages

OP:DMQ

OP:NODES

STOP:DMQ

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ID ..... REPT:ATPCM  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT ATPCM PROC (task): msg

## 2. REASON FOR OUTPUT

To report ATPCM status and errors.

## 3. VARIABLE FIELD DEFINITIONS

task                      The ATPCM task generating the report:

| task       | function                               |
|------------|----------------------------------------|
| Proc1      | signal 1 handler                       |
| Proc2      | signal 2 handler                       |
| Proc3      | signal 3 handler                       |
| Proc4      | signal 4 handler                       |
| Proc5      | signal 5 handler                       |
| Proc6      | signal 6 handler                       |
| Proc7      | signal 7 handler                       |
| Proc8      | signal 8 handler                       |
| Proc9      | signal 9 handler                       |
| Proc10     | signal 10 handler                      |
| Proc11     | signal 11 handler                      |
| Proc12     | signal 12 handler                      |
| Proc13     | signal 13 handler                      |
| Proc14     | signal 14 handler                      |
| Proc15     | signal 15 handler                      |
| Imsmsg     | IMS message reader                     |
| Rtrmsg     | RTR message reader                     |
| Critnode   | ATP critical node restoral coordinator |
| Ringstrt   | Ring initialization start handler      |
| Ringend    | Ring initialization completion handler |
| St_mon0    | ATP node state monitor for node 0      |
| St_mon1    | ATP node state monitor for node 1      |
| Config_mgr | ATP node configuration manager         |
| Nocheckin  | 1B checkin failure handler             |
| Checkin0   | ATP node 0 check-in message monitor    |
| Checkin1   | ATP node 1 check-in message monitor    |
| Rcvy0      | ATP node 0 recovery handler            |

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|           |                                        |
|-----------|----------------------------------------|
| Rcvy1     | ATP node 1 recovery handler            |
| Data_base | ATP data base manager                  |
| Init      | ATP application initialization handler |
| Resrc_mgr | ATP resource monitor                   |
| Fu_hdlr   | ATP field update handler               |
| Aud_all   | ATP audit sequencer                    |
| Fprintf   | ATP node print facility                |

msg Message contents. Only the ATPCM status messages are listed here. All other messages are error reports and technical assistance must be sought if they occur.

LNg-m CALL BACKUP COMP (a calls, b ms)

LNg-m DB PUMP FROM MATE COMP (c ms)

LNg-m DB PUMP FROM 3B20 COMP (c ms)

APPLYING FIELD UPDATE TO ATPCM

ATP DUPLEX FAIL

ATP IN SERVICE AFTER d SECOND OUTAGE

MAKING LEVEL 1 RING INIT REQUEST

REQUESTED RESTART OF LNg-m

REQUESTED UCL RESTORE OF LNg-m

REQUESTING LEVEL 1 INIT

RESTARTING LNg-m

RESTARTING TASK task FOR FIELD UPDATE

RESTARTING TASK (task)

SENT CNR REQUEST FOR ATP LNg-m

STARTING FIELD UPDATE TASK

a Number of calls backed up.

b Duration of backup in milliseconds.

c Duration of data base pump in milliseconds.

d Duration of ATP duplex failure in seconds.

g Group number of ATP node (0 - 63).

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m Member number of ATP node (1 - 15).

**4. ACTION TO BE TAKEN**

Seek technical assistance if errors occur.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:ATPN  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

```
REPT ATPN LNa b ERR X'c SEQ d
FILE e LINE f ACTION g h AUX DATA WDS (X')
 iiii iiii iiii iiii
 .
 .
 .
 iiii iiii iiii iiii
 j
```

## 2. REASON FOR OUTPUT

To report ATPN defensive check failures. The failure data is delivered from the ATPN to 3B process Arts for spooler output. The message always prints to the maintenance printer and the CNILOG.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                     |
|---|---------------------|
| a | ATPN group number.  |
| b | ATPN member number. |
| c | ATPN error code.    |
- 
- |        |                                                             |
|--------|-------------------------------------------------------------|
| 0x1000 | — Mate Monitor: unknown message received.                   |
| 0x1001 | — Mate Monitor: corrupted state variable.                   |
| 0x1002 | — Mate Monitor: out of ring write buffers.                  |
| 0x1003 | — Mate Monitor: could not send IMS message.                 |
| 0x1004 | — Mate Monitor: both ATP nodes active.                      |
| 0x1005 | — Mate Monitor: could not send RTX message.                 |
| 0x1006 | — DLN Monitor: unknown message received.                    |
| 0x1007 | — DLN Monitor: state variable corrupted.                    |
| 0x1008 | — DLN Monitor: out of ring write buffers.                   |
| 0x1009 | — DLN Monitor: could not format IMS header.                 |
| 0x100a | — DLN Monitor: could not send IMS message.                  |
| 0x100b | — Resource Monitor: ring receive buffer threshold exceeded. |
| 0x100c | — Resource Monitor: process wait time exceeded.             |

SEE PROPRIETARY NOTICE ON COVER PAGE

0x100d — Resource Monitor: ATP Call Processing congestion.  
0x100e — Resource Monitor: IMS message queue size too big.  
0x100f — Resource Monitor: unknown RTX message received.  
0x1010 — Resource Monitor: out of ring write buffers.  
0x1011 — Resource Monitor: could not send IMS message.  
0x1012 — Process Control: RTX processor exception stack back trace.  
0x1013 — Process Control: RTX process stack dump (threshold exceeded).  
0x1014 — Process Control: RTX process stack dump.  
0x1015 — Process Control: bad symbol table magic number.  
0x1016 — Damage Control: unknown RTX message received.  
0x1017 — Damage Control: out of ring write buffers.  
0x1018 — Damage Control: could not send IMS message.  
0x1019 — System Integrity: process ID error.  
0x101a — System Integrity: could not open IMS channel.  
0x101b — System Integrity: IMS read error.  
0x101c — System Integrity: unknown message received.  
0x101d — System Integrity: IMS message dump (process exception).  
0x101e — System Integrity: failed to set virtual address.  
0x101f — System Integrity: unable to send RTX message.  
0x1020 — System Integrity: could not start IMS timer.  
0x1021 — System Integrity: out of ring write buffers.  
0x1022 — System Integrity: \_open() failed.  
0x1023 — System Integrity: \_ioctl() failed.  
0x2000 — Timer: old Timer List not empty.  
0x2001 — Timer: timer ID out of range.  
0x2002 — Timer: timer on wrong list.  
0x2003 — Timer: Timer ID List error.  
0x2004 — Timer: IMS read error.  
0x2005 — Timer: unknown message received.  
0x2006 — Timer: unable to map TSN to call block index.  
0x2007 — Timer: unable to insert timer.  
0x2008 — Timer: out of idle timer blocks.

SEE PROPRIETARY NOTICE ON COVER PAGE

0x2009 — Timer: duplicate timer insertion.  
0x200a — Timer: out of ring write buffers.  
0x200b — Timer: unable to map call block index to TSN.  
0x200c — Timer: unable to send IMS message.  
0x200d — Timer: timer block list field error.  
0x200e — Timer: attempted to stop idle timer.  
0x200f — Timer: could not stop timer (not found in list).  
0x2010 — Timer: process ID error.  
0x2011 — Timer: could not open IMS channel.  
0x2012 — Timer: could not start IMS timer.  
0x2013 — Timer: tight loop detected.  
0x2014 — Timer: Exp\_tlist head error.  
0x2015 — Timer: IMS message dump (process exception).  
0x3000 — State Control: process ID error.  
0x3001 — State Control: could not open IMS channel.  
0x3002 — State Control: out of ring write buffers.  
0x3003 — State Control: unable to send IMS message.  
0x3004 — State Control: unable to send RTX message.  
0x3005 — State Control: timed out waiting for home DLN ID.  
0x3006 — State Control: timed out waiting for mate ID.  
0x3007 — State Control: timed out waiting for clocks to sync.  
0x3008 — State Control: IMS message dump (process exception).  
0x4000 — Measurements error.  
0x5000 — Sync: process ID error.  
0x5001 — Sync: unable to open channel.  
0x5002 — Sync: failed to send RTX message.  
0x5003 — Sync: failed to send second RTX message.  
0x5004 — Sync: failed to send IMS message.  
0x5005 — Sync: out of ring write buffers.  
0x5006 — Sync: IMS message dump (process exception).  
0x5007 — Sync: master/slave operation mismatch.  
0x6000 — Switch: process ID error.  
0x6001 — Switch: unable to open channel.

SEE PROPRIETARY NOTICE ON COVER PAGE

0x6002 — Switch: failed to send RTX message.  
0x6003 — Switch: failed to send second RTX message.  
0x6004 — Switch: failed to send IMS message.  
0x6005 — Switch: out of ring write buffers.  
0x6006 — Switch: IMS message dump (process exception).  
0x6007 — Switch: master/slave operation mismatch.  
0x7000 — Backup: process ID error.  
0x7001 — Backup: unable to open channel.  
0x7002 — Backup: failed to send RTX message.  
0x7003 — Backup: failed to send second RTX message.  
0x7004 — Backup: failed to send IMS message.  
0x7005 — Backup: out of ring write buffers.  
0x7006 — Backup: out of call blocks.  
0x7007 — Backup: rcvd: P1 TSN missing.  
0x7008 — Backup: rcvd: P1 TSN out of range.  
0x7009 — Backup: rcvd: P2 TSN out of range.  
0x700a — Backup: failed to start internal timer.  
0x700b — Backup: failed to start user A timer.  
0x700c — Backup: failed to start user B timer.  
0x700d — Backup: send: internal timer not found.  
0x700e — Backup: send: user A timer not found.  
0x700f — Backup: send: user B timer not found.  
0x7010 — Backup: send: bad P1 TSN <--> call block link.  
0x7011 — Backup: send: bad P1 TSN <--> call block link.  
0x7012 — Backup: software version mismatch with mate node.  
0x7013 — Backup: IMS message dump (process exception).  
0x7014 — Backup: master/slave operation mismatch.  
0x8000 — Call Proc: failed to start a timer.  
0x8001 — Call Proc: non-initiator as first trigger digit.  
0x8002 — Call Proc: timed out on an idle call block.  
0x8003 — Call Proc: invalid timer type.  
0x8004 — Call Proc: invalid generic action.  
0x8005 — Call Proc: bad/unassigned SCS state.

SEE PROPRIETARY NOTICE ON COVER PAGE

0x8006 — Call Proc: bad / unassigned generic action state.  
0x8007 — Call Proc: missing mandatory parameters on redirection.  
0x8008 — Call Proc: trigger / state / direction queue full - trigger lost.  
0x8009 — Call Proc: invalid trigger / state / direction queue state.  
0x800a — Call Proc: bad announcement ID detected.  
0x800b — Call Proc: bad announcement ID detected.  
0x800c — Call Proc: collect order sent to unequipped SCU.  
0x800d — Call Proc: bad announcement set detected.  
0x800e — Call Proc: bad list order sent.  
0x800f — Call Proc: SCS digit lost due to signal corruption.  
0x8010 — Call Proc: unassigned low priority report code.  
0x8011 — Call Proc: unassigned digit report code.  
0x8012 — Call Proc: unassigned opcode received in validation report.  
0x8013 — Call Proc: call block out of range.  
0x8014 — Call Proc: incorrect message data layout.  
0x8015 — Call Proc: IE does not fit into the call block.  
0x8016 — Call Proc: unrecognizable IE data.  
0x8017 — Call Proc: out of ring write buffers.  
0x8018 — Call Proc: unexpected message received on an idle trunk.  
0x8019 — Call Proc: received message on P2 with no P1.  
0x801a — Call Proc: disconnect message without a Cause IE.  
0x801b — Call Proc: facility message without a message type.  
0x801c — Call Proc: returned ATP message.  
0x801d — Call Proc: unexpected message received on P2 trunk.  
0x801e — Call Proc: unknown ATP message subtype.  
0x801f — Call Proc: unexpected timeout.  
0x8020 — Call Proc: failed to write an IMS message.  
0x8021 — Call Proc: failed to send a message via \_ims\_write().  
0x8022 — Call Proc: failed to build IMS header.  
0x8023 — Call Proc: incorrect call block data.  
0x8024 — Call Proc: incorrect generic state.  
0x8025 — Call Proc: bad reason passed to disable ATP.

SEE PROPRIETARY NOTICE ON COVER PAGE

0x8026 — Call Proc: no RNA when sending to the DCN.  
0x8027 — Call Proc: reset active indicator on an expired timer.  
0x8028 — Call Proc: no home DLN RNA available.  
0x8029 — Call Proc: invalid call block index derived from a timer.  
0x802a — Call Proc: invalid validation key found.  
0x802b — Call Proc: out of range queue index found.  
0x802c — Call Proc: no P1 TSN in timed out call block.  
0x802d — Call Proc: bad TSN table entry.  
0x802e — Call Proc: call block address out of range.  
0x802f — Call Proc: multiple Idle CB Lists being audited.  
0x8030 — Call Proc: timeout for P1 announcement acknowledge.  
0x8031 — Call Proc: timeout for P2 announcement acknowledge.  
0x8032 — Call Proc: timeout for P1 reprompt acknowledge.  
0x8033 — Call Proc: timeout for P2 reprompt acknowledge.  
0x8034 — Call Proc: timeout for P1 digit collect acknowledge.  
0x8035 — Call Proc: timeout for P2 digit collect acknowledge.  
0x8036 — Call Proc: timeout for P1 trigger collect acknowledge.  
0x8037 — Call Proc: timeout for P2 trigger collect acknowledge.  
0x8038 — Call Proc: timeout for partition response.  
0x8039 — Call Proc: timeout for partition complete.  
0x803a — Call Proc: timeout for redirect response.  
0x803b — Call Proc: timeout for redirect complete.  
0x803c — Call Proc: Access Table entry out of range.  
0x803d — Call Proc: ATV Table entry inactive.  
0x803e — Call Proc: missing mandatory parameters on partition.  
0x803f — Call Proc: unexpected message received on P1 trunk.  
0x8040 — Call Proc: call processing message failed to be sent.  
0x8041 — Call Proc: missing mandatory IEs for route call.  
0x8042 — Call Proc: bad NOTIFY indicator.  
0x8043 — Call Proc: timeout for route call proceeding.  
0x8044 — Call Proc: halt timed out; processing resumed.  
0x8045 — Call Proc: timers out of order.  
0x8046 — Call Proc: could not open IMS channel.

SEE PROPRIETARY NOTICE ON COVER PAGE



0x8047 — Call Proc: \_ims\_read() returned ENDEV.  
0x8048 — Call Proc: unknown \_ims\_read() return.  
0x8049 — Call Proc: process PID error.  
0x804a — Call Proc: IMS message dump (process exception).  
0x804b — Call Proc: bad announcement index.  
0x9000 — Database: process ID error.  
0x9001 — Database: unable to open channel.  
0x9002 — Database: failed to send RTX message.  
0x9003 — Database: failed to send second RTX message.  
0x9004 — Database: failed to send IMS message.  
0x9005 — Database: out or ring write buffers.  
0x9006 — Database: bad pump data received.  
0x9007 — Database: bad update data received.  
0x9008 — Database: type of request invalid for current state.  
0x9009 — Database: bad or out of range sending data pointer.  
0x900a — Database: duplicate ATV validation key.  
0x900b — Database: send fail threshold exceeded.  
0x900c — Database: pump message checksum mismatch.  
0x900d — Database: update message checksum mismatch.  
0x900e — Database: software version mismatch with mate node.  
0x900f — Database: primary TOC feature table start address mismatch.  
0x9010 — Database: primary TOC feature table end address mismatch.  
0x9011 — Database: primary trigger table start address mismatch.  
0x9012 — Database: primary trigger table end address mismatch.  
0x9013 — Database: primary ATV table start address mismatch.  
0x9014 — Database: primary ATV table end address mismatch.  
0x9015 — Database: secondary TOC feature table start address mismatch.  
0x9016 — Database: secondary TOC feature table end address mismatch.  
0x9017 — Database: secondary trigger table start address mismatch.  
0x9018 — Database: secondary trigger table end address mismatch.

SEE PROPRIETARY NOTICE ON COVER PAGE

0x9019 — Database: secondary ATV table start address mismatch.  
0x901a — Database: secondary ATV table end address mismatch.  
0x901b — Database: IMS message dump (process exception).  
0x901c — Database: clump hash sum comparison mismatch.  
0x901d — Database: primary numbering plan area (NPA) table start address mismatch.  
0x901e — Database: primary NPA table end address mismatch.  
0x901f — Database: secondary NPA table start address mismatch.  
0x9020 — Database: secondary NPA table end address mismatch.  
0xa000 — Audits: Internode audit maximum errors exceeded.  
0xa001 — Audits: call block index out of range.  
0xa002 — Audits: call block address out of range.  
0xa003 — Audits: invalid audit message type.  
0xa004 — Audits: invalid audit number.  
0xa005 — Audits: out of ring write buffers.  
0xa006 — Audits: timing block address out of range.  
0xa007 — Audits: IMS open failed.  
0xa008 — Audits: IMS ioctl failed.  
0xa009 — Audits: IMS write failed.  
0xa00a — Audits: process ID error.  
0xa00b — Audits: invalid primary database pointer.  
0xa00c — Audits: primary hash pointer is not instance A.  
0xa00d — Audits: primary Access pointer is not instance A.  
0xa00e — Audits: primary hash pointer is not instance B.  
0xa00f — Audits: primary Access pointer is not instance B.  
0xa010 — Audits: secondary database pointer is not instance A.  
0xa011 — Audits: secondary hash pointer is not instance A.  
0xa012 — Audits: secondary Access pointer is not instance A.  
0xa013 — Audits: secondary database pointer is not instance B.  
0xa014 — Audits: secondary hash pointer is not instance B.  
0xa015 — Audits: secondary Access pointer is not instance B.  
0xa016 — Audits: invalid Feature Table pointer.  
0xa017 — Audits: invalid Trigger Table pointer.

SEE PROPRIETARY NOTICE ON COVER PAGE

|   |                                                                                                    |
|---|----------------------------------------------------------------------------------------------------|
|   | 0xa018 — Audits: invalid ATV Table pointer.                                                        |
|   | 0xa019 — Audits: invalid Access Table pointer.                                                     |
|   | 0xa01a — Audits: Call Block mismatch - local.                                                      |
|   | 0xa01b — Audits: Call Block mismatch - remote.                                                     |
|   | 0xa01c — Audits: invalid NPA Table pointer.                                                        |
|   | 0xb000 — Gen. Utilities: out of ring write buffers.                                                |
|   | 0xb001 — Gen. Utilities: failed to send a message via <code>_ims_write()</code> .                  |
|   | 0xb002 — Gen. Utilities: failed to build IMS header.                                               |
|   | 0xb003 — Gen. Utilities: failed to send an RTX message.                                            |
|   | 0xb004 — Gen. Utilities: bad GU message type found.                                                |
|   | 0xb005 — Gen. Utilities: message returned.                                                         |
|   | 0xb006 — Gen. Utilities: destination hardware did not accept the message.                          |
|   | 0xb007 — Gen. Utilities: out of range channel number.                                              |
|   | 0xb008 — Gen. Utilities: IMS channel not open.                                                     |
|   | 0xb009 — Gen. Utilities: process ID error.                                                         |
|   | 0xb00a — Gen. Utilities: failed to open IMS channel.                                               |
|   | 0xc000 — State Machine: failed to open channel.                                                    |
|   | 0xc001 — State Machine: channel number out of range.                                               |
|   | 0xc002 — State Machine: unknown IMS read return code.                                              |
|   | 0xc003 — State Machine: message received by process is out of range.                               |
|   | 0xc004 — State Machine: current state has been corrupted.                                          |
|   | 0xc005 — State Machine: next state is out of range.                                                |
|   | 0xc006 — <code>ATsnd_ims_msg()</code> : call to <code>_ims_hdr()</code> failed.                    |
|   | 0xc007 — <code>ATsnd_ims_msg()</code> : call to <code>SI_ims_write()</code> returned unknown code. |
| d | Number of errors detected by ATPN since the ATPN was last restored.                                |
| e | ATPN source file name where the error was detected.                                                |
| f | ATPN source file line number where the error was detected.                                         |
| g | Action taken by the ATPN:<br><br>0 — No action taken.                                              |
| h | Number of data words associated with the defensive check (maximum of 86 ATPN words).               |

SEE PROPRIETARY NOTICE ON COVER PAGE

iiiiiii ATPN memory dump unique to the ATPN error code.

j Explanation of error.

#### **4. ACTION TO BE TAKEN**

Seek technical assistance.

#### **5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:AUDSTAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT AUDSTAT a  
ROUTINE AUDIT SCHEDULING IS b  
INHIBITED AND/OR BLOCKED AUDITS:  
AUDIT AUDIT INSTANCES INHIBITED/BLOCKED  
NAME MBR INH NAME INH BLK  
c d e f g h
- [2] REPT AUDSTAT COMPLETED  
ROUTINE AUDIT SCHEDULING IS b
- [3] REPT AUDSTAT ABORTED ECD INTERFACE ERROR i [AUDIT RID j]
- [4] REPT AUDSTAT ABORTED CANNOT OPEN OUTPUT FILE k
- [5] REPT AUDSTAT ABORTED CANNOT WRITE OUTPUT FILE k
- [6] REPT AUDSTAT ABORTED CANNOT CREATE TEMPORARY FILE

## 2. REASON FOR OUTPUT

Formats 1 and 2 print the status of audits controlled by the System Integrity Monitor (SIM). Inhibited audits whose mode permissions prevent them from executing in routine or software request modes will not appear in the output message, unless the blocking state causes the audit to appear. In this case, the inhibit source will be enclosed in parentheses.

Blocked audits whose mode permissions prevent them from executing in any mode will not appear in the output message.

Format 3 reports an Equipment Configuration Database (ECD) interface error.

Format 4 reports an error when creating a temporary file.

Format 5 reports an error when writing to a temporary output file.

Format 6 reports an error when unable to create a uniquely named temporary file.

SEE PROPRIETARY NOTICE ON COVER PAGE

### 3. VARIABLE FIELD DEFINITIONS

- a                    Output message status:
- COMPLETED    — Last or only segment of message.
- IN PROGRESS — Intermediate segment(s) of message.
- STARTED        — First segment of message.
- b                    Master audit inhibit status for all audits controlled by SIM:
- ALLOWED — Not inhibited.
- AUTOMATICALLY INHIBITED
- IN UNKNOWN STATE
- MANUALLY INHIBITED
- c                    Audit name. This field is blank for all instances after the first.
- d                    Member number. This field is blank for all instances after the first.
- e                    Inhibit state of the audit:
- AUTO — Automatic action.
- MAN — Manual request.
- ??? — Unrecognized reason.
- If the audit is not inhibited, this field is blank. This field is also blank for all instances after the first.
- f                    Instance name. This field may be blank.
- g                    Inhibit state of a given instance of the audit blank if the audit is not inhibited:
- AUTO — Automatic request.
- MAN — Manual request.
- ??? — Unrecognized reason.
- h                    Y if this instance of the audit is blocked. This field is blank if this instance of the audit is not blocked.
- i                    ECD interface error number:
- 10 — Cannot open audit record sequence.
- 11 — Cannot sequence through audit records.
- 20 — Cannot open audit instance record sequence.
- 21 — Cannot sequence through instance records.
- 30 — Cannot open audit instance record sequence.
- 31 — Cannot sequence through instance records.
- j                    Associated audit Record Identification (RID).
- k                    Name of temporary file.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### 4. ACTION TO BE TAKEN

If Formats 1, 2, or 3 prints, use the OP:AUD input message to obtain additional status on the audits. Use the ALW:AUD input message to allow audits which are to be allowed.

Format 4 indicates all the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using the CLR:FILESYS;FILE input command.

Format 5 indicates all tmp file system space has been used. Clean up unused files in the tmp file system using the CLR:FILESYS;FILE input command.

Format 6 indicates system resources do not permit the running of this command at this time; retry later. If command continues to fail, see technical assistance.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 440.

Format 2 has an OMDB key of 441.

Format 3 has an OMDB key of 435.

Format 4 has an OMDB key of 438.

Format 5 has an OMDB key of 628.

Format 6 has an OMDB key of 667.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System*

*Lucent Technologies 3B20D/3B21D Computer*

##### Input Messages

ALW:AUD

OP:AUD

CLR:F-FILE

##### Output Message

OP:AUD

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ID ..... REPT:AUTORST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT AUTORST FAILURE FOR a b [c] [d]

## 2. REASON FOR OUTPUT

To report that the Automatic Diagnostic Process (ADP) was unable to restore a faulty hardware unit, and that it will no longer attempt to diagnose or restore the specified hardware unit or community.

## 3. VARIABLE FIELD DEFINITIONS

|   |                 |
|---|-----------------|
| a | Unit name.      |
| b | Unit number.    |
| c | Subunit name.   |
| d | Subunit number. |

## 4. ACTION TO BE TAKEN

Manual action is required to diagnose, repair, and restore the unit to service.

## 5. REFERENCES

OMDB Key

This message has an OMDB key of 474.

Practice 254-301-812 *Control Unit Trouble Clearing*

Input Messages

DGN:CU  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MT  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
RST:CU  
RST:DFC  
RST:DUI  
RST:DUIC

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RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

**Output Messages**

DGN:AUDIT  
DGN:CU  
DGN:CU-MASC  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:IOP  
DGN:MHD  
DGN:MT  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
DGN:TTYC  
REPT:ADP-AUTFAIL  
REPT:ADP-AUTHRESH  
REPT:ADP-INHIBIT  
REPT:ADP-INT  
REPT:ADPAB  
RMV:CU  
RMV:DFC  
RMV:DUIC  
RMV:DUIC  
RMV:HSD  
RMV:HSDC  
RMV:IOP  
RMV:MHD  
RMV:MT  
RMV:MTC  
RMV:MTTY  
RMV:MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

RMV:ROP  
RMV:SBUS  
RMV:SCC  
RMV:SCSDC  
RMV:SDL  
RMV:SDLC  
RMV:TTY  
RMV:TTYC  
RST:SBUS  
RST:MTTYC  
RST:TTYC  
RST:CU  
RST:MT  
RST:DUI  
RST:SCC  
RST:IOP  
RST:MTTY  
RST:DUIC  
RST:MTC  
RST:MHD  
RST:SDLC  
RST:ROP  
RST:SDL  
RST:HSD  
RST:TTY  
RST:DFC  
RST:SCSDC  
RST:HSDC

SEE PROPRIETARY NOTICE ON COVER PAGE



## 4ESS™/APS Input/Output Message Error Reporting Form

Use this form to report errors and make suggestions for improving the contents of the manual or quarterly release. If an error relates to a specific message, please write your comments on a TTY output or a photocopy of the message documentation and attach it to this form.

Manual:      Input ☐      Output ☐

Generic: \_\_\_\_\_ Issue: \_\_\_\_\_

Quarterly Release (If applicable) : \_\_\_\_\_

Message ID(s): \_\_\_\_\_

Comments: \_\_\_\_\_

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### Return to:

Lucent Technologies  
Customer Training and  
Information Products  
IH 6R-106  
P.O. Box 3033  
Naperville, Illinois 60566-7033

### Submitted by:

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: (     ) \_\_\_\_\_

Date: \_\_\_\_\_



## 4ESS™/APS Input/Output Message Manual Comment Form

Lucent Technologies opinion. We would like to know how well this document meets your needs. Please check the appropriate column to indicate your opinion of the document for the categories listed on the right, and answer the questions following the table. Your comments will help us improve future issues. Thank you in advance for taking the time to fill out this form.

Generic: 4AP20

Issue: 9.4

|              | Excellent | Good | Fair | Poor |
|--------------|-----------|------|------|------|
| Ease of Use  |           |      |      |      |
| Accuracy     |           |      |      |      |
| Completeness |           |      |      |      |
| Organization |           |      |      |      |
| Appearance   |           |      |      |      |
| Writing      |           |      |      |      |
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# **4ESS<sup>TM</sup>/APS Switch**

## **Output Messages**

### **Volume 3**

#### **REPT(B) - REPT(R)**

OM-4A001-01  
Issue 9.4  
July 2002

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| REPT HUSTAT              | REPT:HUST-REC-INC | 4AP12         | 9.0   |
| REPT HUSTAT              | REPT:HUST-UNREC   | 4AP12         | 9.0   |
| REPT ICDR CONFIG FILE    | REPT:ICDR-CONFIG  | 4AP12         | 9.0   |
| REPT ICDR CONTROL FILE   | REPT:ICDR-CONT    | 4AP12         | 9.0   |
| REPT ICDR CONTROL FILE   |                   |               |       |
| AUDIT                    | REPT:ICDR-CONTAUD | 4AP12         | 9.0   |
| REPT ICDR CRIT ALARM     | REPT:ICDR-CRIT    | 4AP12         | 9.0   |
| REPT ICDR DISK WRITER    | REPT:ICDR-D-WRIT  | 4AP12         | 9.0   |
| REPT ICDR DISK MAPS      | REPT:ICDR-DISK    | 4AP12         | 9.0   |
| REPT ICDR DISK STORAGE   | REPT:ICDR-DISK-ST | 4AP12         | 9.0   |
| REPT ICDR DISK SUMMARY   | REPT:ICDR-DISK-SU | 4AP12         | 9.0   |
| REPT ICDR MAJOR ALARM    | REPT:ICDR-MAJOR   | 4AP12         | 9.0   |
| REPT ICDR MINOR ALARM    | REPT:ICDR-MINOR   | 4AP12         | 9.0   |
| REPT ICDR MONITOR        | REPT:ICDR-MON     | 4AP12         | 9.0   |
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| REPT ICDR SESSION<br>ESTABLISHED       | REPT:ICDR-S-EST   | 4AP12         | 9.0   |
| REPT ICDR SESSION<br>TERMINATED        | REPT:ICDR-S-TER   | 4AP12         | 9.0   |
| REPT ICDR SESSIONS                     | REPT:ICDR-SESS    | 4AP12         | 9.0   |
| REPT ICDR<br>TELEPROCESSING            | REPT:ICDR-TELE    | 4AP12         | 9.0   |
| REPT ICDR<br>TELEPROCESSING<br>SESSION | REPT:ICDR-TELE-SE | 4AP12         | 9.0   |
| REPT ICDR<br>TELEPROCESSING<br>SUMMARY | REPT:ICDR-TELE-SU | 4AP12         | 9.0   |
| REPT IMS GENERIC                       | REPT:IMS-GENERIC  | 4AP12         | 9.0   |
| REPT IMSDRV AUD                        | REPT:IMSDRV-AUD   | 4AP12         | 9.0   |
| REPT IMSDRV FLT                        | REPT:IMSDRV-FLT   | 4AP12         | 9.0   |
| REPT IMSDRV INIT                       | REPT:IMSDRV-INIT  | 4AP12         | 9.0   |
| REPT IMSRMVRST ERROR                   | REPT:IMSRMVRST-ER | 4AP12         | 9.0   |
| REPT IN                                | REPT:IN           | 4AP14         | 9.0   |
| REPT IN PBUF                           | REPT:IN-PBUF      | 4AP12         | 9.0   |
| REPT INH RCV APPDB                     | REPT:INH-RCV-APPD | 4AP12         | 9.0   |
| REPT INHADM                            | REPT:INHADM       | 4AP12         | 9.0   |
| REPT INHIBIT                           | REPT:INHIBIT      | 4AP12         | 9.0   |
| REPT INIT                              | REPT:INIT         | 4AP12         | 9.0   |
| REPT INIT 3BN                          | REPT:INIT-3BN     | 4AP12         | 9.0   |
| REPT IODRV ATTRIBUTE                   | REPT:IODRV-AT     | 4AP12         | 9.0   |
| REPT IODRV ERR                         | REPT:IODRV-ERR    | 4AP12         | 9.0   |
| REPT IODRV ERROR                       | REPT:IODRV-ERROR  | 4AP12         | 9.0   |
| REPT IODRV FAULT                       | REPT:IODRV-FAULT  | 4AP12         | 9.0   |
| REPT IOP                               | REPT:IOP          | 4AP12         | 9.0   |
| REPT IORMVRST ERROR                    | REPT:IORMVRST     | 4AP12         | 9.0   |
| REPT IUN INIT                          | REPT:IUN-INIT     | 4AP12         | 9.0   |
| REPT IUN PUMP                          | REPT:IUN-PUMP     | 4AP12         | 9.0   |
| REPT IUN RESTRT                        | REPT:IUN-RESTRT   | 4AP12         | 9.0   |
| REPT IUN RST                           | REPT:IUN-RST      | 4AP12         | 9.0   |
| REPT KAUDPRC                           | REPT:KAUDPRC      | 4AP12         | 9.0   |
| REPT KLLA                              | REPT:KLLA         | 4AP12         | 9.0   |
| REPT LACID ERROR                       | REPT:LACID-ERROR  | 4AP12         | 9.0   |

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| REPT LIBC ARGU               | REPT:LIBC-ARGU    | 4AP12         | 9.0   |
| REPT LIBC EXEC               | REPT:LIBC-EX      | 4AP12         | 9.0   |
| REPT LIBC FAULT              | REPT:LIBC-FAULT   | 4AP12         | 9.0   |
| REPT LIBC FORK               | REPT:LIBC-FO      | 4AP12         | 9.0   |
| REPT LIBC PROGRAM            | REPT:LIBC-PROGRAM | 4AP12         | 9.0   |
| REPT LIBC SAVE               | REPT:LIBC-SAVE    | 4AP12         | 9.0   |
| REPT LIBC ERROR START        | REPT:LIBC-ST      | 4AP12         | 9.0   |
| REPT LIBC START              | REPT:LIBC-START   | 4AP12         | 9.0   |
| REPT LKC SLK                 | REPT:LKC-SLK      | 4AP12         | 9.0   |
| REPT LN                      | REPT:LN           | 4AP12         | 9.0   |
| REPT LOG                     | REPT:LOG          | 4AP12         | 9.0   |
| REPT LSNC                    | REPT:LSNC         | 4AP12         | 9.0   |
| REPT MAINTENANCE<br>REQUESTS | REPT:MAINT-REQ    | 4AP12         | 9.0   |
| REPT MANUAL RING<br>MODE     | REPT:MAN-RING-MOD | 4AP12         | 9.0   |
| REPT MAPFILE                 | REPT:MAPFILE      | 4AP12         | 9.0   |
| REPT MAXINTVL                | REPT:MAXINTVL     | 4AP12         | 9.0   |
| REPT MBD                     | REPT:MBD          | 4AP12         | 9.0   |
| REPT MEAS DUMP MSG           | REPT:MEAS-DUMP    | 4AP12         | 9.0   |
| REPT MEMORY                  | REPT:MEMORY       | 4AP12         | 9.0   |
| REPT MHD                     | REPT:MHD          | 4AP12         | 9.0   |
| REPT MIN-MODE                | REPT:MIN-MODE     | 4AP12         | 9.0   |
| REPT MIRA                    | REPT:MIRA         | 4AP12         | 9.0   |
| REPT MKDSK                   | REPT:MKDSK        | 4AP12         | 9.0   |
| REPT MMGR001                 | REPT:MMGR001      | 4AP12         | 9.0   |
| REPT MMGR002                 | REPT:MMGR002      | 4AP12         | 9.0   |
| REPT MMGR003                 | REPT:MMGR003      | 4AP12         | 9.0   |
| REPT MMGR004                 | REPT:MMGR004      | 4AP12         | 9.0   |
| REPT MMGR005                 | REPT:MMGR005      | 4AP12         | 9.0   |
| REPT MMGR005                 | REPT:MMGR005      | 4AP12         | 9.0   |
| REPT MON SLK                 | REPT:MON-SLK      | 4AP12         | 9.0   |
| REPT MON TRAP                | REPT:MON-TRAP     | 4AP12         | 9.0   |
| REPT MOP                     | REPT:MOP          | 4AP12         | 9.0   |
| REPT MRVR                    | REPT:MRVR         | 4AP12R3       | 9.1   |
| REPT MSDC FLT                | REPT:MSDC-FLT     | 4AP12         | 9.0   |
| REPT MT                      | REPT:MT           | 4AP12         | 9.0   |
| REPT MTC                     | REPT:MTC          | 4AP12         | 9.0   |
| REPT MTTY                    | REPT:MTTY         | 4AP12         | 9.0   |

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| REPT MY STORE                   | REPT:MY-STORE    | 4AP12         | 9.0   |
| REPT NM                         | REPT:NM          | 4AP12         | 9.0   |
| REPT NONCORRECTABLE             | REPT:NONCORTABLE | 4AP12         | 9.0   |
| REPT OFFLINE                    | REPT:OFFLINE     | 4AP19         | 9.3   |
| REPT OFLBOOT                    | REPT:OFLBOOT     | 4AP12         | 9.0   |
| REPT OLBCONFIG FAULT            | REPT:OLBCONFIG   | 4AP12         | 9.0   |
| REPT:OP-AMA-STATUS              | REPT:OP-AMA-STAT | 4AP12         | 9.0   |
| REPT OP PMCR                    | REPT:OP-PMCR     | 4AP12         | 9.0   |
| REPT OP PMCR ERROR              | REPT:OP-PMER     | 4AP12         | 9.0   |
| REPT OP RTM FLT                 | REPT:OP-RTM-FLT  | 4AP12         | 9.0   |
| REPT OTHER                      | REPT:OTHER       | 4AP12         | 9.0   |
| REPT OTHER STORE<br>HARDWARE    | REPT:OTHR-SHE    | 4AP12         | 9.0   |
| REPT OTHER STORE<br>READ        | REPT:OTHR-SRDPE  | 4AP12         | 9.0   |
| REPT OTHER STORE<br>REFRESH     | REPT:OTHR-SRFPE  | 4AP12         | 9.0   |
| REPT OUTDIR CANNOT<br>LINK FILE | REPT:OUT-CANT-LK | 4AP12         | 9.0   |
| REPT OUTPUT                     | REPT:OUTPUT      | 4AP12         | 9.0   |
| REPT OVLD                       | REPT:OVLD-CNTL   | 4AP12         | 9.0   |
| REPT OVLD                       | REPT:OVLD-COLL   | 4AP12         | 9.0   |
| REPT OVLD                       | REPT:OVLD-REPT   | 4AP12         | 9.0   |
| REPT PASSWORD                   | REPT:PASSWD      | 4AP12         | 9.0   |
| REPT PCPAUD                     | REPT:PCPAUD      | 4AP17         | 9.2   |
| REPT PCPMD FAULT                | REPT:PCPMD       | 4AP12         | 9.0   |
| REPT PHASE                      | REPT:PHASE       | 4AP12         | 9.0   |
| REPT PLDMON                     | REPT:PLDMON      | 4AP12         | 9.0   |
| REPT PLDMON ERROR               | REPT:PLDMON-ERR  | 4AP12         | 9.0   |
| REPT PM                         | REPT:PM-CNTL     | 4AP12         | 9.0   |
| REPT PM                         | REPT:PM-REPT     | 4AP12         | 9.0   |
| REPT PMDBCOPY                   | REPT:PMDBCOPY    | 4AP12         | 9.0   |
| REPT PMGR ERROR                 | REPT:PMGR        | 4AP12         | 9.0   |
| REPT PMSLOT                     | REPT:PMSLOT      | 4AP12         | 9.0   |
| REPT POWER                      | REPT:POWER       | 4AP12         | 9.0   |
| REPT POWER DIST FRAME           | REPT:POWER-DF    | 4AP12         | 9.0   |
| REPT POWERFAULT                 | REPT:POWERFAULT  | 4AP12         | 9.0   |
| REPT ERRPORT PREPHASE           | REPT:PREPHASE    | 4AP12         | 9.0   |
| REPT PROC DEATH / CREATE        | REPT:PROC-DEATH  | 4AP12         | 9.0   |

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| REPT PSDIO3B                         | REPT:PSDIO3B      | 4AP12         | 9.0   |
| REPT PSDO_UMS.P FLT                  | REPT:PSDO-FLT     | 4AP12         | 9.0   |
| REPT PSM                             | REPT:PSM          | 4AP12         | 9.0   |
| REPT POWER FAULT CLEARED             | REPT:PWRFLTC      | 4AP12         | 9.0   |
| REPT QCOPY                           | REPT:QCOPY        | 4AP12         | 9.0   |
| REPT RC                              | REPT:RC           | 4AP12         | 9.0   |
| REPT RCAS                            | REPT:RCAS         | 4AP13         | 9.0   |
| REPT RCVRY CU                        | REPT:RCVRY-CU     | 4AP12         | 9.0   |
| REPT RCVRY DUI                       | REPT:RCVRY-DUI    | 4AP12         | 9.0   |
| REPT RCVRY DUIC                      | REPT:RCVRY-DUIC   | 4AP12         | 9.0   |
| REPT RCVRY HSD                       | REPT:RCVRY-HSD    | 4AP12         | 9.0   |
| REPT RCVRY HSDC                      | REPT:RCVRY-HSDC   | 4AP12         | 9.0   |
| REPT RCVRY IOP                       | REPT:RCVRY-IOP    | 4AP12         | 9.0   |
| REPT RCVRY MT                        | REPT:RCVRY-MT     | 4AP12         | 9.0   |
| REPT RCVRY MTC                       | REPT:RCVRY-MTC    | 4AP12         | 9.0   |
| REPT RCVRY MTTY                      | REPT:RCVRY-MTTY   | 4AP12         | 9.0   |
| REPT RCVRY MTTYC                     | REPT:RCVRY-MTTYC  | 4AP12         | 9.0   |
| REPT RCVRY ROP                       | REPT:RCVRY-ROP    | 4AP12         | 9.0   |
| REPT RCVRY SCC                       | REPT:RCVRY-SCC    | 4AP12         | 9.0   |
| REPT RCVRY SCSDC                     | REPT:RCVRY-SCSDC  | 4AP12         | 9.0   |
| REPT RCVRY SDL                       | REPT:RCVRY-SDL    | 4AP12         | 9.0   |
| REPT RCVRY SDLC                      | REPT:RCVRY-SDLC   | 4AP12         | 9.0   |
| REPT RCVRY TTY                       | REPT:RCVRY-TTY    | 4AP12         | 9.0   |
| REPT RCVRY TTYC                      | REPT:RCVRY-TTYC   | 4AP12         | 9.0   |
| REPT RECENT CHANGEABLE<br>PARAMETERS | REPT:RECENT-CHANG | 4AP14         | 9.0   |
| REPT RETRO                           | REPT:RETRO        | 4AP12         | 9.0   |
| REPT RETRY RPC DMA                   | REPT:RETRY-RPC    | 4AP12         | 9.0   |
| REPT REX UNABLE                      | REPT:REX          | 4AP12         | 9.0   |
| REPT REX SUMMARY                     | REPT:REX-SUM      | 4AP12         | 9.0   |
| REPT RING CFR                        | REPT:RING-CFR     | 4AP12         | 9.0   |
| REPT RING GROWTH                     | REPT:RING-GROWTH  | 4AP12         | 9.0   |
| REPT RING INIT                       | REPT:RING-INIT    | 4AP12         | 9.0   |
| REPT RING TRANSPORT<br>ERR           | REPT:RING-TRST-ER | 4AP15R2       | 9.1   |
| REPT RINGINIT                        | REPT:RINGINIT     | 4AP12         | 9.0   |
| REPT RMF                             | REPT:RMF          | 4AP12         | 9.0   |
| REPT RMTGETTY                        | REPT:RMTGETTY     | 4AP12         | 9.0   |
| REPT ROP                             | REPT:ROP          | 4AP12         | 9.0   |

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| MESSAGE NAME       | MESSAGE ID       | START GENERIC | ISSUE |
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| REPT RPC ERINT     | REPT:RPC-ERINT   | 4AP12         | 9.0   |
| REPT RPC INIT      | REPT:RPC-INIT    | 4AP12         | 9.0   |
| REPT RPC STAT      | REPT:RPC-STAT    | 4AP12         | 9.0   |
| REPT RPCN          | REPT:RPCN        | 4AP12         | 9.0   |
| REPT RST RPC ERR   | REPT:RST-RPC-ERR | 4AP12         | 9.0   |
| REPT RSTRT RPC ERR | REPT:RSTRT-RPC   | 4AP12         | 9.0   |
| REPT RTM STATUS    | REPT:RTM-STATUS  | 4AP12         | 9.3   |
| REPT RTS           | REPT:RTS         | 4AP14         | 9.2   |
| REPT RUSDG         | REPT:RUSDG       | 4AP12         | 9.0   |
| REPT RUSDKERN      | REPT:RUSDKERN    | 4AP12         | 9.0   |
| REPT RUTIL         | REPT:RUTIL       | 4AP12         | 9.0   |

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ID ..... REPT:BAD-OST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT BAD OST a  
FAULTY UNIT:        CU b  
TIME OF ERROR: c

                    SAVE STATE  
PA: d    PSW: e PSBR: f SSBR: g

                    GENERAL REGISTERS  
                                    h

UTILITY ID: i                      PROCESS NUMBER: j

OST CODE: k  
OST ARGUMENTS:  
                    l  
REAL TIME CLOCK: m

## 2. REASON FOR OUTPUT

While servicing an Operating System Trap (OST), the kernel detected an invalid condition.  
The client process is also faulted with a BADOST fault.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                     |
|---|-------------------------------------------------------------------------------------|
| a | Sequence number of error.                                                           |
| b | CU number of unit running when fault occurred.                                      |
| c | Time in form MM/DD/YY HH:MM:SS.                                                     |
| d | Program Address when error occurred.                                                |
| e | Program status word of the faulted process.                                         |
| f | Primary segment base register of faulted process.                                   |
| g | Secondary segment base register of faulted process.                                 |
| h | The contents of the faulted process's 15 general purpose registers.                 |
| i | Faulted process's utility identification code.                                      |
| j | Faulted process's process number.                                                   |
| k | The code number of the OST. Check Output Appendix APP:OST for OST code definitions. |

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l                      The arguments passed to OST (7 maximum).  
m                      Real time clock expressed in hexadecimal.

#### **4. ACTION TO BE TAKEN**

Get a complete OP:ST-PROC listing (both kernel and nonkernel processes). Check the "/cdmp" directory for any recent core dump files, and save most recent dump files on tape. Then contact next level of technical support.

#### **5. REFERENCES**

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System  
System Maintenance Manual*

Output Appendix  
APP:OST

Input Message  
OP:ST-PROC

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ID ..... REPT:BDG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT BDG CANNOT CLOSE DEVICE a STATUS b
- [2] REPT BDG CANNOT OPEN DEVICE a STATUS b
- [3] REPT BDG WRONG FILE TYPE a
- [4] REPT BDG UNEXPECTED ACK RECEIVED FROM c
- [5] REPT BDG FATAL FAULT CODE d PA e

## 2. REASON FOR OUTPUT

To report an error condition or a fault condition resulting from the BDG process execution.

## 3. VARIABLE FIELD DEFINITIONS

- a Device name.
- b System error code. See the System Error Codes Appendix, APP:SYSERR.
- c Process Identification (ID).
- d Fault code.
- e Program address where the fault occurred.

## 4. ACTION TO BE TAKEN

If Formats 2 through 5 print, or if Format 1 prints repeatedly, seek technical assistance.

## 5. REFERENCES

OMDB Keys  
Formats 1 through 4 have an OMDB key of 303.  
Format 5 has an OMDB key of 311.

Output Appendix  
APP:SYSERR

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ID ..... REPT:BOOTAUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has 11 formats.

- [1] REPT BOOTAUD STARTING AUDIT OF BOOT CRITICAL DATA
- [2] REPT BOOTAUD a - TOTAL OF b ERRORS DETECTED
- [3] REPT BOOTAUD MSG IP CHECKING FILES c
- [4] REPT BOOTAUD MSG IP VTOC AUDIT COMPLETE b ERRORS DETECTED
- [5] REPT BOOTAUD MSG IP IFB AUDIT COMPLETE b ERRORS DETECTED  
d-e:f d-e:f d-e:f d-e:f d-e:f d-e:f
- [6] REPT BOOTAUD MSG IP CRITICAL FILE  
AUDIT COMPLETE b ERRORS DETECTED
- [7] REPT BOOTAUD g
- [8] REPT BOOTAUD ERROR h
- [9] REPT BOOTAUD CRITICAL i
- [10] REPT BOOTAUD ABORTED j
- [11] REPT BOOTAUD WAITING FOR BOOTAUD PID k TO FINISH

## 2. REASON FOR OUTPUT

Under normal conditions, only Format 1 through Format 3 will be printed to indicate that the audit completed with zero errors.

Formats 4 through 10 indicate a possible system problem that could cause a system reboot to fail. ALL BOOTAUD failures should be given immediate attention. Seek technical assistance immediately.

Format 4 indicates an MHD VTOC problem. The supplementary data that is printed is self-explanatory. Seek technical assistance immediately.

Format 5 indicates a CNI ring problem. There are certain instances where an Inter Frame Buffer (IFB) is required between CNI ring nodes. The existence on an IFB is indicated by the ECD HV value.

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Format 6 indicates that 3B disk files are missing or corrupt.

Formats 7 through 10 are the general formats for information, warning, error and critical errors that BOOTAUD detects. There are many different messages and the data is meant to be self-explanatory.

Format 10 is output when an error condition occurs that prevents the completion of the BOOTAUD audit.

Format 11 occurs when the BOOTAUD process is invoked while another instance of BOOTAUD is still running. If this condition persists for 60 minutes, the waiting BOOTAUD will abort.

### **3. VARIABLE FIELD DEFINITIONS**

|   |                                                                                                         |
|---|---------------------------------------------------------------------------------------------------------|
| a | COMPLETE if the audit completed or ABORTED if abnormal termination occurred.                            |
| b | The number of errors detected.                                                                          |
| c | The number of files that have been audited.                                                             |
| d | The CNI ring node group number.                                                                         |
| e | The CNI ring node member number.                                                                        |
| f | The hexadecimal HV value from the ECD for the CNI ring node.                                            |
| g | Supplemental data describing how BOOTAUD is proceeding.                                                 |
| h | Supplemental data describing the problem found.                                                         |
| i | Supplemental data describing a critical problem.                                                        |
| j | Supplemental data describing the reason for BOOTAUD early termination.                                  |
| k | The process id of a previously running BOOTAUD that is delaying the execution of this BOOTAUD instance. |

### **4. ACTION TO BE TAKEN**

ALL BOOTAUD failures should be given immediate attention. Seek technical assistance immediately.

### **5. REFERENCES**

None.

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ID ..... REPT:BWMINT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT BWMINT a

## 2. REASON FOR OUTPUT

To report error messages when errors occur during a field update.

## 3. VARIABLE FIELD DEFINITIONS

a Describes the specific error that occurred. See the Field Update Error Codes Output Appendix, APP:FUEC, for explanations of error codes which may appear in error messages.

## 4. ACTION TO BE TAKEN

The error should be corrected and the field update continued. If the error cannot be corrected, the update should then be reset. If the update cannot be reset, it must be omitted before another update can be applied.

## 5. REFERENCES

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Output Appendix  
APP:FUEC

Input Messages  
UPD:APPLY-BYTER  
UPD:APPLY-FILER  
UPD:APPLY-FUNCR  
UPD:BKOUT  
UPD:RESET

Output Message  
UPD:REPT

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ID ..... REPT:CALL-AMA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT:CALL AMA USING TRK ab HAS BEEN UP OVER c MIDNIGHTS

## 2. REASON FOR OUTPUT

To report that either the CAMA midnight passed function or other (e.g., direct services dialing capability [DSDC]) billing midnight passed function has determined that an answered call has been in progress for more than one midnight.

## 3. VARIABLE FIELD DEFINITIONS

ab                      Circuit identification name (CIN) of incoming trunk involved, where a is the traffic number portion of the CIN.

c                        Number (2 through 8) of midnights the call has been up.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

PIDENTs  
CAMA0000  
DSDCBILL  
3BPROCESS

Practice 234-180-110 *Call Processing Programs*

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ID ..... REPT:CD-CIA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT C/D CIA CANNOT OPEN DEVICE a
- [2] REPT C/D CIA CANNOT GET PROCESS ID OF DAP
- [3] REPT C/D CIA CANNOT SEND A MESSAGE TO DAP

## 2. REASON FOR OUTPUT

Format 1 informs the user that the current state of the Switching Control Center (SCC) links indicates that the Equipment Configuration Database (ECD) must be updated in order for the SCC to become active.

Formats 2 and 3 indicate that the Critical Indicator Administrator (CIA) could not communicate with the Display Administration Process (DAP).

## 3. VARIABLE FIELD DEFINITIONS

a Device filename.

## 4. ACTION TO BE TAKEN

Format 1 prints when the status of the SCC links in the ECD is something other than ACT, STBY, OOS or INIT. If the SCC is not needed, use Recent Change/Verify (RC/V) to delete the ULARP record for CIA to prohibit ULARP from trying to restart the CIA process. If the SCC link is needed, follow growth procedures to activate the link.

If Format 2 or Format 3 is output, seek technical assistance.

## 5. REFERENCES

OMDB Key  
Formats 1, 2, and 3 have an OMDB key of 273.

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ID ..... REPT:CD-DLGGETTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT C/D DLGGETTY CHANID FOUND IN LOGDEV RECORD

## 2. REASON FOR OUTPUT

To inform the user that the DLGGETTY process has encountered an error while trying to process initialization information for a control/display device. The messages will appear on the originating device only.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

Seek technical assistance to verify correctness of channel Identification (ID) field found in the logdev form for the dialogue device.

## 5. REFERENCES

None.

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ID ..... REPT:CD-ERROR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT C/D ERROR 1 a [PID b] [APPLICATION NOTIFICATION FAILURE]
- [2] REPT C/D ERROR 2 c DAP {LOCAL DEVICE|PROCESS} I/O BUFFER OVERFLOW [d]
- [3] REPT C/D ERROR 3 {1|2} e
- [4] REPT C/D ERROR 3 3 f
- [5] REPT C/D ERROR 3 4 CANNOT ALLOCATE MEMORY FOR PAGE INITIALIZATION
- [6] REPT C/D ERROR 4 g h [ERRNO i]
- [7] REPT C/D ERROR 4 1 j
- [8] REPT C/D ERROR 4 8 DAPMALLOC FAILED DATA LOST FOR DEVICE [k]
- [9] REPT C/D ERROR 5 1 DAP EXITING RECEIVED SIGNAL l

## 2. REASON FOR OUTPUT

To inform the user that Control/Display (C/D) detected an exceptional condition while trying to process a message or poke request from the maintenance Cathode Ray Terminal (CRT).

For Format 1, error types 1, 2, and 3 indicate severe problems in which the Display Administration Process (DAP) died upon initialization and has been restarted by ULARP. Error types 4 through 7 can be ignored unless persistent, which indicates technical assistance is needed.

Format 2 indicates that DAP is overloaded with outstanding writes. This may indicate an input/output driver or system overload, or that more requests for change to displays are arriving than DAP can handle.

For Format [3-5], error types 1, 2, and 4 indicate that DAP could not allocate memory or process the transtab file, and that a default translation table will be used. Error type 3 indicates that tty information is missing for a particular terminal, and that DAP is using default information for the terminal.

For Format [6-8], error types 3, 4, 5, and 7 indicate an error while attempting to attach a device. Error type 1 indicates that DAP could not open the translation table, and that a default is being used. Error type 2 indicates that DAP incurred a write error, and data for a terminal has been lost. Error type 6 indicates that a problem occurred in finding or

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updating an indicator for a page. Error type 8 indicates that DAP was unable to request new memory to buffer output destined for a terminal, and that data has been lost.

Format 9 occurs when DAP dies from a signal, and may indicate a problem that should be noted.

### 3. VARIABLE FIELD DEFINITIONS

- a Error type:
- 1 — Unable to attach to C/D port
  - 2 — Cannot enable message reception
  - 3 — Unable to get shared segment or fork/exec Critical Indicator Administrator (CIA)
  - 4 — Invalid C/D administrative request received
  - 5 — Unable to send Display Administration Process (DAP) status to application
  - 6 — Unable to send message to page owner
  - 7 — Invalid C/D poke operation request received
- b Process Identification (ID) of the process which sent the bad message.
- c Error type:
- 2 — Write error
- d Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then a is the device ID.
- 1 File format error
- 2 File read failure
- 3 gettrap returned no data
- 4 Memory request failure
- e File name.
- f Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then a is the device ID.
- g Error type:
- 2 — Write error.
  - 3 — Attach settrap error.
  - 4 — Attach gettrap error.
  - 5 — Attach incore Equipment Configuration Database (ECD) error.
  - 6 — Indicator operation error.
  - 7 — Retrieve incore ECD device record error.
- h Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then a is the device ID.

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|   |                                                                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i | System error code. See the System Error Codes Output Appendix, APP:SYSERR.                                                                                                                |
| 1 | File open error.                                                                                                                                                                          |
| j | File name.                                                                                                                                                                                |
| 8 | Error when attempting to allocate memory.                                                                                                                                                 |
| k | Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then a is the device ID. |
| l | Signal received.                                                                                                                                                                          |

#### 4. ACTION TO BE TAKEN

For Format 1, error types 1, 2, and 3 indicate severe problems in which DAP died upon initialization, and has been restarted by ULARP. Error types 4 through 7 can be ignored unless persistent, which indicates technical assistance is needed.

For Formats 2 through 9, except where noted for Format 4, if the message is intermittent, take no action. If the message persists for a local terminal, power cycle the terminal. If it persists for a removed terminal, terminate and re-establish the terminal's connections.

For Format 6 through 8, error types 3, 4, 5, and 7 indicate an error while attempting to attach a device. The terminal should be power cycled for these conditions. If the problem persists, seek technical assistance.

#### 5. REFERENCES

OMDB Key

Formats 1 through 9 have an OMDB key of 175.

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ID ..... REPT:CD-GETTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT C/D GETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT
- [2] REPT C/D GETTY UNABLE TO ACCESS ECD FOR a
- [3] REPT C/D GETTY UNABLE TO COMMUNICATE WITH DAP PORT b
- [4] REPT C/D GETTY FOR DEVICE a FAILED TO CREATE c
- [5] REPT C/D GETTY PATHNAME NOT IN THE ECD FOR a

## 2. REASON FOR OUTPUT

To inform the user that the CDGETTY process has encountered an error while trying to process initialization information for Control/Display (C/D) devices following terminal restores. The messages may appear on the originating device, or the Receive-Only Printer (ROP).

## 3. VARIABLE FIELD DEFINITIONS

- a Device Identification (ID) which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then a is the device ID.
- b Port ID.
- c Pathname of the process to be created.

## 4. ACTION TO BE TAKEN

Format 1 indicates that the UNIX® process /prc/init is not setting the proper environment for `getty`. Seek technical assistance.

Format 2 indicates that either it could not attach to the incore database or it failed to get the required record; the `getty` record, for example. Seek technical assistance.

Format 3 indicates that the DAP process is not connected to its port. Seek technical assistance to verify that the DAP process is currently running.

Formats 4 and 5 indicate that they could not execute the shell listed in the `getty` record. Verify the correctness of the `getty` record in the incore database and seek technical assistance.

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**5. REFERENCES**

OMDB Keys

Formats 1, 2, 3, and 5 have an OMDB key of 273.

Format 4 has an OMDB key of 313.

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ID ..... REPT:CD-POKER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT C/D POKER UNRECOGNIZED SIGNAL a ERRNO b
- [2] REPT C/D POKER CANNOT OPEN c ERRNO b
- [3] REPT C/D POKER GETPORT ERROR PORT d  
ERRNO b
- [4] REPT C/D POKER FAILED TO GET TTOPTS FOR e  
ERRNO b
- [5] REPT C/D POKER MESSAGE NOT RECEIVED BY DAP FOR DEVICE e
- [6] REPT C/D POKER INVALID PAGENAME SPECIFIED IN THE ECD  
FOR DEVICE
- [7] REPT C/D POKER PAGE OWNER FAILED TO CONNECT TO PORT d
- [8] REPT C/D POKER DAP CANNOT ATTACH TO DEVICE e
- [9] REPT C/D POKER FIFO WRITE ERROR, RTN = f ERRNO b
- [10] REPT C/D POKER UNABLE TO SEND MSG ERRNO b
- [11] REPT C/D POKER SWITCH DIVERT WRITE ERROR RTN f
- [12] REPT C/D POKER OPENCH FAILURE FOR DEVICE e
- [13] REPT C/D POKER CSOP FAILED TO CONNECT TO PORT d

## 2. REASON FOR OUTPUT

To report errors detected by poker associated with Control/Display (C/D) devices.

Formats 1, 9, and 11 indicate errors in setting up or diverting output to a secondary reader (for example, Recent Change And Verify [RCV] / Equipment Configuration Database [ECD]).

Formats 2, 4 through 8, 12, and 13 indicate poker initialization errors.

Format 10 indicates an error with sending poke input to Display Administration Process (DAP) from a dialogue terminal.

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### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                            |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Signal number.                                                                                                                                                                                             |
| b | System error numbers. See the System Error Codes Output Appendix, APP:SYSERR.                                                                                                                              |
| c | File name.                                                                                                                                                                                                 |
| d | Port number.                                                                                                                                                                                               |
| e | Device Identification (ID) which is a single character (lower case letter) suffix representing a control/display device. For example, if a logical device is defined as /dev/cda, then a is the device ID. |
| f | Failure return from write().                                                                                                                                                                               |

### 4. ACTION TO BE TAKEN

For Formats 1, 2, 5, and 7 through 11, an operating system function call is failing; seek technical assistance.

For Format 3, if DAP is running, execute menu 807 from the C/D update page to restart the poker. If DAP is not running, seek technical assistance.

For Format 4, seek technical assistance to verify correctness of ttopt form for this device.

For Format 6, seek technical assistance to verify correctness of pagename field found in the getty form for this device. If correct, take no action; message was the result of a request to display an uninitialized page at time of request.

For Format 12, seek technical assistance to verify correctness of channel ID field found in the logdev form for this device.

For Format 13, if CSOP is running, display page 103 and execute menu 807 to restart the poker. If CSOP is not running, seek technical assistance.

### 5. REFERENCES

#### OMDB Keys

Formats 1 through 8, 11, and 12 have an OMDB key of 296.

Formats 9 and 10 have an OMDB key of 317.

Format 13 does not have an OMDB key.

#### Display/Menu Page Name

C/D UPDATE

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#### Output Appendix

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ID ..... REPT:CD-POKER-ERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

This message has 12 formats.

- [1] REPT C/D POKER CAN NOT WRITE TO PIPE RTN=a - ERRNO f
- [2] REPT C/D POKER UNRECOGNIZED SIGNAL b - ERRNO f
- [3] REPT C/D POKER CAN NOT OPEN c - ERRNO f
- [4] REPT C/D POKER GETPORT ERROR, PORT=d - ERRNO f
- [5] REPT C/D POKER OPEN ERROR FILE=c - ERRNO f
- [6] REPT C/D POKER FAILED TO GET TTOPTS FOR e - ERRNO f
- [7] REPT C/D POKER MESSAGE NOT RECEIVED BY DAP FOR e ERRNO f
- [8] REPT C/D POKER INVALID PAGENAME SPECIFIED IN THE ECD  
ERRNO f
- [9] REPT C/D POKER PAGE OWNER FAILED TO CONNECT TO PORT  
ERRNO f
- [10] REPT C/D POKER DAP CAN NOT ATTACH TO DEVICE e - ERRNO f
- [11] REPT C/D POKER FIFO WRITE ERROR, RTN=a ERRNO f
- [12] REPT C/D POKER UNABLE TO SEND MSC ERRNO f

## 2. REASON FOR OUTPUT

To report the poker encountered an error during initialization for control/display devices. It did this while trying to read input pokes from the control/display CRT, or while trying to connect to a port.

## 3. VARIABLE FIELD DEFINITIONS

- a Failure return from write().
- b Signal number.
- c File name.
- d Port number.

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e Device ID.

f System error numbers. Refer to errno.h.

#### **4. ACTION TO BE TAKEN**

Seek technical assistance.

#### **5. REFERENCES**

OMDB Keys (UNIX® RTR R1 only)

Formats 1 - 6 have an OMDB key of 275.

Formats 7 - 10 have an OMDB key of 273.

Formats 11 and 12 have an OMDB key of 317.

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ID ..... REPT:CD-STARTER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT C/D STARTER SIGNAL TO a FAILED ERRNO b
- [2] REPT C/D STARTER DAP REQUEST FAILED PORT c  
ERRNO b
- [3] REPT C/D STARTER TMP FILE SYSTEM NOT ACCESSIBLE  
[ERRNO b]
- [4] REPT C/D STARTER CHILD TERMINATION STATUS d  
[SIGNAL e]
- [5] REPT C/D STARTER FAILED TO OPEN f ERRNO b
- [6] REPT C/D STARTER FAILED TO EXECUTE g ERRNO b
- [7] REPT C/D STARTER FAILED TO CREATE PIPE f  
ERRNO b
- [8] REPT C/D STARTER FORK FAILED ERRNO b
- [9] REPT C/D STARTER ALREADY ACTIVE STARTER ON h
- [10] EPT C/D STARTER ARGUMENT ERROR
- [11] EPT C/D STARTER ALREADY RUNNING ON TERMINAL h

## 2. REASON FOR OUTPUT

To report the Control/Display (C/D) starter process encountered an error while attempting to set up the device for a secondary input read process; for example, Recent Change and Verify (RCV).

## 3. VARIABLE FIELD DEFINITIONS

- a Poker process Identification (ID).
- b System error number. See the System Error Codes Output Appendix, APP:SYSERR.
- c Display Administration Process (DAP) port number.
- d Child exit status.

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|   |                                                                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| e | Signal that terminated the child.                                                                                                                                                         |
| f | File name.                                                                                                                                                                                |
| g | Pathname of secondary input read process (Recent Change and Verify [RCV]).                                                                                                                |
| h | Device ID which is a single character (lower-case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then a is the device ID. |

#### **4. ACTION TO BE TAKEN**

For Formats 1 and 2, if the message is printed for a local terminal, power cycle the terminal. If the message is printed for a remote terminal, terminate and re-establish the terminal's connection.

For Format 3, if the system initialization is in progress, wait and re-enter the menu later to re-start the STARTER process. If system initialization is not in progress, mount the /tmp filesystem, or seek technical assistance.

Format 4 indicates the child process of STARTER terminated abnormally. Re-enter the menu to re-start the STARTER process.

For Formats 5 through 10, re-enter the menu to try to re-start the STARTER process. If this fails again, seek technical assistance.

Format 11 indicates that an active child process is running on the named terminal. Use the PF3 key to resume communication with that process.

#### **5. REFERENCES**

OMDB Key

Formats 1 through 11 have an OMDB key of 275.

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ID ..... REPT:CEHDLR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT CEHDLR  
DISCARDED a EVENTS, FAILURE CODE=X'b

## 2. REASON FOR OUTPUT

Reporting the discard of CCS Network Critical Events by the Critical Event Handler (CEHDLR).

## 3. VARIABLE FIELD DEFINITIONS

- a                      Number of critical events dropped.
- b                      Reason for failure:
- 1        — A message buffer cannot be allocated, the message queue to the Coordinator of Spooler Output Processes (CSOP) is full, or the CSOP does not exist.
- 1000 — UNIX® RTR System message buffer overload.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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ID ..... REPT:CFT-LIB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CFT LIB UNABLE TO OPEN AUTHORITY GROUPS FILE
- [2] REPT CFT LIB AUTHORITY GROUPS FILE READ ERROR
- [3] REPT CFT LIB AUTHORITY GROUPS FILE TOO MANY GROUPS
- [4] REPT CFT LIB UNABLE TO OPEN AUTHORITY FILE
- [5] REPT CFT LIB AUTHORITY FILE READ ERROR
- [6] REPT CFT LIB UNABLE TO RETRIEVE DATE FORMAT FROM ECD a
- [7] REPT CFT LIB ILLEGAL DATE FORMAT IN ECD
- [8] REPT CFT LIB UNABLE TO RETRIEVE IM FOR ECHO
- [9] REPT CFT LIB CANNOT ACCESS ECD PDS ASSUMED
- [10] REPT CFT LIB IA01 RMOVSEG FAILED ERRNO b
- [11] REPT CFT LIB GETSEG FAILED ERRNO b
- [12] REPT CFT LIB UNABLE TO PLACE INPUT MESSAGE IN ENVIRONMENT
- [13] REPT CFT LIB CLEARING SEMAPHORE

## 2. REASON FOR OUTPUT

To report a Craft Library (CFT LIB) related occurrence or error.

Format 1 indicates that the craft library could not access the file that contains the currently valid input message authority groups.

Format 2 indicates that the craft library encountered a read error when attempting to read the input message authority groups file.

Format 3 indicates that an error has been detected in the input message authority groups file. This can occur if there are too many authority groups specified (more than the defined maximum, currently 91) or if the wrong file is read.

Format 4 indicates that the craft library could not access the file that contains the current assignments of authority groups to persons and terminals.

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Format 5 indicates that the craft library encountered a read error when attempting to read the authority assignment file.

Format 6 indicates that the craft library could not retrieve the date format from the `eaiopt` record in the Equipment Configuration Database (ECD).

Format 7 prints when the craft library detects an error in the layout of the date found in the `eaiopt` record in the ECD. The layout must include the desired position of the month (m), day (d), and year (y) with optional separators (for example... ":", "-"). Some example layouts include: `m:d:y` and `d-m-y`.

Format 8 prints when the craft library is unable to retrieve an input message string from the calling process' environment.

Format 9 prints when the craft library is either unable to attach to the ECD or unable to read the `splinfo` record in the ECD to determine whether the system is in PDS or MML mode. PDS mode will be assumed.

Format 10 indicates that the craft library failed to remove the incore ECD data segment(s) from its address space.

Format 11 indicates that the craft library failed to add the incore ECD data segment(s) to its address space.

Format 12 indicates that the craft library failed to put the input message into the client process environment.

Format 13 indicates that the craft library is releasing a locked semaphore.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Reason for failure to obtain date format from the ECD: <ul style="list-style-type: none"><li>1 — Could not attach ECD segment to process.</li><li>2 — Failure attaching to database.</li><li>3 — Could not get ECD origin.</li><li>4 — Could not get Unit Control Block (UCB) record.</li><li>5 — Could not get IOPT record.</li><li>6 — Could not get EAIPT record.</li><li>7 — Failure releasing database.</li><li>8 — Could not remove ECD segment from process.</li></ul> |
| b | System error number. See the System Error Codes Output Appendix, APP:SYSERR.                                                                                                                                                                                                                                                                                                                                                                                                  |

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#### **4. ACTION TO BE TAKEN**

For Formats 1 through 12, no action is needed.

For Format 13, check the /cdmp directory for a dump file of the process that had the semaphore locked. If a file is present, save the file for future analysis.

#### **5. REFERENCES**

OMDB Keys

Formats 1 through 5, 8, and 10 through 13 have an OMDB key of 290.

Formats 6, 7, and 9 have an OMDB key of 291.

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ID ..... REPT:CFTSHL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CFTSHL TERMINAL IN SERVICE \*\*\* a  
CAPABILITY MODE / b
- [2] REPT CFTSHL EOF ENCOUNTERED
- [3] REPT CFTSHL UNABLE TO READ LINE c OF .pname file  
INSTALL A .pname FILE in DIRECTORY d AND  
SHELL WILL RECOVER
- [4] REPT CFTSHL CANNOT CHANGE DIRECTORY TO e
- [5] REPT CFTSHL SETGID TO f FAILED
- [6] REPT CFTSHL SETUID TO g FAILED
- [7] REPT CFTSHL CANNOT CREATE h AS ALTERNATE SHELL
- [8] REPT CFTSHL INTERRUPT RECEIVED
- [9] REPT CFTSHL INVALID ENVIRONMENT ARGUMENT PASSED  
TO ALTERNATE SHELL
- [10] REPT CFTSHL UNABLE TO READ LINE c OF .pname FILE FOR  
ALTERNATE SHELL AND ENVIRONMENT ARGUMENT MISSING
- [11] REPT CFTSHL CANNOT CREATE SEGMENT FOR INPUT AND OUTPUT
- [12] REPT CFTSHL ON MTTY WILL USE DEFAULT .PNAME FILE
- [13] REPT CFTSHL CRAFT SHELL IS IN LIMP CAPABILITY MODE

## 2. REASON FOR OUTPUT

To report a CFTSHL-related occurrence or error. The messages may appear on the input (requesting) terminal, the Receive-Only Printer (ROP), or both depending on the mode (terminal reading/background execution) of the CFTSHL. Some messages may be appended to an input command.

Format 1 indicates the CFTSHL is ready to accept input.

Format 2 indicates the CFTSHL has been terminated.

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Format 3 indicates a command has requested a change to an environment that does not exist in the .pname file. (This format is for Lucent Technologies use only.)

Format 4 indicates a request to change an execution directory as a result of an environment change has not been honored. (This format is for Lucent Technologies use only; occurs when cd command to variable b fails.)

Format 5 indicates an attempt to set the group Identification (ID) for the CFTSHL failed. (This format is for Lucent Technologies use only.)

Format 6 indicates an attempt to set the user ID of the CFTSHL failed. (This format is for Lucent Technologies use only.)

Format 7 indicates the failure of an alternate shell process creation. (This format is for Lucent Technologies use only.)

Format 8 prints as a result of encountering an interrupt. This interrupt usually occurs as a result of depressing the BREAK key.

Format 9 prints when CFTSHL is executed from another process (shell) and an improper environment is passed as argument two.

Format 10 prints when an alternate CFTSHL is invoked and the request environment cannot be read from the .pname file.

Format 11 prints when CFTSHL fails to allocate a memory segment for I/O buffer using RTR system call makeseg( ).

Format 12 prints when a CFTSHL is invoked for a maintenance terminal and the .pname file cannot be found in the current working directory. The CFTSHL will then use a default .pname file.

Format 13 indicates that the CFTSHL cannot attach to the *Input Message Catalog*.

### 3. VARIABLE FIELD DEFINITIONS

|     |                                             |
|-----|---------------------------------------------|
| a   | CFTSHL capability mode: LIMP, PART or FULL. |
| b   | Input message syntax: PDS or MML.           |
| EOF | End of file.                                |
| c   | Label of line.                              |
| d   | Directory.                                  |
| e   | Name of the requested directory.            |
| f   | Name of the requested group ID.             |
| g   | Name of the requested user ID.              |
| h   | Pathname of the alternate shell process.    |

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#### **4. ACTION TO BE TAKEN**

For Format 3 the command or the .pname file is in error and must be corrected. For all other formats, escalate through appropriate channels.

#### **5. REFERENCES**

OMDB Keys

Formats 11 and 13 have an OMDB key of 299.

Format 12 has an OMDB key of 298.

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ID ..... REPT:CLUCREAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

**1. FORMAT**

REPT CLUCREAT  
CLUSTER/MEMBER INITIALIZATION COMPLETE

**2. REASON FOR OUTPUT**

This message indicates that new disk files for cluster/member routing data were created with default values. These disk files are read into the 3B Protected Application Segment (PAS) during initialization.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:CMMSADM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT CMMSADM  
a

## 2. REASON FOR OUTPUT

CMMSADM is a kernel level process which collects the measurement data and provides the network administrative clock message handling. Messages are output when a significant event occurs.

## 3. VARIABLE FIELD DEFINITIONS

a                      The field labeled a represents the body of the message.

## 4. ACTION TO BE TAKEN

\_MEDCSTRT EVENT BEFORE START\_PROC, SKIP A PDC \_MEDCSTRT  
event was received before the start processing signal from CNIINIT.  
\_MEDCSTRT' indicates' the' beginning' of a periodic data collection period (PDC).  
Seek assistance from field support group.

x EVENT BEFORE START\_PROC <x>  
event was received before the start processing signal from CNIINIT. The event  
may be \_MSG\_WAIT which indicates an IMS message has been received or  
\_MEDCDONE which indicates the end of a periodic data collection period. Seek  
assistance from field support group.

MASTER CLOCK NODE HAS NOT RESPONDED TO x REQUESTS FOR THE TIME  
No response has been received to <x> query requests to the master clock node for  
the network time. Seek assistance from field support group.

QUERYING MASTER CLOCK NODE, HOURLY TIME MESSAGE NOT RECEIVED FROM  
MASTER CLOCK NODE  
The master clock node has not sent the hourly time message. The local node will  
query the master and if no response is received the preceding message will be  
displayed. No action required unless a response to the query is not received.

COMPLETED INITIALIZATION OF NETWORK CLOCK: MASTER CLOCK NODE IS pc  
The local clock node has received response to a query request and has determined  
the master clock node to be <pc>. No action is required.

SEE PROPRIETARY NOTICE ON COVER PAGE

**UPDATED SYSTEM CLOCK: TIME DIFFERENCE (MSEC) = time**

The network time has been updated for the node. The time difference between the master clock node and the local node is provided as <time>. No action is required.

**RECEIVED FORCED SWITCH MESSAGE: MASTER CLOCK NODE IS pc**

The mate clock node is informing the local node that the master clock node has gone out of service. The local node marks the mate clock node as the new master. No action is required.

**MASTER CLOCK IS OUT OF SERVICE: FORCED SWITCH BROADCAST TO ALL  
ADJACENT NODES**

The mate clock node has detected that the master clock node has gone out of service. Forced switch messages will be broadcast to all adjacent nodes. No action is required.

**BROADCAST HOURLY TIME TO ALL NETWORK NODES: TIME (MSEC) = time**

Each hour the current network time is broadcast from the master clock node to its adjacent nodes for distribution to all network nodes. No action is required.

**RECEIVED TIME MESSAGE FROM THE MATE CLOCK: FORCING SWITCH TO pc**

The time message received was from the mate clock node rather than the master clock as expected. The forced switch message was not received by this node. No action is required.

**MATE CLOCK THINKS IT'S MASTER: SWITCHING TO THE MATE FUNCTION**

Both STPs are performing the master clock function. The first point code listed in the clkdata file switches to the mate function when it receives the hourly time message from what it thinks is the mate clock node. No action is required.

**UNEXPECTED FORCED SWITCH MESSAGE RECEIVED FROM pc**

The forced switch message was received by the master clock node from the mate clock node, the forced switch message was received by the mate clock node from what it thought was the master clock node, or the forced switch message was received by a slave node from a clock node other than the one it thought was the mate clock node. For all of these cases, no action is required.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMMSDP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT CMMSDP  
a

## 2. REASON FOR OUTPUT

CMMSDP is a user level process which accumulates the measurement data into the history files as specified in the MOC history file descriptor table and generates the reports as specified in the MOC schedule table. Messages are output when a system error is encountered or when an unexpected problem arises.

## 3. VARIABLE FIELD DEFINITIONS

a                      The field labeled a represents the body of the message.

## 4. ACTION TO BE TAKEN

### MEASUREMENT REPORTS ARE INHIBITED

Simply means that measurement reports that would normally be generated by CNI will not be generated. This message results if the user previously input the command to manually inhibit these reports. See the INH:REPORT command in the IM. This message will print about once every 30 minutes from the time the reports are inhibited. Note that CNI measurements will continue to be collected, only the reporting of them is inhibited.

### IMS MEASUREMENTS ARE CURRENTLY INHIBITED

Certain IMS measurements will not be collected or accumulated during the period that IMS measurements are inhibited. The IMS measurement inhibit flag may be turned on or off using the INH:IMSMEAS input message.

### CAN'T ATTACH TO PT\_CMMSDP PORT

Was unsuccessful in connecting to the CMMSDP port. Seek assistance from field support group.

### GOT AN ABORT SIGNAL

Received an abort request or a fatal error occurred and CMMSDP should abort. Other output displayed on the ROP will detail the reason. Action to be taken depends on the cause of the abort.

SEE PROPRIETARY NOTICE ON COVER PAGE

**BAD DISP FIELD IN HFDT FOR history\_file\_name**

The disposition field in the history file descriptor table for the history file name record is not HFDT\_STOP or HFDT\_CONT. Use recent change to restore the table to its proper value or call technical support for assistance.

**BAD ACTION FIELD IN HFDT FOR history\_file\_name**

The action field in the history file descriptor table for the history file name record is not HFDT\_ADD or HFDT\_COPY. Use recent change to restore the table to its proper value or call technical support for assistance.

**ACTION FIELD IN HFDT FOR history\_file\_name MUST BE COPY**

The action field in the history file descriptor table for a non-repeatable history file must be ADD\_COPY. Use recent change, to change the record setting the action to "copy" or call technical support for assistance.

**CANNOT FORK FOR report\_name**

CMMSDP cannot fork a copy of itself. This error usually occurs if memory space is limited and there is not enough left for a copy of CMMSDP. Seek technical assistance.

**INVALID SCHD ENTRY report\_name**

A history file table (HFDT) entry for the history file name in the source field of the schedule report record (in the scheduler table SCHD) does not exist. Use recent change to add the history file entry or call technical support for assistance.

**THE FILE file\_name IS NOT UPDATED**

The file named in the message could not be created and the measurements could not be accumulated. This indicates that disk space did not exist for the file. Seek technical assistance.

**FCODE fault\_code**

The fault code received by the fault handler was not FLT\_SINIT. Seek technical assistance.

**UPDATE TE: BAD PROTO protocol LINK link\_no TE NOT UPDATED**

The protocol for the link specified was not 7 (CCS 7), 8 (D Channel), or 9 (SADC). Verify the link data and recent change if necessary. Call technical support for additional assistance.

**OUT OF PER NODE MEAS BLOCK**

The match blocks are all in use. This is a critical error. Seek technical assistance.

**BAD PROTO protocol IN file\_name RNA ring\_node**

The protocol of the link specified as read from the file was not 7 (CCS 7), 8 (D Channel), or 9 (SADC). Verify the link data and recent change if necessary. Call technical support for additional assistance.

**CANNOT CREATE file\_name WITH MODE mode**

The file name specified could not be created and the data could not be accumulated. The disk space is not sufficient for the data to be stored. Seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

**CANNOT EXECUTE file\_name**

The CMMSDP process forked off could not be overlaid with its child process CMNRGEN to produce a measurement report. This indicates there is not enough memory swap space available. Seek technical assistance.

**CANNOT GET PID CONNECTED TO PORT port\_number**

The process ID for the CNIINIT process could not be retrieved. Therefore, the required event could not be sent to CNIINIT which should time out. Seek technical assistance.

**CANNOT OPEN file\_name MODE mode**

The file specified could not be opened. If the priority of action is MAJOR, the file should exist and technical assistance should be sought. If the priority of action is NONE, the file will be created.

**CANNOT LOCK PROCESS IN MEM. FLAG flag\_number**

The CMMSDP process could not be locked in memory (flag\_number is 1) for dart purposes. No action is required.

**CANNOT READ file\_name**

The file specified could not be read. Seek technical assistance.

**CANNOT SEND TO PID process\_id EVENTS Xevent\_number**

An event could not be sent to the CNIINIT process which should time out. Seek technical assistance.

**CANNOT SET TRAP FOR SIGNAL signal\_number**

CMMSDP failed to set a trap for the specified signal. Should this signal be received, the process would terminate. Seek technical assistance.

**CANNOT WRITE file\_name**

The file specified could not be written. Seek technical assistance.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMRCV  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has six output formats:

- [1] REPT CMRCV  
PROCESSING RC ORDER OF TYPE a
- [2] REPT CMRCV  
RC ORDER COMPLETE
- [3] REPT CMRCV  
UNABLE TO PCREAT CMRCVK, ERRNO = b
- [4] REPT CMRCV  
CAN'T OPEN c DISK FILE
- [5] REPT CMRCV  
RESPONSE = OPEN FAIL
- [6] REPT CMRCV  
CMRCV IS ABORTING

## 2. REASON FOR OUTPUT

Format 1 indicates that the CNI is beginning to activate the recent change request.

Format 2 is a completion report for recent change activation.

Format 3 indicates an error occurred during an attempt to create the process CMRCVK.

Format 4 indicates an error occurred during an attempt to open a disk file.

Format 5 indicates the recent change failed because of errors during attempts to open disk files.

Format 6 indicates that CMRCV is terminating due to the receipt of a SIGTERM signal.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Type of recent change requested:
- 55 — Add entries to the Critical Event Table.
  - 56 — Delete entries from the Critical Event Table.
  - 57 — Update entries in the Critical Event Table.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 58 — Add entries to the History File Descriptor Table.
  - 59 — Delete entries from the History File Descriptor Table.
  - 60 — Update entries in the History File Descriptor Table.
  
  - 61 — Add entries to the Scheduler Table.
  - 62 — Delete entries from the Scheduler Table.
  - 63 — Update entries in the Scheduler Table.
  
  - 64 — Add an entry to the Exception Table.
  - 65 — Delete an entry from the Exception Table.
  - 66 — Change an entry in the Exception Table.
  
  - 67 — Add an entry to the User View Descriptor Table.
  - 68 — Delete an entry from the User View Descriptor Table.
  - 69 — Add measurements to an entry in the User View Descriptor Table.
  - 70 — Delete measurements from an entry in the User View Descriptor Table.
  
  - 94 — Update the Critical Event Table on disk.
  - 95 — Update the Exception Table on disk.
  - 96 — Update the History File Descriptor Table on disk.
  - 97 — Update the Scheduler Table on disk.
  - 98 — Update the User View Descriptor Table on disk.
- b Error number as described in the System Error Codes Appendix, APP:SYSERR.
- c The disk file which could not be opened:
- /datamp/cni/odata/cet — Critical Event Table.
  - /datamp/cni/odata/excp — Exception Table.
  - /datamp/cni/odata/hfdt — History File Descriptor Table.
  - /datamp/cni/odata/schd — Scheduler Table.
  - /datamp/cni/odata/uvdt — User View Descriptor Table.

#### 4. ACTION TO BE TAKEN

If the output message has Format 3, 4, or 5, the recent change order has failed. The error messages can be examined via the **error** option of the **adm** command under the recent change system. For Format 3, also refer to the error code as described in the System Error Codes Appendix, APP:SYSERR.

#### 5. REFERENCES

Output Appendix  
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:CMRCVK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

**1. FORMAT**

REPT CMRCVK  
PROCESSING COMPLETE

**2. REASON FOR OUTPUT**

This message indicates that the tables in the 3B Computer shared library have been updated as specified in the recent change request.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-C-ABORT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS CAU ABORTING CORE DUMP  
ETABLE: a

## 2. REASON FOR OUTPUT

A total of 128 LIBC buffers are allocated when a COAMS CAU session comes up. LIBC 0 buffer is used by the RTR IODRV. LIBC buffers 1 through 127 are used by the session. Each time a message is read or written, a LIBC buffer is allocated. If the read/write buffer descriptor is not marked "DONE" by the RTR IODRV, that particular LIBC buffer is lost forever. If LIBC buffers 1 through 127 are all still outstanding, all system resources are gone for this particular session. The session has to be torn down. A core dump is requested in order to verify that all LIBC buffers for the session were in fact still outstanding.

## 3. VARIABLE FIELD DEFINITIONS

a RTR system explanation

## 4. ACTION TO BE TAKEN

To dump data for the start of the LIBC buffers, enter the following:

DUMP:UID X'726,ADDR X'660A04,L 128!

Redial to start another session if necessary.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-BUSY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU PT\_CAU (a) BUSY

**2. REASON FOR OUTPUT**

Another user dialed up for a COAMS CAU session while one is already in progress. Only one session is allowed at any given time. The first session takes precedence. All other sessions are denied until the present session has ended.

**3. VARIABLE FIELD DEFINITIONS**

a RTR software message port number

**4. ACTION TO BE TAKEN**

Redial at a later time.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-DBGEN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS [cau debug] DLCAURST() ENTERED

**2. REASON FOR OUTPUT**

During testing phases, APS user can monitor how often a read/write error was encountered on the CAU data link.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-DBGOS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS [cau debug] a OPEN SUCCESS

**2. REASON FOR OUTPUT**

During testing phases, APS user can verify the CAU data link has been opened successfully for read / write permission.

**3. VARIABLE FIELD DEFINITIONS**

a APS ECD TTY identification name in the form of /dev/tty?

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-C-DBGSC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS [cau debug] SENT TO CAU  
a

## 2. REASON FOR OUTPUT

During testing phases, APS user can monitor all CAU NSC output messages that are sent to the CAU CS.

## 3. VARIABLE FIELD DEFINITIONS

a                      Output message that was written on the CAU data link for the CAU CS.

Only the first 50 characters of the output message will print even if the output message is longer.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-DBGSN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS [cau debug] SENT TO PT\_INDIR <a>

## 2. REASON FOR OUTPUT

During testing phases, APS user can monitor all CAU NSC input messages that are sent to the COAMS input director (INDIR) process, which forwards all NSC input to all NSC frames.

## 3. VARIABLE FIELD DEFINITIONS

a                      Input message string.

Only the first 44 characters of the input message will print even if the input message is longer.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-DBGTTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS [cau debug] DLCAURST() TTY 19 RST MSG SENT TO MIRA

**2. REASON FOR OUTPUT**

During testing phases, APS user can verify that a restoral message request was sent to MIRA for the CAU data link because at least 5 or more read/write errors have been encountered.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-DBGW  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT COAMS [cau debug] WRITE FAILED  
a:b  
c

### 2. REASON FOR OUTPUT

During testing phases, APS user can verify when a write to the CAU data link has failed. APS user can also tell what output message was being written on the CAU data link when the write failed.

### 3. VARIABLE FIELD DEFINITIONS

|   |                                                            |
|---|------------------------------------------------------------|
| a | RTR system error code return                               |
| b | RTR system error explanation                               |
| c | Output message that failed to get written on the data link |

Only the first 50 characters of the output message will print even if the output message is longer.

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-C-FAIL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU FAILED TO SEND TTY 19 RST MSG TO MIRA  
RTNV=a, ERRNO=b:c

**2. REASON FOR OUTPUT**

The automated restore input message to MIRA could not be sent.

**3. VARIABLE FIELD DEFINITIONS**

|   |                                            |
|---|--------------------------------------------|
| a | Return value from an RTR sendp system call |
| b | RTR system error code return               |
| c | RTR system error explanation               |

**4. ACTION TO BE TAKEN**

APS user enters the following input message ->RST:TTY 19!

Upon completion of the restore input command, redial to start a new session.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-IORD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS CAU IO READ BUF (a) OUT

## 2. REASON FOR OUTPUT

The COAMS CAU session cannot read another input message from the CAU CS until the read buffer descriptor is returned as done from the RTR operating system. This message prints every time a read is attempted and the read buffer descriptor is still outstanding. If the read buffer descriptor is not done and the time exceeds 30 minutes, then the session is torn down because input message processing has been locked out.

## 3. VARIABLE FIELD DEFINITIONS

a LIBC asynchronous read buffer descriptor number (1-127).

## 4. ACTION TO BE TAKEN

Retry to enter an input message from the CAU CS. If the time exceeds 30 minutes, redial to start up another session.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-IOWR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS CAU IO WRITE BUF (a) LOST

## 2. REASON FOR OUTPUT

Before the COAMS CAU session can process the next output message, it must check to see if the write buffer descriptor is marked done by the RTR operating system. If a write buffer descriptor is still outstanding, then the next output message will not get processed until the time exceeds one minute or the write buffer descriptor is marked done, whichever comes first. If the time exceeds one minute and the write buffer descriptor is still outstanding, the write buffer descriptor is idled by COAMS CAU. This allows the next output message to be received and processed. Note, when a write buffer descriptor is not marked done, that buffer descriptor is lost for the length of the session.

## 3. VARIABLE FIELD DEFINITIONS

a LIBC asynchronous write buffer descriptor number (1-127).

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-LNERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU OUTPUT LEN ERR - a

**2. REASON FOR OUTPUT**

The output message line length is invalid. It is either less than or equal to zero or greater than 1024 characters. The output message is rejected.

**3. VARIABLE FIELD DEFINITIONS**

a                      Output message line length.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-C-MSGTL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU OUTPUT MSG TOO LONG

**2. REASON FOR OUTPUT**

Because the COAMS CAU session collects multiple lines of output to build an output message, a check is made to see if a threshold has hit. If the output message buffer has exceeded 1024 characters, then no more lines will be collected for the particular output message. At most, 1023 characters will get sent to the CAU CS because the EOM character has to be included as part of the output message.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-OPEN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU OPEN a FAILED - b:c

**2. REASON FOR OUTPUT**

The COAMS CAU data link file descriptor failed to open after 3 attempts. The CAU session cannot read / write to / from the CAU data link, therefore, the session will be torn down.

**3. VARIABLE FIELD DEFINITIONS**

a                    ECD TTY identification name in the form of /dev/tty?  
b                    RTR system error code return.  
c                    RTR system error explanation.

**4. ACTION TO BE TAKEN**

Redial again. If same error occurs, seek technical assistance.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-RSTLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS CAU RESTORING LINK  
a FAILURES, b MSGS

## 2. REASON FOR OUTPUT

Five consecutive read / write errors have been encountered on the CAU data link. Restoral of the CAU data link causes the COAMS CAU session to be torn down.

## 3. VARIABLE FIELD DEFINITIONS

a Total CAU data link errors encountered.  
b Total number of messages processed (read AND write) for the entire session.

## 4. ACTION TO BE TAKEN

Redial to start another session.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-RTRRC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU RTR RECV FAIL  
a: b

**2. REASON FOR OUTPUT**

Alert APS user that the COAMS CAU session encountered some type of error on the RTR receive system call. Output message processing is lost, therefore, the session is torn down.

**3. VARIABLE FIELD DEFINITIONS**

a RTR system error code return.  
b RTR system error explanation.

**4. ACTION TO BE TAKEN**

Redial to start up another session.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-C-SCOMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS CAU SESSION COMPLETE  
TOT RD MSGS a BYTES b  
TOT WT MSGS c BYTES d

## 2. REASON FOR OUTPUT

The COAMS CAU session has ended. The total messages read from CAU CS and written back to CAU CS are printed, in addition to the number of bytes for each.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                |
|---|----------------------------------------------------------------|
| a | Total number of messages read from the CAU CS in one session.  |
| b | Total number of bytes read from the CAU CS in one session.     |
| c | Total number of messages written to the CAU CS in one session. |
| d | Total number of bytes written to the CAU CS in one session.    |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-SINPR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU SESSION IN PROGRESS

**2. REASON FOR OUTPUT**

To alert APS user that a COAMS CAU session is still in progress. This message prints out every eight minutes for the life of a session.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-SSTA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU SESSION STARTING

**2. REASON FOR OUTPUT**

Alerts APS and CAU personnel that a COAMS CAU session is up and ready to process CAU NSC input/output messages.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-C-UNREC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS CAU UNRECOGNIZE MTYPE a

**2. REASON FOR OUTPUT**

A message sent from the CAU CS has been received by the COAMS CAU session process that is invalid.

**3. VARIABLE FIELD DEFINITIONS**

a RTR message type number.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-IND-ACK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS INDIR a ACK FROM UNKNOWN FRAME b c

## 2. REASON FOR OUTPUT

An acknowledgment message was sent from a frame. This error message is printed if the frame data cannot be retrieved from the frame data list. Indir may have died, and the frame data has not yet been repopulated into the frame data list.

## 3. VARIABLE FIELD DEFINITIONS

a                      Frame acknowledgment response.  
b                      Frame name.  
c                      Frame number.

| Response | Meaning                                                       |
|----------|---------------------------------------------------------------|
| IP       | In progress.                                                  |
| NA       | Input message was sent but was not acknowledged by the frame. |
| NG       | No acknowledgment.                                            |
| OK       | Input message request accepted and completed.                 |
| PF       | Printout follows.                                             |
| RL       | Repeat later.                                                 |
| ?A       | Action field error.                                           |
| ?D       | Data field error.                                             |
| ?E       | Syntax error.                                                 |
| ?I       | Identification field error.                                   |

SEE PROPRIETARY NOTICE ON COVER PAGE

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:CMS-IND-FAIL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS INDIR FAILED TO SEND DL a b RST MSG TO MIRA  
RTNV=c, ERRNO=d:f

## 2. REASON FOR OUTPUT

When a frame data link has been taken out of service because 5 or more acknowledgment time-outs have been encountered, an RTR restore input message is sent to remove, diagnose, and restore the frame data link having difficulties. The RTR restore input message failed.

## 3. VARIABLE FIELD DEFINITIONS

|   |                           |
|---|---------------------------|
| a | Frame name.               |
| b | Frame number.             |
| c | Sendp(6) return code.     |
| d | System error return code. |
| e | System error explanation. |

## 4. ACTION TO BE TAKEN

A manual restore input message can be entered at the MCRT.

RST:DLNSC a!  
where a = Frame number.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-IND-LOGD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS INDIR LOGDEV (a) FETCH FAIL

## 2. REASON FOR OUTPUT

The logical device record cannot be retrieved from the incore ECD database. The logical device record is necessary to determine what logical device is associated with a particular NSCX frame datalink.

## 3. VARIABLE FIELD DEFINITIONS

a Logical device identification character:

| ID CHAR | DLNSC | ID CHAR | DLNSC |
|---------|-------|---------|-------|
| A       | 1     | O       | 15    |
| B       | 2     | P       | 16    |
| C       | 3     | Q       | 17    |
| D       | 4     | R       | 18    |
| E       | 5     | S       | 19    |
| F       | 6     | T       | 20    |
| G       | 7     | 9       | 65    |
| H       | 8     | 7       | 66    |
| I       | 9     | 8       | 67    |
| J       | 10    | Y       | 68    |
| K       | 11    | U       | 69    |
| L       | 12    | V       | 70    |
| M       | 13    | W       | 71    |
| N       | 14    | X       | 72    |

## 4. ACTION TO BE TAKEN

Using the table, restore the appropriate NSCX datalink.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-IND-LOST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT COAMS INDIR LOST COMM WITH a b  
c FAILURES, d MSGS, e BYTES, RSP TIME f

### 2. REASON FOR OUTPUT

A frame data link has been taken out of service because 5 or more acknowledgment time-outs have been encountered for a frame. The frame data link will be removed, diagnosed, and restored.

### 3. VARIABLE FIELD DEFINITIONS

|   |                                                    |
|---|----------------------------------------------------|
| a | Frame name.                                        |
| b | Frame number.                                      |
| c | Number of frame acknowledgment time-outs.          |
| d | Number of input messages sent to a frame.          |
| e | Number of bytes written for a frame.               |
| f | Average acknowledgment response time from a frame. |

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-IND-MDCT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS INDIR MDCT (a) FETCH FAIL

## 2. REASON FOR OUTPUT

The minor device chain table record cannot be retrieved from the incore ECD database. The MDCT device record is necessary to determine what physical device is associated with a particular NSCX frame datalink.

## 3. VARIABLE FIELD DEFINITIONS

a MDCT device identification character:

| ID CHAR | DLNSC | ID CHAR | DLNSC |
|---------|-------|---------|-------|
| A       | 1     | O       | 15    |
| B       | 2     | P       | 16    |
| C       | 3     | Q       | 17    |
| D       | 4     | R       | 18    |
| E       | 5     | S       | 19    |
| F       | 6     | T       | 20    |
| G       | 7     | 9       | 65    |
| H       | 8     | 7       | 66    |
| I       | 9     | 8       | 67    |
| J       | 10    | Y       | 68    |
| K       | 11    | U       | 69    |
| L       | 12    | V       | 70    |
| M       | 13    | W       | 71    |
| N       | 14    | X       | 72    |

## 4. ACTION TO BE TAKEN

Use the table to restore the appropriate NSCX datalink.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-IND-MEM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS INDIR MEMORY ALLOCATION FAILURE

**2. REASON FOR OUTPUT**

Either the memory or segmentation register limit has been reached, or memory has been detectably corrupted by storing outside the bounds of a block.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-IND-OPEN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT COAMS INDIR OPEN a b (c) FAILED - d:e

### 2. REASON FOR OUTPUT

Prints a frame data link that failed to open.

### 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                        |
|---|----------------------------------------------------------------------------------------|
| a | Frame name.                                                                            |
| b | Frame number.                                                                          |
| c | Frame data link name in the form of /dev/tty?<br>? = Special device name character ID. |
| d | System error return code.                                                              |
| e | System error explanation.                                                              |

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-IND-TERM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS INDIR TERMINATED

**2. REASON FOR OUTPUT**

To alert maintenance that the indir process died.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-IND-UCB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS INDIR UCB FETCH FAIL MDCT=a

## 2. REASON FOR OUTPUT

The unit control block record cannot be retrieved from the incore ECD database. The UCB record is necessary to determine which NSCX frame is associated with a particular NSCX frame datalink.

## 3. VARIABLE FIELD DEFINITIONS

a Logical device identification character:

| ID CHAR | DLNSC | ID CHAR | DLNSC |
|---------|-------|---------|-------|
| A       | 1     | O       | 15    |
| B       | 2     | P       | 16    |
| C       | 3     | Q       | 17    |
| D       | 4     | R       | 18    |
| E       | 5     | S       | 19    |
| F       | 6     | T       | 20    |
| G       | 7     | 9       | 65    |
| H       | 8     | 7       | 66    |
| I       | 9     | 8       | 67    |
| J       | 10    | Y       | 68    |
| K       | 11    | U       | 69    |
| L       | 12    | V       | 70    |
| M       | 13    | W       | 71    |
| N       | 14    | X       | 72    |

## 4. ACTION TO BE TAKEN

Use the table to restore the appropriate NSCX datalink.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-O-ACK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT COAMS OUTDIR a b ACK  
<C> SENT TO PT\_INDIR

### 2. REASON FOR OUTPUT

Prints the acknowledgment response from an NSC frame. The acknowledgment response is then forwarded to the indir process.

### 3. VARIABLE FIELD DEFINITIONS

a NSC.  
b NSC frame number.  
c One of the following acknowledgment responses:

| NSC Response | Description                                                   |
|--------------|---------------------------------------------------------------|
| IP           | In progress.                                                  |
| NA           | Input message was sent but was not acknowledged by the frame. |
| NG           | No acknowledgment.                                            |
| OK           | Input message request accepted and completed.                 |
| PF           | Printout follows.                                             |
| RL           | Repeat later.                                                 |
| ?A           | Action field error.                                           |
| ?D           | Data field error.                                             |
| ?E           | Syntax error.                                                 |
| ?I           | Identification field error.                                   |

SEE PROPRIETARY NOTICE ON COVER PAGE

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:CMS-O-CANT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT COAMS OUTDIR CANNOT LINK FILE a...ERRNO = b

### 2. REASON FOR OUTPUT

Cannot link a temporary file for passing a large frame output message to a client (messages greater than 199 characters are stored in temp files). This may indicate an exhaust of system resources.

### 3. VARIABLE FIELD DEFINITIONS

a                    /tmp/xxxx.yyy

Where:

o    — COAMS identifying output message character.  
xxx — Frame number.  
.    — Separator character.  
yyy — Message number.

b                    System error return code (errno).

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-O-CHNPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS OUTDIR a b CHAN c TWO PIDS d - e  
BOTH PIDS TERMINATE

## 2. REASON FOR OUTPUT

When a frame datalink is restored, the IODRV starts an OUTDIR process. OUTDIR makes sure no other OUTDIR process is running on the same logical channel. This message indicates that another OUTDIR was found connected to the same channel. A 30-second sleep occurs then both processes are terminated. The IODRV should start another OUTDIR process.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                       |
|---|-------------------------------------------------------|
| a | Datalink UCB name (minus "DL" characters) (eg., NSC). |
| b | Datalink UCB number (eg., 2).                         |
| c | Logical channel character (eg., B).                   |
| d | Process id of this OUTDIR.                            |
| e | Process id of the other OUTDIR.                       |

## 4. ACTION TO BE TAKEN

OP:STATUS:PROCESS,ALLTERMS! lists all process running on all  
TTY channels, including all OUTDIR processes.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-O-CNTAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS OUTDIR CANNOT ATTACH ECD (a)

**2. REASON FOR OUTPUT**

In determining the frame name at start up time, process OUTDIR failed to open file "/dev/ecd". This file provides access to the equipment database (ECD) which contains the frame names. Process OUTDIR exits. This could indicate a lack of system resources.

**3. VARIABLE FIELD DEFINITIONS**

a                      System error code (errno).

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-O-CNTST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS OUTDIR CANNOT STAT STDIN (a)

## 2. REASON FOR OUTPUT

When OUTDIR starts it must determine the name of the frame the input datalink is associated with. This requires access to the input file characteristics. The message indicates a failure to access the input file (link) characteristics (eg., /dev/tty9). The OUTDIR process terminates.

## 3. VARIABLE FIELD DEFINITIONS

a                      System error number (errno).

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-O-DCT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT COAMS OUTDIR a b PID c DCT OPEN FAIL CODE d
- [2] REPT COAMS OUTDIR a b PID c DCT READ FAIL CODE d

## 2. REASON FOR OUTPUT

Format 1: When a new OUTDIR process has started, it makes sure no other OUTDIR process is running on the same logical channel. OUTDIR must access kernel memory and could not.

Format 2: When a new OUTDIR process has started, it makes sure no other OUTDIR process is running on the same logical channel. OUTDIR was able to access kernel memory but was not able to read in the DCT data.

## 3. VARIABLE FIELD DEFINITIONS

- a NSC.
- b NSC frame number.
- c Process identification number.
- d System error return number.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-O-FLT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS OUTDIR a b FAULT c  
ADDR X'dddddddd R0 X'eeeeeeee R8 X'ffffffff SIGS X'gggggggg

## 2. REASON FOR OUTPUT

This message prints when a fault has been encountered. The OUTDIR process dies.

## 3. VARIABLE FIELD DEFINITIONS

|   |                         |
|---|-------------------------|
| a | NSC.                    |
| b | NSC frame number.       |
| c | Fault number.           |
| d | Program address.        |
| e | Contents of register 0. |
| f | Contents of register 8. |
| g | System signal return.   |

## 4. ACTION TO BE TAKEN

Seek technical assistance.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-O-NSCDI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS OUTDIR NSC a DIES NO LCHAN

**2. REASON FOR OUTPUT**

OUTDIR receives a failure from a DLNSC read command. The DLNSC is still active and the process is trying to close and reopen the link. The link name is kept in environment variable LCHAN. Access to this variable failed. The OUTDIR process terminates. The RTR iodrv process should recreate a new OUTDIR process.

**3. VARIABLE FIELD DEFINITIONS**

a                      Frame number ranging from 1 - 127.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-O-NSCER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS OUTDIR NSC a ERR b(c) UCB d(e)

## 2. REASON FOR OUTPUT

OUTDIR receives a failure from a DLNSC read command. This message conveys the type of read failure experienced. Every fourth read failure is reported to process INDIR. INDIR may remove/restore the datalink if five failures occur. If the DLNSC is not active, the OUTDIR process terminates. If the DLNSC is active, the link is closed, reopened, and processing continues.

## 3. VARIABLE FIELD DEFINITIONS

- a                   Frame number ranging from 1 - 127.
- b                   System error number from a link read (refer to the System Error Codes Appendix, APP:SYSERR).
- c                   System error string (refer to the System Error Codes Appendix, APP:SYSERR).
- d                   DLNSC unit control block status from the incore ECD.
- 0 — Active.
- 1 — Stand-by.
- 2 — Unavailable.
- 3 — Offline.
- 4 — Out of service.
- 5 — Unequipped.
- 6 — Initializing.
- 7 — Growth.
- e                   String representation of common unit control block states:
- ACT — Active (f = 0).
- OOS — Out of service (f = 4).
- OFL — Offline (f = 3).
- STBY — Stand-by (f = 1).
- INIT — Initializing (f = 6).
- UNK — Other values of f.

## 4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Output Appendix  
APP:SYSERR

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ID ..... REPT:CMS-O-NSCLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS OUTDIR NSC a DIES LINK OPEN ERR  
LOGDEV=b ERR c(d)

## 2. REASON FOR OUTPUT

OUTDIR receives a failure from a DLNSC read command. The DLNSC is still active and the process is trying to close and reopen the link. A reopen failure occurs. The OUTDIR process terminates. The RTR iodrv process should recreate a new OUTDIR process.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                              |
|---|----------------------------------------------------------------------------------------------|
| a | Frame number ranging from 1 - 127.                                                           |
| b | String name of the DLNSC logical device (eg., / dev / ttyB).                                 |
| c | System error number from a link open (refer to the System Error Codes Appendix, APP:SYSERR). |
| d | System error string (refer to the System Error Codes Appendix, APP:SYSERR).                  |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Appendix  
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-O-OTBLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT COAMS OUTDIR NSC a OUTPUT BLOCKED  
DATALINK RESTORED

### 2. REASON FOR OUTPUT

This message prints whenever OUTDIR receives part of an NSC user output message and has waited more than 30 seconds for additional output from the TN74 board. A timer is set to check for this particular error condition every five minutes. The data link for this NSC is restored in an attempt to clear the problem. The NSC output message that was hung up on the TN74 board is lost forever.

### 3. VARIABLE FIELD DEFINITIONS

a                      NSC frame number.

### 4. ACTION TO BE TAKEN

If too many of these error messages print out, the TTYC (controller) for the NSC frame data link can be removed to repump the TN74 board by entering the following:

RMV:TTYC a[;UCL]!  
where a = 18 through 31

SEE PROPRIETARY NOTICE ON COVER PAGE

TTYC mapping table for NSC frame data links:

| TTYC    | DATA LINK | LOGICAL CHANID | FRM TYPE |
|---------|-----------|----------------|----------|
| TTYC 18 | DLNSC 2   | B              | T/C      |
|         | DLNSC 4   | D              | T/C      |
| TTYC 20 | DLNSC 6   | F              | T/C      |
|         | DLNSC 8   | H              | T/C      |
| TTYC 22 | DLNSC 10  | J              | T/C      |
|         | DLNSC 12  | L              | T/C      |
| TTYC 24 | DLNSC 14  | N              | T/C      |
|         | DLNSC 16  | P              | T/C      |
| TTYC 26 | DLNSC 18  | R              | T/C      |
|         | DLNSC 20  | T              | T/C      |
| TTYC 28 | DLNSC 72  | X              | DSDC     |
|         | DLNSC 70  | V              | DSDC     |
| TTYC 30 | DLNSC 68  | Y              | DSDC     |
|         | DLNSC 66  | 7              | DSDC     |
| TTYC 19 | DLNSC 1   | A              | T/C      |
|         | DLNSC 3   | C              | T/C      |
| TTYC 21 | DLNSC 5   | E              | T/C      |
|         | DLNSC 7   | G              | T/C      |
| TTYC 23 | DLNSC 9   | I              | T/C      |
|         | DLNSC 11  | K              | T/C      |
| TTYC 25 | DLNSC 13  | M              | T/C      |
|         | DLNSC 15  | O              | T/C      |
| TTYC 27 | DLNSC 17  | Q              | T/C      |
|         | DLNSC 19  | S              | T/C      |

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|         |          |   |      |
|---------|----------|---|------|
| TTYC 29 | DLNSC 71 | W | DSDC |
|         | DLNSC 69 | U | DSDC |
| TTYC 31 | DLNSC 67 | 8 | DSDC |
|         | DLNSC 65 | 9 | DSDC |

**NOTE:** NSC frame data links are protected from inadvertent removal because each TTYC controls a pair of NSC frame data links. If either NSC frame data link of a pair is active, the remove input message is not allowed. The UCL is optional and can be used **ONLY** when absolutely necessary, because NSC user output message processing will get disrupted if its frame data link mate is active.

## 5. REFERENCES

None.

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ID ..... REPT:CMS-O-SIG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS OUTDIR a b c SIG d(e) UCB f(g)

## 2. REASON FOR OUTPUT

OUTDIR receives an asynchronous system signal associated with an NSC datalink. An analysis routine is called to determine the state of the datalink. The input director (INDIR) is notified only if the signal is associated with a datalink. If the datalink is not active, the OUTDIR process terminates.

## 3. VARIABLE FIELD DEFINITIONS

- a Frame name (e.g., NSC).
- b Frame number ranging from 1 - 127.
- c DIES if variable g is not equal to ACT, else variable c does not print.
- d System signal number.
- e System signal name for common signals:

| String        | Signal                                        |
|---------------|-----------------------------------------------|
| HANGUP        | 1 The datalink has been removed from service. |
| INTERRUPT     | 2 An interrupt (break).                       |
| QUIT          | 3 An ASCII "quit" character was received.     |
| SHELL RELEASE | 23                                            |
| ACK TO        | 24 Ack timeout - 5 seconds.                   |
| INTER CHAR TO | 25 Inter-character timeout - 45 seconds.      |
| ABANDON       | 26 An ASCII "abandon" character was received. |
| UNK SIG       | Other values of d.                            |

- f DLNSC unit control block status from the incore ECD:
  - 0 — Active.
  - 1 — Stand-by.
  - 2 — Unavailable.
  - 3 — Offline.
  - 4 — Out of service.
  - 5 — Unequipped.
  - 6 — Initializing.
  - 7 — Growth.

SEE PROPRIETARY NOTICE ON COVER PAGE

g

String representation of common unit control block states:

ACT — Active (f = 0).  
OOS — Out of service (f = 4).  
OFL — Offline (f = 3).  
STBY — Stand-by (f = 1).  
INIT — Initializing (f = 6).  
UNK — Other values of f.

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

None.

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ID ..... REPT:CMS-O-STFCH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT COAMS OUTDIR STDIN UCB FETCH FAIL MDCTPTR=a

### 2. REASON FOR OUTPUT

The ECD minor device chain table (MDCT) record or unit control block (UCB) record for a frame datalink could not be retrieved. This is necessary to determine the frame name. Process OUTDIR exits.

### 3. VARIABLE FIELD DEFINITIONS

a MDCT pointer in decimal (eg., this should be the same as from a "ls -l /dev/tty9").

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:CMS-O-STWRG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT COAMS OUTDIR STDIN STAT WRONG FILE TYPE (0'a)

### 2. REASON FOR OUTPUT

In starting up the process, OUTDIR is trying to get the UCB name (and thus the frame name). The characteristics of the input file (the datalink) indicate the type of file is wrong (not a character or IOP special type). Process OUTDIR exits.

### 3. VARIABLE FIELD DEFINITIONS

a                      File type and permissions in octal

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:CMS-O-TSFL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT COAMS OUTDIR a b TOSS FAILURES  
NSC\_TO\_OSM Q SUCC: c  
NSC\_TO\_OSM Q FAIL: d

## 2. REASON FOR OUTPUT

This message prints whenever a TOSS message cannot be forwarded to process NSC\_TO\_OSM, but no faster than once every five minutes. When the report is printed, the counters are zeroed. When the datalink is restored, the counters are zero (a new OUTDIR process is started).

Process NSC\_TO\_OSM is started by AIM and should be on software port PT\_OSM (94). Queue failures for NSC\_TO\_OSM could indicate the process is either not in core or is locked up and must be restarted.

## 3. VARIABLE FIELD DEFINITIONS

- a UCB name (eg., NSC).
- b UCB number (eg., 4).
- c Number of successful TOSS messages queued to NSC\_TO\_OSM.
- d Number of TOSS messages that failed to be queued to NSC\_TO\_OSM (this could indicate that process NSC\_TO\_OSM is not running or is locked up).

## 4. ACTION TO BE TAKEN

OP:STATUS:PORTS! to see if port number 94 is busy.  
OP:STATUS:PROCESS,ALL! to see if process NSC\_TO\_OSM is running.  
OP:AIM;PROC "nscosm"! to see if process NSC\_TO\_OSM is running.  
EXC:AIM;PROC "nscosm"! to start process NSC\_TO\_OSM.

## 5. REFERENCES

None.

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ID ..... REPT:CMS-O-TTYCN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT COAMS OUTDIR TTY a CONNECTED
- [2] REPT COAMS OUTDIR TTY a DISCONNECTED

## 2. REASON FOR OUTPUT

Format 1 prints the special device identification character when an input terminal gets connected to a particular frame.

Format 2 prints the special device identification character when an input terminal gets disconnected from a particular frame.

## 3. VARIABLE FIELD DEFINITIONS

a Special TTY device identification character (ASCII).

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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ID ..... REPT:CMS-OUT-NUC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT COAMS OUTDIR NO UCB FOR STDIN MDCT a

**2. REASON FOR OUTPUT**

The minor device chain table (MDCT) or unit control block (UCB) record in the ECD for a frame data link could not be retrieved.

**3. VARIABLE FIELD DEFINITIONS**

a                      Special device file identification (hexadecimal).

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:CNCE  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 3 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RING CNCE  
a b:c:d:e [f] {g-h|i|j} [k l m n [o] p q [r]]
- [2] REPT RING CNCE  
C7RTERR b:c:d:e {g-h|i|j} [r] [s]
- [3] REPT RING CNCE  
t b:c:d:e [f] {g-h|i|j} [k l m n [o] p q [[u] v]]
- [4] REPT RING CNCE  
w b:c:d:e [f] {g-h|i|j}
- [5] REPT RING CNCE  
x b:c:d:e [f] {g-h|i|j} [y] [z]
- [6] REPT RING CNCE  
a1 b:c:d:e {g-h|i|j} [y] [z] [u]

## 2. REASON FOR OUTPUT

Autonomously reporting Common Channel Signaling Network Critical Events (CNCE).

## 3. VARIABLE FIELD DEFINITIONS

- a Critical event name: C7ACB, C7ACBFLD, C7ACOCOV, C7ACOER, C7FLDCOL, C7FLDCOV, C7FLDER, C7FLDSNT, C7LCABM1X, C7LCABM2X, C7LCABM3X, C7LCDIS1X, C7LCDIS2X, C7LCDIS3X, C7LCON1X, C7LCON2X, C7LCON3X, C7MCB, C7MCOF, C7MCON, C7POR, C7PORE.
- b Network time hour.
- c Network time minute.
- d Network time seconds.
- e Network time milliseconds.
- f Link protocol: 7, S, or D.
- g Signaling link group.
- h Signaling link member number.
- i Link set (1-511).

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|    |                                                                                                                                                             |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| j  | Destination pointcode.                                                                                                                                      |
| k  | City abbreviation                                                                                                                                           |
| l  | State abbreviation                                                                                                                                          |
| m  | Building abbreviation                                                                                                                                       |
| n  | Subdivision abbreviation                                                                                                                                    |
| o  | Layer number.                                                                                                                                               |
| p  | Link speed:<br>4 . 8 —4.8 Kilobits Per Second (KBPS) link.<br>56 . —56 KBPS link.<br>56D —56 KBPS DSO-A link.<br>64C —64C KBPS link.<br>64R —64R KBPS link. |
| q  | Link type: A, B, or C.                                                                                                                                      |
| r  | Subsystem number or originating user part (001-255).                                                                                                        |
| s  | Service indicator (0-15).                                                                                                                                   |
| t  | Critical event name (CCS7 only): C7ALTR, C7ALTRE, C7LSF, C7LSFE, C7SPI, C7SPIE, C7SPIPO.                                                                    |
| u  | Declared failure diagnostic code                                                                                                                            |
| v  | Affected destination point code.                                                                                                                            |
| w  | Critical event name (PBX Nodes only): CT1FAFL, CT1FARCVRY, CTREDAL, CTREDALC, CTYELAL, CTYELALC.                                                            |
| x  | Critical event name (PBX Links only): BCPM00S, CPARSFLD, CPDSTBY, CPDUM00S, CPM00SE.                                                                        |
| y  | Private Branch Exchange (PBX) link circuit pack number (0-1).                                                                                               |
| z  | PBX link port number (0-3).                                                                                                                                 |
| a1 | Critical event name (PBX links diag only): CPALCIF, CPDSERVF, CPFLD, CPFLDNS.                                                                               |

#### 4. ACTION TO BE TAKEN

None.

#### 5. REFERENCES

Practice 256-090-181 *CNI Operations Manual* -  
Measurements, Reports, and Critical Events Section

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Practice 256-090-182 *CNI Maintenance Manual* -  
Maintenance Description Section,  
Analog Signaling Link Maintenance Procedures Section,  
Digital Signaling Link Maintenance Procedures Section,  
International Link Node Signaling Link Maintenance  
Procedures Section,  
D-Channel and Special Access Data Channel Signaling Link  
Maintenance Procedures Section

Output Appendixes  
APP:APPENDIX-01  
APP:APPENDIX-11  
APP:APPENDIX-12  
APP:APPENDIX-13

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ID ..... REPT:CNIDBA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has nine output formats:

- [1] REPT CNIDBA  
PROCESSING RC ORDER OF TYPE a
- [2] REPT CNIDBA  
RC ORDER COMPLETE
- [3] REPT CNIDBA  
RC DISK UPDATE COMPLETE
- [4] REPT CNIDBA  
RC DISK UPDATE FAILED
- [5] REPT CNIDBA  
RC UPDATE FAILED
- [6] REPT CNIDBA  
RC ERROR CHECKS FAILED
- [7] REPT CNIDBA  
RC DISK ERROR CHECKS FAILED
- [8] REPT CNIDBA  
b
- [9] REPT CNIDBA  
CNIDBA IS ABORTING

## 2. REASON FOR OUTPUT

Format 1 indicates that the CNI is beginning to activate the recent change request.

Formats 2 and 3 are completion reports for recent change activation in the 3B and disk files, respectively.

Format 4 is a report of failure to activate the recent change request in the disk file. It is followed by output message(s) of Format 8.

Format 5 is a report of failure to activate the recent change request in the 3B file. It is followed by output message(s) of Format 8.

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Formats 6 and 7 are reports of failed error checks for recent change activation in the 3B and disk files, respectively. It is followed by output message(s) of Format 8.

Format 8 is a report which describes the cause of the failed recent change activation. This failure may be caused by failed error checks or problems with the disk files.

Format 9 is a report of the successful termination (by the application) of an old CNIDBA process. Output messages of Format 9 should occur quite infrequently.

### 3. VARIABLE FIELD DEFINITIONS

- a                      Type of recent change requested:
- 100 — Link data recent change (3B computer and nodes).
  - 101 — Adding a virtual link assignment (3B computer).
  - 102 — Deleting a virtual link assignment (3B computer).
  - 103 — Changing the office ID data (3B computer and nodes).
  - 104 — Adding the office ID data (3B computer and nodes).
  - 121 — Updating a member in a local populated cluster (3B computer).
  - 122 — Adding a local populated cluster (3B computer).
  - 123 — Updating a remote populated cluster (3B computer).
  - 124 — Use linkset routing for a PC (3B computer).
  - 125 — Use combined linkset routing for a pc (3B computer).
  - 127 — Update the subsystem tables (3B computer and node).
  - 128 — Delete a subsystem (3B computer and nodes).
  - 129 — Adding permanent relations (3B computer).
  - 130 — Removing permanent relations (3B computer).
  - 131 — Deleting a pc and associated permanent relations (3B computer).
  - 132 — PBX link data recent change on node basis (3B computer and nodes).
  - 133 — PBX link data recent change on a per link basis (3B computer and nodes).
  - 137 — Update the broadcast list table.
  - 138 — Adding international routing data.
  - 139 — Removing international routing data.
  - 140 — Changing international routing data.
  - 141 — Adding a network identifier.
  - 142 — Deleting a network identifier.
  - 143 — Updating a combined linkset.
  - 144 — International link data recent change (3B computer and nodes).
  - 145 — Changing the global title translation table.
  - 146 — Deleting entries from the global title translation table for a particular service.
  - 147 — Adding/Deleting entries for small network populated cluster.
  - 201 — Copy the logical physical tables to disk
  - 202 — Update the office id data on disk
  - 203 — Update the link data on disk for a given link

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- 209 — Copy the cluster/ member routing info to disk.
- 210 — Update the subsystem disk files.
- 211 — Update the permanent relations disk file.
- 212 — Update the broadcast list disk file.
- 213 — Update the international link data on disk for a given link.
- 214 — Update the network interconnect data on disk.
- 215 — Updates the global title translation data on disk.

b                      Text string describing the failed error checks.

#### **4. ACTION TO BE TAKEN**

For Formats 1, 2, and 3, no action is required.

For Formats 4, and 5, the problem should be corrected and the recent change reentered.

For Formats 6, and 7, no action is required if the recent change was originated from a remote site. However, if the recent change was originated locally, the erroneous data should be corrected and the recent change reentered.

Format 8 describes the cause of the failed recent change activation noted by an output message of Format 4, 5, 6, or 7.

For Format 9, no action is required.

#### **5. REFERENCES**

None.

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ID ..... REPT:CNIDBAK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

**1. FORMAT**

REPT CNIDBAK PROCESSING COMPLETE

**2. REASON FOR OUTPUT**

This message indicates that the tables in the 3B shared libraries have been updated as specified in the recent change request.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:CNIER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CNIER  
CRITICAL EVENTS LOST BY CE BUFFER OVERFLOW:a
- [2] REPT CNIER  
CRITICAL EVENTS LOST BY CONTENTION:b
- [3] REPT CNIER  
CRITICAL EVENTS LOST  
CE BUFFER OVERFLOW:a;CONTENTION:b

## 2. REASON FOR OUTPUT

**NOTE:** At intervals of five minutes, the CNIER process issues one of these messages if, in the interval just past, at least one attempt to generate a Critical Event (CE) message failed. The length of an interval can exceed five minutes; the interval continues past the five minute mark until the next time the CNIER process runs.

Format 1. One or more attempts by the SLMK process to generate a critical event message failed because the critical event buffer was full.

Format 2. One or more attempts by an application process to generate a critical event message failed because the SLMK process had a lock on the critical event buffer for the purpose of writing a critical event message of its own.

Format 3. Both of the events occurred.

## 3. VARIABLE FIELD DEFINITIONS

- a Number of times in a 5-minute interval that an attempt to generate a critical event message failed because the critical event buffer was full.
- b Number of times in a 5-minute interval that an attempt to generate a critical event message failed because the SLMK process had a lock on the critical event buffer.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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ID ..... REPT:CNIINIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CNIINIT  
CNI GENERIC a
- [2] REPT CNIINIT  
All child processes have been created
- [3] REPT CNIINIT ERR  
T/O while waiting for user response, [Min-Mode] continuing at b
- [4] REPT CNIINIT FLT  
FLT: c, ACTIVE, PA: d, EV: e  
PSW: f, PSBR: g SSBR: h  
CNIINIT SAVED REGISTERS FOLLOW.
- [5] REPT CNIINIT REGS  
i i i i  
i i i i  
i i i i
- [6] REPT CNIINIT ERR  
kevent-unrecognized message type: msghdr structure  
fields follow:  
ms\_from=j  
ms\_to=k  
ms\_flags=l  
ms\_type=m  
ms\_stat=n  
ms\_otype=o  
ms\_ident=p
- [7] REPT CNIINIT ERR  
non-zero message status received,  
acknow-msghdr structure fields follow:  
ms\_from=j  
ms\_to=k  
ms\_flags=l  
ms\_type=m  
ms\_stat=n  
ms\_otype=o  
ms\_ident=p

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- [8] REPT CNIINIT  
Requesting self termination at b
- [9] REPT CNIINIT  
state           q  
old\_state       r  
tod             b
- [10] REPT CNIINIT  
s: t tout1=u tout2=v pr\_flags=0Xw  
pid=x tid=y p\_state=z next\_cr=a1  
next\_srt=b1 next\_stp=c1 rc\_type=d1
- [11] REPT CNIINIT  
s: t tout1=u tout2=v pr\_flags=0Xw  
pid=x tid=y p\_state=z cr\_crit=e1 cr\_ncrit=f1  
next\_srt=b1 next\_stp=c1 rc\_type=d1
- [12] REPT CNIINIT  
[s] g1 |e1|f1|h1|pflg=0Xw uid=i1 ps=z tflg=j1 pid=x
- [13] REPT CNIINIT  
no USER: assume lab condition [at b]
- [14] REPT CNIINIT  
Recreate of process k1 FAILED. l1
- [15] REPT CNIINIT  
Unable to Create Process k1. l1
- [16] REPT CNIINIT ERR  
Timeout waiting to [re]create process k1
- [17] REPT CNIINIT ERR  
Timeout waiting to start process k1, will retry later
- [18] REPT CNIINIT  
BEGINNING m1 initialization [at b]
- [19] REPT CNIINIT  
COMPLETES m1 initialization [at b]
- [20] REPT CNIINIT  
UNABLE to COMPLETE m1 initialization [at b] a2
- [21] REPT CNIINIT  
RESCHEDULING m1 initialization [at b]

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## **2. REASON FOR OUTPUT**

The REPT:CNIINIT message originates from the CNIINIT process. This message may be output because of errors in CNI detected by CNIINIT, errors internal to CNIINIT itself, or status information.

Format 1 identifies the current CNI generic.

Format 2 is output when all CNIINIT child processes have been created. It should be considered a benchmark during initialization. Note that this message is not used in later generics.

Format 3 is output when the user fails to send CNIINIT the message to begin the Non-critical initialization. CNIINIT has "timed out" and started the Non-critical initialization on it's own.

Format 4 provides state information about CNIINIT when a UNIX®-RTR system fault is received by CNIINIT. These values are assigned and defined by UNIX®-RTR system.

Format 5 provides additional state information following a UNIX®-RTR fault.

Format 6 is printed when the CNIINIT process receives a UNIX®-RTR system message in which the message type is not recognized.

Format 7 is printed when the CNIINIT process receives a UNIX®-RTR system acknowledgement message that contains an error. Acknowledgement messages are expected following process creations.

Format 8 is printed when CNIINIT has nearly completed an abort sequence. CNIINIT has requested the termination of all it's child processes and is about to request termination of its self from the operating system.

Formats 9-12. Some combination of these messages can be printed when CNIINIT is dumping state information. The information concerns state and status information kept by CNIINIT about its child processes. In general, these messages will appear very rarely.

Format 13 is printed when CNIINIT is unable to detect a CNI USER Process at boot time. CNIINIT makes the assumption that it is in a lab and follows through with the initialization on its own. This message should not appear in a field site, if it does, it should be considered an error.

Either format 14 or 15 can be printed when CNIINIT is having difficulty recreating a child process. Typically, CNIINIT will reschedule another attempt for later. In some cases, the message will indicate the minimum amount of time that must pass before another attempt can be made.

Either format 16 or 17 can be printed when CNIINIT times out while (re)creating a child process. Typically, CNIINIT will reschedule another attempt for later. However, if the process that was being (re)created was of a critical nature, then a boot initialization may occur.

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Format 18 is printed when CNIINIT is beginning some form or level of initialization. The meaning of the message should be self-evident.

Format 19 is printed when CNIINIT completes some form or level of initialization. The meaning of the message should be self-evident.

Format 20 is printed when CNIINIT is unable to complete some form or level of initialization. This could mean that initialization and recovery activities are considered complete, but call handling may not be working.

Format 21 is printed when the Non-critical initialization sequence was interrupted for some other level of initialization. The Non-critical initialization will be completed at a later time.

Information output by CNIINIT may not be useful to the user. This information is intended for use by development/support personnel when diagnosing CNIINIT errors or faults.

### **3. VARIABLE FIELD DEFINITIONS**

|   |                                                                                                  |
|---|--------------------------------------------------------------------------------------------------|
| a | Present CNI Generic.                                                                             |
| b | Value of the realtime clock at the time the message was generated.                               |
| c | The UNIX® RTR fault code.                                                                        |
| d | The location (relative address) CNIINIT was executing at when the fault occurred.                |
| e | A value representing the event flags (kevent) at the time the fault occurred.                    |
| f | A value representing the contents of the CNIINIT process Program Status Word (PSW).              |
| g | A value representing the contents of the CNIINIT process Primary Segment Base Register (PSBR).   |
| h | A value representing the contents of the CNIINIT process Secondary Segment Base Register (SSBR). |
| i | General purpose registers (regs 0 - 11).                                                         |
| j | The Process ID (PID) of the process that sent the message to CNIINIT.                            |
| k | The Process ID (PID) of the receiving process. (CNIINIT)                                         |
| l | The message flags.                                                                               |
| m | The message type.                                                                                |
| n | The message status field.                                                                        |
| o | The old message type.                                                                            |
| p | The identification field.                                                                        |

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|    |                                                                                                                                                                       |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| q  | The "state" that CNIINIT's finite state machine was in at the time the message was printed.                                                                           |
| r  | The "state" that CNIINIT's finite state machine was in PRIOR to the current state.                                                                                    |
| s  | Index into CNIINIT's child process table. It points to the entry of one of CNIINIT's child processes.                                                                 |
| t  | Full pathname of the child process pointed to by s.                                                                                                                   |
| u  | Timeout value 1, used by all child processes, this is the primary timer value for each process. It is used for process creation timing and general handshake timing.  |
| v  | Timeout value 2, used only by the child process "imsdrv.p". It guards the entire boot sequence (early generics) or the critical portion of the boot (later generics). |
| w  | Timeout value 3, used only by the child process "imsdrv.p". It guards the non-critical boot sequence.                                                                 |
| x  | The PID of the child process identified by s.                                                                                                                         |
| y  | A value representing the timer id or tid of the process identified by s.                                                                                              |
| z  | The "process state" of the process identified by s.                                                                                                                   |
| a1 | A forward link or index in the process table that points to the next process to be created.                                                                           |
| b1 | A forward link or index in the process table that points to the next process to receive the "START_PROC" event.                                                       |
| c1 | A forward link or index in the process table that points to the next process to receive the "STOP_PROC" event.                                                        |
| d1 | A value the represents the "recreation type" of the process.                                                                                                          |
| g1 | The p-name of the child process pointed to by s.                                                                                                                      |
| e1 | A forward link or index in the process table that points to the next CRITICAL process to be created.                                                                  |
| f1 | A forward link or index in the process table that points to the next NON-CRITICAL process to be created.                                                              |
| h1 | A forward link or index in the process table that points to the next process to receive the "STOP_PROC" or "START_PROC" event.                                        |
| i1 | The utility ID of the process identified by s.                                                                                                                        |
| j1 | A value representing the "track flags" of the process identified by s.                                                                                                |
| k1 | One of the phrases:<br>will retry later<br>Retry in l1 s                                                                                                              |

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Will retry in l1 seconds

l1           The minimum number of seconds until the process is retried.

m1           Is some combination of the following words and phrases:

                    CRITICAL  
                    NON-CRITICAL  
                    [MINMODE]  
                    level 0  
                    level 1  
                    level 2  
                    level 3  
                    level 4

#### 4. ACTION TO BE TAKEN

Formats 1,2,3: Informational only, take no action.

Formats 4,5,6,7,8,9,10,11,12,13: Valuable information pertaining to the fault or error that just occurred. This information should be submitted to technical support personnel at AT&T Bell Laboratories in Columbus, Ohio, for further analysis.

Formats 14,15,16,17,18,19: Verify that the process in question (k1) is eventually recreated.

Format 20: Appropriate tests should be made to see if call handling is functional. If it is, then the message can be ignored. If call handling is not functional, then the next higher level of initialization should be manually initiated. In any case, the information should be submitted to technical support personnel at AT&T Bell Laboratories in Columbus, Ohio, for further analysis.

Format 21: Insure that the Non-critical initialization eventually completes. This can be determined by the presence of the "COMPLETES NON-CRITICAL" message, by full functionality of the CNI display pages and CNI measurements. If the non-critical sequence does not complete, then the next higher level of initialization should be initiated during a period of low traffic.

#### 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures -*  
Maintenance Description Section

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ID ..... REPT:COM100  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT COM100 TBL  
a ( b:c ): INTERNAL ERROR  
d
- [2] REPT COM100 TBL  
IMSDRV(kfault.c:line): INTERNAL ERROR  
RECEIVED FAULT MSG e, UCBP f, ERRNUM g
- [3] REPT COM100 TBL  
IMSDRV(kfault.c:line): INTERNAL ERROR  
FLT\_QMSAUD - FCODE X'e NMSG h  
MSG i: j k l m n o p q r s  
MSG i: j k l m n o p q r s
- REPT COM100 TBL  
IMSDRV(kfault.c:line): INTERNAL ERROR  
FLT\_QMSAUD - CONTINUED  
MSG i: j k l m n o p q r s  
MSG i: j k l m n o p q r s

## 2. REASON FOR OUTPUT

Format 1 reports the occurrence of an internal problem or bug.

Format 2 reports that a fault message was received by the IMS driver process. This message will normally be associated with a REPT:IMSDRV-FLT message and some versions of the REPT:FAULT message.

Format 3 reports details of a FLT\_QMSAUD fault received by the IMS driver process. This message will normally follow a Format 1 message.

This fault type complains of UNIX® RTR message buffers held for an unreasonable length of time.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                          |
|---|------------------------------------------------------------------------------------------|
| a | Name of the process which experienced the trouble.                                       |
| b | Name of the source code file where trouble occurred.                                     |
| c | Source code line number where trouble occurred.                                          |
| d | Short statement describing the trouble or conditions existing when the trouble occurred. |

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|   |                                                                                                 |
|---|-------------------------------------------------------------------------------------------------|
| e | The UNIX® RTR fault code.                                                                       |
| f | Device UCB record identification.                                                               |
| g | Error number passed from Error Interrupt Handler (EIH).                                         |
| h | Old message count.                                                                              |
| i | A consecutively assigned number starting from 1 to associate the continuations in proper order. |
| j | Sending process number.                                                                         |
| k | Receiving process number.                                                                       |
| l | Message size (including header) in blocks.                                                      |
| m | Message header flags. (See UNIX® RTR msghdr.h.)                                                 |
| n | Message type.                                                                                   |
| o | Message status.                                                                                 |
| p | Message size (including header) in bytes specified by sender.                                   |
| q | Original message type of an acknowledgement message.                                            |
| r | Message sequence number.                                                                        |
| s | Message identification used by sender.                                                          |

#### 4. ACTION TO BE TAKEN

If the message does not match Format 2 or 3, technical assistance should be requested.

Format 2 supplements the REPT:IMSDRV-FLT message and should be analyzed with that message and the accompanying REPT:FAULT message.

Format 3 indicates software problems. Seek technical assistance.

Each line identified by MSG shows the contents of the report message header of a message which was held too long. The nature of these messages may implicate particular software modules.

#### 5. REFERENCES

Practice 234-100-120 *CNI System Description* (non-AT&T) -  
Practice 234-100-120AC *CNI System Description* (AT&T only) -  
D-Channel and Special Access Data Channel Signaling  
UNIX® RTR header files msghdr.h and mstyp.h.

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* -  
Link Operating Procedures Section

Output Messages  
REPT: FAULT  
REPT: IMSDRV-FLT

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ID ..... REPT:COM101  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

### 1. FORMAT

REPT COM101 TBL  
a ( b:c ) d  
d

### 2. REASON FOR OUTPUT

To report the occurrence of an internal problem or bug.

### 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                          |
|---|------------------------------------------------------------------------------------------|
| a | Name of subsystem which experienced the trouble.                                         |
| b | Name of source code file where trouble occurred.                                         |
| c | Source code line number where trouble occurred.                                          |
| d | Short statement describing the trouble or conditions existing when the trouble occurred. |

### 4. ACTION TO BE TAKEN

This message indicates software problems. Seek technical assistance.

### 5. REFERENCES

None.

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ID ..... REPT:CONFIG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CONFIG FAULT TYPE a UNIT = b PID = c ASSERT = d
- [2] REPT CONFIG FAULT TYPE a INACCESSIBLE RID = e PID = c  
ASSERT = d

## 2. REASON FOR OUTPUT

To report a fault condition in the configuration (CONFIG) library.

Format 1 is printed whenever the name of the unit can be determined. If not, Format 2 is printed.

## 3. VARIABLE FIELD DEFINITIONS

- a One or more fault types:
- AMB — Could not allocate a message buffer.
  - CI — CONFIG internal failure.
  - EA — Equipment Configuration Database (ECD) access problem.
  - ED — ECD data invalid.
  - FSM — Could not fault a process or send a message to a process.
  - IA — Possible invalid argument.
  - PA — Plant measurements database access problem.
  - PS — Unit in protected state.
- b Name and number of unit.
- c Process number of the process which called the CONFIG function.
- d Identification number (ASSERT number) of the fault in CONFIG.
- e Record ID (RID) of the Unit Control Block (UCB) record in the ECD of the unit.

## 4. ACTION TO BE TAKEN

Consider bootstrapping for fault types EA, ED, and PA. Fault types AMB and FSM suggest that the system is in overload. In all cases, save a copy of the output message and seek technical assistance.

## 5. REFERENCES

OMDB Keys  
Format 1 has an OMDB key of 447.  
Format 2 has an OMDB key of 418.

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ID ..... REPT:CONFIG-REC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT CONFIG RECONFIGURATION TYPE a UNIT b PID = c

## 2. REASON FOR OUTPUT

To report a successfully executed reconfiguration requested by CONFIG when the indicated unit has exceeded an error threshold and cannot be removed or replaced.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Reconfiguration type (or action):  
                             SWCU — Softswitch.
- b                      Name and number of the unit causing reconfiguration.
- c                      Process Identification (ID) of the process calling CONFIG.

## 4. ACTION TO BE TAKEN

The softswitch will eliminate the errors associated with the indicated unit only if the error sources are in the Direct Memory Access (DMA) or the Dual Serial Channel (DSCH) subunits of the now standby Control Unit (CU), or in the Duplex Dual Serial Bus Selector (DDSBS) of the unit. If this is the case repair the appropriate DMA, DSCH, or DDSBS.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 419.

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ID ..... REPT:COPY-PBUF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has six formats.

- [1] REPT COPY PBUF (dmptable) COMPLETED  
PBUF INCORE HASHSUM = a
- | TYPE | UID | PID | VADDR | PADDR | PHY_DATA | OLD_DATA | NEW_DATA |
|------|-----|-----|-------|-------|----------|----------|----------|
| b    | c   | d   | e     | f     | g        | h        | i        |
- [2] REPT COPY PBUF ABORTED - j
- [3] REPT COPY PBUF COMPLETED
- [4] REPT COPY PBUF (rptable) CANNOT OPEN k
- [5] REPT COPY PBUF (rptable) OUTDATED OWBUFFER DATE = l
- [6] REPT COPY PBUF (rptable) INVALID OWBUFFER

## 2. REASON FOR OUTPUT

Format 1 indicates the data values resulting from successful copy of data in 3B diskfile.

Format 2 is a general format of information due to errors detected. This information is meant to be self-explanatory.

Format 3 indicates completion of command.

Formats 4 through 6 indicate that a problem exists in reading the DISKFILE or a problem exists with the data entries.

## 3. VARIABLE FIELD DEFINITIONS

- a Calculated hashsum over all overwrite entries.
- b Overwrite type (UID, PID, PMEM, or KERN).
- c Utility ID of process overwritten.
- d Process ID of process overwritten.
- e Virtual address to be overwritten, corresponding to overwrite type.
- f Physical address to be overwritten, corresponding to overwrite type.

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|   |                                                                           |
|---|---------------------------------------------------------------------------|
| g | Physical data value; actual data value of address before overwrite.       |
| h | Old data value; default value is (ffffff) if OLDDATA option was not used. |
| i | New data value.                                                           |
| j | Supplemental data describing the problem found.                           |
| k | Indicates DISKFILE name.                                                  |
| l | Indicates date of outdated owbuffer.                                      |

#### **4. ACTION TO BE TAKEN**

All DISKFILE failures should be reported to the Technical Support Organization.

#### **5. REFERENCES**

Output Messages  
REPT: COPY-PBUF  
REPT: DUMP-PBUF  
REPT: IN-PBUF

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ID ..... REPT:CSOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CSOP BAD DEVICE DEFINITIONS IN ECD  
a b
- [2] REPT CSOP CANNOT ACCESS ACKDB
- [3] REPT CSOP CANNOT ACCESS PMS DATABASE
- [4] REPT CSOP CANNOT CHANGE PERMISSIONS TO R/W ON  
NAMED OMDB SEGMENT
- [5] REPT CSOP CANNOT CREATE COMMON ENUM SEGMENT
- [6] REPT CSOP CANNOT CREATE DLGSOF DEV a  
-NO SF\_TEMP SOP
- [7] REPT CSOP CANNOT CREATE NAMED OMDB SEGMENT
- [8] REPT CSOP CANNOT CREATE OMDB BUFFER SEGMENT
- [9] REPT CSOP CANNOT CREATE SHARED SEGMENT---CSOP DYING
- [10] REPT CSOP CANNOT FREE OMDB SEGMENT
- [11] REPT CSOP CANNOT GET MEMORY TO SAVE STACK
- [12] REPT CSOP CANNOT GET PID OF RTS
- [13] REPT CSOP CANNOT GROW NAMED OMDB SEGMENT
- [14] REPT CSOP CANNOT INITIALIZE COMMON ENUM SEGMENT
- [15] REPT CSOP CANNOT INITIALIZE NAMED OMDB SEGMENT
- [16] REPT CSOP CANNOT INITIALIZE PMS DATABASE
- [17] REPT CSOP CANNOT OPEN c
- [18] REPT CSOP CANNOT READ DATABASE HEADER FROM c
- [19] REPT CSOP CANNOT REMOVE FILE c

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- [20] REPT CSOP CANNOT SEND MSG TO d a ERRNO e
- [21] REPT CSOP CANNOT UPDATE PMS DATABASE
- [22] REPT CSOP CANNOT WRITE c
- [23] REPT CSOP CREATED PID d  
f
- [24] REPT CSOP DELETED DEVICE
- [25] REPT CSOP EXEC FAILED FOR /cft/spl/sop a
- [26] REPT CSOP FAILED TO OPEN /dev/rop0 ERRNO e
- [27] REPT CSOP FAILED TO OPEN c
- [28] REPT CSOP FAILED TO REMOVE FILE c
- [29] REPT CSOP FORK ERROR
- [30] REPT CSOP JOB LIST ERROR e NOT IN LIST FOR a
- [31] REPT CSOP MASTER WORK QUEUE ALLOCATION  
FAILED---CSOP DYING
- [32] REPT CSOP MASTER WORK QUEUE OVERLOAD ERROR
- [33] REPT CSOP MASTER WORK QUEUE OVERLOAD CLEARED
- [34] REPT CSOP MESSAGE ENABLE FAILED---CSOP DYING
- [35] REPT CSOP NEW DEVICE DEFINED
- [36] REPT CSOP NO DEVICES IN CLASS a
- [37] REPT CSOP NO QUEUE ENTRY OUTPUT ERROR g e h a
- [38] REPT CSOP OLD SOF KILLED FOR a
- [39] REPT CSOP PORT CONNECT FAILURE
- [40] REPT CSOP SEND NEW CONFIG TO a
- [41] REPT CSOP SOF EXIT FOR a
- [42] REPT CSOP SOF INIT d a i j

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- [43] REPT CSOP SOP OUTPUT ERROR  
COMPLETION CODE: g ERRNO: e JOBID: h DEVICE: a  
PREHDR LOC k ADDR l  
TBLHDR LOC k ADDR l  
POSTHDR LOC k ADDR l
- [44] REPT CSOP SOPMSG ERROR a NOT FOUND
- [45] REPT CSOP STORE ERROR INMSG MGRERR=m
- [46] REPT CSOP STORE ERROR UFILE MGRERR=m
- [47] REPT CSOP TOO MANY OUTSTANDING MESSAGES TO FIT  
INTO NEW QUEUE
- [48] REPT CSOP UNABLE TO ACCESS CLASS RECORDS IN ECD
- [49] REPT CSOP UNABLE TO ACCESS DEVICE RECORDS IN ECD
- [50] REPT CSOP UNABLE TO ALLOCATE TTY ENTRY  
FOR a ---CSOP DYING
- [51] REPT CSOP UNABLE TO ALLOCATE TTY LIST FOR CLASS n
- [52] REPT CSOP UNABLE TO ALLOCATE WORK Q FOR a
- [53] REPT CSOP UNABLE TO ATTACH TO ECD
- [54] REPT CSOP UNABLE TO CREATE NAMED WORK Q SEGMENT
- [55] REPT CSOP UNABLE TO DEFINE NEW DEVICE a
- [56] REPT CSOP UNABLE TO REMOVE UNKNOWN DEVICE a
- [57] REPT CSOP UNABLE TO RETRIEVE EAI OPTIONS FROM ECD
- [58] REPT CSOP UNABLE TO RETRIEVE SPOOLER INFORMATION FROM ECD
- [59] REPT CSOP UNKNOWN TTY--SOP EXIT CODE e PID d
- [60] REPT CSOP WILL NOT OVERWRITE FILE c
- [61] REPT CSOP DIOP STATE CHANGE TO FLT\_SIMPLEX - MAX\_DB\_SEGS\_INCORE = o
- [62] REPT CSOP DIOP STATE CHANGE TO FLT\_DUPLEX - MAX\_DB\_SEGS\_INCORE = o
- [63] REPT CSOP STORE ERROR NO COMMON SEGMENT SPACE MGRERR=m

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[64] REPT CSOP CANNOT RETRIEVE FILENAME FROM k LOCATION  
MGRERR: m JOBID: h UTILID: p [OMDB KEY: q]  
LOCATION ADDRESS  
PREHDR LOC k ADDR l  
TBLHDR LOC k ADDR l  
POSTHDR LOC k ADDR l

## 2. REASON FOR OUTPUT

To report errors detected by the spooler during initialization.

When formats having no key value are printed, other output messages may then appear in primitive mode.

Format 1 is printed if the Equipment Configuration Database (ECD) contains inconsistent device definitions.

Formats 2 and 9 are printed if the ACKDB failed to initialize from disk, or could not be added to the invoking process' address space.

Formats 3, 16, and 21 are printed if Coordinator Of Spooler Output Processes (CSOP) cannot access the plant measurements database.

Formats 4, 5, 7 through 10, 13, 14, 15, 17, and 18 are printed if errors occur while trying to read an Output Message Data Base (OMDB) into memory.

Format 6 is printed if there is an inconsistency in the ECD device definition. Either the terminal should be a dialogue device and is not, or the SOP should be temporary and is not.

Format 11 is printed if CSOP fails to save the stack in preparation for handling a phase 1.

Format 12 is printed if CSOP is unable to create a dialogue shell.

Format 19 is printed if CSOP cannot remove the output file associated with Format 21.

Format 20 is printed if CSOP cannot send a message to SOP process Identification (ID) listed.

Formats 22 and 27 are printed if CSOP cannot open or write the output file.

Format 23 is printed when CSOP creates a new spooler output process.

Format 24 is printed when a device record is deleted in the ECD.

Formats 25 and 29 are printed when CSOP is unable to create a new spooler output process.

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Format 26 is printed if CSOP is unable to print to the Read Only Printer (ROP).

Format 28 is printed if CSOP is unable to remove a file.

Format 29 is printed if CSOP is unable to fork a SOP process.

Formats 30, 43, 44, and 59 indicate a SOP work queue error. In the case of 43, the locations and addresses of the message headers are printed.

Format 31 is printed if memory cannot be allocated for CSOP's master work queue. This is a fatal error since no messages can be stored internally for later output.

Formats 32, 45 and 46 are printed when CSOP is unable to queue incoming messages; therefore, messages will be lost.

Format 33 is printed when the overload condition has been cleared.

Format 34 is printed if CSOP is unable to enable the reception of messages.

Format 35 is printed when a new device record is defined in the ECD.

Format 36 is printed if a class is defined that contains no output devices.

Format 37 is printed when there was no entry in the work queue for a.

Formats 38 and 41 are printed when a dialogue shell is terminated.

Format 39 is printed if port 1 is not free. CSOP will attempt to kill the process that is attached to port 1 and connect itself.

Format 40 is printed when the ECD record for a device or class is changed.

Format 42 is printed when a dialogue shell is created.

Format 47 is printed if the queue size for a device changed and it is not large enough to hold all the current outstanding messages.

Format 48, 49, and 57 indicate ECD record problems.

Format 50 is printed if CSOP cannot get enough memory to store the definition of an output device.

Format 51 is printed when CSOP does not have enough memory to store the definition of a class.

Format 52 is printed if CSOP is unable to allocate memory for the work queue associated with a particular SOP.

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Format 53 is printed if CSOP was unable to attach to the ECD. If this appears before CSOP initializes the master work queue, the message will go to the spooler log until CSOP is restarted.

Formats 53, 57, and 58 indicate ECD access and/or update errors.

Format 54 is printed when the common segment to exchange work queue information between CSOP and SIP cannot be created.

Format 55 is printed when CSOP is unable to allocate space to store information about a new tty entry.

Format 56 is printed when a tty entry is requested to be removed from CSOP's internal tty list, and CSOP cannot find an entry for the specified device or class.

Format 59 is printed by CSOP when it is cleaning up after a dead SOP if it cannot find a tty entry associated with the SOP.

Format 60 is printed when CSOP finds that the output file is not empty. This is done to ensure that existing files are not destroyed or inappropriately changed.

Formats 61 and 62 indicate that a state change has occurred in the system; output is redirected to the spooler log. Format 61 indicates that the system is in the SIMPLEX mode, and Format 62 indicates that the system is in DUPLEX mode.

Format 63 indicates that CSOP has run out of common segment space. This space is used to store output messages that are being formatted or formatted messages that have not yet been output.

Format 64 indicates that CSOP cannot retrieve the name of a file from its common segment. CSOP needs the filename so that the file can be removed.

### **3. VARIABLE FIELD DEFINITIONS**

|   |                                                            |
|---|------------------------------------------------------------|
| a | Name of an output device or class.                         |
| b | Reason a device could not be added to CSOP's device table. |
| c | File name.                                                 |
| d | Process Identification (ID) of SOP.                        |
| e | System error number.                                       |
| f | String containing additional information.                  |
| g | Completion code.                                           |
| h | Job ID.                                                    |
| i | Path name.                                                 |
| j | Segment name.                                              |

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|   |                                                                                     |
|---|-------------------------------------------------------------------------------------|
| k | String identifying where data is stored. NO TEXT indicates there is no data stored. |
| l | Address in CSOP's common segment.                                                   |
| m | Error number assigned by CSOP.                                                      |
| n | Spooler output class.                                                               |
| o | Maximum number of active OMDB segments.                                             |
| p | Utility ID.                                                                         |
| q | OMDB key of the report.                                                             |

#### 4. ACTION TO BE TAKEN

For messages appearing on the Receive-Only Printer (ROP), in the event of a fatal fault, CSOP will be restarted, thus clearing the problem. No action should be taken unless the message is repeated. If the message is repeated, seek technical assistance to restore system sanity.

Messages written to the spooler log are informational only and no action should be taken.

If Format 19 is printed, the file should be removed manually.

If Format 60 is printed, determine the input command that specified this output file and retry that command with a different filename option.

If Format 64 is printed, if /tmp space is limited, check for files of the form "/tmp/OM\*" and remove any of these that do not have a time stamp within the last 6 hours. Note: there is one report of format 64 for each file to be removed.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 599.

Formats 2, 4 through 11, 13, 14, 15, 17, 18, 31 through 34, 39, 45, 46, 50 through 54 and 63 do not have OMDB keys.

These are output messages that cannot be formatted and spooled due to the state of the system at the time of printing.

Formats 3, 12, 16, 21, 23, 24, 25, 28, 29, 35, 36, 38, 40, 41, 47, 49, and 55 through 58, 61 and 62 have an OMDB key of 201.

Formats 19, 22, 26, 27, 30, 44, 59, and 60 have an OMDB key of 202.

Format 20 has an OMDB key of 203.

Format 37 has an OMDB key of 204.

Format 42 has an OMDB key of 205.

Format 43 has an OMDB key of 206.

Format 64 has an OMDB key of 745.

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Input Messages  
OP: LOG  
OP: ST-PORTS

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ID ..... REPT:CSOP-FORM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CSOP FORMATTING  
BAD KEY PASSED BY CLIENT  
KEY: a PID: b UTILITY ID: c
- [2] REPT CSOP FORMATTING  
CLIENT PARAMETER ACCESS PROBLEM  
KEY: a PID: b UTILITY ID: c
- [3] REPT CSOP FORMATTING  
INCONSISTENT CLIENT DATA  
KEY: a PID: b UTILITY ID: c
- [4] REPT CSOP FORMATTING  
UNKNOWN ENUMERATION VALUE  
KEY: a PID: b UTILITY ID: c
- [5] REPT CSOP FORMATTING  
BAD HANDLING PRIORITY PASSED BY CLIENT  
KEY: a PID: b UTILITY ID: c
- [6] REPT CSOP FORMATTING  
PROBLEM STORING MESSAGE TEXT  
KEY: a PID: b UTILITY ID: c
- [7] REPT CSOP FORMATTING  
BAD TRANSLATION TYPE  
KEY: a PID: b UTILITY ID: c
- [8] REPT CSOP FORMATTING  
INVALID LANGUAGE PASSED BY CLIENT  
KEY: a PID: b UTILITY ID: c
- [9] REPT CSOP FORMATTING  
PROBLEM ALLOCATING MEMORY  
KEY: a PID: b UTILITY ID: c

## 2. REASON FOR OUTPUT

To report that an error has occurred during the formatting of a format-and-spool request.

All variables for REPT:CSOP-FORM messages are taken from the information passed by the requesting (client) process.

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### **3. VARIABLE FIELD DEFINITIONS**

- a                      The key that was requested.
- b                      The process ID of the requesting process.
- c                      The utility ID of the requesting process.

### **4. ACTION TO BE TAKEN**

Formats 1 through 5 indicate a problem in requesting process code. Seek technical assistance.

Format 6 indicates that CSOP is unable to store the formatted text. CSOP will attempt to store the text in a file in /tmp if CSOP's common segment is full. This message indicates that the attempted use of a file failed.

Format 7 indicates a software problem with the Output Message Database (OMDB). Seek technical assistance.

Format 8 indicates a software error in the language passed to CSOP. Currently, there are two valid values, English and National, with English as the default. Seek technical assistance to resolve.

Format 9 indicates a failure in CSOP to allocate memory while processing the output message. This indicates that memory resources are temporarily unavailable resulting in the loss of the requested output message.

### **5. REFERENCES**

OMDB Key

Formats 1 through 9 have an OMDB key of 11.

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ID ..... REPT:CSOP-IN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT CSOP IN SERVICE  
OMDB SEGMENTS:  
TOTAL        ACTIVE  
a            b

## 2. REASON FOR OUTPUT

To report initialization of the Coordinator of Spooler Output Processes (CSOP) process.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                            |
|---|----------------------------------------------------------------------------|
| a | Total number of segments that the Output Message Database (OMDB) requires. |
| b | Number of segments that are active (incore).                               |

**NOTE:** The number of segments is variable depending on the current state of the system and the Equipment Configuration Database (ECD) setup. When the system is in DUPLEX mode, the number of active segments will be determined from the splrinfo record information in the ECD. When the system is in SIMPLEX mode, the number of active segments will be the total number of output buffer segments required by the OMDB.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 0.

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ID ..... REPT:CSOP-PRIM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT CSOP PRIMITIVE MODE FOR KEY a  
0xbbbb: cccccccc [cccccccc cccccccc cccccccc]

## 2. REASON FOR OUTPUT

To report that the Output Message Database (OMDB) cannot be accessed and therefore a message cannot be formatted. Variables passed by the requesting process are given in the form of a hexadecimal dump.

## 3. VARIABLE FIELD DEFINITIONS

|          |                                                                                                                                        |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|
| a        | The key that is requested.                                                                                                             |
| bbbb     | The offset of the first byte of the line.                                                                                              |
| cccccccc | A hexadecimal dump of one memory word. (Due to limits of the primitive mode buffer, this may not be a complete dump of all variables.) |

## 4. ACTION TO BE TAKEN

Primitive mode indicates a problem in accessing the incore OMDB. Examine the current status of the file /cft/spl/omdb and disk availability. If the file exists and the disk is ACTIVE, execute the ACTV:OMDB input message. If this is not successful, the problem may be insufficient memory available to bring the OMDB incore; contact the next level of technical support.

**NOTE:** A cross reference file, *omdb.xref*, located on development support processors, is needed to translate the hexadecimal dump. Support personnel should refer to the *UNIX® RTR Programmer's Manual*, Volume 2, for instructions on translating hexadecimal OMDB dumps.

## 5. REFERENCES

CIC Select Code 303-022 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Program Design Programmer's Manual*, Volume 2

Input Message  
ACTV:OMDB

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ID ..... REPT:CU  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CU a b
- [2] REPT CU a ERROR INTERRUPT c d
- [3] REPT CU a MAINTENANCE INTERRUPT d

## 2. REASON FOR OUTPUT

To indicate the status of the specified Control Unit (CU).

Format 1 is printed as the result of a change in the major state of the CU.

Formats 2 and 3 indicate that an error interrupt has occurred.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number (0-1).
- b Major state:
  - ACTIVE — Processor is on-line and not in a recovery state.
  - INITIALIZING — Processor has undergone an initialization, and the initialization interval has not elapsed.
  - OUT OF SERVICE — Processor is available for use, but its memory is not up-to-date.
  - REMOVED — Processor state has been changed to OUT OF SERVICE or UNAVAILABLE.
  - STANDBY — Processor is updated and available for use.
  - UNAVAILABLE — Processor is unavailable under any circumstance (for example, forced off-line).
- c Interrupt type, in hexadecimal notation:
  - 2 — Emergency Action Interface (EAI) error
  - 8 — Noncorrectable parity failure in main store (my store C)
  - 0B — Invalid maintenance channel order
  - 0C — Other store controller error (other store A)
  - 0D — Other store refresh or correctable parity failure (other store D)
  - 0E — Other store noncorrectable memory failure (other store C)
  - 0F — Other store timeout
  - 10 — Channel error
  - 11 — Input/Output (I/O) response error

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- 12 — IO addressing error
- 13 — Parity divert error
- 14 — Refresh or correctable parity memory failure (my store D)
- 15 — Protection violation
- 16 — Virtual address out of range (VLMM only)
- 17 — Out-of-range memory reference
- 18 — Out-of-range memory reference (other store)
- 19 — Privilege violation
- 1A — Bad alignment on memory reference
- 1B — Illegal operand
- 1C — Illegal instruction
- 1D — Illegal stack switch
- 1E — No interrupt source set when microcode interrupt handler entered
- 20 — Direct Memory Access (DMA) detected fatal hardware fault in on-line main store
- 21 — DMA detected out-of-range memory reference
- 22 — DMA detected noncorrectable parity failure in main store
- 25 — DMA error: bad parity on Direct Input / Output (DIO) bus
- 26 — DMA error: bad parity on read
- 27 — DMA error: DMA Random Access Memory (RAM) parity failure
- 28 — DMA error: DMA incrementer parity failure
- 29 — DMA error: DIO ready failure
- 2A — DMA error: DIO all seems well failure
- 2B — DMA error: DIO acknowledge failure
- 2C — DMA error: Central Control Input/Output (CCIO) data parity failure
- 2D — DMA error: CCIO message failure
- 2E — DMA error: DMA Read Only Message (ROM) sequencer parity failure
- 2F — DMA error: Address error
- 30 — DMA error: Channel request error
- 32 — Processor error interrupt but no bits are set in error registers
- 33 — Bad Operating System Trap (OST) detected by the kernel

d If supplemental data is gathered for this error, it will be placed in the appropriate log file. This identification flag can be used to find the entry in the log file.

For format 2, the error data will be in either the ERLOG or MEMLOG log file. The log file name is given in the action to be taken for each interrupt type.

For format 3, the entry is always in the PMLOG file.

Items can be extracted from a log file using the OP:LOG input message, where ERLOG or MEMLOG is the log file being searched and the Keyword (KW) argument is the value of the sequence number given in this variable.

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#### 4. ACTION TO BE TAKEN

If a Format 2 message is output, follow the appropriate instructions for the specified interrupt type as given:

- 2 — This interrupt occurs only on 3B21D machines. It indicates that an error has occurred on the on-line CC EAI circuitry. Analyze the accompanying REPT:ERSLOT output message and take appropriate action as stated.
- 8 — This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board.

Run all of the phases of the Main Store Controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.

- 0B — If this is an isolated failure, no action is required. If repeated failures occur, the maintenance channel may have a fault. Check the cabling and run diagnostics. The error entry is in ERLOG.
- 0C — This error may implicate the store controller or a store array. Calculate the faulty store array and run diagnostics as for interrupt type 8. If there is no fault, restore the unit to service.
- 0D — This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board.

Run all of the phases of the Main Store Controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.

- 0E — This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board.

Run all of the phases of the Main Store Controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.

- 0F — Check the update cables and run diagnostics on the off-line main store and update circuits. The error data is in ERLOG.
- 10 — Get the channel number and channel address from the corresponding entry in ERLOG.

If the address corresponds to a 3x6 code, but the channel is unequipped, the database may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the database. If the error occurs on one

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processor and not the other, run diagnostics on the processor that encounters the fault.

- 11 — Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as: channel address = (hardware status register).

If the address corresponds to a 3x6 code, but the channel is unequipped, the database may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the database. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.

- 12 — Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as: channel address = (hardware status register).

If the address corresponds to a 3x6 code, but the channel is unequipped, the database may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the database. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.

- 13 — Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as: channel address = (hardware status register).

If the address corresponds to a 3x6 code, but the channel is unequipped, the database may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the database. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.

- 14 — This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board.

Run all of the phases of the Main Store Controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.

- 15 — This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, program address (PA) and program status word (PSW), should be reported according to local procedures, including the error log data.

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- 16 — This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
- 17 — This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data. T}
- 18 — This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
- 19 — This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
- 1A — This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
- 1C — This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
- 1D — This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
- 1E — If repeated failures occur, run diagnostics on the processor encountering the fault. The error data is recorded in ERLOG.
- 20 — This error can occur only if hardware checks are blocked. The corresponding ERLOG entry contains the Direct Memory Access (DMA) store data register. This can be used to determine the bad memory location. Diagnose the main store if there are multiple errors of this type.
- 21 — This is a software error that was detected by the DMA and is a fatal DMA error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, PA and PSW, should be reported according to local procedures, including the error log data.
- 22 — This error typically implicates a memory array board detected by the DMA and is a fatal DMA error. The error data is recorded in ERLOG. This error typically implicates a memory array board. Refer to the Error Analysis section of the *System Maintenance Manual*, to determine the faulty memory array board.

Run all of the phases of the Main Store Controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no

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failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.

- 25 — This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
- 26 — This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
- 27 — This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
- 28 — This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
- 29 — This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
- 2A — This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
- 2B — This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
- 2C — This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
- 2D — This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
- 2E — This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
- 2F — This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
- 30 — This error is in a channel under the DMA, but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
- 32 — If this problem persists, diagnose the faulty CU. This can be an improperly wired interrupt source register. The error data is recorded in ERLOG.
- 33 — The kernel has detected a bad operating system trap. Identification of the offending process is possible by examining the ERLOG log file or the corresponding error data printed on the Receive-Only Printer (ROP).

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For format 3 errors, refer to the *System Maintenance Manual* for analysis of maintenance interrupt data. The analysis is done similarly to the post mortem analysis with the additions:

- The source will always be software or hardware.
- For software sources, the utility ID and panic code determine the cause.
- For hardware sources, examine the MICROCODE SAVE STATE for
  - Stop and switch errors in the error register.
  - A one (1) in bits 6 or 7 of the Timer Register (TMR), indicating the sanity timer fired.
  - A micro-interrupt error with either the interrupts blocked (System Status Register [SSR]) or the execution at level 15 (PSW).

Any hardware error implicates the sanity of the faulty CU while, in general, software errors are caused by program malfunctions. However, any recurring error on one CU implicates that CU. Run diagnostics, including demand phases, if necessary.

## 5. REFERENCES

### OMDB Key

Format 3 has an OMDB key of 425.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System*  
*System Maintenance Manual*

### Input Messages

DEL : LOG  
DGN : CU  
OP : LOG  
OP : MEMERRS

### Output Messages

DGN : CU  
DGN : CU - MASC

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ID ..... REPT:CURSTRMV  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT CURSTRMV FAULT TYPE a UNIT = b ASSERT = c
- [2] REPT CURSTRMV FAULT TYPE a UNIT = b  
MICROSTORE PUMP FAILED
- [3] REPT CURSTRMV FAULT TYPE a UNIT = b  
PHYSICAL MEMORY PUMP FAILED
- [4] REPT CURSTRMV FAULT TYPE a UNIT = b  
UPDATE FAILED IN MEMORY BLOCK d
- [5] REPT CURSTRMV FAULT TYPE a INACCESSIBLE RID = e  
ASSERT = c
- [6] REPT CURSTRMV FAULT TYPE a CHECKSUM FAILED IN SLOT f  
ASSERT = c
- [7] REPT CURSTRMV CU RESTORE CONTINUING, DIAGNOSTIC  
FAILURE IN NON-CRITICAL UNIT
- [8] REPT CURSTRMV FAULT TYPE a UNIT = b  
OOS CU FORCED OFFLINE

## 2. REASON FOR OUTPUT

To report a fault condition in the Control Unit Restore or Remove (CURSTRMV) process.

Format 5 prints when the name of the unit cannot be determined in response to manual and automatic RMV or RST request.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Fault types:
- BOOT    — Bootfile access problem.
  - CURS    — CURSTRMV internal failure.
  - ECDA    — Equipment Configuration Database (ECD) access  
          problem.
  - ECDD    — ECD data invalid.
  - EEIH    — Processor Control Process Error Interrupt Handler  
          (PCPEIH) error.

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|   |                                                                                                                                           |                                                                      |
|---|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
|   | EMEM                                                                                                                                      | — Memory size from ECD different from equipped memory size.          |
|   | EMM                                                                                                                                       | — EMM straps do not match on both Control Units (CUs).               |
|   | EPCP                                                                                                                                      | — Processor Control Process Maintenance Driver (PCPMD) error.        |
|   | FOFL                                                                                                                                      | — Problem with the System Status Register (SSR) forced off-line bit. |
|   | IARG                                                                                                                                      | — Invalid argument.                                                  |
|   | MPF                                                                                                                                       | — Microstore pump failed.                                            |
|   | OPCP                                                                                                                                      | — Cannot open Processor Control Process Maintenance Driver (PCPMD)   |
|   | OSPL                                                                                                                                      | — Cannot open spooler.                                               |
|   | PMPF                                                                                                                                      | — Physical memory pump failed.                                       |
|   | RSTCOD                                                                                                                                    | — Restore code access problem.                                       |
|   | RTS                                                                                                                                       | — Could not send message to RTS.                                     |
|   | UCOD                                                                                                                                      | — Could not load micro code.                                         |
|   | UF                                                                                                                                        | — Update failed.                                                     |
|   | VTOC                                                                                                                                      | — Volume Table Of Contents (VTOC) access problem.                    |
| b | Name and number of unit.                                                                                                                  |                                                                      |
| c | Identification number (ASSERT number) of the fault in the CURSTRMV process. Useful only to 3B development seeking to resolve the problem. |                                                                      |
| d | Starting address of the memory block.                                                                                                     |                                                                      |
| e | Record ID (RID) of the Unit Control Block (UCB) record in the ECD.                                                                        |                                                                      |
| f | Microstore slot number of failing checksum.                                                                                               |                                                                      |

#### 4. ACTION TO BE TAKEN

Messages referring to a microstore pump failure, a physical memory pump failure, or an update failure generally indicate hardware problems with the off-line CU. If the message indicates the off-line CU is forced, clear the force from the Emergency Action Interface (EAI) page on the maintenance terminal. For the EMM type message, make sure the EMM straps are either on or off on both CUs. For other cases, save a copy of the output message and seek technical assistance.

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## **5. REFERENCES**

### OMDB Keys

- Format 1 has an OMDB key of 421.
- Formats 2, 3, 4 and 8 have an OMDB key of 422.
- Format 5 has an OMDB key of 420.
- Format 6 has an OMDB key of 423.
- Format 7 has an OMDB key of 433.

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ID ..... REPT:DADC-SDL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1] REPT DADC SDL a CODE b

[2] REPT DADC MONITOR CODE b

## 2. REASON FOR OUTPUT

This message is output in response to an error in the DADC monitor process called DAmaster and DADC handler process called DAhandler.

## 3. VARIABLE FIELD DEFINITIONS

a SDL unit number.

b Abort code 1xx from DAmaster and 3xx from DAhandler:

- 103 — The API is not on its port.
- 104 — The open to the API failed three times.
- 105 — A release message was sent with a bad link number.
- 106 — DADC trying to send a message to a nonexistent process.
- 107 — PAS 10-second wait list is zero.
- 108 — PAS 4-second wait list is zero.
- 109 — Call Reference Number not in 4-second list.
- 303 — Message is not on the 4 or 10-second list.
- 304 — Message not on the 10-second list.
- 398 — The freelist is empty.
- 399 — The freelist element is out of range.

## 4. ACTION TO BE TAKEN

Seek technical assistance.

## 5. REFERENCES

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ID ..... REPT:DB-INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DB INIT ERR  
UCB POINTER OF MDCT a IS IDNULL
- [2] REPT DB INIT ERR  
RPC UNIT\_NUMBER INVALID b
- [3] REPT DB INIT ERR  
IUN UNIT\_NUMBER INVALID b
- [4] REPT DB INIT ERR  
CANNOT CONVERT b TO PNI
- [5] REPT DB INIT ERR  
U\_DID NUMBER c OUT OF RANGE - b
- [6] REPT DB INIT ERR  
DUPLICATED U\_DID NUMBER c - b, d
- [7] REPT DB INIT ERR  
DUPLICATED PNI e - b, d

## 2. REASON FOR OUTPUT

A discrepancy was noted in the contents of the ECD records for equipped ring nodes during a system-wide initialization. The specific reason for each output format is as follows:

Format 1:Fields 9 and 10 of the MDCT record identified in the output message contains no identity to its associated UCB record.

Format 2:A UCB record containing the entry RPC in the device\_type field has been assigned a member number other than 0 in the unit\_number field. RPC member numbers must be 0.

Format 3:A UCB record containing the entry RUN in the device\_type field has been assigned the member number 0 in the unit\_number field. IUN member numbers must not be 0.

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Format 4:The last two characters entered in the UCB record unit\_name field are not numbers or are out of range, and/or the member number entered in the the unit\_number field is out of range.

Format 5:The entry in the internal\_device field of a RPC UCB record is out of range.

Format 6:The entry in the internal\_device field of a RPC UCB record is a duplicate of the entry in another equipped RPC UCB record. All equipped RPC UCB records must contain different internal\_device values.

Format 7:The last two numbers in the UCB record unit\_name field and the member number in the unit\_number field are identical to those of another equipped ring node UCB record.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                       |
|---|---------------------------------------------------------------------------------------|
| a | Identifies the MDCT record name (e.g., rpcn00m0).                                     |
| b | Identifies the ring node group and member (e.g., RPCN00 0).                           |
| c | A decimal value representing the internal_device field entry found in the UCB record. |
| d | Same as for b.                                                                        |
| e | The converted physical node identifier.                                               |

### 4. ACTION TO BE TAKEN

The detection of any discrepancies will cause the IMS system-wide initialization to abort. The discrepancy in the ECD must be corrected as follows before a successful system-wide initialization can be performed:

Format 1:The name of the associated UCB record should be entered into fields 9 and 10 of the MDCT record via UNIX® RTR Recent Change and Verify (RCV).

Formats 2-4:The UCB record defined by b in the output message should be deleted from the ECD via UNIX® RTR RCV. The discrepancy in the UCB should be determined and a corrected version inserted back into the ECD.

Format 5:The UCB record defined by b in the output message should be updated to the correct device\_id value via UNIX® RTR RCV.

Format 6:Determine whether the UCB record defined by b or d is incorrect and update this record to the correct device\_id value via UNIX® RTR RCV.

Format 7:Determine whether the UCB record defined by b or d is incorrect and delete this UCB record from the ECD via UNIX® RTR RCV. A corrected version of the UCB record should then be inserted back into the ECD.

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**5. REFERENCES**

CIC Select Code 303-010 *Recent Change and Verify User's Guide*

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ID ..... REPT:DCHAN  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

[1] REPT DCHAN LNa b ON-LINE

[2] REPT DCHAN LNa b ERR X'c SEQ d  
FILE e LINE f ACTION g h AUX DATA WDS (X')  
iiiiiii iiii iiii iiii  
.  
.  
iiiiiii iiii iiii iiii

## 2. REASON FOR OUTPUT

Format 1 - To report that a D-Channel (DCHAN) node has become active.

Format 2 - To report DCHAN defensive check failures. The failure data is delivered from the DCHAN to 3B process Arts for spooler output. The message always prints to the maintenance printer and the CNILOG.

## 3. VARIABLE FIELD DEFINITIONS

- a DCHAN group number.
- b DCHAN member number.
- c DCHAN error code:
- 0x1000 — Send event failed
  - 0x1001 — Call to \_im\_s\_tmr() failed
  - 0x1002 — Call to \_im\_k\_tmr() failed
  - 0x1003 — Source match or Returned message
  - 0x1004 — Timer was not found
  - 0x1005 — Bad timer requested to set CCV timers
  - 0x1006 — Call to \_ioctl() failed
  - 0x1007 — Call to \_ims\_hdr() failed
  - 0x1008 — Call to \_ims\_write() failed
  - 0x2000 — Data block allocation failed
  - 0x2001 — Data Block link to CRV Table failed
  - 0x2002 — Invalid User CRV

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- 0x2003 — Invalid Network CRV
- 0x2004 — Data block pointer out of range
- 0x2005 — Index to data blocks out of range
- 0x2006 — Invalid call state
- 0x2007 — Backup buffer pointer out of range
- 0x2008 — Data block allocation failed on backup node
- 0x2009 — Data Block link to CRV Table failed on backup node
- 0x200a — Invalid link number
- 0x3000 — CO-SCCP did not accept TSC request
- 0x3001 — Data request failed to transmit through TSC connection
- 0x3002 — SCCP allocation request failed
- 0x4000 — Invalid Idle Data Block List index
- 0x5001 — Invalid audit number
- 0x5002 — Invalid audit mode
- 0x5003 — Invalid audit message type
- 0x5004 — Process out of Ring Write Buffers

|         |                                                                                       |
|---------|---------------------------------------------------------------------------------------|
| d       | Number of errors detected by DCHAN since it was last restored.                        |
| e       | DCHAN source file name where the error was detected.                                  |
| f       | DCHAN source file line number where the error was detected.                           |
| g       | Action taken by the DCHAN:<br><br>0 — No action taken                                 |
| h       | Number of data words associated with the defensive check (maximum of 86 DCHAN words). |
| iiiiiii | DCHAN memory dump unique to the DCHAN error code.                                     |

#### 4. ACTION TO BE TAKEN

Format 1: None.

Format 2: Seek technical assistance.

#### 5. REFERENCES

None.

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ID ..... REPT:DCI  
WORK CENTER.. MOC  
GENERIC ..... 4AP18 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DCIDRV INFO CODE a b c
- [2] REPT DCIDRV ERROR CODE a b c
- [3] REPT d e ERROR CODE a b c
- [4] REPT d e ERROR COMPLETION CODE f:
- [5] REPT d e ERROR - g STATUS h
- [6] REPT d e FAULT CODE i j
- [7] REPT d e UNIDENTIFIED RESPONSE WD1=k
- [8] REPT d e ERROR STATUS l MASK m EXP n
- [9] REPT d e INFO CODE a b c
- [10] REPT d e AUTONOMOUS RESPONSE o
- [11] REPT d e CHANNEL p q CODE a b c
- [12] REPT DCIDRV RECEIVED UNKNOWN RCV MESSAGE r e s
- [13] REPT DCI e JOB RESP TIMES t-u MAX v SEGMENT w OF x  
RR: AAAAA BBBB CCC CCDDDD EEEEE FFFFF GGGGG HHHHH  
SS: IIIII JJJJJ KKKKK LLLLL MMMM NNNNN OOOOO PPPPP

## 2. REASON FOR OUTPUT

To specify the error condition detected by the Dual Serial Channel / Computer Interconnect (DCI) driver.

Format 13 report consists of up to three segments of data giving a frequency list of job response times in intervals of one second. Each output segment consists of three lines. The first line gives the time range of the job response times for that segment in fields t through u, the maximum job response time recorded (v), the current segment number (w) and the last segment to be printed (x). The next two lines give the frequency distribution. The beginning of the line (RR or SS) is the time value in seconds corresponding to the first entry in the line. The next eight numbers (AAAAA-HHHHH or IIIII-PPPPP) are the frequency of job responses occurring in consecutive time intervals one second apart.

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A sample output is shown in Examples 1 and 2. In Example 1, line 1 indicates that DCI 1 had some job responses between 0 and 16 (15+1) seconds, with a maximum reported response time between 21 and 22 seconds and that this is the first of two segments that will be reported. Line 2 shows the job responses received between 0-8 seconds; it indicates that there were 16 job responses received between 0 and 1 second and one response received between 4 and 5 seconds. Line 3 shows the job responses received between 8-16 seconds; it indicates that there was one job response received between 13 and 14 seconds.

In Example 2, line 1 indicates that DCI 1 had some job responses between 16 and 32 (31+1) seconds, with a maximum reported response time between 21 and 22 seconds and that this is the second of two segments that will be reported. Line 2 shows the job responses received between 16-24 seconds; it indicates that there was one job response received between 21 and 22 seconds. Line 3 shows the job responses received between 24-32 seconds; there were no job responses received in this period.

#### Example 1

=====

| REPT | DCI | 1  | JOB | RESP | TIMES | 0-15 | MAX | 21 | SEGMENT | 1 | OF | 2 |
|------|-----|----|-----|------|-------|------|-----|----|---------|---|----|---|
| 0:   |     | 16 | 0   | 0    | 0     | 1    | 0   | 0  | 0       |   |    |   |
| 8:   |     | 0  | 0   | 0    | 0     | 0    | 1   | 0  | 0       |   |    |   |

#### Example 2

=====

| REPT | DCI | 1 | JOB | RESP | TIMES | 16-31 | MAX | 21 | SEGMENT | 2 | OF | 2 |
|------|-----|---|-----|------|-------|-------|-----|----|---------|---|----|---|
| 16:  |     | 0 | 0   | 0    | 0     | 0     | 1   | 0  | 0       |   |    |   |
| 24:  |     | 0 | 0   | 0    | 0     | 0     | 0   | 0  | 0       |   |    |   |

### 3. VARIABLE FIELD DEFINITIONS

- a An error code or information code number. For the meaning of error or information code, see Output Appendix A APP:DCI-A.
- b Supplemental data for previous REPT:DCIDRV message.
- c Supplemental data for previous REPT:DCIDRV message.
- d DCI unit name
- e DCI unit number
- f One word completion report. It contains information like command completion code, job ID (DMA job number), size of data.
- g Error type:  
BIC REGISTER  
CHAN  
DBS
- h Supplemental data for the previous message.

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If the error type is CHAN, see DCI Output Appendix C, APP:DCI-C.

If the error type is DBS, see DCI Output Appendix D, APP:DCI-D.

If the error type is BIC REGISTER, see DCI Output Appendix E, APP:DCI-E.

|   |                                                                                                                          |
|---|--------------------------------------------------------------------------------------------------------------------------|
| i | Fault code, in hexadecimal notation. See DCI Output Appendix H, APP:DFC-H.                                               |
| j | In case of software faults in the fault code given, it contains the program address where fault occurred.                |
| k | One word completion report. It contains information like command completion code, job ID (DMA job number), size of data. |
| l | BIC status in hexadecimal notation. See Output Appendix E, APP:DCI-E.                                                    |
| m | Mask.                                                                                                                    |
| n | Expected value of BIC status after being masked with mask listed.                                                        |
| o | Autonomous response special completion code. See Output Appendix B, APP:DCI-B.                                           |
| p | Channel number on which error occurred.                                                                                  |
| q | Type of channel code:<br>ERROR<br>INFO                                                                                   |
| r | The unit name of the device which received unknown message.                                                              |
| s | The number of message in hexadecimal notation.                                                                           |
| t | The beginning of the time range indicator.                                                                               |
| u | The end of the time range indicator.                                                                                     |
| v | The maximum job response time to be printed.                                                                             |
| w | The segment number of this report (1, 2 or 3.)                                                                           |
| x | The largest segment number of this report (1, 2, or 3.)                                                                  |
| R | Starting time value.                                                                                                     |
| S | Ending time value+8                                                                                                      |
| A | The number of job timeouts received in the one second time period RR to RR+1 seconds.                                    |
| B | The number of job timeouts received in the one second time period RR+1 to RR+2 seconds.                                  |
| C | The number of job timeouts received in the one second time period RR+2 to RR+3 seconds.                                  |

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|   |                                                                                           |
|---|-------------------------------------------------------------------------------------------|
| D | The number of job timeouts received in the one second time period RR+3 to RR+4 seconds.   |
| E | The number of job timeouts received in the one second time period RR+4 to RR+5 seconds.   |
| F | The number of job timeouts received in the one second time period RR+5 to RR+6 seconds.   |
| G | The number of job timeouts received in the one second time period RR+6 to RR+7 seconds.   |
| H | The number of job timeouts received in the one second time period RR+7 to RR+8 seconds.   |
| I | The number of job timeouts received in the one second time period RR+8 to RR+9 seconds.   |
| J | The number of job timeouts received in the one second time period RR+9 to RR+10 seconds.  |
| K | The number of job timeouts received in the one second time period RR+10 to RR+11 seconds. |
| L | The number of job timeouts received in the one second time period RR+11 to RR+12 seconds. |
| M | The number of job timeouts received in the one second time period RR+12 to RR+13 seconds. |
| N | The number of job timeouts received in the one second time period RR+13 to RR+14 seconds. |
| O | The number of job timeouts received in the one second time period RR+14 to RR+15 seconds. |
| P | The number of job timeouts received in the one second time period RR+15 to RR+16 seconds. |

#### 4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

Format 13 is produced when the DCI/VDCI unit e has exceeded the threshold for heartbeat timeouts and will be removed from service, or if the DCI driver receives a signal E\_USR6. When it receives the E\_USR6 signal, it also clears the accumulated job response times after printing the list. The format 13 report provides data about the distribution of DCI/VDCI job response times which is used for determining the network performance and delay characteristics and diagnose network problems. This data can be used to guide the setting of appropriate heartbeat timeout ECD parameters to prevent DCI/VDCI timeouts in consultation with Customer Technical Support.

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## **5. REFERENCES**

### OMDB Keys

Format 1 has an OMDB key of 724.  
Format 2 has an OMDB key of 726.  
Format 3 has an OMDB key of 727.  
Format 4 has an OMDB key of 728.  
Format 5 has an OMDB key of 730.  
Format 6 has an OMDB key of 731.  
Format 7 has an OMDB key of 732.  
Format 8 has an OMDB key of 733.  
Format 9 has an OMDB key of 725.  
Format 10 has an OMDB key of 734.  
Format 10 has an OMDB key of 740.  
Format 12 has an OMDB key of 737.

### Output Appendixes

APP:DCI-A  
APP:DCI-B  
APP:DCI-C  
APP:DCI-D  
APP:DCI-E  
APP:DCI-F  
APP:DCI-H

### Input Messages

DGN:DCI  
RMV:DCI  
RST:DCI

### Output Messages

DGN:DCI  
RMV:DCI  
RST:DCI

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ID ..... REPT:DCIDIP  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT DCIDIP ERROR a [b]

## 2. REASON FOR OUTPUT

To report an error condition encountered by the DCIDIP process.

## 3. VARIABLE FIELD DEFINITIONS

- a Process step or reason.
- f00 — sendw( ) failed to send message to Display Administration Process (DAP).
  - f06 — Received invalid message type.
  - f0c — Failed to open the Equipment Configuration Database (ECD).
  - f12 — Failed to attach the ECD.
  - f18 — Failed to get Minor Device Chain Table (MDCT) record for physical Teletypewriter (TTY).
  - f1e — MDCT rid for physical TTY not known.
  - f24 — Failed to get Unit Control Block (UCB) record.
  - f2a — UCB rid for physical TTY not known.
  - f30 — No Record Identification (RID) in message from Dual Serial Channel/Computer Interconnect (DCI) driver.
  - f36 — Failed to get UCB record.
  - f3c — Unit not supported by DCIDIP.
  - f42 — Out of range DCI unit number.
  - f48 — Failed to get Dual Serial Channel/Computer Interconnect Operator Position Terminal (DCIOPT) record.
  - f4e — Invalid UCB RID for DCI.
  - f4f — Failed to get Adjunct UCB record.
  - f54 — Invalid UCB RID for physical TTY.
  - f6a — No data in poke message.
  - f70 — Too many arguments in poke message.
  - f76 — Poke number is not supported.
  - f7c — Option not supported by remove TTY.
  - f82 — Invalid option for restore TTY.
  - f88 — Failed to execute craft shell.
- b System error code number. See System Error Codes Output Appendix, APP:SYSERR.

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#### **4. ACTION TO BE TAKEN**

This message indicates that the DCIDIP process encountered an error condition either during initialization or when processing a clients request. If the error condition persists, contact the next level of technical assistance.

#### **5. REFERENCES**

OMDB Keys:

Format 1 has an OMDB key of 765.

Display / Menu Page Name:

DCI STATUS PAGE

Output Appendix

APP:SYSERR

Input Messages

RST:TTY

RMV:TTY

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ID ..... REPT:DCNAP  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has one format.

- [1] REPT DCNAP connport() a FAILED
- [2] REPT DCNAP msgeneb() FAILED
- [3] REPT DCNAP attach\_to\_pas() FAILED
- [4] REPT DCNAP RECEIVED UNKNOWN MSG TYPE in AUrtr\_msg()
- [5] REPT DCNAP READ CHANNEL FAILED  
REASON: RETURN CODE FROM \_ims\_read() IS b
- [6] REPT DCNAP CAN NOT OPEN CHANNEL  
REASON: RINGINIT PROCESS NOT ALIVE
- [7] REPT DCNAP OPEN CHANNEL FAILED  
REASON: RETURN CODE FROM \_imsopen() IS c
- [8] REPT DCNAP GET MBUF FAILED  
REASON: RETURN CODE FROM \_get\_mbuf() IS d
- [9] REPT DCNAP IMS HDR FAILED  
REASON: RETURN CODE FROM \_ims\_hdr() IS e
- [10] REPT DCNAP WRITE CHANNEL FAILED  
REASON: RETURN CODE FROM \_ims\_write() IS f
- [11] REPT DCNAP fopen() FAILED  
g FILE COULD NOT BE CREATED TO HOLD DCN AUDIT REPORT
- [12] REPT DCNAP RECEIVED UNKNOWN MSG TYPE  
FROM LNh i in AUget\_msg()
- [13] REPT DCNAP RECEIVED UNKNOWN MSG TYPE  
FROM LNh i in AUret\_msg()

## 2. REASON FOR OUTPUT

Format 1 - Connect to DCNAP port failed.

Format 2 - Enable message failed.

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Format 3 - Attach to pas failed.

Format 4 - Received unknown message type from the CRAFT.

Format 5 - Failed to read an IMS channel.

Format 6 - RINGINIT process is not alive.

Format 7 - Failed to open an IMS channel.

Format 8 - Failed to get message buffer.

Format 9 - Failed to build an IMS message header.

Format 10 - Failed to write an IMS message.

Format 11 - Failed to open a file.

Format 12 - Received unknown message type from the D-Channel Node (DCN).

Format 13 - Received unknown message type in returned or source match message.

### **3. VARIABLE FIELD DEFINITIONS**

|   |                                              |
|---|----------------------------------------------|
| a | Port number.                                 |
| b | Return code from <code>_ims_read()</code> .  |
| c | Return code from <code>_imsopen()</code> .   |
| d | Return code from <code>_get_mbuf()</code> .  |
| e | Return code from <code>_ims_hdr()</code> .   |
| f | Return code from <code>_ims_write()</code> . |
| g | Temporary output file name.                  |
| h | DCN group number.                            |
| i | DCN member number.                           |

### **4. ACTION TO BE TAKEN**

Seek technical assistance.

### **5. REFERENCES**

None.

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ID ..... REPT:DCNAUDSTAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DCNAUDSTAT LNb c  
AUDIT AUDIT  
NUMBER INHIBITED  
a d

## 2. REASON FOR OUTPUT

If D-Channel Node (DCN) audit is inhibited in routine and software mode, DCN sends status report every fifteen minutes.

## 3. VARIABLE FIELD DEFINITIONS

- a Audit member. One of the following:
- 1 — Data Blocks audit.
  - 2 — User call reference value (CRV) Table audit.
  - 3 — Network CRV Table audit.
  - 4 — Channel ID Table audit.
  - 5 — Idle Data Blocks List audit.
- b DCN group number.
- c DCN member number.
- d Audit inhibit status for all audits controlled by DCN. One of the following:
- Y — Inhibited
  - N — Not Inhibited

## 4. ACTION TO BE TAKEN

Format 1 indicates if the audit status is inhibited the DCN cannot execute an audit in routine and software mode.

The ALW:DCNAUD input message should be used to allow an inhibited audit unless there is a strong reason not to.

## 5. REFERENCES

Input Messages  
ALW:DCNAUD  
OP:DCNAUD

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Output Messages  
OP:DCNAUD  
ALW:DCNAUD

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ID ..... REPT:DEGROWTH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT DEGROWTH a b c [ d ]

## 2. REASON FOR OUTPUT

To indicate that a unit has been dynamically degrown by a user.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                                                                                                                                                          |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Unit name.                                                                                                                                                                                                                                                               |
| b | Unit number.                                                                                                                                                                                                                                                             |
| c | Status:<br><br>COMPLETED<br><br>FAILED<br><br>IN PROGRESS                                                                                                                                                                                                                |
| d | The reason for failure. For an Input/Output Processor (IOP) unit, refer to IOP Output Appendix J, APP:IOP-J for an explanation of the error code. For a Disk File Controller (DFC) unit, refer to DFC Output Appendix A, APP:DFC-A for an explanation of the error code. |

## 4. ACTION TO BE TAKEN

No action is needed if COMPLETED or IN PROGRESS. If FAILED then check the error code to determine action.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 197.

Output Appendixes  
APP:DFC-A  
APP:IOP-J

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ID ..... REPT:DFC  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DFC a ERROR COMPLETION CODE bbccdeff DEVICE STATUS g
- [2] REPT DFC a ERROR DEVICE STATUS g
- [3] REPT DFC a ERROR CHAN STATUS h
- [4] REPT DFC a ERROR DBS STATUS i
- [5] REPT DFC a ERROR BIC REGISTER STATUS j
- [6] REPT DFC a ERROR STATUS k MASK l EXP m
- [7] REPT DFC a ERROR DATA n
- [8] REPT DFC a FAULT CODE o
- [9] REPT DFC a UNIDENTIFIED RESPONSE WD1= p WD2= q
- [10] REPT DFC a AUTONOMOUS RESPONSE bbccdrff
- [11] REPT DFC a INFO HA SHADOW REGISTER STATUS s
- [12] REPT DFC a INFO CODE t
- [13] REPT DFC a DMA ADDRESS ERROR  
JOBID u INUSE [v] MSGV w PID x UID y  
IO\_PA z IO\_B0 a1 IO\_BC b1  
JOB\_BCNT c1 JOB\_PA d1 SEG\_SZ e1

## 2. REASON FOR OUTPUT

To specify the error condition detected by the Disk File Controller (DFC).

## 3. VARIABLE FIELD DEFINITIONS

- |    |                                                                                                          |
|----|----------------------------------------------------------------------------------------------------------|
| a  | Unit number.                                                                                             |
| bb | Command completion code in hexadecimal notation. See Tables 1 and 2 in DFC Output Appendix B, APP:DFC-B. |
| cc | Number of blocks read or written in hexadecimal notation.                                                |
| d  | Device Identification (ID) number in hexadecimal notation.                                               |

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|    |                                                                                                                                                                                                                               |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| e  | Special completion code; valid only when DMA job number is 00 in hexadecimal notation. See Table 3 in DFC Output Appendix B, APP:DFC-B.                                                                                       |
| ff | DMA job number.(Job ID).                                                                                                                                                                                                      |
| g  | Device status, in hexadecimal notation. See DFC Output Appendix C, APP:DFC-C.                                                                                                                                                 |
| h  | Channel status, in hexadecimal notation. See DFC Output Appendix D, APP:DFC-D.                                                                                                                                                |
| i  | Bus selector status, in hexadecimal notation. See DFC Output Appendix E, APP:DFC-E.                                                                                                                                           |
| j  | BIC status, in hexadecimal notation. See DFC Output Appendix F, APP:DFC-F.                                                                                                                                                    |
| k  | BIC status, in hexadecimal notation. See DFC Output Appendix F, APP:DFC-F.                                                                                                                                                    |
| l  | Mask.                                                                                                                                                                                                                         |
| m  | Expected value of BIC status after being masked with mask given.                                                                                                                                                              |
| n  | Supplemental data for previous REPT:DKDRV output message.                                                                                                                                                                     |
| o  | Fault code, in hexadecimal notation. See DFC Output Appendix I, APP:DFC-I.                                                                                                                                                    |
| p  | First word of an unidentifiable completion report. This would normally be the command completion word.                                                                                                                        |
| q  | Second word of an unidentifiable completion report. This would normally be the device status word.                                                                                                                            |
| r  | The hexadecimal digit provides the reason for the autonomous response. See Table 3 in DFC Output Appendix B, APP:DFC-B.                                                                                                       |
| s  | The Small Computer System Interface (SCSI) Host Adapter (HA) shadow register status, in hexadecimal notation. See DFC Output Appendix P, APP:DFC-P.                                                                           |
| t  | Information code. See DFC Output Appendix A, APP:DFC-A.                                                                                                                                                                       |
| u  | DMA job ID number.                                                                                                                                                                                                            |
| v  | Job ID in use indicator:<br>Y — Indicates valid job ID.                                                                                                                                                                       |
| w  | Message buffer indicator:<br>N — Indicates a message buffer was not found and PID through SEG_SZ fields are not valid.<br>Y — Indicates a message buffer was found and PID through SEG_SZ fields are from the message buffer. |
| x  | Process ID of the process requesting Input / Output (I/O).                                                                                                                                                                    |

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|    |                                                                  |
|----|------------------------------------------------------------------|
| y  | Utility ID of the process requesting I/O.                        |
| z  | Page table address of I/O memory segment provided by the client. |
| a1 | Offset into the memory segment.                                  |
| b1 | Number of bytes requested by the client for I/O transfer.        |
| c1 | Page table address of I/O memory segment used by the driver.     |
| d1 | Number of bytes used by the driver for I/O transfer.             |
| e1 | Client's I/O memory segment size.                                |

#### 4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 232 and 244.  
Formats 2 through 5 have an OMDB key of 233.  
Format 6 has an OMDB key of 236.  
Format 7 has an OMDB key of 231.  
Format 8 has an OMDB key of 234.  
Format 9 has an OMDB key of 235.  
Format 10 has OMDB keys of 237, 238 and 239.  
Format 11 has an OMDB key of 200.  
Format 12 has an OMDB key of 199.  
Format 13 does not have an OMDB key.

Practice 254-301-215 *Disk File Controller Description and Theory of Operation*  
*3B20D/3B21D Model 1 Computer*

Practice 254-301-216 *SCSI Disk File Controller Description and Theory of Operation*

##### Output Appendixes

APP:DFC-A  
APP:DFC-B  
APP:DFC-C  
APP:DFC-D  
APP:DFC-E  
APP:DFC-F  
APP:DFC-I  
APP:DFC-P

##### Input Messages

DGN:DFC  
DGN:MHD  
DGN:MT  
RMV:DFC

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RMV:MHD  
RMV:MT  
RMV:SBUS  
RST:DFC  
RST:MHD  
RST:MT  
RST:SBUS

Output Messages

DGN:DFC  
DGN:MHD  
DGN:MT  
RMV:DFC  
RMV:MHD  
RMV:MT  
RST:DFC  
RST:MHD  
RST:MT

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ID ..... REPT:DFC-PUMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DFC a AUTO PUMP NOT STARTED
- [2] REPT DFC a AUTO PUMP STARTED
- [3] REPT DFC a AUTO PUMP IN PROGRESS
- [4] REPT DFC a AUTO PUMP ABORTED
- [5] REPT DFC a AUTO PUMP COMPLETED
- [6] REPT DFC a AUTO PUMP INHIBITED
- [7] REPT DFC a PUMPCODE REMOVED

## 2. REASON FOR OUTPUT

To report the result of Disk Driver (DKDRV) automatically downloading the pumpcode to the Disk File Controller (DFC) or the removal of the pumpcode from the Small Computer System Interface Host Adapter (SCSI HA).

## 3. VARIABLE FIELD DEFINITIONS

a                      Member number of the DFC.

## 4. ACTION TO BE TAKEN

If a termination report specifies that the pump could not be completed, see DKDRV's error messages to determine the reason for the failure. If the problem is caused by the resource limitation, the limitation should be cleared so that the pump can be successfully completed. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Format 6 indicates that the DKDRV will not try to initiate any more pumpcode downloading on this DFC. The DFC pump must be manually requested.

Format 7 indicates that the pumpcode has been removed from the SCSI HA and the SCSI DFC is running with the operational firmware. This occurs, because the SCSI DFC has operational problem(s) with the running pumpcode. The pumpcode residing on disk should be verified and redownloaded manually.

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**5. REFERENCES**

OMDB Key

This message has an OMDB key of 577.

Input Message

LOAD:DFC-PUMP

Output Message

LOAD:DFC-PUMP

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ID ..... REPT:DFCE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DFCE a  
bbbbcccc ddddeeee ffffghhh iiijkkkk llllmmm nnnnoooo ppppqqqq
- [2] REPT DFCE a DATA 1-r X' s  
t...t u...u u...u u...u u...u v...v v...v v...v  
v...v wwwxxxx yza1a1tttt b1b1b1b1c1c1c1c1 c1...c1 c1...c1 ...  
...c1c1c1c1tttt t...t
- [3] REPT DFCE a DATA 2-r X' s  
d1d1d1d1bbbb t...t t...t e1e1e1e1tttt fffghhhh t...t ...  
...f1f1f1f1g1g1g1 g1...g1  
g1g1g1g1tttt t...t t...t t...t t...t t...t t...t t...t
- [4] REPT DFCE a DATA {3|4}-r X' s  
h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1  
h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1
- [5] REPT DFCE a DATA 5-r X' s  
ccccddd i1...i1 i1...i1 i1...i1 i1...i1 j1...j1 j1...j1 j1...j1  
j1...j1 k1k1k1k1l1l1l1l1 m1...m1 n1n1n1n1o1o1o1o1 o1...o1 ...  
...o1...o1 o1o1o1o1tttt p1p1p1p1q1q1q1q1
- [6] REPT DFCE a DATA 6-r X' s  
r1r1r1r1bbbb s1s1s1s1t1t1t1t1 u1u1u1u1tttt ttttv1v1v1v1 ...  
...ffffghhh iiijtttt t...t t...t  
t...t kkkkl111 mmmnnnn ttttoooo ppppqqqq t...t t...t t...t
- [7] REPT DFCE a DATA {7|9}-r X' s  
w1...w1 w1...w1 w1...w1 w1...w1 w1...w1 w1...w1 w1...w1 w1...w1  
w1...w1 w1...w1 w1...w1 w1...w1 w1...w1 w1...w1 w1...w1 w1...w1
- [8] REPT DFCE a DATA 8-r X' s  
ttttv1v1v1v1 v1...v1 w1w1w1w1x1x1y1y1 z1z1z1z1a2a2a2a2 ...  
...b2b2b2b2c2c2c2c2 d2d2d2d2e2e2e2e2 w1w1w1w1x1x1y1y1 ...  
...z1z1z1z1a2a2a2a2  
b2b2b2b2c2c2c2c2 d2d2d2d2e2e2e2e2 w1w1w1w1x1x1y1y1 ...  
...z1z1z1z1a2a2a2a2 b2b2b2b2c2c2c2c2 d2d2d2d2e2e2e2e2 ...  
...w1w1w1w1x1x1y1y1 z1z1z1z1a2a2a2a2

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## 2. REASON FOR OUTPUT

To print the Enhanced Information Report (EIR) provided by the Disk File Controller (DFC).

Format 1 prints when the short form of the EIR is requested.

Format 2 prints when the long form of the EIR is requested.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit number.
- r Number of segments of information report.
- s Sequence number for this report.
- b Data flags. Bit field definitions for `df flags` word are:
- X'8000 — Defect table in memory flag (1-in, 0-out).
  - X'4000 — REX allowed flag (1-ALW, 0-INH).
  - X'2000 — Drive in-service indicator (1-out, 0-in).
  - X'1000 — Optimization bit (1-on).
  - X'0800 — Uncorrectable data error.
  - X'0400 — Defect management update write job.
- c Drive table status word 0. Bit field definitions for `dtstat` word 0 are:
- X'8000 — Disk access required flag.
  - X'4000 — Seek only command flag.
  - X'2000 — Non-disk access command present flag.
  - X'1000 — Defect table setup only - no disk access.
  - X'0800 — Seek required flag.
  - X'0400 — Call to `dtsetp` required.
  - X'0200 — Seek pending flag.
  - X'0100 — Do not enter defect management if set (for DGN).
  - X'0080 — No work.
- d Drive table status word 1. Bit field definitions for `dtstat` word 1 are:
- X'8000 — Go indication flag.
  - X'4000 — Not used.
  - X'2000 — DMA operation completed successfully.
  - X'1000 — DMA operation detected error.
  - X'0800 — Marker read flag.
  - X'0400 — Boot request active flag.
  - X'0200 — Segment break flag.
  - X'0100 — Enable segment breaks.
  - X'0080 — 0-read, boot, verify 1-write, init.
  - X'0040 — Verify command flag.
  - X'0020 — Init command flag.
  - X'0010 — No marker read-wait for index flag.
  - X'0008 — DMA required flag.
  - X'0004 — Address mismatch flag (read only).
  - X'0004 — Write gate off flag (write only).

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- X'0002 — Skip defect management check.  
X'0001 — First sector flag for read.
- e ID plug number.
- f Command completion code. Different values for autonomous and non-autonomous completion codes.

Values for autonomous completion codes are:

- X'0000 — Instrumentation data.
- X'0100 — Diagnostic failure.
- X'0200 — MHD exerciser failure.
- X'0300 — SYSGEN response.
- X'0400 — Boot complete response.
- X'0500 — DFC idle response.
- X'0600 — Illegal command/parameters.
- X'0700 — High temperature.
- X'0800 — Not used.

Values for non-autonomous completion codes are:

- X'0000 — Successful completion code
- X'0400 — Verify completed - errors detected, however.
- X'8100 — PIC RAM boundary error.
- X'8300 — Seek error on disk.
- X'8500 — No index detected on disk.
- X'8900 — MHD status error.
- X'8B00 — Uncorrectable data error.
- X'8D00 — Disk boundary overflow.
- X'8F00 — Head-sector mismatch error.
- X'9100 — Wrong disk selected.
- X'9300 — No disk selected.
- X'9500 — Head positioning error.
- X'9700 — Head selection error.
- X'9900 — BIC parity error.
- X'9B00 — BIC-PIC soft error.
- X'9D00 — PIC error.
- X'9F00 — DMA setup overwrite.
- X'A100 — Early EOT from DMA.
- X'A300 — No EOT from DMA.
- X'A700 — PSDI FIFO parity error.
- X'A900 — PSDI FIFO underflow error.
- X'AB00 — PSDI FIFO overflow error.
- X'AD00 — PSDI acknowledge failure.
- X'AF00 — Extra data in PSDI FIFO.
- X'B100 — Disk data buffer error.
- X'B300 — Main store address error.
- X'B500 — Disk time out error.
- X'B700 — DMA time out error.
- X'BB00 — Uncorrectable data error in MFGR defect table.
- X'BD00 — Defect table overflow.

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X'BF00 — Command for defective disk.  
X'C100 — Unable to create our defect table on the disk.  
X'C300 — Manufacturer specified more than the maximum number of defects allowed.  
X'C500 — Uncorrectable data error on area that is guaranteed to be error free.  
X'C700 — Invalid data in defect table.  
X'C900 — Invalid data in RAM.  
X'CB00 — Invalid MFGR defect table.  
X'CD00 — Uncorrectable data error in defect table.  
X'CF00 — Unable to read defect table.  
X'E100 — Bad version information in pump file.  
X'E500 — Pump timeout.  
X'D100 — Unable to read MFGR's defect table.  
X'D300 — Unable to write defect table on the disk.  
X'D500 — ramreg has incorrect value.  
X'D700 — Uncorrectable data error and read TEMP list failed.  
X'D900 — Uncorrectable data error and TEMP list overflow.  
X'DA00 — Uncorrectable data error and the attempt to write the TEMP list failed.

g

Error code status flag:

X'0 — Instrumentation data has not been saved.  
X'4 — Instrumentation data has been saved.  
X'8 — Autonomous response.  
X'C — Autonomous response with instrumentation data saved.

h

Internal DFC error code:

X'001 — REX verify not inserted.  
X'002 — DGN drive number out of range.  
X'003 — Defect table read not inserted.  
X'004 — Read not inserted.  
X'005 — Seek not inserted.  
X'006 — Verify not inserted.  
X'007 — Write not inserted.  
X'008 — DFC online when DGN requested.  
X'009 — MHD online when DGN requested.  
X'00A — Run on board over run.  
X'00B — Invalid DGN command pointer.  
X'00C — Invalid system requested DGN command.  
X'00D — Invalid routine exercise command.  
X'00E — Invalid DGN command type.  
X'00F — No subroutine requested by diagnostic.  
X'010 — Invalid put response table pointer.  
X'011 — putrsp in wrong state.  
X'012 — RAM board failure.  
X'013 — No response from RAM board.  
X'014 — Invalid divide masks detected by axlate.  
X'015 — Invalid current state for putrsp.  
X'016 — Invalid return code from oncyldp.

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X'017 — Invalid return code from skcylnd.  
X'018 — Invalid return code from skcylnd.  
X'019 — Invalid return code from skcylnd.  
X'01A — Invalid data in DTSTAT0.  
X'01B — Invalid return code from skcylnd.  
X'01C — Invalid input to dtsetp.  
X'01D — schdlr detected invalid DFC state.  
X'01E — Error detected by dtsetp.  
X'01F — Read RAM boundary error.  
X'020 — Write RAM boundary error.  
X'021 — Attempt to cmsmhd when DFC offline.  
X'022 — Attempt to cmsmhd to online-unit not ready.  
X'023 — Select drive in priority SEL/REL failed.  
X'024 — Unit not ready - priority release.  
X'025 — Unclearable fault - priority release.  
X'026 — Defect table not in memory (dfctmg).  
X'027 — Disk maximum address exceeded - axlate.  
X'028 — No end code in RAM defect table (dfctmg).  
X'029 — Bad cylinder translation (dfctmg).  
X'02A — Bad sector for MFGR head (dmngmt).  
X'02B — Bad sector for TEMP head (dmngmt).  
X'02C — Bad head for copy request (dmngmt).  
X'02D — Bad dtstat0 options (dmngmt).  
X'02E — Update defect table write failed (dmngmt).  
X'02F — TEMP defect table write failed (dmngmt).  
X'030 — Not defect management job (dmngmt).  
X'031 — No defects for this drive (cpyupd).  
X'032 — Max head exceeded in MFGR table (cpyupd).  
X'033 — Max cylinder exceeded in MFGR table (cpyupd).  
X'034 — Max sector exceeded in MFGR table (cpyupd).  
X'035 — No end code for MFGR defect table (cpyupd).  
X'036 — Bad defects order in MFGR table (cpyupd).  
X'037 — No end code for TEMP defect table (cpytmp).  
X'039 — Bad TEMP defect table start code (cpytmp).  
X'03B — No end code for COMB defect table (prcdfj).  
X'03C — Defect hash code does not match (prcdfj).  
X'03D — Bad COMB defect table start code (prcdfj).  
X'03E — Read defect table failed (drdchk).  
X'03F — Bad version information in pump data.  
X'050 — Missing routine.  
X'051 — Time-out no sector/index intr in 600us.  
X'052 — On-cylinder could not select disk.  
X'053 — On-cylinder detected seek time-out.  
X'054 — Maximum cylinder number exceeded.  
X'055 — Cylinder mismatch (expected != read).  
X'056 — Head/sector mismatch (expected != read).  
X'057 — Physical address not updated in time.  
X'058 — PSDI FIFO time-out (first address word).  
X'059 — PSDI FIFO time-out (second address word).  
X'05A — PSDI FIFO time-out (reading data).

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X'05B — PSDI status error during read.  
X'05C — Read gate turn off time out.  
X'05D — Data buffer pointer error (diff > size).  
X'05E — Missed an ECC interrupt.  
X'05F — Uncorrectable data error.  
X'060 — ECC / Address buffer full.  
X'061 — Address update done too late (during write).  
X'062 — Data buffer pointer error (diff > size).  
X'063 — No disk acknowledgment received.  
X'064 — Multiple disk responded (first select).  
X'065 — Wrong or multiple disks responded.  
X'066 — Can't clear drive fault.  
X'067 — Seek error in disk status set.  
X'068 — Seek did not start.  
X'069 — PSDI did not start during a read.  
X'06A — PSDI did not start during a write.  
X'06B — Seek time-out (detected by skcy lnd).  
X'06C — Sector / index interrupt time-out (read).  
X'06D — Sector / index interrupt time-out (write).  
X'06E — Seek error on new cylinder.  
X'06F — Index time out on new cylinder.  
X'070 — PSDI FIFO error during write.  
X'071 — PSDI FIFO unload time before head select.  
X'072 — Job start sector / index interrupt time out.  
X'073 — Time-out waiting for ECC (new cylinder).  
X'074 — Time-out waiting for write to go off.  
X'075 — Uncorrectable data error during verify.  
X'076 — Address mismatch failure during verify.  
X'077 — Disk access job aborted due to DMA error.  
X'078 — Seek error detected by select routine.  
X'079 — Drive fault during write operation.

i

Status flags. Bit field definitions are:

X'01 — Multiple drives responded.  
X'02 — Wrong drive responded.  
X'04 — No drive responded.  
X'08 — Cannot clear drive fault.  
X'10 — Seek error set when drive was selected.  
X'20 — Cannot make selected drive "ready".  
X'40 — Fatal error during drive select.  
X'80 — Some kind of drive select error occurred.

j

Disk status register. Bit field definitions are:

X'01 — Heads have not been loaded.  
X'02 — On cylinder.  
X'04 — Unit ready.  
X'08 — High temperature warning.  
X'10 — Seek error.  
X'20 — Fault flag.  
X'40 — Sector mark flag.

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | X'80 — Index mark flag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|    | X'FF — Ignore the disk status register subfield.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| k  | Starting cylinder of current job.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| l  | Starting head of current job.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| m  | Starting sector of current job.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| n  | Number of sectors in current job.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| o  | Current cylinder.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| p  | Current head.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| q  | Current sector.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| t  | Unused or not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| u  | Current DFC related command.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| v  | Previous DFC related command.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| w  | DFC copy of response queue load pointer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| x  | Version number of the DFC firmware.<br>Layout of version words are:<br>4 bits — DFC generic number.<br>6 bits — DFC issue number.<br>6 bits — DFC point issue number.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| y  | Tens digit of DFC EDI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| z  | Units digit of DFC EDI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| a1 | ASCII letter of DFC EDI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| b1 | DFC code (FFFO).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| c1 | Internal list pointers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| d1 | Current DFC state. Values the <code>cstate</code> may assume are:<br>X'0001 — Initial state after a reset.<br>X'0002 — Firmware initialization state.<br>X'0004 — Normal operating state in the asynchronous mode.<br>X'0008 — Normal operating state in the synchronous mode.<br>X'0010 — Sleep state in the synchronous mode.<br>X'0020 — Sleep state in the asynchronous mode.<br>X'0040 — Job completion state in the <code>initl</code> mode.<br>X'0080 — Job completion state in the synchronous mode.<br>X'0100 — Job failure state in the asynchronous mode.<br>X'FE00 — Invalid state mask. |
| e1 | Pointer to drive table of currently active drive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| f1 | Size of disk data buffer (16-bit words).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| g1 | Initialization pattern.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|    |                                                                            |
|----|----------------------------------------------------------------------------|
| h1 | Routine trace buffer (for developer use only).                             |
| i1 | Current drive table command.                                               |
| j1 | Previous drive table command.                                              |
| k1 | Number of cylinders on this drive.                                         |
| l1 | Number of tracks per cylinder.                                             |
| m1 | Division masks for converting block number to cylinder, head, and sector.  |
| n1 | Drive number.                                                              |
| o1 | Internal list pointers.                                                    |
| p1 | Maximum number of readable cylinders.                                      |
| q1 | Maximum number of verifiable cylinders.                                    |
| r1 | Port number associated with this drive.                                    |
| s1 | Current direction of heads.                                                |
| t1 | Next cylinder for routine exercises.                                       |
| u1 | Next head for routine exercises.                                           |
| v1 | Pointer to initialization pattern.                                         |
| w1 | ECC buffer.<br><b>NOTE:</b> There may be from 1 to 16 fields in segment 9. |
| v1 | Pointers into ECC table.                                                   |
| w1 | Cylinder from disk.                                                        |
| x1 | Track from disk.                                                           |
| y1 | Sector from disk.                                                          |
| z1 | Expected cylinder.                                                         |
| a2 | Expected track.                                                            |
| b2 | Expected sector.                                                           |
| c2 | Block.                                                                     |
| d2 | Word.                                                                      |
| e2 | Correction code.                                                           |

#### 4. ACTION TO BE TAKEN

This report provides supplemental data associated with a response returned to the computer. The messages printed on the Receive-Only Printer (ROP) around the report should be checked to determine the significance of the report.

A two-segment report is generated after a SYSGEN command has been received from the computer and before the response for the SYSGEN command is returned to the computer. All of the data in this particular report should be ignored.

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**5. REFERENCES**

Practice 254-301-215 *Disk File Controller Description and Theory of Operation*  
*3B20D/3B21D Model 1 Computer*

Input Messages

DGN:DFC  
DGN:MHD  
RMV:DFC  
RMV:MHD  
RST:DFC  
RST:MHD

Output Messages

DGN:DFC  
DGN:MHD  
RMV:DFC  
RMV:MHD  
RST:DFC  
RST:MHD

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ID ..... REPT:DFCI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DFCI a  
bbccdeff g...g h...h i...i jjjjkkll m...m n...n o...o  
p...p p...p p...p p...p q...q q...q q...q q...q
- [2] REPT DFCI a DATA 1-r X' s  
bbccdeff g...g h...h i...i jjjjtull m...m n...n v...v  
p...p p...p p...p p...p w...w w...w w...w w...w
- [3] REPT DFCI a DATA {2|7}-r X' s  
xxyyza1a1 b1...b1 c1...c1 q...q q...q q...q q...q d1...d1  
d1...d1 d1...d1 d1...d1 d1...d1 d1...d1 d1...d1 d1...d1 d1...d1
- [4] REPT DFCI a DATA {3|8}-r X' s  
e1...e1 e1...e1 e1...e1 e1...e1 e1...e1 e1...e1 e1...e1 e1...e1  
e1...e1 e1...e1 e1...e1 e1...e1 f1...f1 f1...f1 f1...f1 g1...g1
- [5] REPT DFCI a DATA {4|9}-r X' s  
h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1 h1...h1  
h1...h1 h1...h1 h1...h1 h1...h1 i1...i1 i1...i1 i1...i1 j1...j1
- [6] REPT DFCI a DATA {5|10}-r X' s  
k1...k1 k1...k1 k1...k1 k1...k1 k1...k1 k1...k1 k1...k1 k1...k1  
k1...k1 k1...k1 k1...k1 k1...k1 l1...l1 l1...l1 l1...l1 l1...l1
- [7] REPT DFCI a DATA {6|11}-r X' s  
m1...m1 n1...n1 o1...o1 p1...p1 q1...q1 q1...q1 r1...r1 r1...r1  
r1...r1 r1...r1 r1...r1 r1...r1 r1...r1 s1...s1 s1...s1 s1...s1

## 2. REASON FOR OUTPUT

To print the Enhanced Information Report (EIR) provided by the Small Computer System Interface (SCSI) Disk File Controller (DFC).

Format 1 prints when the short form of the EIR is requested.

Format 2 prints when the long form of the EIR is requested.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit number.
- b Completion code. See DFC Output Appendix B, APP:DFC-B, Tables 1 and 2.

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|   |                                                                                                                                                                                                                                                                                                                    |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| c | Number of blocks read/written on short failure of read/write command.                                                                                                                                                                                                                                              |
| d | Bus/Device ID number of the device associated with the activity identified by this response. If the activity references the Host Adapter (HA), this field is not used by the DFC.                                                                                                                                  |
| e | Autonomous completion code. See DFC Output Appendix B, APP:DFC-B, Table 3. Only valid when Job Identification (ID) number is zero.                                                                                                                                                                                 |
| f | Job ID number.                                                                                                                                                                                                                                                                                                     |
| g | Device status word. See DFC Output Appendix C, APP:DFC-C.                                                                                                                                                                                                                                                          |
| h | Operational firmware version. See DFC Output Appendix O, APP:DFC-O.                                                                                                                                                                                                                                                |
| i | Pumpcode version. See DFC Output Appendix O, APP:DFC-O.                                                                                                                                                                                                                                                            |
| j | Enhanced completion code. See DFC Output Appendix B, APP:DFC-B, Table 4.                                                                                                                                                                                                                                           |
| k | Target controller command status byte.<br><br>0x00 — Good.<br>0x02 — Check condition.<br>0x04 — Condition met.<br>0x08 — Busy.<br>0x10 — Intermediate.<br>0x14 — Intermediate - condition met.<br>0x18 — Reservation conflict.<br>0x22 — Command terminated.<br>0x28 — Queue full.<br>0xFF — Status not available. |
| l | Firmware/Driver communications register. See DFC Output Appendix B, APP:DFC-B, Table 5.                                                                                                                                                                                                                            |
| m | HA status register. See DFC Output Appendix N, APP:DFC-N.                                                                                                                                                                                                                                                          |
| n | BIC status register. See DFC Output Appendix F, APP:DFC-F.                                                                                                                                                                                                                                                         |
| o | Previous command received from the 3B. See DFC Output Appendix M, APP:DFC-M. This information may not be useful when pumpcode is running.                                                                                                                                                                          |
| p | Failing command received from the 3B. See DFC Output Appendix M, APP:DFC-M.                                                                                                                                                                                                                                        |
| q | Extended sense data. See DFC Output Appendix J, APP:DFC-J.                                                                                                                                                                                                                                                         |
| r | Number of segments of information report.                                                                                                                                                                                                                                                                          |
| s | Sequence number for this report.                                                                                                                                                                                                                                                                                   |

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|    |                                                                                                                                                                                                              |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| t  | SCSI bus A enabled status and HA ID number. It is comprised of 4 bits of the form abbb.<br><br>a = SCSI bus enabled status.<br><br>0 — Bus is not enabled.<br>1 — Bus is enabled.<br><br>bbb = HA ID number. |
| u  | SCSI bus B enabled status and HA ID number. It is comprised of 4 bits of the form abbb.<br><br>a = SCSI bus enabled status.<br><br>0 — Bus is not enabled.<br>1 — Bus is enabled.<br><br>bbb = HA ID number. |
| v  | Routine exerciser failing block number.                                                                                                                                                                      |
| w  | Previous command received from the 3B. See DFC Output Appendix M, APP:DFC-M. This information may not be useful when pumpcode is running.                                                                    |
| x  | Device number.                                                                                                                                                                                               |
| y  | Other device number.                                                                                                                                                                                         |
| z  | Job type pending. See DFC Output Appendix B, APP:DFC-B, Table 6.                                                                                                                                             |
| a1 | Device maintenance mode.<br><br>0 — Device is ONLINE.<br>1 — Device is OFFLINE.                                                                                                                              |
| b1 | Last logical block address of the device.                                                                                                                                                                    |
| c1 | Target controller's logical block size in bytes.                                                                                                                                                             |
| d1 | Inquiry data. See DFC Output Appendix L, APP:DFC-L.                                                                                                                                                          |
| e1 | First SCSI Job Block (SJB) structure. See DFC Output Appendix K, APP:DFC-K.                                                                                                                                  |
| f1 | SCSI command (see <b>NOTE</b> ).                                                                                                                                                                             |
| g1 | Retry count.                                                                                                                                                                                                 |
| h1 | Second SJB structure. See DFC Output Appendix K, APP:DFC-K.                                                                                                                                                  |
| i1 | Second SCSI command (see <b>NOTE</b> ).                                                                                                                                                                      |
| j1 | Location of the routine exerciser on the device in logical blocks.                                                                                                                                           |
| k1 | Third SJB structure. See DFC Output Appendix K, APP:DFC-K.                                                                                                                                                   |
| l1 | Command received from the 3B. See DFC Output Appendix M, APP:DFC-M.                                                                                                                                          |

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|    |                                                                                                                                     |
|----|-------------------------------------------------------------------------------------------------------------------------------------|
| m1 | Device busy condition at time of job termination.<br>0 — Device was not in a busy condition.<br>1 — Device was in a busy condition. |
| n1 | Timer ID associated with busy condition.                                                                                            |
| o1 | Host Adapter data buffer address.                                                                                                   |
| p1 | Slow job function pointer.                                                                                                          |
| q1 | Sequential Access Device record information.                                                                                        |
| r1 | Data transfer control information.                                                                                                  |
| s1 | Reserved for future use.                                                                                                            |

**NOTE:** There are normally 1, 6, or 11 segments of data output.

The task entry data does not contain any information that is helpful to a user. The information is useful to the developer/maintainer of the firmware/pumpcode. The information may be useful to the Technical Assistance centers.

The SCSI commands do not contain any information that is helpful to a user. The information is useful to the developer/maintainer of the firmware/pumpcode. The information may be useful to the Technical Assistance centers. The detailed explanation of this data is in the Lucent Small Computer System Interface (SCSI) definition.

#### 4. ACTION TO BE TAKEN

An information report provides additional information about a condition that could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages that provide useful data may be output.

#### 5. REFERENCES

Output Appendixes

APP:DFC-B  
APP:DFC-C  
APP:DFC-F  
APP:DFC-J  
APP:DFC-K  
APP:DFC-L  
APP:DFC-M  
APP:DFC-N  
APP:DFC-O

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Input Messages

DGN:DFC  
DGN:MHD  
DGN:MT  
RMV:DFC  
RMV:MHD  
RMV:MT  
RMV:SBUS  
RST:DFC  
RST:MHD  
RST:MT  
RST:SBUS

Output Messages

DGN:DFC  
DGN:MHD  
DGN:MT  
RMV:DFC  
RMV:MHD  
RMV:MT  
RMV:SBUS  
RST:DFC  
RST:MHD  
RST:MT  
RST:SBUS

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ID ..... REPT:DFRMVRST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT DFRMVRST ERROR a b

## 2. REASON FOR OUTPUT

To report an error condition in the DFRMVRST user process.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Function call failure type:
- 1 — Message enable.
  - 2 — Receive wait.
  - 3 — Send to port.
- b                      System error code. See System Error Codes Output Appendix,  
APP:SYSERR.

## 4. ACTION TO BE TAKEN

An operating system function call is failing. Obtain technical assistance to clear the trouble.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 58.

Output Appendix  
APP:SYSERR

Input Messages  
DGN:DFC  
DGN:MHD  
RMV:DFC  
RMV:MHD  
RST:DFC  
RST:MHD

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Output Messages

DGN:DFC

DGN:MHD

RMV:DFC

RMV:MHD

RST:DFC

RST:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:DGN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT DGN CU ERROR a  
DRIVER DATA  
X = b ERRNO = c IL = d IR = e  
MCH STATUS  
ONL = f OFL = g  
PHASE DATA  
T = h A = i S = j I = k

### OFFLINE CU CRITICAL REGISTERS

[WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT ]

MCB = l MCS = m BGB = n MDH = o  
MDL = p PSW = q HSR = r ER = s  
SSR = t DST = u SRC = v BGR = w  
PPR = x ONE = y CDR = z IM = a1  
IS = b1 RTC = c1 TMR = d1 SAR = e1  
PA = f1 SCR = g1 ATB = h1 SDR = i1  
SIR = j1 IB = k1 HM = l1  
G0 = m1 G1 = m1 G2 = m1 G3 = m1  
G4 = m1 G5 = m1 G6 = m1 G7 = m1  
G8 = m1 G9 = m1 G10 = m1 G11 = m1  
G12 = m1 G13 = m1 G14 = m1 G15 = m1  
F0 = n1 F1 = n1 F2 = n1 F3 = n1  
F4 = n1 F5 = n1 F6 = n1 F7 = n1  
F8 = n1 F9 = n1 F10 = n1 F11 = n1  
F12 = n1 F13 = n1 F14 = n1 F15 = n1  
T0 = o1 T1 = o1 T2 = o1 T3 = o1  
T4 = o1 T5 = o1 T6 = o1 T7 = o1  
T8 = o1 T9 = o1 T10 = o1 T11 = o1  
T12 = o1 T13 = o1 T14 = o1 T15 = o1

MSA = p1 MSA1 = q1 MSA2 = q1 MSA3 = q1  
[MSA4 = q1 MSA5 = q1 MSA6 = q1 MSA7 = q1  
MSA8 = q1

MCMD = r1 MSTAT = r1 MADD = r1 MER = r1  
DCMD = r1 DSTAT = r1 MDAT = r1 MMR = r1  
BNK0 = r1 BNK1 = r1 BNK1 = r1 BNK3 = r1  
BNK4 = r1 BNK5 = r1 BNK6 = r1 BNK7 = r1  
CRA = s1 CRB = s1 CRC = s1 CRD = s1  
CRE = s1 CRF = s1 CRG = s1]

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ONLINE CU CRITICAL REGISTERS

PSW = q    HSR = r    SSR = t    ER = s

[WARNING: THE OFFLINE CU HAS INITIALIZED ]

## 2. REASON FOR OUTPUT

To report an error encountered by the Control Unit (CU) diagnostic programs. Critical registers are displayed for error codes marked.

If the message WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT appears, maintenance channel failures were encountered while reading some of the offline CU registers. Although the registers involved are not indicated, registers containing all zeroes are particularly suspect.

If the message WARNING: THE OFFLINE CU HAS INITIALIZED appears, the ten temporary registers indicated under the variable s field will contain a snapshot taken at the time of the reset (maintenance reset function).

## 3. VARIABLE FIELD DEFINITIONS

- a                      Error code, in hexadecimal notation.
- 41 —    The test count specified at the end of the phase does not agree with number of tests actually executed.
  - 42 —    Offline diagnostic microcode timed out.
  - 43 —    There is an error in a setarg command at the indicated data table location in the phase where the abort occurred.
  - 44 —    Offline main store code execution timed out.
  - 45 —    The verify failed after a pump to the offline microstore by the mcexec data table command.
  - 46 —    The object file specified in an excofl data table command could not be opened for reading or it is not the proper type of file for running offline main store code. Also, file I/O function (lseek) might not have been able to seek to the desired location in the object file.
  - 47 —    Offline main store object file could not be copied from online processor to offline processor.
  - 48 —    Could not set stack register or argument register in offline CU for offline main store execution.
  - 49 —    Cannot setup stack argument count and program counter or address pointer in offline main store.
  - 4A —    The test routine loaded in the offline main store did not execute properly.
  - 4B —    The test routine loaded in the online microstore and/or mainstore did not execute properly.

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- 4C — The Equipment Configuration Database (ECD) manager could not be opened for a special unit control block request.
- 4D — Illegal helper unit requested.
- 4E — The member version or equipage fields of the ECD for the main store are incorrect.
- 4F — Could not setup UCB for maintenance driver access. Appears only when the host is a UNIX® RTR machine.
- 50 — An invalid parameter was input when running diagnostics using the interactive mode of operation.
- 52 — The special ECDMAN function (ursvucb) could not reserve the specified UCB.
- 53 — Cannot release a previously reserved Unit Control Block (UCB) via the special ECDMAN function urelucb.
- 54 — Cannot find Unit Control Block (UCB) for helper unit.
- 56 — Illegal instruction signal received from operating system.
- 57 — Bus error signal received from operating system.
- 58 — Segment violation signal received from operating system.
- 59 — Error on system call signal received from operating system.
- 5A — The ECD Manager failed to fill in the special device file path name.
- 5B — Could not open the special device file used to talk with the hardware.
- 5C — The ECD manager failed to release a special device file used for communication with the peripheral hardware.
- 61 — The control unit diagnostic controller failed to open Processor Control Process Maintenance Driver (PCPMD).
- 62 — A write to the diagnostic driver ,PCPMD, has failed.
- 63 — This code is an indication to the diagnostic monitor that a phase of the diagnostic completed normally.
- 64 — Could not open data table file or micro code program file.
- 65 — The diagnostic control buffer could not be shared by cudiagc from the diagnostic monitor.
- 66 — The diagnostic control program has encountered an invalid index or argument in a data table.
- 67 — The diagnostic control program was spawned by the diagnostic monitor with the wrong number of arguments.
- 68 — The diagnostic control program could not setup the spooler control string for buffered output to the TTY from which the diagnostic request was input.

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|      |                                                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------|
| 69 — | The histogram format print file for the main store diagnostic failed to be opened.                                                   |
| 6A — | An illegal option was input while running diagnostics in the interactive mode (that is, EX command).                                 |
| 6B — | Offline register could not be read back to online processor.                                                                         |
| 6C — | Cannot open file for trouble location process.                                                                                       |
| 6D — | The offline Control Unit (CU) has reset via the Maintenance Reset Function (MRF).                                                    |
| 6E — | The datatbl file contains instructions which are not supported on this hardware platform.                                            |
| b    | Index into PCP table.                                                                                                                |
| c    | Error number returned from Processor Control Process Maintenance Driver (PCPMD). See System Error Codes Output Appendix, APP:SYSERR. |
| d    | Left half of instruction to PCPMD, in hexadecimal notation.                                                                          |
| e    | Right half of instruction to PCPMD, in hexadecimal notation.                                                                         |
| f    | Online maintenance channel status, in hexadecimal notation.                                                                          |
| g    | Offline maintenance channel status, in hexadecimal notation.                                                                         |
| h    | Last test executed.                                                                                                                  |
| i    | Data table address.                                                                                                                  |
| j    | Data table statement number.                                                                                                         |
| k    | Task routine index.                                                                                                                  |
| l    | Maintenance channel buffer.                                                                                                          |
| m    | Maintenance channel status.                                                                                                          |
| n    | Bidirectional gating bus.                                                                                                            |
| o    | Microstore data register high half.                                                                                                  |
| p    | Microstore data register low half.                                                                                                   |
| p1   | Microstore address register.                                                                                                         |
| q1   | Microstore address stack entry.                                                                                                      |
| q    | Processor status word.                                                                                                               |
| r    | Hardware status register.                                                                                                            |
| s    | Error register.                                                                                                                      |
| t    | System status register.                                                                                                              |
| u    | Destination bus.                                                                                                                     |
| v    | Source bus.                                                                                                                          |

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|    |                                         |
|----|-----------------------------------------|
| w  | Bidirectional gating register.          |
| x  | Pulse point register.                   |
| y  | Ones register.                          |
| z  | Channel data register.                  |
| a1 | Interrupt mask.                         |
| b1 | Interrupt source register.              |
| c1 | Real time counter.                      |
| d1 | Timers register.                        |
| e1 | Store address register.                 |
| f1 | Present address register.               |
| g1 | Store control register.                 |
| h1 | Address translation buffer.             |
| i1 | Store data register.                    |
| j1 | Store instruction register.             |
| k1 | Instruction buffer.                     |
| l1 | Halfword multiplexor.                   |
| m1 | General registers (0-15).               |
| n1 | Firmware registers (0-15).              |
| o1 | Temporary registers (0-15):             |
|    | T0 — Store address register.            |
|    | T1 — System status register.            |
|    | T2 — Processor status word.             |
|    | T3 — Store control register.            |
|    | T4 — Error register.                    |
|    | T5 — Pulse point register.              |
|    | T6 — Hardware status register.          |
|    | T7 — Store data register.               |
|    | T10 — Real time counter.                |
|    | T11 — Timers register.                  |
| r1 | Main Memory registers:                  |
|    | BNK0 — MCERT MC Bank Address Register 0 |
|    | BNK1 — MCERT MC Bank Address Register 1 |
|    | BNK2 — MCERT MC Bank Address Register 2 |
|    | BNK3 — MCERT MC Bank Address Register 3 |
|    | BNK4 — MCERT MC Bank Address Register 4 |
|    | BNK5 — MCERT MC Bank Address Register 5 |
|    | BNK6 — MCERT MC Bank Address Register 6 |
|    | BNK7 — MCERT MC Bank Address Register 7 |
|    | DCMD — MCERT DP Command Register        |

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DSTAT — MCERT DP Status Register  
MADD — MCERT MC Error Address Register  
MCMD — MCERT MC Command Register  
MDAT — MCERT DP Error Data Register  
MER — MCERT MC Error Flags Register  
MMR — Main Memory Register  
MSTAT — MCERT MC Status Register

s1 Cache registers:

CRA — Cache Error Register A  
CRB — Cache Error Register B  
CRC — Cache Error Register C  
CRD — Cache Error Register D  
CRE — Cache Error Register E  
CRF — Cache Error Register F  
CRG — Cache Status Register G

#### 4. ACTION TO BE TAKEN

An explanation for the appropriate action to be taken are listed according to the error code. Critical registers are displayed for error codes marked with an asterisk (\*).

- 41 — Either an errant transfer was taken during the execution of the phase or the phase data table has been mutilated. Rerun the phase. If the problem remains, the data table file may be corrupted; seek technical assistance.
- \*42 — A specified time limit is set for running microcode to prevent infinite loops. Problems could be due to the microstore not being loaded properly, an offline Maintenance Reset Function (MRF) occurred, or the microcode got stuck in an infinite loop. Usually a retry will correct any microcode timeout problem. If the Central Control (CC) diagnostic was not run before the abort occurred, running it might find the problem.
- \*43 — The number of arguments passed to the offline main store routine does not match the number declared in the setarg command. Rerun the phase. If the problem remains, the indicated data table file may be corrupted; seek technical assistance.
- \*44 — The calling phase sets a specified time limit in which this offline code should execute. Problems can occur if the halt bit was not set when the code finished executing, or if hardware problems prevent running offline code, or a MRF occurred in the offline CU. If the CC and main store diagnostic was not run previous to where the abort occurred, running them might find the problem. If any other offline main store code ran successfully, the offline code file on the disk might be bad. Rerun the phase. If the problem remains, the indicated data table file may be corrupted; seek technical assistance.
- \*45 — After the microcode pump is completed, the code is pumped back to the online for verification. This error means the returned file did not match the file sent. Problem could be in microstore or in the communication between online and offline processors. If the CC diagnostic was not run previous to where the abort occurred, running it might find the problem.

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- 46 — This can be due to mutilation of the specified object file. Rerun the phase. If the problem remains, the indicated object file may be corrupted; seek technical assistance.
- \*47 — The maintenance driver library function pcpyto is used to do the copy. The online or offline maintenance channel could be faulty. The PCPMD error code, which appears under the heading DRIVER DATA, could help determine the cause of the problem.
- \*48 — Failure to connect to the Equipment Configuration Database (ECD), Unit Control Block (UCB) record ID points to the online Control Unit (CU), or CU was not OUT OF SERVICE. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed.
- \*49 — Some of the things to look for are: The offline CU was not OUT OF SERVICE, the pointer to the UCB is not valid or does not point to a CU UCB in the ECD database, the UCB record ID was pointing to the online processor, or the maintenance channel did not execute the expected number of bytes. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed. Also, run CC diagnostic phases 1 through 4 to verify communication between the online and offline maintenance channels.
- \*4A — The PCPMD function pexecothr is used to start execution. The pointer passed to it from cudiagc was not recognized as a valid pointer or did not point to a CU UCB in the ECD. Retry the maintenance request.  
  
If the problem remains, use the RCV command to examine the ECD paying particular attention to the UCB for the unit being diagnosed. The file may be corrupted; seek technical assistance.
- \*4B — The PCPMD function pexeconl is used to start online execution. Retry the maintenance request, and if the problem remains, use the number printed in ERRNO to look up the source of the problem in the System Error Codes Output Appendix, APP:SYSERR.
- 4C — Verify that file /dev/ecd exists.
- 4D — Not used.
- 4E — Use the RCV command to examine the UCD for the mainstore being diagnosed. Verify that there is 1 equipage bit set (starting at bit 0) for each memory array equipped. Also, verify that the low order nibble (4-bits) of the MV field has one of the values:  
1 - TN07; 3 - TN14; 4 - TN28; 5 - TN56; 6 - TN2012 and bit 5 of the MV field should be: 0 - UN39, UN40; 1 - UN59.
- 4F — Function psetup failed to pass a pointer to the top of the UCB to PCPMD. Use RCV to verify ECD is consistent and up to date for the control unit under test.

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- 50 — The interactive mode is used for main store phase 95. Three types of input errors could cause this problem. (1) The starting address is larger than the ending address. (2) The starting address is larger than the highest possible address. (3) The refresh rate is invalid. The valid refresh rates are from 2 to 16 milliseconds in steps of 2 and 32 to 60 milliseconds in steps of 4. See the EX command in the input message.
- 52 — Check that the `u_admin` field of the UCB is 1 (not reserved). If it is reserved, see the REPT-MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
- 53 — Display the contents of the UCB for the unit being diagnosed. If the `u_admin` variable is a 0, the UCB is still reserved. See the REPT-MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
- 54 — The `getucb` function could not find the UCB for helper unit. Verify that the helper unit was specified correctly in the input command. Use RCV to verify that helper unit UCB exists and is correct. If the problem remains, the data table file may be corrupted; seek technical assistance.
- 56 — Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file `/diag/dgnc/cudiagc` may be corrupted; seek technical assistance.
- 57 — Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file `/diag/dgnc/cudiagc` may be corrupted; seek technical assistance.
- 58 — Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file `/diag/dgnc/cudiagc` may be corrupted; seek technical assistance.
- 59 — Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file `/diag/dgnc/cudiagc` may be corrupted; seek technical assistance.
- 5A — Use the RCV command to verify that the special device file exist in the LOGDEV.
- 5B — The ECD manager must be reinitialized. This ECD function is used only in peripheral (IOP or DFC) units where the unique field in the UCB is ON. Other units may still be diagnosed in the face of this problem.
- 5C — If the special device file was already released, a retry of the request should correct the problem. A second abort means the ECD manager has an internal software problem that can only be corrected by restoring the ECD manager.
- 61 — Verify that file `/dev/cu` exists.
- \*62 — The function `endblk` in `cudiagc` sends a buffer of maintenance channel commands to the offline maintenance channel via the PCPMD function `pexmch`. `pexmch` has failed. The PCPMD error code, that appears under the heading DRIVER DATA, will indicate the cause of the problem. Run CC diagnostic phases 1 through 4 to verify operation of the maintenance channel.
- 63 — This is not an error code and will not cause an abort.

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- 64 — Verify the existence of the file being opened. If the Statement (S) is zero, a data table file could not be opened. The name of the file (relative to directory /diag/dgnc) is specified in the (P+1)th line in the file /diag/dpt/cu/<file> where P = the phase that aborted, file is selected by the "dgn" line(s) in /diag/util/cu/<unit> and possibly the "mv" field of the UCB, and unit = the name of the unit being diagnosed. If the Index (I) is 17 or 2a, the name of the file is /diag/offcode/mic/<file>.u where file = the file name specified at statement S in the listing of the phase which aborted.
- 65 — The connseg system call has failed. The ERRNO item will indicate the system error reason.
- 66 — Rerun the phase. If the problem remains, the data table file for the indicated phase may be corrupted; seek technical assistance.
- 67 — Rerun the diagnostic.
- 68 — Rerun the diagnostic. If the problem remains, reinitialize the craft interface (key 15 on the Emergency Action Interface (EAI) page at the maintenance terminal).
- 69 — This file should be located in the directory /diag/dgnc under the name dgnff. Verify that this file does exist and has read permission.
- 6A — Verify that the input command syntax is correct. See the EX command in the input message.
- \*6B — This is probably due to a maintenance channel error. Rerun the diagnostic. If the problem remains, run CC diagnostic phases 1 through 4 to test the maintenance channel.
- 6C — The problem could be that there is not enough file space in /tmp. Rerun the diagnostic.
- \*6D — Examine the error register to determine if a hardware error occurred and, if so, its cause. The MSA, MSA1, MSA2 and MSA3 registers form a push-down stack with MSA at the top. The highest register that does not contain 0 or 2b is the microstore address being executed when the MRF occurred. The Program Address (PA) contains the mainstore address being executed when the MRF occurred.
- 6E — Verify that the umodel field in the unit's top-level UCB record is correct. Otherwise, the datatbl file is incorrect or the wrong datatbl file is being invoked. Seek technical assistance to correct these problems.

## 5. REFERENCES

### OMDB Keys

This message has OMDB keys of 34, 36, and 743.

### Output Appendix

APP:SYSERR

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Input Message  
DGN:CU

Output Message  
REPT:MIRA

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ID ..... REPT:DGN-AUDIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DGN AUDIT a  
R = b  
DRIVER DATA  
D = c  
PHASE DATA  
T = d A = e S = f I = g
- [2] REPT DGN AUDIT a  
R = b  
SYSTEM DATA  
D = h  
PHASE DATA  
T = d A = e S = f I = g
- [3] REPT DGN AUDIT a  
R = b  
LEXEC DATA  
D = i errno = j  
PHASE DATA  
T = d A = e S = f I = g

## 2. REASON FOR OUTPUT

Format 1 is used to report a peripheral driver error encountered by the peripheral diagnostic programs.

Format 2 is used to report a peripheral diagnostic error encountered by the peripheral diagnostic programs.

Format 3 is used to report a LEXEC function failure encountered by the peripheral diagnostic programs.

## 3. VARIABLE FIELD DEFINITIONS

- a Diagnostic reporting the error for the Disk File Controller (DFC), Input/Output Processor (IOP), and Dual Serial Channel/Computer Interconnect (DCI).

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b

Reason for audit, in hexadecimal notation:

- 41 — Open special device file failed.  
For SMD MHDs with UCB device\_id field = 0 (first MHD on DFC, usually MHD 0 or 1), MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
- 42 — SETIO failed.
- 43 — makeseg failed.
- 44 — sendpw failed.
- 45 — Read PC pump file failed.
- 46 — Driver operation failed.
- 47 — Open PC pump file failed.
- 48 — msgenab failure.
- 49 — msgdisab failure.
- 4A — Open Processor Control Process Maintenance Driver (PCPMD) failed.
- 4B — Write to PCPMD failed.
- 4C — excofl timed out.
- 4D — Open ECD manager failed.
- 4E — Function ugucbn failed.
- 4F — Peripheral Interface Controller (PIC) microstore size not in UCB.
- 50 — Receive wait failed.
- 51 — LEXEC function failed.
- 52 — e\_host of UCB not initialized.
- 53 — lseek function failure.
- 54 — Drive size not 5 or 19 tracks.
- 55 — makeseg failed for disk read / write buffer.
- 56 — Write / read segment too small.
- 57 — Function ugetucb failed.
- 58 — DFC not active.
- 59 — IOP not active.
- 61 — SCSI bus not active.
- 64 — Cannot open data table file or micro program file.
- 65 — Cannot share DCB from DIAMON.
- 66 — Error in the data table.
- 67 — Invalid number of parameters from DIAMON.
- 68 — Open spooler failed.
- 6A — Invalid interactive mode command.
- 6C — Open tlpfile failed.
- 6D — Signal - illegal instruction.
- 6E — Signal - bus error.
- 6F — Signal - segment violation.
- 70 — Signal - software termination.

c

Peripheral driver information/error code, in hexadecimal notation. For DFC and DCI diagnostics, dkdrv interfaces with diagc. For IOP diagnostics, the maintenance handler interfaces with diagc. The DFC information/error codes are in DFC Output Appendix A, APP:DFC-A. The IOP error codes (from the maintenance handler) are in IOP Output

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|   |                                                                                                                                                  |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------|
|   | Appendix G, APP:IOP-G. The DCI information/error codes are in DCI Output Appendix A, APP:DCI-A.                                                  |
| d | Last test executed, in decimal notation.                                                                                                         |
| e | Data table address, in hexadecimal notation.                                                                                                     |
| f | Data table statement number, in decimal notation.                                                                                                |
| g | Task routine index, in hexadecimal notation.                                                                                                     |
| h | Error code, in decimal notation, returned on a failing system call or ECD function call. See System Error Codes Output Appendix, APP:SYSERR.     |
| i | Error code, in decimal notation, returned by LEXEC function call. See the System Error Codes Output Appendix, APP:SYSERR.                        |
| j | Error code, in decimal notation, from a PCPMD (the CU maintenance driver) function call. See the System Error Codes Output Appendix, APP:SYSERR. |

#### 4. ACTION TO BE TAKEN

If the reason for audit is 58, 59, or 61, restore the appropriate unit. If the reason for audit is 6A, check the syntax of the command. For all other reasons or if audit continues, seek technical assistance.

#### 5. REFERENCES

##### OMDB Key

Formats 1, 2, and 3 have an OMDB key of 56.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Practice 254-301-100 *Input-Output Interfaces Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

##### Output Appendixes

APP:DCI-A  
APP:DFC-A  
APP:IOP-G  
APP:SYSERR

##### Input Messages

DGN:CU  
DGN:DCI  
DGN:DFC  
DGN:DUIC  
DGN:HSDC

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DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC

Output Messages

DGN:AUDIT  
DGN:CU  
DGN:CU-MASC  
DGN:DCI  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:IOP  
DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC

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ID ..... REPT:DIAMON-A  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT DIAMON ERROR = a ERRNO = b

## 2. REASON FOR OUTPUT

To report that the Diagnostic Monitor (DIAMON) has aborted one or more diagnostic control processes due to an error condition.

For additional, application-specific information about format or field values, refer to appropriate, application-specific documentation.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code, in hexadecimal notation:
- 41 — A manual request to terminate the maintenance request was entered at the Maintenance Terminal (MCRT).
  - 42 — The diagnostic monitor could not send an event to the diagnostic controller.
  - 43 — Could not find Trouble Locating Procedure (TLP) pathname in the util file.
  - 44 — UNIX® system call (lcall) could not find the Trouble Location Process, or there is no execute permission on the file.
  - 45 — The diagnostic monitor failed to receive a message from the remove process.
  - 46 — The diagnostic monitor could not create a segment of memory to be shared with the diagnostic controller.
  - 47 — The messages queue, maintained by the operating system, was not available for diagnostic usage.
  - 48 — The input message from the Maintenance Input Request Administrator via the operating system to the diagnostic monitor failed.
  - 49 — The diagnostic monitor could not set up the spooler control string for buffered output to the TTY that originated the request.
  - 4A — The diagnostic monitor format file for the maintenance output process has an invalid spooler tag.
  - 4B — An error occurred when trying to open the Equipment Configuration Database (ECD).

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- 4C — The input request had valid syntax, but one or more fields were found to be incorrect.
- 4D — DIAMON could not find the location of the remove process in the diagnostic utility file.
- 4E — Could not find the location of the restore process in the diagnostic utility file.
- 4F — Failed to spawn the process for removing a unit from service.
- 50 — Failed to spawn the process for restoring a unit to service.
- 51 — An invalid return value was received from the remove process.
- 52 — An invalid return value was received from the restore process.
- 53 — The remove process failed to receive a message.
- 54 — The restore process failed to receive a message.
- 55 — An illegal maintenance input request was received from the maintenance input administrator.
- 56 — The unit requested to be restored is not a restorable unit.
- 57 — The utility file for the remove, restore, diagnose, or trouble location process could not be opened.
- 58 — The unit control block could not be released by the ECD manager.
- 59 — The result of the diagnostic could not be sent from DIAMON to MIRA.
- 5A — The tag in the utility file for the remove, restore, diagnose, or the trouble location process could not be found.
- 62 — Error in the request message. The repeat counter has a value greater than 0 but the RPT option was not specified.
- 63 — A death of child signal was received by the diagnostic monitor, but the diagnostic monitor could not determine which child process was active.
- 64 — A death of child signal was received for the diagc process indicating an exec failure.
- 65 — A death of child signal was received by the diagnostic monitor; however, no child process was being monitored.
- 66 — Incorrect version specification in utility file.
- 67 — Could not remove specified unit or subunit. Error return received from remove process.
- 68 — Could not restore specified unit or subunit.
- 69 — No Trouble Locating Procedure (TLP) process exists for the unit requested.

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- 6A — No diagnostic exists for the unit requested.
- 6B — The ECD manager failed to write the `u_util` field in the UCB.
- 6C — The ECD manager failed to release a special device file used for communication with the peripheral hardware.
- 6D — Diagnostic monitor could not open the format file for the maintenance output process.
- 6E — Could not open the Diagnostic Phase Table (DPT) file for the requested unit.
- 6F — DIAMON failed to open the ECD manager.
- 70 — The Unit Control Block for the unit under test was not found.
- 71 — Could not get the next unit control block in the diagnostic hierarchy from the ECD manager.
- 72 — The Diagnostic Phase Table (DPT) file could not be read.
- 73 — The diagnostic monitor could not spawn the Diagnostic Control Process (DIAGC) for the unit specified in the input request.
- 74 — An illegal phase number was specified in the diagnostic input request.
- 75 — The UCB for the unit to be diagnosed is already reserved by another maintenance client not under the control of MIRA, or a previous maintenance request failed to release the UCB.
- 76 — Could not open special device file used to talk with hardware.
- 77 — An invalid message was sent from the Maintenance Input Request Administrator or the Diagnostic Controller.
- 78 — The diagnostic monitor was sent an invalid type of request.
- 79 — The diagnostic controller returned an invalid result after a diagnostic phase completed.
- 7A — The diagnostic controller returned an invalid result after a unit diagnostic completed.
- 7B — A request to the ECD manager to update the minor device state has failed.
- 7C — The user has attempted to execute diagnostics on an IOP tape device. This is valid for only DFC tape devices.
- 7D — The user has attempted to diagnose CSU or SAT. These units are part of the CC on this hardware platform.

b

System error code number. See System Error Codes Output Appendix, APP:SYSERR. A system error code of zero means that no system error was reported.

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#### 4. ACTION TO BE TAKEN

The error encountered determines the appropriate action to be taken:

- 41 — Rerun the maintenance request.
- 42 — The UNIX® system call sendev believes the diagnostic controller process does not exist. Check that this process exists in the directory /diag/dgnc under the name cudiagc for a control unit diagnostic, dfdiag for a DFC or MHD diagnostic, or iodiag for a DUIC, IOP, MTC, MTTYC, SCSDC, SDLC, or TTYC diagnostic.  
  
Verify line one of the DPT file identifies a valid diagc process. The DPT file is /diag/dpt/<type>/<unit> where unit = the unit type specified in the input request; type = cu if the unit is within a CU, or pu if the unit is within an IOP or DFC. Restore files from the backup file system.
- 43 — A TLP file should be specified in the file /diag/util/ cu/unit\_name for a control unit diagnostic or /diag/util/ pu/unit\_name for a peripheral unit diagnostic. For an example of a util file, refer to error code 5A. Restore file from backup file system.
- 44 — Verify that the file /diag/dgnc/tlp exists and has execute permission. Restore file from backup file system.
- 45 — Errors may occur if the remove process has not enabled message reception, or the requested type or size is invalid. Retry the request.
- 46 — The problem could be insufficient swap space or address space in the user's address space for the segment. Retry the diagnostic until enough user space is free to create a segment.
- 47 — Too many messages are being input at this time for the operating system to handle. Retry the request until the message queue frees up.
- 48 — Retry the request.
- 49 — If the input came from the Maintenance TTY (MCRT), the problem may be correctable by initializing the craft interface (EAI page, key 15).
- 4A — Retry the request. If the problem remains, the file /diag/dgnc/fmat has been mutilated and must be restored from a backup file system.
- 4B — Verify that file /dev/ecd exists.
- 4C — Check the input command for correctness. Perhaps a nonexistent unit type or phase number was specified. Retry the request. Refer to the *Input Message* for a description of the maintenance commands.
- 4D — An RMV file should be specified in the file /diag/util/cu/unit\_name for a control unit diagnostic or /diag/util/pu/unit\_name for a peripheral unit diagnostic. For an example of a util file, refer to error code 5A. Restore file from backup file system.
- 4E — An RST file should be specified in the file /diag/util/cu/unit\_name for a control unit diagnostic or /diag/util/pu/unit\_name for a peripheral unit diagnostic. For an example of a util file, refer to error code 5A. Restore file from backup file system.

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- 4F — The file was either not found or it did not have execute permission. To verify the remove process for a control unit diagnostic, use the `OP:ST-LISTDIR` command with the filename `/unixutil/cu/curstrmv`. For a peripheral unit diagnostic, the same command with the file name `/diag/dgnc/iormv` or `/diag/dgnc/dfrm` will verify the remove process. If the remove process exists and has execute permission, the system might be out of space. Retry the request until the system process space frees up.
- 50 — The file was either not found, or it did not have execute permission. Refer to error code 4F for the action to be taken since the restore and remove use the same process.
- 51 — Retry the request.
- 52 — Retry the request.
- 53 — The remove process did not enable message reception, the type specified is not valid, or most likely, the remove process has an excessive amount of messages outstanding on its queue. Retry the request.
- 54 — The restore process did not enable message reception, the type specified is not valid, or most likely, the restore process has an excessive amount of messages outstanding on its queue. Retry the request.
- 55 — Check the input command for correctness. Retry the request. Refer to the *Input Message* for a description of the maintenance commands.
- 56 — Check the input command for correctness. Retry the request. If the unit is being falsely taken as unrestorable, use the `RCV` command to update the `u_restorable` field in the Unit Control Block (UCB) for the unit from OFF to ON.
- 57 — Verify the utility file exists with read permission. The file is named `/diag/util/<type>/<unit>` where `unit` = the unit specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore file from backup file system.
- 58 — Either the UCB was not reserved, or an error occurred when trying to release it. Retry the request.
- 59 — Errors can occur if MIRA did not enable message reception, an invalid message was sent, or MIRA has an excessive amount of messages outstanding on its queue. Retry the request.
- 5A — Examine the utility file for the unit specified in the input request. It should look like the example of the Central Control utility file:

```
dgn :../dpt/cu/cc
rst :/unixutil/cu/curstrmv
rmv :/unixutil/cu/curstrmv
tlp :tlp
```

The file named `/diag/util/ <type>/<unit>` where `unit` = the unit specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore file from backup file system.

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- 62 — This is a warning; the phase will run, but not in repeat mode. Identify the process sending the request. Retry the request manually.
- 63 — This error indicates an internal problem in the diagnostic monitor. Retry the request.
- 64 — The `diagc` process could not be executed. Retry the request. If the error continues to occur, restore the `diagc` process from the backup file system. The `diagc` processes are found in the directory `/diag/dgnc`. The names of the `diagc` processes are `cudiagc` (for CU diagnostics) `dfdiag` (for DFC diagnostics) and `iodiag` (for IOP diagnostics). Verify line one of the DPT file identifies a valid `diagc` process. The DPT file is `/diag/dpt/<type>/<unit>` where `unit` = the unit type specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore files from the backup file system.
- 65 — Retry the request.
- 66 — Examine the multiple version lines of the appropriate utility file for incorrect version number representations like octal 8 (08). Also, verify that each tag has a multiple version line that has a value that is less than or equal to the MV in the UCB for that subunit. Multiple version utility file lines look like: `tlp :0x0:tlp`
- 67 — Verify correctness of input unit specification. For example: CU 0, CC 0 is not valid. Further information can be obtained from remove process output messages.
- 68 — Verify correctness of input unit specification. For example: CU 0, CC 0 is not valid. Further information can be obtained from restore process output messages.
- 69 — Do not use the TLP option for this unit.
- 6A — Do not use the DGN or EX commands with this unit.
- 6B — Use the RCV command to verify that the `u_util` field in the UCB for the unit specified in the input request is of the form `cu/<unit>` or `pu/<unit>`.
- 6C — If the special device file was already released, a retry of the request should correct the problem. A second abort means the ECD manager has an internal software problem that can only be corrected by restoring the ECD manager.
- 6D — Verify the file `/diag/dgnc/fmat` exists with read permission.
- 6E — Verify the DPT file exists with read permission. The file is named `/diag/dpt/<type>/<unit>` where `unit` = the unit specified in the input request; `type` = `cu` if the unit is within a CU, or `pu` if the unit is within an IOP or DFC. Restore file from backup file system.
- 6F — Verify that file `/dev/ecd` exists.
- 70 — An invalid equipment ID was entered in the input request, or a ECD problem exists. Check the input command for correctness. Retry the request. Refer to the input messages for a description of the maintenance commands. Verify the database correctness using the recent change and verify command `RCV:MENU;BROWSE`.
- 71 — Verify the database correctness using the recent change and verify command `RCV:MENU;BROWSE`.

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- 72 — Verify the DPT file exists with read permission. The file is named /diag/dpt/<type>/<unit> where unit = the unit specified in the input request; type = cu if the unit is within a CU, or pu if the unit is within an IOP or DFC.
- 73 — Verify the DIAGC file exists with the execute permission. The file is named /diag/dgnc/<name> where name = cudiagc if the unit is within a CU, iodiag if the unit is within an IOP, or dfdiag if the unit is within a DFC. Restore file from backup file system. The system may be at its process limit. Retry the request when the system process space frees up.
- 74 — Check the input request for correctness. Retry the request. Refer to the input messages for a description of the maintenance commands. Verify the DPT file has active phases. The DPT file is /diag/dpt/<type>/<unit> where unit = the unit type specified in the input request; type = cu if the unit is within a CU, or pu if the unit is within an IOP or DFC. Restore file from the backup file system.
- 75 — Refer to the REPT:MIRA output message.
- 76 — The ECD manager must be reinitialized. This ECD function is used only in peripheral ,IOP or DFC, units where the unique field in the UCB is ON. Other units may still be diagnosed in the face of this problem.
- 77 — Retry the request.
- 78 — Retry the request.
- 79 — Retry the request.
- 7A — Retry the request.
- 7B — Seek technical assistance.
- 7C — The unit name or number is incorrect. If the tape device is an IOP sub-device the MTC should be diagnosed. If the tape device is a DFC sub-device the unit number is incorrect. Correct the input command and retry the request.
- 7D — Use the DGN:CU input message to diagnose the CC.

## 5. REFERENCES

### OMDB Key

This message has an OMDB key of 95.

### Output Appendix

APP:SYSERR

### Input Messages

DGN:CU  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC

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**4ESS/APS**  
**OM-4A001-01**

**REPT DIAMON**

DGN:TTYC  
OP:ST-LSTDIR  
RCV:M-BROWSE

Output Message  
REPT:MIRA

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**REPT:DIAMON-A-8**

**Issue 9.4**  
**September 2001**



ID ..... REPT:DIAMON-B  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

REPT DIAMON ERROR = a ERRNO = b

## 2. REASON FOR OUTPUT

Reports that the diagnostic monitor (DIAMON) has aborted one or more diagnostic control processes due to an error condition.

**NOTE:** It is important to note that this output document message merely supplements the corresponding UNIX® RTR output document message. This document message expands on the definitions of some values of the a field when a ring node is the target of the diagnostic request that resulted in this output message.

## 3. VARIABLE FIELD DEFINITIONS

- a (41 - 7A) - Error code, in hexadecimal notation.
- b System error code number. See System Error Code Numbers in output appendix APP:SYSERR.

## 4. ACTION TO BE TAKEN

An explanation of the error encountered and the appropriate action to be taken is shown in the following table ONLY FOR THOSE ERROR CODES that require a definition that expands on the definition found in the corresponding UNIX® RTR output document when a ring node is the target of the diagnostic request that resulted in this output message. These definitions SUPPLEMENT the UNIX® RTR output document definitions. For other error codes, the UNIX® RTR output document contains the full definition.

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TABLE 1

| a  | Explanation                                                                               | Action to be taken                                                                                                                                                                                                                                                                                                                                                                      |
|----|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 42 | The diagnostic monitor could not send an event to the controller.                         | Check that the diagnostic controller exists in the directory /cmp/ims/diag/dgnc under the name imsdia.                                                                                                                                                                                                                                                                                  |
| 4D | DIAMON could not find the location of the remove process in the diagnostic utility file.  | An RMV file should be specified in the /diag/util/pu/iun file for an LN diagnostic, or in the /diag/util/pu/rpc file for an RPC diagnostic. For an example of a util file, refer to error code 5A.                                                                                                                                                                                      |
| 4E | DIAMON could not find the location of the restore process in the diagnostic utility file. | An RST file should be specified in the /diag/util/pu/iun file for an LN diagnostic, or in the /diag/util/pu/rpc file for an RPC diagnostic. For an example of a util file, refer to error code 5A.                                                                                                                                                                                      |
| 4F | Failed to spawn the process for removing a node from service.                             | The file was either not found or it had no execute permission on it. To verify the remove process for a ring node, use the OP:ST,LSTDIR command (of the OP:ST,LSTDIR input message) with the filename /cmp/ims/diag/dgnc/imsrmvrst. If the remove process exists and has write permission, the system might be out of space. Retry the request until the system process space frees up. |
| 50 | Failed to spawn the process for restoring a node to service.                              | The file was either not found or it did not have execute permission. Refer to error code 4F for the action to be taken, since restore and remove use the same process.                                                                                                                                                                                                                  |

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TABLE 1 (cont'd)

| a  | Explanation                                                                                                        | Action to be taken                                                                                                                                                                                                                                                                                                                                                                                  |
|----|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 53 | The remove process failed to receive a message.                                                                    | The remove process did not enable message reception, the type specified is not valid, or most likely, the remove process has excessive amount of messages outstanding on its queue. Retry the request.                                                                                                                                                                                              |
| 57 | The utility file for the type of node specified in the input request could not be opened.                          | Verify the utility file exists with read permission. The file is named /diag/util/put/iun for an LN node, and is named /diag/util/put/rpc for an RPC node.                                                                                                                                                                                                                                          |
| 5A | The tag in the utility file for the remove, restore, diagnose, or the trouble location process could not be found. | Examine the file named /diag/util/put/iun if the input request specified an LN node, or the file named /diag/util/put/rpc if the input request specified an RPC node. It should look like the following example of the RPC utility file.<br><br>dgn :.../cmp/ims<br>/diag/dpt/rpc<br><br>rmv :.../cmp/ims<br>/diag/dgnc/imsrmvrst<br><br>rst :.../cmp/ims<br>/diag/dgnc/imsrmvrst<br><br>tlp :notlp |
| 64 | Diagc was running when Diamon received a death of child signal.                                                    | Verify that the imsdv.p process is active (See the OP:RING input command), then retry the diagnostic.                                                                                                                                                                                                                                                                                               |

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TABLE 1 (cont'd)

| a  | Explanation                                                                                               | Action to be taken                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6E | Could not open the data phase table (DPT) file for the type of node specified in the input request.       | Verify the DPT exists with read permission. The file is in the /cmp/ims/diag/dpt directory and is named rpc for an RPC node, iun for an application link node, and ims for an IMS only link node.                                                                                                                                                                                                                                          |
| 72 | The diagnostic phase table (DPT) file could not be read.                                                  | See error code 6E for the action to be taken.                                                                                                                                                                                                                                                                                                                                                                                              |
| 73 | The diagnostic monitor could not spawn the diagnostic control process (DIAGC) for a ring node diagnostic. | Verify that the DIAGC file exists with execute permission. The file is named /cmp/ims/diag/dgnc/imsdiag.                                                                                                                                                                                                                                                                                                                                   |
| 76 | Could not open special device file. This is used to limit the concurrency of imsdia processes to one.     | This will occur if multiple ring node diagnostics (DGN or conditional RST) are in the active MIRA queue. These multiple requests can involve multiple RPC nodes, or concurrent requests on an RPC node and an LN node. Retry the request when no other ring node diagnostics are in progress. See the OP:DMQ and STOP:DMQ input commands. If this does not clear the problem, see the corresponding UNIX® RTR document message error code. |

## 5. REFERENCES

Output Appendix  
APP:SYSERR

Input Messages  
DGN:LN  
DGN:RPCN  
OP:DMQ  
OP:ST-LSTDIR  
OP:RING  
STOP:DMQ

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Output Messages

OP:DMQ

OP:RING

REPT:DIAMON-B

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ID ..... REPT:DIOP-A  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DIOP DIOPNKILL UNSWAP FAILURE a
- [2] REPT DIOP DIOPNKILL SWAP FAILURE a
- [3] REPT DIOP SIMPLEX UNSWAP FAILURE a  
REPT DIOP SIMPLEX PROCESSING FAILURE
- [4] REPT DIOP SIMPLEX PROCESSING COMPLETED
- [5] REPT DIOP DUPLEX SWAP FAILURE a
- [6] REPT DIOP DUPLEX PROCESSING COMPLETED
- [7] REPT DIOP ALL NONESSENTIAL IMS PROCESSES TERMINATED

## 2. REASON FOR OUTPUT

Format 1 reports that a process has requested that it be made Disk Independent Operation (DIOP) essential while the computer disks are simplex, but the kernel cannot swap it in or make it nonswappable.

Format 2 reports that a process has requested that it be made disk independent operation nonessential, but the kernel cannot make it swappable.

Format 3 reports a swappable disk independent operation essential process cannot be made nonswappable in the computer disk simplex mode.

Format 4 reports the successful execution of the disk simplex operation. All swappable disk simplex essential processes have been swapped in and made nonswappable.

Format 5 reports that while attempting to re-enter computer disk duplex operation, a process that was made nonswappable because it was disk independent operation essential cannot be made swappable.

Format 6 reports that computer disk duplex operation has been restored. All processes that were made nonswappable because of Administrative Module (AM) disk simplex operation have been made swappable.

Format 7 reports that the switch has been placed in the DIOP mode. All nonessential Interprocess Message Switch (IMS) processes have been terminated. This message is reported every 15 minutes as long as IMS is in the DIOP mode.

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### **3. VARIABLE FIELD DEFINITIONS**

- a pcode portion of the process's utility Identification (ID).

### **4. ACTION TO BE TAKEN**

For Formats 1, 2, 3, and 5, report the failure message to a technical support person.

For Formats 4 and 6, no action is necessary.

For Format 7, an IMS level 3 or level 4 initialization is required to bring the IMS out of the DIOP mode and restore its full capabilities.

### **5. REFERENCES**

OMDB Key

Formats 1 through 7 have an OMDB key of 334.

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ID ..... REPT:DIOP-B  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

REPT DIOP  
ALL NONESSENTIAL IMS PROCESSES TERMINATED.

## 2. REASON FOR OUTPUT

UNIX® RTR has placed the system in the Disk Independent Operation (DIOP) mode. All nonessential IMS processes have been terminated. This message is reported every 15 minutes, as long as IMS is in the DIOP mode.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

An IMS level 3 or level 4 initialization is required to bring the IMS out of the DIOP mode and restore its full capabilities.

## 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Maintenance Description  
Section Diagnostics User's Guide Section

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ID ..... REPT:DKDIP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DKDIP MESSAGE  
REPT DKDIP ERROR a [b]
- [2] REPT DKDIP MESSAGE  
c

## 2. REASON FOR OUTPUT

Format 1 reports an error condition encountered by the DKDIP process.

Format 2 reports the status of a poke request invoked from the DFSA display page during Disk Independent Operation (DIOP).

## 3. VARIABLE FIELD DEFINITIONS

- a Process step or reason:
- d04 — DKDIP was restarted due to phase 1
  - d18 — received invalid message type - message ignored
  - d22 — failed to get DAP's PID
  - d30 — failed to open the ECD
  - d34 — failed to attach to the ECD
  - d38 — failed to initialize ackdb segment
  - d50 — failed to get UCB record by RID
  - d60 — failed to get UCB record by RID
  - d63 — UCB returned is not a DFC UCB
  - d66 — invalid DFC UCB model field
  - d67 — performance updates stopped because of message overload
  - d68 — sendw() failed to send message to DAP
  - d70 — virtual address translation failure
  - d80 — failed to get UCB record by RID
  - d83 — invalid DFC sub-device type
  - d86 — failed to get UCB record by RID
  - d89 — invalid peripheral device type
- b System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- c Reference to another output message in the output message document.

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#### 4. ACTION TO BE TAKEN

Format 1 is printed when the DKDIP process encounters an error condition either during initialization or when processing a client request. If the error condition persists, contact the next level of technical assistance.

For Format 2, appropriate actions can be found under the appropriate output message in the output message document.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 259.

Format 2 has OMDB keys of 154, 253, 254, 255, 256, 257, 258, 266,  
267, 268, 574, 575, 576, 609, 653, 654.

##### Display / Menu Page Name

DISK FILE SYSTEM ACCESS

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

##### Output Appendix

APP:SYSERR

##### Output Messages

DUMP:MHD-DEF

INIT:MHD

LOAD:MHD

RMV:SBUS

RST:DFC

RST:SBUS

VFY:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:DKDRV  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DKDRV INFO CODE a
- [2] REPT DKDRV ERROR DATA b
- [3] REPT DKDRV RECEIVED UNKNOWN RCV MESSAGE c d e
- [4] REPT DKDRV WARNING, MHD d PARTITION f IS WRITE RESTRICTED,  
VIOLATING PID g
- [5] REPT DKDRV WARNING, MHD d EXCEEDS LONG TERM FAILURE THRESHOLD

## 2. REASON FOR OUTPUT

Format 1 reports a Disk File Controller (DFC) or Disk Driver (DKDRV) related error condition.

Format 2 is used to provide additional data for a preceding REPT:DKDRV message. For technical assistance organization use only.

Format 3 reports the DKDRV received notification from Recent Change and Verify (RCV) that the Equipment Configuration Database (ECD) has changed, but the change type is not recognized.

Format 4 reports the Process Identification (PID) of the violating process that tries to access the write-restricted partition.

Format 5 is output when the disk exceeds the failure threshold. Action may be necessary to prevent a system outage.

## 3. VARIABLE FIELD DEFINITIONS

- a DKDRV information code. See DFC Output Appendix A, APP:DFC-A.
- b Supplemental data for previous REPT:DKDRV message.
- c Unit name.
- d Unit number.
- e RCV operation code.

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- f Partition number.
- g PID of the violating process.

#### 4. ACTION TO BE TAKEN

If Format 1 prints, look up the reason for the information code or data in the DFC Output Appendix A, APP:DFC-A. If hardware is implicated, replace the faulty hardware using standard maintenance procedures. If a software or data malfunction is indicated, then try to correct the problem, if possible.

If Formats 2, 3, or 4 print, save the Receive-Only Printer (ROP) output, then contact your technical assistance organization.

If Format 5 prints, see the *System Maintenance Manual*, handling disk media access errors section.

#### 5. REFERENCES

##### OMDB Keys

- Format 1 has an OMDB key of 230.
- Format 2 has an OMDB key of 192.
- Format 3 has an OMDB key of 240.
- Format 4 has an OMDB key of 547.
- Format 5 has an OMDB key of 554.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description*  
*Lucent Technologies 3B20D/3B21D Computer*

Practice 254-341-210 *Database Management System Software Subsystem Description*  
*Lucent Technologies 3B20D/3B21D Computer*

Output Appendix  
APP:DFC-A

##### Input Messages

- CLR:MHD-MAEC
- DGN:DFC
- DGN:MHD
- LOAD:MHD-DEFECT
- OP:DFCELOG
- RMV:DFC
- RMV:MHD
- RST:DFC
- RST:MHD

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Output Messages

DGN:DFC

DGN:MHD

RMV:DFC

RMV:MHD

RST:DFC

RST:MHD

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ID ..... REPT:DLGGETTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLGGETTY UNABLE TO ACCESS ECD FOR a
- [2] REPT DLGGETTY CANNOT READ GETTY RECORD FOR a
- [3] REPT DLGGETTY UNABLE TO CHANGE DIRECTORY TO b
- [4] REPT DLGGETTY FAILED TO EXECUTE c
- [5] REPT DLGGETTY FAILED TO OPEN d
- [6] REPT DLGGETTY CHANID FOUND IN LOGDEV RECORD a
- [7] REPT DLGGETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT

## 2. REASON FOR OUTPUT

To report that the DLGGETTY process has encountered an error while trying to process initialization information for a device. The message will appear on the originating device only.

## 3. VARIABLE FIELD DEFINITIONS

- a Teletypewriter (TTY) device against which the `dlggetty` is executing.
- b The directory which the `dlggetty` could not access.
- c Pathname of the process to be executed.
- d Special device file which could not be opened.

## 4. ACTION TO BE TAKEN

If Format 1 or 2 is printed, verify that the getty record in the Equipment Configuration Database (ECD) for the indicated TTY device is correct.

If Format 3 is printed, verify that the directory indicated in the getty record exists.

If Format 4 is printed, verify that the process which could not be executed exists and is executable.

If Format 5, 6, or 7 is printed, or the errors persist after taking actions indicated, seek technical assistance.

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**5. REFERENCES**

OMDB Key

There is an OMDB key of 312.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:DLGSHL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLGSHL DEVICE a CANNOT ENABLE MESSAGE  
RECEPTION
- [2] REPT DLGSHL DEVICE a CREATE SEGMENT ERROR
- [3] REPT DLGSHL DEVICE a UNABLE TO INITIATE I/O
- [4] REPT DLGSHL DEVICE a TERMINAL OPEN ERROR
- [5] REPT DLGSHL DEVICE a TERMINAL READING ERROR
- [6] REPT DLGSHL DEVICE a TERMINAL WRITING ERROR
- [7] REPT DLGSHL DEVICE a UNIDENTIFIED ERROR
- [8] REPT DLGSHL DEVICE a UNABLE TO FORK CSDIP
- [9] REPT DLGSHL DEVICE a UNABLE TO EXECUTE CSDIP
- [10] REPT DLGSHL DEVICE a GETTRAP FAILED
- [11] REPT DLGSHL DEVICE a SETTRAP FAILED
- [12] REPT DLGSHL DEVICE a STATIO FAILED
- [13] REPT DLGSHL DEVICE a NO CSDIP PROCESS
- [14] REPT DLGSHL DEVICE a UNABLE TO ACCESS  
ECD DATA
- [15] REPT DLGSHL DEVICE a UNABLE TO ACCESS  
AUTHORITY ADMINISTRATION
- [16] REPT DLGSHL DEVICE a UNABLE TO RETRIEVE  
AUTHORITY GROUPS
- [17] REPT DLGSHL DEVICE a NO SOP-CSOP COMMUNICATION  
POSSIBLE

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- [18] REPT DLGSHL DEVICE a UNABLE TO RETRIEVE LCHAN  
FROM ENVIRONMENT
- [19] REPT DLGSHL DEVICE a EOF ENCOUNTERED
- [20] REPT DLGSHL TERMINAL IN SERVICE \*\*\* b  
CAPABILITY MODE / c
- [21] REPT DLGSHL UNABLE TO READ LINE d OF .pname  
FILE
- [22] REPT DLGSHL CANNOT CHANGE DIRECTORY TO e
- [23] REPT DLGSHL SETGID TO f FAILED
- [24] REPT DLGSHL SETUID TO g FAILED
- [25] REPT DLGSHL UNABLE TO ACCESS SPLRINFO FORM
- [26] REPT DLGSHL CRAFT SHELL IS IN LIMP CAPABILITY MODE
- [27] REPT DLGSHL ON MTTY WILL USE DEFAULT .PNAME  
FILE

## **2. REASON FOR OUTPUT**

To report a Dialogue Shell (DLGSHL) related occurrence or error.

Format 1 indicates that the DLGSHL cannot receive messages.

Format 2 indicates that the DLGSHL cannot create or open a segment.

Format 3 indicates that a call to `setio()` failed.

Format 4 indicates that the DLGSHL cannot open the specified device.

Format 5 indicates that the DLGSHL cannot read from the specified device.

Format 6 indicates that the DLGSHL cannot write to the specified device.

Format 7 is printed when the DLGSHL encounters an unknown error, such as an illegal enumeration value.

Format 8 is printed when the synchronous DLGSHL fails to fork the Character Special Device Interface Process (CSDIP).

Format 9 is printed when the synchronous DLGSHL fails to execute the CSDIP.

Format 10 indicates that a call to `gettrap()` failed.

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Format 11 indicates that a call to `settrap()` failed.

Format 12 indicates that a call to `statio()` failed.

Format 13 indicates that the CSDIP process on the specified device has died.

Format 14 indicates that the DLGSHL cannot access the Equipment Configuration Database (ECD).

Format 15 indicates that the DLGSHL cannot access information relating to terminal and personal authority.

Format 16 indicates that the DLGSHL cannot retrieve information relating to input message authority groups.

Format 17 indicates that communication between the Coordinator Of Spooler Output Processes (CSOP) and the DLGSHL Spooler Output Function (SOF) have been corrupted.

Format 18 is printed when the DLGSHL cannot retrieve the LCHAN environment variable.

Format 19 indicates that the DLGSHL has been terminated.

Format 20 indicates that the DLGSHL has been initiated. A dialogue request character must be typed and, possibly, a password entered before the DLGSHL is ready to accept input messages (see the *System Maintenance Manual*).

Format 21 indicates that a message has requested a change to an environment that does not exist in the `.pname` file (see the *System Maintenance Manual*).

Format 22 indicates that a request to change an execution directory as a result of an environment change has not been honored.

Format 23 indicates that an attempt to change the group Identification (ID) of the DLGSHL failed. This usually occurs as a result of attempts to change the environment.

Format 24 indicates that an attempt to change the user ID of the DLGSHL failed. This usually occurs as a result of attempts to change the environment.

Format 25 indicates that the DLGSHL cannot access the `splrinfo` record in the ECD.

Format 26 indicates that the DLGSHL cannot attach to the *Input Message Catalog*.

Format 27 indicates that the DLGSHL attached to the Maintenance Teletypewriter (MTTY) cannot read the `.pname` file and will, therefore, use a default `.pname` file containing the:  
`0: . . . /cmds1:/cft/shl/cmds.`

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### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                 |
|---|-------------------------------------------------|
| a | Device name.                                    |
| b | DLGSHL capability mode:<br>FULL<br>LIMP<br>PART |
| c | Input message syntax:<br>MML<br>PDS             |
| d | Label of line.                                  |
| e | Name of the requested directory.                |
| f | Name of the requested group ID.                 |
| g | Name of the requested user ID.                  |

### 4. ACTION TO BE TAKEN

For Format 21, either the message or the .pname file is in error and must be corrected.

### 5. REFERENCES

#### OMDB Keys

Formats 1-24 have an OMDB key of 301.

Formats 25 and 26 have an OMDB key of 299.

Format 27 has an OMDB key of 298.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

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ID ..... REPT:DLN-AP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

```
REPT DLN AP LNa b ERR X'c SEQ d
FILE e LINE f ACTION g h AUX DATA WDS (X')
 iiii iiii iiii iiii
 iiii iiii iiii iiii
```

## 2. REASON FOR OUTPUT

To report DLN AP defensive check failures. The failure data is delivered from the DLN to 3B process DLNCM as input stimulus for DLNCM fault recovery. DLNCM forwards the error message to 3B process ARTS for spooler output. The message always prints to the CNILOG and optionally to the maintenance printer using input message:

SET:DLNAP!

The input message CLR:DLNAP! stops these messages from printing on the maintenance printer (ie., the messages are routed only to the CNILOG).

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | DLN group number.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| b | DLN member number.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| c | DLN error code (see Output Appendix APP:DLNCM-01).                                                                                                                                                                                                                                                                                                                                                                                                                          |
| d | Number of errors detected by the DLN since the DLN was last restored.                                                                                                                                                                                                                                                                                                                                                                                                       |
| e | DLN source file name where the error was detected.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| f | DLN source file line number where the error was detected.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| g | Action taken by the DLN: <ul style="list-style-type: none"><li>0 — No action taken.</li><li>1 — Stop input scanning ring to 1B.</li><li>2 — Stop output scanning 1B to ring.</li><li>3 — Stop output scanning both directions.</li><li>4 — Abort low priority 3B DMA command and clean up.</li><li>5 — Abort high priority 3B DMA command and clean up.</li><li>6 — Clean up pointer update job using retry.</li><li>7 — CNIBUF self pointer bad, DLN AP is dead.</li></ul> |

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- h                      Number of data words associated with the defensive check (maximum of 20 DLN words).
- i                      DLN memory dump unique to the DLN error code.

#### **4. ACTION TO BE TAKEN**

Seek technical assistance.

#### **5. REFERENCES**

Output Appendix  
APP:DLNCM-01

Input Messages  
CLR:DLNAP  
OP:DLNCM  
SET:DLNAP

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ID ..... REPT:DLN-CNGST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

- [1] REPT DLN CNGST  
DLN a b CNGST SUMMARY  
CNI c d e f  
APP g h i j
- [2] REPT DLN CNGST  
DLN a b CNGST ABATED

## 2. REASON FOR OUTPUT

These messages are used to report that a DLN is or has been in congestion.

Format 1 is printed five minutes after DLN congestion was first detected. The severity and source of the congestion are indicated by the fields in the third and fourth lines of the message. The third line indicates the CNI level of congestion, and the fourth line indicates the application level of congestion. The application congestion level supersedes the CNI congestion level and it determines how much traffic is throttled by the link nodes. The severity of the congestion is determined by the number of seconds in the congestion levels. Congestion level 4 is the most severe level of congestion and level 1 the least severe.

Format 2 is printed five minutes after a Format 1 congestion summary message to indicate that DLN congestion has abated. If DLN congestion has not abated since the last congestion summary report, another congestion summary report will be printed five minutes after the preceding summary report.

## 3. VARIABLE FIELD DEFINITIONS

- a DLN's group number (0-63).
- b DLN's member number (1-15).
- c The number of seconds of CNI level 1 congestion.
- d The number of seconds of CNI level 2 congestion.
- e The number of seconds of CNI level 3 congestion.
- f The number of seconds of CNI level 4 congestion.
- g The number of seconds of application level 1 congestion.
- h The number of seconds of application level 2 congestion.

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- i                    The number of seconds of application level 3 congestion.
- j                    The number of seconds of application level 4 congestion.

#### **4. ACTION TO BE TAKEN**

This report is purely informational. It indicates that the DLN is at or near processing capacity and attempting to shed load. If this message appears consistently, seek technical assistance.

#### **5. REFERENCES**

None.

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ID ..... REPT:DLNCM-APIERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT DLNCM PROC (Api\_ermmsg): a b

### 2. REASON FOR OUTPUT

To report bad DC\_REPORT messages received from the APDRV.

### 3. VARIABLE FIELD DEFINITIONS

a                      Error message:

                    1A BUF INIT - INV SIDE

                    1A COMM LOST - INV SIDE

                    API STRM OVFL - INV SIDE

                    CLIENT REQ - INV SIDE

                    CRPT BUF - INV PTR TYPE

                    CRPT MSG - INV SIDE

                    CRPT PTR - INV SIDE

                    INV DIR

                    INV SIDE

                    RESTORE 1A COMM RST - INV SIDE

                    UNK DC\_REPORT MSG

b                      The invalid data.

### 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

### 5. REFERENCES

CNILOG file

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ID ..... REPT:DLNCM-ATSTIM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Attstim): RTR MSG IGNORED REASON: a  
FROM X'c TO X'd  
SIZE X'e TYPE X'f  
STAT X'g33 IDENT X'h

REPT DLNCM PROC (Attstim): DLN RSP IGNORED REASON: a  
STAT X'i IDENT X'h

REPT DLNCM PROC (Attstim): IMS MSG IGNORED REASON: a  
X'h X'j X'k X'l

## 2. REASON FOR OUTPUT

To report errors when DLNCM is unable to attach an acknowledgment message to a procedure.

## 3. VARIABLE FIELD DEFINITIONS

|       |                                                                                                                                                                                                                                                                                              |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a     | Reason. Possible values: BAD STIMULUS TYPE<br>TASK NOT FOUND<br>UNEXPECTED MSG<br>MSG QUEUE FULL                                                                                                                                                                                             |
| c - g | Contents of RTR msg.                                                                                                                                                                                                                                                                         |
| h     | Procedure (id) that owns the message or response. Byte representation:<br>— First byte (leftmost) - Zero value.<br>— Second byte - Procedure number.<br>— Third byte - Tcb number.<br>— Fourth byte (rightmost) - Incarnation bit.<br><br>Procedure id equal to zero implies null procedure. |
| i     | Status of DLN command/response buffer.                                                                                                                                                                                                                                                       |
| j - l | Word 2, 3 and 4 of IMS/CNI message (first word contains procedure id).                                                                                                                                                                                                                       |

## 4. ACTION TO BE TAKEN

If the task is torn down or is not running, the acknowledgment message should not be attached to the procedure, i.e., DLNCM should print TASK NOT FOUND or UNEXPECTED MSG. Otherwise seek technical assistance if error occurs.

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**5. REFERENCES**

Input Message  
OP:DLNCM

Output Message  
OP:DLNCM-TASKS

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ID ..... REPT:DLNCM-AUD1AL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Aud1all) LNx-y AUD1 SIM REQ FAIL
- [2] REPT DLNCM PROC (Aud1all) LNx-y AUD1 SIM DISP TIMEOUT

## 2. REASON FOR OUTPUT

To report failure of attempt to run DLN Audit1 on all DLNs.

## 3. VARIABLE FIELD DEFINITIONS

- x DLN group number.
- y DLN member number.

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

None.

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ID ..... REPT:DLNCM-AUDIT1  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (\_audit1): LNx y DISK READ ERROR a

REPT DLNCM PROC (\_audit1): LNx y b CMD ERROR c

## 2. REASON FOR OUTPUT

To report DLN audit1 interface errors between DLNCM and the RTR operating system or a particular DLN.

## 3. VARIABLE FIELD DEFINITIONS

- a Disk read error (see Output Appendix APP:DLNCM-06).
- b Type of DLN Pump command. Possible values:
- D\_AUDIT D\_STRT — audit start.
- D\_WRITE D\_STRT — DMA write start.
- D\_AUDIT D\_COMP — audit complete.
- c Unable to send DLN command (see Output Appendix APP:DLNCM-07).
- x DLN group number.
- y DLN member number.

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-06  
APP:DLNCM-07

Input Message  
OP:LOG

Output Message  
AUD:DLN

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ID ..... REPT:DLNCM-AUDIT2  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (\_audit2): LNx y DISK READ ERROR a

REPT DLNCM PROC (\_audit2): LNx y b CMD ERROR c

## 2. REASON FOR OUTPUT

To report DLN audit2 interface errors between DLNCM and the RTR operating system or a particular DLN.

## 3. VARIABLE FIELD DEFINITIONS

- a Disk read error (see Output Appendix APP:DLNCM-06).
- b Type of DLN Pump command. Possible values:
- D\_AUDIT D\_STRT — audit start.
- D\_WRITE D\_STRT — DMA write start.
- D\_AUDIT D\_COMP — audit complete.
- c Unable to send DLN command (see Output Appendix APP:DLNCM-07).
- x DLN group number.
- y DLN member number.

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-06  
APP:DLNCM-07

Input Message  
OP:LOG

Output Message  
AUD:DLN

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ID ..... REPT:DLNCM-AUDIT3  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (\_audit3): LNx y a CMD ERROR b

## 2. REASON FOR OUTPUT

To report DLN audit3 interface errors between DLNCM and the RTR operating system or a particular DLN.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                 |
|---|---------------------------------------------------------------------------------|
| a | Type of DLN Pump command. Possible values:<br><br>D_AUDIT D_STRT — audit start. |
| b | Unable to send DLN command (see Output Appendix APP:DLNCM-07).                  |
| x | DLN group number.                                                               |
| y | DLN member number.                                                              |

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendix  
APP:DLNCM-07

Input Message  
OP:LOG

Output Message  
AUD:DLN

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ID ..... REPT:DLNCM-AUDRPT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

[1] REPT DLNCM PROC (audrpt) AUD a b SIM ACK c d

[2] REPT DLNCM PROC (audrpt) AUD a b,INS LNx-y SIM ACK c d

## 2. REASON FOR OUTPUT

To report SIM audits interface errors.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Audit name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b | Audit member number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| c | Value of request acknowledgement error. Possible values:<br><br>2 — request started, printout follows.<br><br>3 — audit system initialization in progress.<br><br>4 — audit system initialization failed.<br><br>5 — access to audit record in the ECD failed.<br><br>6 — requested audit is running.<br><br>7 — another kernel process requested audit is running.<br><br>8 — maximum number of supervisory audits are running.<br><br>9 — requested audit instance is blocked.<br><br>10 — attempt to init or dispatch audit failed.<br><br>11 — an audit with the same name is running.<br><br>12 — audit running in demand mode, cannot block.<br><br>13 — audit running requested, cannot stop and block.<br><br>14 — requested audit or instance is inhibited.<br><br>15 — System Integrity Output Formatter is dead. |

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- 19 — invalid audit specified.
- 20 — invalid audit instance specified.
- 21 — mode of request not permitted.
- 22 — cannot stop an audit that is not running.
- 23 — cannot stop a non-segmented kernel audit.
- 30 — request resulted in no change.
- d Text explanation of request acknowledgement error. Possible values:
- null string.
  - (ALREADY RUNNING) — audit already running.
  - (OTHER KP AUD RUN) — other kernel audit running.
  - (AUD IS BLKD) — audit blocked.
  - (SAME GRP AUD RUN) — another audit in the same group running.
  - (AUD IS INH) — audit inhibited.
- x DLN group number.
- y DLN member number.

#### 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

#### 5. REFERENCES

None.

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ID ..... REPT:DLNCM-CHKDMA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (chkdma): EXPDEVTABL[a] CORRUPT  
OLD ENTRY: b NEW ENTRY: c

## 2. REASON FOR OUTPUT

To report errors found in the DLNs' expanded device table.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                     |
|---|-----------------------------------------------------|
| a | Entry in expanded device table.                     |
| b | Contents of old entry in the expanded device table. |
| c | Contents of new entry in the expanded device table. |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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ID ..... REPT:DLNCM-CHKMAP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Checkdlnmap): a

REPT DLNCM PROC (Checkdlnmap): LNx y b

REPT DLNCM PROC (Checkdlnmap): INVALID RING NODE ADDRESS c

## 2. REASON FOR OUTPUT

To report DLN map errors.

## 3. VARIABLE FIELD DEFINITIONS

- a Explanation of map errors. Possible messages:
- HAVE MORE THAN ONE CNI ACTIVE CNI TWOWAY DLN  
HAVE CNI STBY DLN AND NO ACT DLN  
3 OR MORE DLNS WITH SAME CNI MODE
- b Explanation of map error. Possible message:
- INVALID CNI MODE
- UNKNOWN CNI MODE
- c Ring node address.
- x DLN group number.
- y DLN member number.

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

**NOTE:** A dump of the DLN map will follow the message.

## 5. REFERENCES

Output Message  
REPT:DLNCM-DLN-MP

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ID ..... REPT:DLNCM-CNIOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT DLNCM PROC (Cniopen): CHAN a ERR b

REPT DLNCM PROC (Cniopen): CHAN a IOCTL FAIL

### 2. REASON FOR OUTPUT

To report errors when DLNCM fails to open an IMS/CNI channel.

### 3. VARIABLE FIELD DEFINITIONS

a                   IMS/CNI channel number.

b                   Error codes. Possible values:

BADFN     — Invalid function number.  
\_FAIL     — Message switch is not running yet.  
NO\_RLIST — No read list.  
NO\_OLIST — No write list.  
RETRY     — Retry to open channel.

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

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ID ..... REPT:DLNCM-DBTYPE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Dbtype) LNx y DISK READ ERR f
- [2] REPT DLNCM PROC (Dbtype) APPDB a OPEN FAILED: f

## 2. REASON FOR OUTPUT

To report DLN APPDB pump errors.

## 3. VARIABLE FIELD DEFINITIONS

- a APPDB file name:  
/dev/appdb0 — For ACTIVE file  
/dev/appdb1 — For SHADOW file  
/dev/appdb2 — For SCRATCH file
- f Disk read error (see output Appendix APP:DLNCM-06)
- x DLN group number
- y DLN member number

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Appendix  
APP:DLNCM-06

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ID ..... REPT:DLNCM-DLN-MP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM DLN MAP FOR LN $\times$  y  
IMS STATE X'a CNI STATE X'b  
CNI MODE X'c DLNCM STATE X'd

## 2. REASON FOR OUTPUT

To report the hardware / application status of a DLN.

## 3. VARIABLE FIELD DEFINITIONS

- a IMS (hardware) state. Possible values:
- C\_ACT
  - C\_OOS
- b CNI state. Possible values:
- C\_ACT
  - C\_OOS
  - C\_STBY
  - C\_OFL
- c CNI mode. Possible values:
- C\_1WAYIN
  - C\_1WAYOUT
  - C\_GROWTH
  - C\_TWOWAY
- d DLNCM state (see Output Appendix APP:DLNCM-19).

## 4. ACTION TO BE TAKEN

Seek technical assistance if errors occur.

## 5. REFERENCES

Output Appendix  
APP:DLNCM-19

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ID ..... REPT:DLNCM-DLNCHG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT DLNCM PROC (Dlnchg): INVALID CNI REQUEST,  
LNx y IS NOT NON-ACTIVE DLN

### 2. REASON FOR OUTPUT

To report an invalid CNI request. CNI has requested a removal of a non-active DLN,  
however the node is not a non-active DLN.

### 3. VARIABLE FIELD DEFINITIONS

x DLN group number.  
y DLN member number.

### 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

### 5. REFERENCES

None.

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ID ..... REPT:DLNCM-DLNER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Dln\_ermmsg): LN $x$  y ERR CODE X'a SEQ b  
FILE c LINE d ACTION e

REPT DLNCM PROC (Dln\_ermmsg): LN $x$  y AUX ERR DATA SEQ b (X')  
X'f X'g X'h X'i  
X'j X'k X'l X'm

REPT DLNCM PROC (Dln\_ermmsg): UNABLE TO CREATE PROCEDURE Strmfault

## 2. REASON FOR OUTPUT

To report DLN error messages in the CNILOG file and failure to create the fault handler to handle any DLN errors. (**Note:** not all DLN errors have auxiliary data - AUX DATA).

## 3. VARIABLE FIELD DEFINITIONS

|             |                                                     |
|-------------|-----------------------------------------------------|
| a           | DLN error code (See Output Appendix APP:DLNCM-01).  |
| b           | Sequence number.                                    |
| c           | Name of file where error was detected.              |
| d           | Line number in file.                                |
| e           | DLN action code (see Output Appendix APP:DLNCM-02). |
| f through m | DLN auxiliary data (up to 8 words).                 |
| x           | DLN group number.                                   |
| y           | DLN member number.                                  |

## 4. ACTION TO BE TAKEN

If the fault handler cannot be created, seek technical assistance. Otherwise, no action needs to be taken.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-01  
APP:DLNCM-02

Input Messages  
OP:DLNCM  
OP:LOG

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Output Message  
OP:DLNCM-TASKS

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ID ..... REPT:DLNCM-DLNEVT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Dlnevent): a

REPT DLNCM PROC (Dlnevent): REFUSE DLN REMOVAL: LNx y IS MAIN ACTIVE DLN

## 2. REASON FOR OUTPUT

To report DLN/stream configuration errors that occur after a CNI phase and for state changes that affect the active (home) DLN.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                           |
|---|-----------------------------------------------------------|
| a | Error message. Possible values:                           |
|   | UNABLE TO CONFIGURE DLN(s) AND/OR STREAM                  |
|   | DLN(s) IN INVALID STATE                                   |
|   | NO ACTIVE OR STANDBY DLN                                  |
|   | FAILED TO SEND DCREADY MSG TO RINGINIT                    |
|   | API FAILED TO START SCANNING                              |
|   | API FAILED TO STOP SCANNING                               |
|   | API IS SCANNING STREAM DIR BOTH (in CNILOG file only)     |
|   | API IS NOT SCANNING STREAM DIR BOTH (in CNILOG file only) |
| x | DLN group number.                                         |
| y | DLN member number.                                        |

## 4. ACTION TO BE TAKEN

When there exists no active or standby DLN, restore the DLNs unconditionally. If the DLN or API fail to start scanning, start the stream manually.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Input Messages

OP:DLNCM  
OP:DMQ  
OP:RING  
RST:LN  
START:DLNCM

Output Messages

OP:DLNCM-DLNCMAP  
OP:DLNCM-STREAM  
OP:DMQ  
OP:RING  
RST:LN  
START:DLNCM

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-DLNRST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT DLNCM PROC (Dlnrst): DLN UPDATE IN PROGRESS

**2. REASON FOR OUTPUT**

To report that a DLN update is in progress while a (low priority) DLN pump is pending.  
(The DLN update will be preempted by the pump if the update exceeds a time-out value).

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-FDEVID  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (F\_devid): a

## 2. REASON FOR OUTPUT

To report ECD database interface errors. (DLNCM cannot retrieve the device ID for the 1B stat file or 1B disk file).

## 3. VARIABLE FIELD DEFINITIONS

|   |                         |
|---|-------------------------|
| a | Explanation of error:   |
|   | INVALID LOGID           |
|   | UNABLE TO ATTACH TO ECD |

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-GETPTA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Getpta): a

## 2. REASON FOR OUTPUT

To report memory management errors. (DLNCM cannot get the physical page table address for the stream or DLN DMA buffer, thus DLN DMA cannot be initialized).

## 3. VARIABLE FIELD DEFINITIONS

a Explanation of error. Possible messages:

INVALID SEG NO  
IOLOCK FAILED

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-GRSTRM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Grow\_strm): APIDLN STRM NOT FOUND

REPT DLNCM PROC (Grow\_strm): APIDLN STRM NOT GROWN - a

REPT DLNCM PROC (Grow\_strm): APIDLN STRM GROWN b MSEC c BYTES

## 2. REASON FOR OUTPUT

To report API-DLN stream growth errors.

## 3. VARIABLE FIELD DEFINITIONS

a Explanation of failure:

WM OTYPE X'd

where d — Old type of grow message.

SM FAIL CODE X'd

where d — Unable to send grow message to memory manager  
(see Output Appendix APP:DLNCM-08).

NM NACK X'd

where d — Stat field of rtr grow message.

b Time in milliseconds.

c Size of stream in bytes (4 bytes = 1 word).

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

CIC Select Code 303-021 *UNIX® RTR Operating System Architecture,  
Programmers Manual Volume 1 - 3B20D Computer,*

Output Appendix  
APP:DLNCM-08

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:DLNCM-IMSEND  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT DLNCM PROC (Imsend) NO RPCS REQ INIT LEVEL 4

**2. REASON FOR OUTPUT**

At the end of IMS hardware initialization it has been determined that no RPCs are in service. A level 4 initialization is then requested if software checks are enabled. Disabling software checks stops the initialization request. This must be done using the EAI display page.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

Seek technical assistance if error occurs. Both RPCs (ring controller nodes) are marked OOS in the ECD.

**5. REFERENCES**

CNILOG file

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-IMSMSG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Imsmsg): UNABLE TO CREATE PROCEDURE a

REPT DLNCM PROC (Imsmsg): UNKNOWN MSG CHAN b  
X'00000000 X'00000000 X'00000000 X'00000000

REPT DLNCM PROC (Imsmsg): LN x y UNKNOWN AUD MSG CHAN b  
X'00000000 X'00000000 X'00000000 X'00000000  
X'00000000 X'00000000 X'00000000 X'00000000

## 2. REASON FOR OUTPUT

To report IMS message handling and procedure creation errors.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                              |
|---|--------------------------------------------------------------|
| a | Procedure name. Possible values:<br><br>Dlnevent.<br>Dlnchg. |
| b | IMS/CNI channel number.                                      |
| x | DLN group number.                                            |
| y | DLN member number.                                           |

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-INIT2  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Init2): UNABLE TO RETRIEVE 1A DATA ERR CODE a
- [2] REPT DLNCM PROC (Init2): UNABLE TO INIT DLN DMA ERR CODE b

## 2. REASON FOR OUTPUT

To report data initialization errors.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code (see Output Appendix APP:DLNCM-05).
- b Error code (see Output Appendix APP:DLNCM-21).

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-05  
APP:DLNCM-21

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-INTRAP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

- [1] REPT DLNCM PROC (Init\_traps): a
- [2] REPT DLNCM PROC (Init\_traps): UNKNOWN TRAP STATUS b

### 2. REASON FOR OUTPUT

To report trap errors.

### 3. VARIABLE FIELD DEFINITIONS

- a Error message:
- TRAP RESOURCES EXHAUSTED
- TRAPS HOSED
- TRAPS INHIBITED
- b Integer value (unknown trap status).

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:DLNCM-KFAULT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (kfault): NON-TASK FAULT X'a AT X'b  
REG0 X'c REG8 X'd

## 2. REASON FOR OUTPUT

To report non-task faults.

## 3. VARIABLE FIELD DEFINITIONS

|   |                         |
|---|-------------------------|
| a | RTR fault code.         |
| b | Program address.        |
| c | Contents of register 0. |
| d | Contents of register 8. |

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

CIC Select Code 303-029 *UNIX® RTR Operating System Lab Users Guide Programmer's Manual*  
Volume 9

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ID ..... REPT:DLNCM-KILTRP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Kill\_traps): UNABLE TO CLEAR TRAP\_HASH a
- [2] REPT DLNCM PROC (Kill\_traps): UNABLE TO CLEAR TRAP\_ACI b
- [3] REPT DLNCM PROC (Kill\_traps): UNKNOWN TRAP STATUS c

## 2. REASON FOR OUTPUT

To report trap errors.

## 3. VARIABLE FIELD DEFINITIONS

- a Trap number for hash data.
- b Trap number for ACI/ISUP data.
- c Trap status (integer value).

## 4. ACTION TO BE TAKEN

Check with the machine administration center to confirm abnormal translation update activity. Seek technical assistance if error occurs.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-ONLINE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT DLNCM: LN $\times$  y ON-LINE

**2. REASON FOR OUTPUT**

To report that the DLN is hardware (IMS) active.

**3. VARIABLE FIELD DEFINITIONS**

x                      DLN group number.  
y                      DLN member number.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-PAPPCU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Pappcu) LNx y DB a CU b DSCSADDR ERR c
- [2] REPT DLNCM PROC (Pappcu) LNx y D\_PUMP D\_COMP CMD ERR d
- [3] REPT DLNCM PROC (Pappcu) LNx y GETCLUMP ERR c

## 2. REASON FOR OUTPUT

To report DLN APPDB pump errors.

## 3. VARIABLE FIELD DEFINITIONS

- a APPDB file name:
  - /dev/appdb0 — For ACTIVE file
  - /dev/appdb1 — For SHADOW file
  - /dev/appdb2 — For SCRATCH file
- b Customer unit code
- c APPDB DS error code (see output Appendix APP:DLNCM-22)
- d Pump abort code (see output Appendix APP:DLNCM-11)
- x DLN group number
- y DLN member number

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-11  
APP:DLNCM-22

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:DLNCM-PAPPDB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Pappdb) LNx y DB a CU b ATT ERR c
- [2] REPT DLNCM PROC (Pappdb) LNx y DB a CU b TOTCLUMPS ERR c
- [3] REPT DLNCM PROC (Pappdb) LNx y DISK READ ERR f
- [4] REPT DLNCM PROC (Pappdb) LNx y D\_PUMP D\_COMP CMD ERR d
- [5] REPT DLNCM PROC (Pappdb) LNx y D\_PUMP D\_STRT CMD ERR d
- [6] REPT DLNCM PROC (Pappdb) LNx y D\_READ D\_STRT CMD ERR d

## 2. REASON FOR OUTPUT

To report DLN APPDB pump errors.

## 3. VARIABLE FIELD DEFINITIONS

- a APPDB file name:
  - /dev/appdb0 — For ACTIVE file
  - /dev/appdb1 — For SHADOW file
  - /dev/appdb2 — For SCRATCH file
- b Customer unit code
- c APPDB DS error code (see output Appendix APP:DLNCM-22)
- d Pump abort code (see output Appendix APP:DLNCM-11)
- f Disk read error (see output Appendix APP:DLNCM-06)
- x DLN group number
- y DLN member number

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-06  
APP:DLNCM-11  
APP:DLNCM-22

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-PMPAPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Pumpappdb) LNx y UNKN DB TYPE xxxxxxxx
- [2] REPT DLNCM PROC (Pumpappdb) INVALID DLN ID h

## 2. REASON FOR OUTPUT

To report DLN APPDB pump errors.

## 3. VARIABLE FIELD DEFINITIONS

|         |                        |
|---------|------------------------|
| h       | DLN ID (integer value) |
| xxxxxxx | Invalid database type  |
| x       | DLN group number       |
| y       | DLN member number      |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-PMPAPP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Pumpapp) LNx y DBTOC PUMPED g BYTES MSEC e
- [2] REPT DLNCM PROC (Pumpapp) LNx y IBGTT PUMPED gK BYTES MSEC e
- [3] REPT DLNCM PROC (Pumpapp) LNx y OBGTT PUMPED gK BYTES MSEC e
- [4] REPT DLNCM PROC (Pumpapp) LNx y PCPGTT PUMPED gK BYTES MSEC e
- [5] REPT DLNCM PROC (Pumpapp) LNx y IBGTT PUMPED k ERR MSEC e
- [6] REPT DLNCM PROC (Pumpapp) LNx y OBGTT PUMPED k ERR MSEC e
- [7] REPT DLNCM PROC (Pumpapp) LNx y PCPGTT PUMPED k ERR MSEC e
- [8] REPT DLNCM PROC (Pumpapp) LNx y PUMP COMPL gK BYTES IN e MSEC
- [9] REPT DLNCM PROC (Pumpapp) LNx y PUMP FAILED l
- [10] REPT DLNCM PROC (Pumpapp) LNx y PUMP STARTED l

## 2. REASON FOR OUTPUT

To report DLN APPDB pump errors.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                       |
|---|-------------------------------------------------------|
| e | Time in milliseconds                                  |
| g | Number of "K bytes" pumped                            |
| k | DLNCM Pappcu error (see output Appendix APP:DLNCM-23) |
| l | DLNCM pump flags                                      |
| x | DLN group number                                      |
| y | DLN member number                                     |

## 4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Output Appendix  
APP:DLNCM-23

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:DLNCM-PMPDTA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Pumpdata): LNx y DISK READ ERROR a
- [2] REPT DLNCM PROC (Pumpdata): LNx y b CMD ERROR c

## 2. REASON FOR OUTPUT

To report pump interface errors between DLNCM and the RTR operating system or a particular DLN.

## 3. VARIABLE FIELD DEFINITIONS

- a Disk read error (see Output Appendix APP:DLNCM-06).
- b Type of DLN Pump command:  
D\_PUMP D\_STRT — Pump start.  
D\_PUMP D\_COMP — Pump complete.  
D\_READ D\_STRT — DMA read start.
- c Unable to send DLN command (see Output Appendix APP:DLNCM-07).
- x DLN group number.
- y DLN member number.

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-06  
APP:DLNCM-07

Input Message  
OP:LOG

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:DLNCM-PMPGTT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Pumpgtt) LNx y m (n) BINKS PUMPED IN e MSEC
- [2] REPT DLNCM PROC (Pumpgtt) LNx y APPDB a OPEN FAILED: f
- [3] REPT DLNCM PROC (Pumpgtt) LNx y PUMP ABORTED CODE i, RETRY j
- [4] REPT DLNCM PROC (Pumpgtt) LNx y PUMP FAILED
- [5] REPT DLNCM PROC (Pumpgtt) LNx y PUMP STARTED

## 2. REASON FOR OUTPUT

To report DLN APPDB pump errors.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | APPDB file name:<br>/dev/appdb0 — For ACTIVE file<br>/dev/appdb1 — For SHADOW file<br>/dev/appdb2 — For SCRATCH file |
| e | Time in milliseconds                                                                                                 |
| f | Disk read error (see output Appendix APP:DLNCM-06)                                                                   |
| i | Pump abort code (see output Appendix APP:DLNCM-11)                                                                   |
| j | Retry count (maximum of 3 retries)                                                                                   |
| m | Number of bytes pumped (old APPDB format only)                                                                       |
| n | Number of binks (4096 bytes / bink) pumped (old APPDB format only)                                                   |
| x | DLN group number                                                                                                     |
| y | DLN member number                                                                                                    |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-06  
APP:DLNCM-11

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-PUMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Pump): INVALID DLN ID a
- [2] REPT DLNCM PROC (Pump): LNb c INVALID PRIORITY d
- [3] REPT DLNCM PROC (Pump): LNb c UNABLE TO RETRIEVE DATA  
FROM 1A DISK FILE
- [4] REPT DLNCM PROC (Pump): LNb c PUMP STARTED
- [5] REPT DLNCM PROC (Pump): LNb c PUMP ABORTED CODE e, RETRY f
- [6] REPT DLNCM PROC (Pump): LNb c PUMP COMPLETE IN g MSEC [h]

## 2. REASON FOR OUTPUT

To report Direct Link Node (DLN) ODA pump errors.

## 3. VARIABLE FIELD DEFINITIONS

- a DLN ID (integer value).
- b DLN group number.
- c DLN member number.
- d Priority of pump (integer value).
- e Pump abort code (see Output Appendix APP:DLNCM-11).
- f Retry count (maximum of 3 retries).
- g Time in milliseconds.
- h Message:  
NO TRANSLATION DATA DOWNLOADED

## 4. ACTION TO BE TAKEN

If the DLN is removed from service or is faulty, ignore errors. Otherwise seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendix  
APP:DLNCM-11

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

OP:DLNCM  
OP:RING

Output Messages

OP:DLNCM-DLNMAP  
OP:RING

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:DLNCM-RCMSG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Rcmsg): a

## 2. REASON FOR OUTPUT

To report errors in creating an acknowledgement message to the 4ESS™ Recent Change System request message.

## 3. VARIABLE FIELD DEFINITIONS

a Error message. Possible values:

INVALID TYPE  
INVALID REASON  
INVALID STATUS

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-RCUPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT DLNCM PROC (Rcupdate): a

### 2. REASON FOR OUTPUT

To report errors and the status of the DLNCM - 4ESS™ RC interface.

### 3. VARIABLE FIELD DEFINITIONS

a                   UNABLE TO SEND RC\_DENY MSG - CASE PUMP IN PROGRESS  
                  UNABLE TO SEND RC\_DENY MSG - CASE UPDATE IN PROGRESS  
                  RC DENIED - CASE PUMP IN PROGRESS  
                  UNABLE TO INITIALIZE TRAPS  
                  UNABLE TO KILL TRAPS  
                  UNABLE TO SEND RC\_ACK

### 4. ACTION TO BE TAKEN

Check with the machine administration center to confirm abnormal translation update activity. If fail to initialize or kill traps, seek technical assistance.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:DLNCM-REQCNI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT DLNCM PROC (Reqcniinit): a ERR CODE b

### 2. REASON FOR OUTPUT

To report errors DLNCM encounters while requesting a CNI phase.

### 3. VARIABLE FIELD DEFINITIONS

a Error message: Possible values:

UNABLE TO REQ CNI PHASE

b Error code (see Output Appendix APP:DLNCM-08).

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

Output Appendix  
APP:DLNCM-08

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-RINGST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Ringstrt): API FAILED TO STOP SCANNING STREAM ERR CODE a
- [2] REPT DLNCM PROC (Ringstrt): UNKNOWN CNI LEVEL b
- [3] REPT DLNCM PROC (Ringstrt): UNABLE TO RETRIEVE 1A DATA ERR CODE c
- [4] REPT DLNCM PROC (Ringstrt): UNABLE TO INIT DLN DMA ERR CODE d
- [5] REPT DLNCM PROC (Ringstrt): UNABLE TO RETRIEVE ECD DLN DATA ERR CODE e
- [6] REPT DLNCM PROC (Ringstrt): STREAM GROWN TO f BYTES
- [7] REPT DLNCM PROC (Ringstrt): [LNg h] i

## 2. REASON FOR OUTPUT

To report errors found during the start of ring initialization.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code (see Output Appendix APP:DLNCM-14).
- b Unknown CNI level (integer value).
- c Error code (see Output Appendix APP:DLNCM-05).
- d Error code (see Output Appendix APP:DLNCM-21).
- e Error code (see Output Appendix APP:DLNCM-20).
- f Size of stream in bytes (1 word = 4 bytes).
- g DLN group number.
- h DLN member number.
- i Explanation of error:
  - API STOP SCANNING STREAM — CNILOG file only.
  - GET1ADATA SUCCESS — CNILOG file only.
  - STOP SCAN OK — CNILOG file only.
  - STREAM IS FULL SIZE — CNILOG file only.
  - STREAM INITIALIZED — CNILOG file only.

SEE PROPRIETARY NOTICE ON COVER PAGE

STREAM NOT FULL SIZE  
UNABLE TO INITIALIZE STREAM

#### **4. ACTION TO BE TAKEN**

If DLNCM fails to initialize DLN DMA or retrieve 1B data structures, re-try the CNI phase. If DLNCM fails to retrieve DLN ECD data, check ECD data base. Otherwise, seek technical assistance if error occurs.

#### **5. REFERENCES**

Output Appendixes

APP:DLNCM-05

APP:DLNCM-14

APP:DLNCM-20

APP:DLNCM-21

Input Message

INIT:RING

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:DLNCM-RNGEND  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Ringend): UNABLE TO \_get\_mbuf() - a

REPT DLNCM PROC (Ringend): UNABLE TO \_ims\_hdr() - b

REPT DLNCM PROC (Ringend): UNABLE TO \_ims\_write() - c

## 2. REASON FOR OUTPUT

To report CNI/IMS interface errors.

## 3. VARIABLE FIELD DEFINITIONS

- a Return code from \_get\_mbuf().
- b Return code from \_ims\_hdr().
- c Return code from \_ims\_write().

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Input Message  
OP: LOG

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ID ..... REPT:DLNCM-RSPERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Rsperror): LNx-y DMA RSP ERR a  
CALLER: z
- [2] REPT DLNCM PROC (Rsperror): LNx-y DMA RSP UNK  
CALLER: z  
X'b X'c X'd X'e

## 2. REASON FOR OUTPUT

A DMA command was given to a DLN and the DLN responded unexpectedly. This output reports the DLN DMA command response error. The first form is output when the DMA command field job\_stat is equal to 32 (D\_ERROR), variable field a is taken from DMA command field 3 (v\_fld3). The second form is given for all other values of the job\_stat field.

## 3. VARIABLE FIELD DEFINITIONS

- x DLN group number.
- y DLN member number.
- z Address within process DLNCM that received the unknown DMA response.
- a Error code:  
INV\_DATA — The DLN was unhappy with the command data field.  
INV\_JOB — The DLN was unhappy with the command job field.  
INV\_STAT — The DLN was unhappy with the command status field.  
UNKNOWN — The DLN error is unknown to process DLNCM.
- b Data (first word of DLN DMA response buffer).
- c Data (second word of DLN DMA response buffer).
- d Data (third word of DLN DMA response buffer).
- e Data (fourth word of DLN DMA response buffer).

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-RTRMSG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Rtrmsg): UNABLE TO CREATE PROCEDURE a
- [2] REPT DLNCM PROC (Rtrmsg): b

## 2. REASON FOR OUTPUT

To report Real Time Reliable (RTR) message handling and procedure creation errors.

## 3. VARIABLE FIELD DEFINITIONS

- a Procedure names:
- Trafstrt — Traffic start sequence.
- Ready — Ready to start traffic.
- Switch\_1A — 1B file switch (retrofit).
- b Type of message received (in CNILOG file only):
- RC\_COMPLETE MESSAGE
- RC\_REQUEST MESSAGE

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-SNDMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Senddlnmap): UNABLE TO SEND MAP ERR CODE a

REPT DLNCM PROC (Senddlnmap): BAD MAP ERR CODE b

## 2. REASON FOR OUTPUT

To report interface errors between CNI and DLNCM. Either failure to deliver an "updated" DLN map or CNI rejects the map.

## 3. VARIABLE FIELD DEFINITIONS

a Error code (see Output Appendix APP:DLNCM-03).

b Error code (see Output Appendix APP:DLNCM-04).

## 4. ACTION TO BE TAKEN

If the DLN map did not reach CNI because of a time out condition, DLNCM will get the most current map from CNI memory and continue execution. Otherwise, seek technical assistance.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-03  
APP:DLNCM-04

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-STDLN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Startdln): NO ACTIVE OR STANDBY DLN

## 2. REASON FOR OUTPUT

To report that the DLN side of the stream could not be started because there is no active or standby DLN.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

Restore the DLN(s) unconditionally.

## 5. REFERENCES

Input Messages

OP:DLNCM  
OP:DMQ  
OP:RING  
RST:LN

Output Messages

OP:DLNCM-DLNMAP  
OP:DMQ  
OP:RING  
RST:LN

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ID ..... REPT:DLNCM-STMFLT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

- [1] REPT DLNCM PROC (Strmfault): INV DEVICE a
- [2] REPT DLNCM PROC (Strmfault): INV API STRM ERR CODE b
- [3] REPT DLNCM PROC (Strmfault): INV DLN STRM ERR CODE b
- [4] REPT DLNCM PROC (Strmfault): [1B/API | LNC-d] STRM ERR  
ABSORBED Strm Err:e
- [5] REPT DLNCM PROC (Strmfault): [1B/API | LNC-d] f  
[Side: g Dir: h | X'i]  
Level: j Strm Err: e  
MFMUN: k-l-m

### 2. REASON FOR OUTPUT

To report stream faults and DLN application errors.

### 3. VARIABLE FIELD DEFINITIONS

- a Device number - Legal device numbers:
  - 0 — DLN0
  - 1 — DLN1
  - 2 — DLN2
  - 3 — DLN3
  - 4 — API
- b Unidentified error code.
- c DLN group number.
- d DLN member number.
- e Stream error category (see Output Appendix APP:DLNCM-12).
- f Explanation of error:
  - 1B CLIENT REQ INIT
  - 1B PHASE OVER
  - 1B STRM INIT

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|   |                                                                                  |
|---|----------------------------------------------------------------------------------|
|   | BAD MSG                                                                          |
|   | BAD PTR                                                                          |
|   | BUF OVFL                                                                         |
|   | CHAN ERR                                                                         |
|   | DMA ERR                                                                          |
|   | EXCESSIVE ERRS RMV DLN                                                           |
|   | EXCESSIVE STRM FAULTS APDRV MAY ESCALATE                                         |
|   | INTERNAL ERR                                                                     |
|   | LOST 1B COMM                                                                     |
|   | LOST STRM THROUGHPUT                                                             |
|   | MEM ERR                                                                          |
|   | MSG REFORMAT ERR                                                                 |
|   | NOT INCOMING DLN                                                                 |
|   | OVLD COND                                                                        |
|   | RING ERR                                                                         |
|   | RST 1B COMM                                                                      |
|   | SPGTT DATABASE INITING                                                           |
|   | STRM CRPT                                                                        |
|   | TRANS ERR                                                                        |
|   | UNK ERR                                                                          |
| g | API                                                                              |
|   | BOTH                                                                             |
|   | DLN                                                                              |
| h | 1AIN                                                                             |
|   | 1AOUT                                                                            |
|   | BOTH                                                                             |
| i | DLN error code (see Output Appendix APP:DLNCM-01).                               |
| j | Severity level (0-10).                                                           |
| k | Hexadecimal notation of the Ring Node Address (RNA).                             |
| l | Hexadecimal notation of the number of errors since the device was last restored. |
| m | Hexadecimal notation of the number of error reports for this error.              |

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#### **4. ACTION TO BE TAKEN**

For every stream fault there is an associated action with the same level and stream error.  
No corrective action is performed if the stream level is 0.

#### **5. REFERENCES**

Output Appendixes  
APP:DLNCM-01  
APP:DLNCM-12

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:DLNCM-STPDln  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT DLNCM PROC (Stopdln): NO ACTIVE OR STANDBY DLN

### 2. REASON FOR OUTPUT

To report that the DLN side of the stream could not be stopped because there is no active or standby DLN.

### 3. VARIABLE FIELD DEFINITIONS

None.

### 4. ACTION TO BE TAKEN

Restore the DLN(s) unconditionally.

### 5. REFERENCES

Input Messages

OP:DLNCM  
OP:DMQ  
OP:RING  
RST:LN

Output Messages

OP:DLNCM-DLNMAP  
OP:DMQ  
OP:RING  
RST:LN

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ID ..... REPT:DLNCM-STPRC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT DLNCM PROC (Startprc): NO AVAILABLE TCB

**2. REASON FOR OUTPUT**

To report that there are no task control blocks (tcb) available to start (create) a task.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

Dump DLNCM tasks status and seek technical assistance if error occurs.

**5. REFERENCES**

Input Message  
OP:DLNCM

Output Message  
OP:DLNCM-TASKS

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ID ..... REPT:DLNCM-STPSTM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Stopstrm): UNKNOWN STREAM DIRECTION a
- [2] REPT DLNCM PROC (Stopstrm): [API | LNb c] DIR a STOP\_SCAN\_NACK
- [3] REPT DLNCM PROC (Stopstrm): [API | LNb c] ERR CODE [d | e ]

## 2. REASON FOR OUTPUT

To report stop stream errors for the Direct Link Node (DLN) or API.

## 3. VARIABLE FIELD DEFINITIONS

- a Stream direction:
  - 1AIN — 1B incoming.
  - 1AOUT — 1B outgoing.
  - BOTH — Both 1B incoming and outgoing unknown integer value.
- b DLN group number.
- c DLN member number.
- d Failure to send STOP SCAN to DLN (see Output Appendix APP:DLNCM-07).
- e Failure to send STOP SCAN to API (see Output Appendix APP:DLNCM-08).

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-07  
APP:DLNCM-08

Input Message  
OP: LOG

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ID ..... REPT:DLNCM-STRACT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Strmaction): [UNABLE T0] a [Side: b Dir: c]  
Level: d Strm Err: e Reason: f  
[LNg-h: i LNg-h: i]  
[LNg-h: i LNg-h: i]

## 2. REASON FOR OUTPUT

To report stream action that is associated with a stream or Direct Link Node (DLN) application fault. If more than two DLNs exist, their status will be printed for four DLNs.

## 3. VARIABLE FIELD DEFINITIONS

a Stream action:  
API NOT MOVING DATA - INIT APDRV  
BLOCK/ABORT DLN AUDITS  
CHANGE DLN MAP  
FLUSH STRM  
GROW/FLUSH STRM  
INIT STRM  
JOLT STRM  
NO ACTIVE OR STANDBY DLN  
NO RCVY ACTION  
REQ CNI PHASE  
REQ DLN AUD  
REQ DLN AUD 1  
REQ DLN AUD 2  
REQ RTR PHASE  
REQ SWITCH CU  
RMV A BAD DLN  
START STRM  
STOP STRM  
SWITCH DLNs

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|   |                                                                                                                                                                                                                                                   |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| b | API                                                                                                                                                                                                                                               |
|   | BOTH                                                                                                                                                                                                                                              |
|   | DLN                                                                                                                                                                                                                                               |
| c | 1AIN                                                                                                                                                                                                                                              |
|   | 1AOUT                                                                                                                                                                                                                                             |
|   | BOTH                                                                                                                                                                                                                                              |
| d | Severity level (0 - 10).                                                                                                                                                                                                                          |
| e | Stream error category (see Output Appendix APP:DLNCM-12).                                                                                                                                                                                         |
| f | Result of action (1=SUCCESS see Output Appendix APP:DLNCM-13 for failures).                                                                                                                                                                       |
| g | DLN group number.                                                                                                                                                                                                                                 |
| h | DLN member number.                                                                                                                                                                                                                                |
| i | CNI state possible values are:<br>??? — Unknown CNI state.<br>1WAYIN — Active incoming direction (home DLN).<br>1WAYOUT — Active outgoing direction.<br>OOS — Out of service.<br>OFL — Offline.<br>STBY — Standby.<br>TOWAY — Active two way DLN. |

#### 4. ACTION TO BE TAKEN

If the stream is down (i.e., the DLN or API are not scanning) and has not lost 1B communication, start the stream manually. If excessive stream faults occur, seek technical assistance.

#### 5. REFERENCES

Output Appendixes  
APP:DLNCM-12  
APP:DLNCM-13

Input Messages  
OP:DLNCM  
START:DLNCM

Output Messages  
OP:DLNCM-STREAM  
START:DLNCM

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ID ..... REPT:DLNCM-STSTRM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Startstrm): UNKNOWN INITFLAG a
- [2] REPT DLNCM PROC (Startstrm): UNKNOWN STREAM DIRECTION b
- [3] REPT DLNCM PROC (Startstrm): [API | LNC d] DIR b ERR CODE [e | f]
- [4] REPT DLNCM PROC (Startstrm): [API | LNC d] DIR b START\_NACK

## 2. REASON FOR OUTPUT

To report start stream errors for the Direct Link Node (DLN) or API.

## 3. VARIABLE FIELD DEFINITIONS

- a The value of the initflag parameter.
- b Direction of stream:
  - 1AIN — 1B incoming.
  - 1AOUT — 1B outgoing.
  - BOTH — Both 1B incoming and outgoing unknown integer value.
- c DLN group number.
- d DLN member number.
- e Failure to send START SCAN to API (see Output Appendix APP:DLNCM-08).
- f Failure to send START SCAN to DLN (see Output Appendix APP:DLNCM-07).

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-07  
APP:DLNCM-08

Input Message  
OP:LOG

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ID ..... REPT:DLNCM-SWT1A  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Switch\_1A): STARTED  
    LNa-b: c LNa-b: c LNa-b: c LNa-b: c
- [2] REPT DLNCM PROC (Switch\_1A): 1A FILE STATUS  
    ACT FILE d  
    NEW FILE d
- [3] REPT DLNCM PROC (Switch\_1A): COMPLETE CODE e UNABLE TO CONFIG DLNS  
    LNa-b: c LNa-b: c LNa-b: c LNa-b: c
- [4] REPT DLNCM PROC (Switch\_1A): UNABLE TO RETRIEVE 1A DATA CODE f RETRY g
- [5] REPT DLNCM PROC (Switch\_1A): COMPLETE CODE e UNABLE TO GET 1A DATA  
    LNa-b: c LNa-b: c LNa-b: c LNa-b: c f1
- [6] REPT DLNCM PROC (Switch\_1A): COMPLETE CODE e UNABLE TO SEND DLN MAP  
    LNa-b: c LNa-b: c LNa-b: c LNa-b: c f1
- [7] REPT DLNCM PROC (Switch\_1A): COMPLETE UNABLE TO RE-PUMP LNa-b CODE e

## 2. REASON FOR OUTPUT

To report status of retrieving "new" 1B ACI translator office data and correcting the data in all Direct Link Node (DLN)(s). This activity occurs when a 1B system update is in progress. All DLNs are taken offline and get repumped with the 1B ACI translator. This activity must take place to synchronize the location of the active 1B ACI translator with that of what the system is actively running on. If this step fails, calls most likely will be mis-routed by the DLN. If the active and new 1B files are the same, the DLNs will not be pumped.

## 3. VARIABLE FIELD DEFINITIONS

- a DLN group number.
- b DLN member number.
- c CNI state:
  - ??? — Unknown CNI state.
  - ACT — Active.
  - OFL — Offline.

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- 00S — Out of service.
- STBY — Standby.
- d 1B file name:
- ??? — Unable to determine the 1B file name.
- /dev/1afile0 — 1B file 0.
- /dev/1afile1 — 1B file 1.
- e Error code:
- 0 — No errors encountered.
  - 1 — Pump failed (\_repump).
  - 2 — Pump took too long (\_repump).
  - 3 — Unable to send DLN map (\_repump).
  - 5 — Pump in unknown state (\_repump).
  - 10 — DLN/stream configuration in progress.
  - 20 — Unable to retrieve 1B data, after trying 3 times.
  - 40 — Unable to send DLN map, cannot change.
- f Error code (see Output Appendix APP:DLNCM-18).
- f Code add +10 to the error code then see Output Appendix APP:DLNCM-05.
- g Retry count (range of 1 through 3).

#### 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs. WARNING, if this step fails, calls most likely will be mis-routed by the DLN.

#### 5. REFERENCES

Output Appendixes  
APP:DLNCM-05  
APP:DLNCM-18

Input Message  
INIT:RING

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ID ..... REPT:DLNCM-TRAFST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT DLNCM PROC (Trafstrt): a [ERR CODE b]

## 2. REASON FOR OUTPUT

To report the stream status after the traffic start sequence has begun.

## 3. VARIABLE FIELD DEFINITIONS

a Explanation of stream status. Possible values:

UNABLE TO START API SIDE OF STREAM  
UNABLE TO START STREAM  
STREAM IS UP (in CNILOG file only)  
API SCANNING STREAM (in CNILOG file only)

b Error code.

For UNABLE TO START API SIDE OF STREAM — (see Output Appendix APP:DLNCM-15).

For UNABLE TO START STREAM — (see Output Appendix APP:DLNCM-13).

## 4. ACTION TO BE TAKEN

If either device is not scanning the stream and the DLN and API are active, start the stream.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-13  
APP:DLNCM-15

Input Message  
OP:DLNCM

Output Message  
OP:DLNCM-STREAM

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ID ..... REPT:DLNCM-TRDWN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

- [1] REPT DLNCM PROC (teardown) PROC (a): ABORT CODE X'b  
ADDR X'c FILE d LINE e ERRDAT X'f  
TCB STK X'g STAT X'h PRCN X'i
- [2] REPT DLNCM PROC (teardown) PROC (a): INTERRUPT STATUS  
PA X'j PSW X'k REG0 X'l REG8 X'm  
REG7 X'n REG6 X'o
- [3] REPT DLNCM PROC PROCEDURE (teardown): STK OVFL SP=X'g

### 2. REASON FOR OUTPUT

To report the status of a torn down (aborted) task.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                    |
|---|----------------------------------------------------|
| a | Procedure name (see Output Appendix APP:DLNCM-16). |
| b | Error code.                                        |
| c | Program address where error detected.              |
| d | File name.                                         |
| e | Line number in file.                               |
| f | Program address.                                   |
| g | Stack address.                                     |
| h | Task status.                                       |
| i | Procedure id.                                      |
| j | Program address where error occurred.              |
| k | Program store word.                                |
| l | Register 0.                                        |
| m | Register 8.                                        |
| n | Register 7.                                        |
| o | Register 6.                                        |

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**4. ACTION TO BE TAKEN**

Seek technical assistance if an error occurs.

**5. REFERENCES**

Output Appendix  
APP:DLNCM-16

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ID ..... REPT:DLNCM-UPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (Update): LNa b c
- [2] REPT DLNCM PROC (Update): LNa b NOT UPDATED -> BINKMAP CLEAN
- [3] REPT DLNCM PROC (Update): LNa b Update FAILED ERR CODE d
- [4] REPT DLNCM PROC (Update): LNa b Update COMPLETE IN e MSEC

## 2. REASON FOR OUTPUT

To report the status of a Direct Link Node (DLN) update.

## 3. VARIABLE FIELD DEFINITIONS

- a DLN group number.
- b DLN member number.
- c Error message:  
UNABLE TO RETRIEVE DATA FROM 1A DISK FILE
- d Update failure code (see Output Appendix APP:DLNCM-17).
- e Time in milliseconds for DLN update to complete.

## 4. ACTION TO BE TAKEN

Check with the machine administration center to confirm abnormal translation update activity. If DLN update fails, request DLN audit 1 for both the active and standby DLN.

**NOTE:** Only one audit instance can run at a time.

## 5. REFERENCES

Output Appendix  
APP:DLNCM-17

Input Message  
AUD:DLN

Output Message  
AUD:DLN

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ID ..... REPT:DLNCM-UPDERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DLNCM PROC (\_update): LNa b DISK READ ERROR c
- [2] REPT DLNCM PROC (\_update): LNa b d CMD ERROR e
- [3] REPT DLNCM PROC (\_update): LNa b BAD BINK BLOCK f

## 2. REASON FOR OUTPUT

To report update interface errors between DLNCM and the RTR operating system, a particular DLN, or trap function.

## 3. VARIABLE FIELD DEFINITIONS

- a DLN group number.
- b DLN member number.
- c Disk read error (see Output Appendix APP:DLNCM-06).
- d Type of DLN Pump command:
  - D\_READ D\_STRT — DMA read start.
  - D\_UPDATE D\_STRT — Update start.
  - D\_UPDATE D\_COMP — Update complete.
- e Unable to send DLN command (see Output Appendix APP:DLNCM-07).
- f Bink block number.

## 4. ACTION TO BE TAKEN

Check with the machine administration center to confirm abnormal translation update activity. Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendixes  
APP:DLNCM-06  
APP:DLNCM-07

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ID ..... REPT:DMQ  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DMQ INHIBIT a ACTIVE  
[, REMAINING TIME b MIN.]
- [2] REPT DMQ ATTEMPT TO DISABLE INHIBIT a FAILED

## 2. REASON FOR OUTPUT

Format 1 reports inhibited maintenance request sources. The source may have been disallowed for an infinite time span, or a finite time span.

Format 2 reports that inhibited maintenance request source listed reached the end of its inhibited time, but the clear of the inhibit failed.

## 3. VARIABLE FIELD DEFINITIONS

- a Source of maintenance requests; for example, Automatic Diagnostic Process (ADP).
- b Time, in minutes, left until requests will be allowed from source listed.

## 4. ACTION TO BE TAKEN

Format 1 requires no action.

For Format 2, use the ALW:DMQ input message to manually allow the inhibited request source a. Seek technical assistance for the cause of the problem.

## 5. REFERENCES

### OMDB Keys

Format 1 has OMDB keys of 92 and 93.

Format 2 has an OMDB key of 92.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

### Input Messages

ALW:DMQ-A

INH:DMQ-A

OP:DMQ

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Output Message  
ALW:DMQ

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ID ..... REPT:DNHRMEAS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

|                |       |   |
|----------------|-------|---|
| REPT DNHRMEAS  | TTS   | a |
| ATTEMPTS       | 00-05 | b |
| ATTEMPTS       | 05-10 | b |
| ATTEMPTS       | 10-15 | b |
| ATTEMPTS       | 15-20 | b |
| ATTEMPTS       | 20-25 | b |
| ATTEMPTS       | 25-30 | b |
| ATTEMPTS       | 30-35 | b |
| ATTEMPTS       | 35-40 | b |
| ATTEMPTS       | 40-45 | b |
| ATTEMPTS       | 45-50 | b |
| ATTEMPTS       | 50-55 | b |
| ATTEMPTS       | 55-60 | b |
| ATTEMPTS       | HOURL | b |
| USAGE          |       | c |
| ENGN OVFL      |       | d |
| REAL TIME OVFL |       | e |
| NM RR SUCCESS  |       | f |
| NM RR ATTEMPTS |       | g |
| CRANKBACKS     |       | h |
| CANCEL         |       | i |

## 2. REASON FOR OUTPUT

To output the dynamic non-hierarchical routing (DNHR) node-to-node measurement report for between 1 to 10 toll terminating switches (TTSs). The output prints out for each TTS requested in the OP:DNHRMEAS input message.

All TDAS related messages are recorded in the log file TDASLOG and may be accessed using OP:LOG;TDASLOG.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                           |
|---|-----------------------------------------------------------------------------------------------------------|
| a | Number of the node in the DNHR network (0-255).                                                           |
| b | Peg count of call attempts for this TTS number, given in five minute breakdowns and a total for the hour. |
| c | TTS usage in terms of CCS (hundred call seconds).                                                         |
| d | Peg count of engineered overflows on this TTS.                                                            |
| e | Peg count of realtime overflows on this TTS.                                                              |

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- f Peg count of network management re-route successes.
- g Peg count of network management re-route attempts.
- h Peg count of crankbacks on this TTS.
- i Peg count of cancels on this TTS.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Messages  
OP: DNHRMEAS  
OP: LOG

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ID ..... REPT:DUI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT DUI a {ERROR b [COMPL CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}
- [2] REPT DUI a STARTED
- [3] REPT DUI a STOPPED

## 2. REASON FOR OUTPUT

Format 1 reports a Direct User Interface (DUI) subdevice-related software or hardware error.

Format 2 reports that the DUI has changed state from STBY to ACT. A DUI will change to ACT state when the level 2 connection is established, and the data link is in information transfer state.

Format 3 reports that the DUI has changed state from ACT to STBY. A DUI will change to STBY state when the level 2 connection is terminated, and the level 1 connection remains established.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies, in hexadecimal notation, the point within the Input/Output Driver (IODRV) where a software or hardware error was detected. See IOP Output Appendix F, APP: IOP-F.
- c Hardware error type. See IOP Output Appendix A, APP: IOP-A.
- d First word of an unidentified completion report.
- e Second word of an unidentified completion report.

## 4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Formats 2 and 3 are informational messages and indicate that the DUI has changed states. No action is necessary.

SEE PROPRIETARY NOTICE ON COVER PAGE

## **5. REFERENCES**

### OMDB Keys

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 308.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

### Output Appendixes

APP: IOP-A

APP: IOP-F

### Input Messages

CLR: IODRV

DGN: DUIC

RMV: DUI

RST: DUI

UPD: OMDB

### Output Messages

RCVRY: DUI

RCVRY: DUIC

RCVRY: IOP

REPT: DUIC

REPT: IOP

REPT: RCVRY-DUI

REPT: RCVRY-DUIC

REPT: RCVRY-IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:DUIC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] REPT DUIC a {ERROR b [COMPL CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2] REPT DUIC a CODE VERSION X'f

## 2. REASON FOR OUTPUT

Format 1 reports a Direct User Interface Controller (DUIC) related software or hardware error.

Format 2 is output during the restoral of the unit.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                   |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                                                                                                    |
| b | Identifies point within Input / Output Driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See output Input / Output Processor (IOP) Appendix F, APP: IOP-F. |
| c | Hardware error error type, in hexadecimal notation. See IOP Output Appendix A, APP: IOP-A.                                                                                                        |
| d | First word of an unidentifiable completion report.                                                                                                                                                |
| e | Second word of an unidentifiable completion report.                                                                                                                                               |
| f | Peripheral controller pump code version.                                                                                                                                                          |

## 4. ACTION TO BE TAKEN

These error messages indicate error conditions that could cause the removal of a unit. Any removed unit must be repaired and restored to service. No action is necessary for the message in format 2 unless the controller and/or its subdevices are not acting normal, or could not be restored. Contact the service organization with the code version which was used.

## 5. REFERENCES

### OMDB Keys

Format 1 has an OMDB key of 208.

Format 2 has an OMDB key of 220.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

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Output Appendixes

APP: IOP-A

APP: IOP-F

Input Messages

CLR: IODRV

DGN: DUIC

RMV: DUIC

RST: DUIC

Output Messages

RCVRY: DUIC

RCVRY: IOP

REPT: IOP

REPT: RCVRY-DUIC

REPT: RCVRY-IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:DUMP-PBUF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has three formats.

[1] REPT DUMP PBUF (dmptable) COMPLETED  
PBUF INCORE HASHSUM = a

| TYPE | UID | PID | VADDR | PADDR | PHY_DATA | OLD_DATA | NEW_DATA |
|------|-----|-----|-------|-------|----------|----------|----------|
| b    | c   | d   | e     | f     | g        | h        | i        |

[2] REPT DUMP PBUF COMPLETED

[3] REPT DUMP PBUF BUFFER EMPTY

## 2. REASON FOR OUTPUT

Format 1 indicates the data values resulting from successful copy.

Format 2 is command completion message.

Format 3 indicates no entries in overwrite buffer.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                           |
|---|---------------------------------------------------------------------------|
| a | Calculated hashsum over all overwrite entries.                            |
| b | Overwrite type (UID, PID, PMEM, or KERN).                                 |
| c | Utility ID of process overwritten.                                        |
| d | Process ID of process overwritten.                                        |
| e | Virtual address to be overwritten, corresponding to overwrite type.       |
| f | Physical address to be overwritten, corresponding to overwrite type.      |
| g | Physical data value; actual data value at address before overwrite.       |
| h | Old data value; default value is (ffffff) if OLDDATA option was not used. |
| i | New data value.                                                           |

## 4. ACTION TO BE TAKEN

All DISKFILE failures should be reported to the Technical Support Organization.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Output Messages  
REPT: COPY-PBUF  
REPT: DUMP-PBUF  
REPT: IN-PBUF

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**WARNING**  
**INAPPROPRIATE USE OF THIS**  
**MESSAGE MAY INTERRUPT OR**  
**DEGRADE SERVICE. READ PURPOSE**  
**CAREFULLY.**

ID ..... REPT:EAI  
WORK CENTER.. MOC  
GENERIC ..... 4AP17 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**WARNING**  
**The system's ability to recover from errors is reduced when the sanity**  
**timers are inhibited. The sanity timers are not inhibited in normal**  
**operation.**

## 1. FORMAT

- [1] REPT EAI SANITY TIMERS ARE INHIBITED
- [2] REPT EAI BACKUP ROOT SELECTED ON EAI PAGE  
CURRENTLY RUNNING IN ROOT  
PLEASE REMOVE THIS SELECTION  
UNLESS PREPARING TO BOOT BACKUP ROOT
- [3] REPT EAI MINIMUM CONFIGURATION SELECTED ON EAI PAGE  
CURRENTLY RUNNING IN FULL CONFIGURATION  
PLEASE REMOVE THIS SELECTION  
UNLESS PREPARING TO BOOT MINIMUM CONFIGURATION
- [4] REPT EAI ROOT SELECTED ON EAI PAGE  
CURRENTLY RUNNING IN BACKUP ROOT  
PLEASE REMOVE THIS SELECTION  
UNLESS PREPARING TO BOOT ROOT
- [5] REPT EAI \*\* WARNING \*\* EAI ERROR THRESHOLD EXCEEDED ON CU a  
[\*\* WARNING \*\* ATTEMPTED SOFT SWITCH FAILED.]  
[\*\* WARNING \*\* EAI ERROR REPORTING INHIBITED.]  
[\*\* WARNING \*\* DIAGNOSE AND REPLACE FAULTY CC BOARD.]
- [6] REPT EAI \*\* WARNING \*\* EAI ERROR THRESHOLD EXCEEDED ON CU a  
[\*\* WARNING \*\* SOFT SWITCH COMPLETED.]  
[\*\* WARNING \*\* EAI ERROR REPORTING INHIBITED.]  
[\*\* WARNING \*\* DIAGNOSE AND REPLACE FAULTY CC BOARD.]
- [7] REPT EAI \*\* WARNING \*\* EAI ERROR INTERRUPT INHIBITED ON CU a.  
[\*\* WARNING \*\* USE ALW:EAIINT COMMAND TO ENABLE THE INTERRUPT.]
- [8] REPT EAI \*\* WARNING \*\* EAI ERROR REPORTING INHIBITED FOR...  
...OVER 24 HOURS ON CU a.  
[\*\* WARNING \*\* AUTOMATICALLY ENABLING EAI ERROR REPORTING.]
- [9] REPT EAI APPLICATION PARAMETER b IS SET

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- [10] REPT EAI OFF-NORMAL STATUS  
C
- [11] REPT EAI ALTERNATE BOOT DISK MISMATCH X'ddeeffff  
MTTCY 0 AND MTTYC 1 HARDWARE OR FIRMWARE ARE INCONSISTENT
- [12] REPT EAI BOOT DISK SELECTION CHANGED ON EAI PAGE  
MHD = g STATUS = h [X'i]  
MHD = g STATUS = h [X'i]
- [13] REPT EAI BOOT DISK SELECTION CHANGED ON EAI PAGE  
MHD = g STATUS = h [X'i]  
MHD = g STATUS = h [X'i]  
DIFFERS FROM CURRENT DUPLEXED BOOT DISK PAIR  
PLEASE REMOVE THIS SELECTION UNLESS PREPARING TO BOOT

## 2. REASON FOR OUTPUT

Format 1 reports that the sanity timers are inhibited.

Formats 2, 3, and 4 report that root, backup root, or minimum configuration is selected and the system is not currently running in that mode. To avoid inadvertently booting the system in the wrong mode, these selections should only be made just prior to booting the system.

Formats 5 through 8 applies only for the 3B21D machines. The messages are output as a result of either inhibiting Emergency Action Interface (EAI) hardware error reporting via a craft command, or inhibiting EAI hardware error interrupt due to excessive errors.

Format 5 indicates that the error threshold was exceeded on the on-line Central Controller (CC) EAI hardware and an attempt to switch to the other CC failed.

Format 6 indicates that the error threshold was exceeded on the off-line CC EAI hardware. The machine has switched to the currently-active processor due to the error.

Format 7 indicates that EAI error reporting has been inhibited by a software command.

Format 8 indicates that the EAI error reporting has been inhibited by a software command for more than 24 hours. Fault recovery software within the system is automatically enabling this error reporting.

Format 9 reports that an application parameter has been entered, but not followed by a manual initialization. To avoid inadvertently performing a manual initialization with an unknown application parameter set, application parameters should only be input just prior to a manual initialization.

Format 10 reports EAI off-normal selections. One or more fields are displayed whenever an off-normal condition is detected. This message can only be displayed when the hardware platform is configured with the Recovery from the Alternate Boot Disk (ABD) Feature.

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Format 11 reports an inconsistency between the MTTYC 0 and MTTYC 1 hardware or firmware. This message can only be displayed when the hardware platform is configured with the Recovery from the ABD Feature.

Formats 12 and 13 can only be displayed when the hardware platform is configured with the Recovery from Alternate Boot Disk Feature. These output messages report the status of selected MHDs following any change to the EAI page's Boot MHDs selection (Pokes 28 and 29) or following the successful execution of the CFR:DUPLEXDISKS command. These messages are periodically displayed until both selected disks are BOOTABLE and both selected disks are the same as the currently duplexed (mated) pair.

### 3. VARIABLE FIELD DEFINITIONS

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a        | CU member number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| b        | Application parameter that is currently set.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| c        | Off-normal selection displaying one or more of the following types: <ul style="list-style-type: none"> <li>APPL BOOT DEV — An ABD has been selected. View the EAI screen to determine the boot device.</li> <li>APPL PARAM — An Application Parameter has been entered on the EAI.</li> <li>BACKUP ROOT SELECTION IS CLR — The Backup Root option has been cleared while running in BROOT.</li> <li>BACKUP ROOT SELECTION IS SET — The Backup Root option has been selected while running in ROOT.</li> <li>CU FORCED ONLINE — Indicates that a CU is forced on-line. View the EAI screen to determine which CU is selected.</li> <li>INHIBIT SANITY TIMER — The Inhibit Sanity Timer option has been selected.</li> <li>INH CACHE — The Inhibit Cache option has been selected.</li> <li>INH ERRCHK — The Inhibit Error Check option has been selected.</li> <li>INH HDWCHK — The Inhibit Hardware Check option has been selected.</li> <li>INH SFTCHK — The Inhibit Software Check option has been selected.</li> <li>MIN CONFIG — The Min Config option has been selected.</li> <li>PRI/SEC DISK — Either the Primary or Secondary Disk has been selected. View the EAI screen to determine which option has been selected.</li> </ul> |
| ddeeffff | Equipage status of the MTTYC boards provided by the IO Driver to PCPAUD and an audit of the in-core ECD MTTY UCB equipage field.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| dd       | Equipage value for MTTYC 0 in hexadecimal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ee       | Equipage value for MTTYC 1 in hexadecimal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ffff | Bitfield definitions in hexadecimal:<br><br>0001 — The Recovery from Alternate Boot Disk (ABD) feature is available.<br>0002 — System is operating with an ABD selected.<br>0004 — One MTTYC does not have ABD; the other MTTYC does have ABD.                                                                                                                                                                                                                                       |
| g    | MHD unit number. See Input/Output Member Numbers Appendix, APP:MEM-NUM-C.                                                                                                                                                                                                                                                                                                                                                                                                            |
| h    | MHD status:<br><br>BOOTABLE — The MHD can be used as a boot disk.<br>NOT BOOTABLE — The MHD is not bootable.<br>RESERVED — The MHD is currently reserved by a system level process. This situation can occur when a maintenance action is in progress, for example, when an MHD is being restored.<br>UNKNOWN — The status of the MHD could not be obtained. Check the Read Only Printer (ROP) for error output messages that may help resolve the reason for this status occurring. |
| i    | Error code when MHD status is NOT BOOTABLE. The error code indicates why the unit was not marked as a valid boot disk. See Bootdiskchk Codes Appendix, APP:BOOTDISKCHK, Result Codes.                                                                                                                                                                                                                                                                                                |

#### 4. ACTION TO BE TAKEN

For Format 1, remove the inhibit sanity timer selection on the EAI page of the maintenance terminal.

For Formats 2, 3, and 4, remove the root, backup root, or minimum configuration selection on the EAI page of the maintenance terminal.

For Format 5, restore the other CU and switch to that CU. Run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG and ROP output, to the next level of support.

For Format 6, run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG and ROP output, to the next level of support.

For Format 7, re-enable reporting of the EAI hardware errors.

For Format 8, the Type 4 message is for information only, and no action is needed.

For Format 9, clear the application parameter, using poke 43 (Clr Appl Param) or poke 14 (CLR EAI).

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For Format 10, no action is necessary. This is an informational output message that displays one or more off-normal conditions into a single message.

For Format 11, MTTYC 0 and MTTYC 1 should be consistent in terms of the type of hardware circuit packs and the flash memory downloaded on the circuit packs. Determine which circuit pack is causing the inconsistency and either replace it with an MTTYC that supports the Recovery from Alternate Boot Disk (ABD) feature; or, if the circuit pack is the same type, execute diagnostics to download the flash memory. If the ECD contains an invalid equipage value, correct the ECD record.

For Format 12, take action based on the description of the error. If one of the disks is NOT BOOTABLE, it is essential to make that disk BOOTABLE again. If the description of the error is not self-explanatory, seek technical assistance.

For Format 13, re-boot the system so that the selected boot disks become the duplexed (mated) pair, or on the EAI page, enter the appropriate Boot MHD pokes so that the selected values are the same as the duplexed (mated) pair. To determine the duplexed pair, check the RTR 102 page or the MHD status page, then use the 28 or 29 EAI poke to correct the boot disk selection. In this latter case, it is not necessary to re-boot. For example, if MHD 0 and MHD 15 are the currently active disks (the duplexed pair) and the output message is reporting status for MHD 0 and MHD 1, on the EAI page, enter a '28', then '15', then 'y'.

## **5. REFERENCES**

### **OMDB Keys**

Format 1 has an OMDB key of 659.  
Formats 2 through 4 have OMDB keys of 629 and 647.  
Formats 5 through 8 have an OMDB key of 692.  
Format 9 has an OMDB key of 703.  
Format 10 has an OMDB key of 778.  
Format 11 has OMDB keys of 775 and 776.  
Format 12 and 13 have OMDB keys of 771 and 772.

### **Input Appendix**

APP:MEM-NUM-C

### **Output Appendix**

APP:BOOTDISKCHK

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ID ..... REPT:ECD  
WORK CENTER.. MOC  
GENERIC ..... 4AP17 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ECD BTPARM RECORD MODIFIED  
FIELD=a INCORE=b {[ROOT=c] [ROOTDMLY=d]}  
PLEASE RESTORE THIS FIELD UNLESS PREPARING TO BOOT
- [2] REPT ECD BTPARM RECORD RESTORED WITH VALUES AT LAST BOOT

## 2. REASON FOR OUTPUT

Format 1 reports changes to the `btparm` records in the root ECD and rootdmlly ECD.

Format 2 reports that the `btparm` records in the root ECD and rootdmlly ECD were updated to contain the same values as that which existed at the last boot.

## 3. VARIABLE FIELD DEFINITIONS

- a Field name in the ECD `btparm` record.
- b Value of a at the last boot is the current `incore` value.
- c ROOT ECD value of a. This field is only displayed if it differs from b.
- d ROOTDMLY ECD value of a. This field is only displayed if it differs from b.

## 4. ACTION TO BE TAKEN

With Format 1, take action as indicated in the report. Format 2 does not require any action.

## 5. REFERENCES

OMDB Key

Format 1 has an OMDB key of 717.

Format 2 has an OMDB key of 714.

Practice 254-303-104 Lucent Technologies 3B20D and 3B21D Computers  
UNIX® RTR Recent Change and Verify Manual

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ID ..... REPT:ECDMAN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**1. FORMAT**

REPT ECDMAN a

**2. REASON FOR OUTPUT**

To report that Equipment Configuration Database Manager (ECDMAN) has reached its maximum fault count.

**3. VARIABLE FIELD DEFINITIONS**

a                      Fault count.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

OMDB Key  
There is an OMDB key of 170.

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ID ..... REPT:EMER-DUMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

REPT EMERGENCY DUMP PARTITION FULL

### 2. REASON FOR OUTPUT

To report that data has been written into the emergency dump partition on disk.

### 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

### 4. ACTION TO BE TAKEN

Use the OP:EMERSTAT command to learn the status of the data in the emergency dump partition.

Use the COPY:TAPE;EMERDMP command to copy the data to magnetic tape.

Use the CLR:EMERDMP command to zero the indicator flag that triggers this output message.

Send the tape and the status printout to a technical assistance center for analysis.

### 5. REFERENCES

OMDB Key

This message has an OMDB key of 450.

Input Messages

CLR:EMERDMP

COPY:T-EMERDMP

OP:EMERSTAT

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ID ..... REPT:ERROR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has three formats.

- [1] REPT ERROR #Ka  
b (c d e) f  
g
- [2] REPT ERROR #Ua  
b (c d e) f  
g
- [3] REPT ERROR h #Na (i)  
g

## 2. REASON FOR OUTPUT

This message is printed to report a condition, such as a program bug, which can only be resolved by a data and/or program modification.

Format 1: Reports an error from a 3B kernel level process.

Format 2: Reports an error from a 3B user level process.

Format 3: Reports an error from a Node Processor.

## 3. VARIABLE FIELD DEFINITIONS

Where:

- a Decimal ERRLOG sequence number.
- b Trace subsystem — assigned by an initialization macro at the beginning of the process. Subsystem names are defined in file 'ims/head/tr\_stcb.h'.
- c Process name — assigned by an initialization macro at the beginning of the process.
- d Source file name.
- e Source file line number.
- f Source file SCCS version number.
- g User message as ASCII text.

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h Node processor identity.  
i Time in seconds.

**4. ACTION TO BE TAKEN**

Seek technical assistance.

**5. REFERENCES**

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

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ID ..... REPT:ERRPORT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ERRPORT OPEN FAILURE ERRNO a
- [2] REPT ERRPORT READ FAILURE ERRNO a
- [3] REPT ERRPORT b MESSAGES LOST
- [4] REPT ERRPORT PREPHASE MESSAGE

## 2. REASON FOR OUTPUT

Format 1 reports that the computer error logging process (errport) is not able to open its special file /dev/errport.

Format 2 reports that the computer errport has encountered an error in its special file /dev/errport.

Format 3 reports that the computer errport has received output messages after its internal queue was full. These messages have been lost.

Format 4 reports that a message existed in the low core First-In First-Out (FIFO) queue before the computer phased.

## 3. VARIABLE FIELD DEFINITIONS

- a File access error code. See System Error Codes Output Appendix, APP:SYSERR.
- b Number of messages lost.

## 4. ACTION TO BE TAKEN

For Formats 1 and 2, check the status of the file and seek immediate technical assistance. (/dev/errport should be present; it should be a FIFO special file and have read and write permissions.)

For Formats 3 and 4, no action is necessary.

## 5. REFERENCES

OMDB Key  
Formats 1, 2, and 3 have an OMDB key of 117.

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Output Appendix  
APP:SYSERR

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ID ..... REPT:ERSLOT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ERSLOT  
BAD OST X'a  
FAULTY UNIT: CU b  
TIME OF ERROR: c d  
  
SAVE STATE  
PA: e PSW: f PSBR: g SSBR: h  
  
GENERAL REGISTERS  
0: i 1: i 2: i 3: i  
4: i 5: i 6: i 7: i  
8: i 9: i A: i B: i  
C: i D: i E: i F: i  
UTILITY ID: j PROCESS NUMBER: k  
  
OST CODE: l  
OST ARGUMENTS:  
ARG1: m ARG2: m ARG3: m ARG4: m  
ARG5: m ARG6: m ARG7: m  
REAL TIME CLOCK: n
- [2] REPT ERSLOT  
IO CHANNEL ERROR X'a  
ONLINE CU: b  
FAULTY UNIT: o p  
TIME OF ERROR: c d  
CHANNEL ADDRESS: :q CHANNEL STATUS REGISTER: r  
REAL TIME CLOCK: n
- [3] REPT ERSLOT  
s X'a  
ONLINE CU: b  
FAULTY UNIT: o p  
TIME OF ERROR: c d  
DMA ADDRESS: t DMA STATUS REGISTER: u  
DMA RAM: v w x y  
DMA STORE ADDRESS REGISTER: z  
DMA STORE DATA REGISTER: a1  
DMA INCREMENTOR: b1 [ DMA DIO DATA REGISTER: c1 ]  
DMA BUFFER REGISTER: d1  
DMA MASK REGISTER: e1

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[ CHANNEL DATA REGISTER: f1 ]  
REAL TIME CLOCK: n

[4] REPT ERSLOT  
g1 X'a  
ONLINE CU: b  
FAULTY UNIT: o p  
TIME OF ERROR: c d  
DMA ADDRESS: t DMA STATUS REGISTER: u  
[DMA CHANNEL STATUS REGISTER: h1]  
[CHANNEL DATA REGISTER: i1]  
CHANNEL ADDRESS: :q CHANNEL STATUS REGISTER: r  
DMA RAM: v w x y  
DMA STORE ADDRESS REGISTER: z  
DMA STORE DATA REGISTER: a1  
DMA INCREMENTOR: b1 [ DMA DIO DATA REGISTER: c1 ]  
DMA BUFFER REGISTER: d1  
DMA MASK REGISTER: e1  
REAL TIME CLOCK: n

[5] REPT ERSLOT  
j1 X'a  
ONLINE CU: b  
FAULTY UNIT: o p  
TIME OF ERROR: c d

SAVE STATE  
PA: e PSW: f PSBR: g SSBR: h

GENERAL REGISTERS  
0: i 1: i 2: i 3: i  
4: i 5: i 6: i 7: i  
8: i 9: i A: i B: i  
C: i D: i E: i F: i  
UTILITY ID: j PROCESS NUMBER: k  
[ CHANNEL DATA REGISTER: f1 ]  
REAL TIME CLOCK: n

[6] REPT ERSLOT  
k1 X'a  
ONLINE CU: b  
FAULTY UNIT: o p  
TIME OF ERROR: c d  
HARDWARE STATUS REGISTER: l1  
REAL TIME CLOCK: n

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[7] REPT ERSLOT  
m1 X'a  
FAULTY UNIT: CU b  
TIME OF ERROR: c d  
  
SAVE STATE  
PA: e PSW: f PSBR: g SSBR: h  
  
GENERAL REGISTERS  
0: i 1: i 2: i 3: i  
4: i 5: i 6: i 7: i  
8: i 9: i A: i B: i  
C: i D: i E: i F: i  
UTILITY ID: j PROCESS NUMBER: k  
REAL TIME CLOCK: n

[8] REPT ERSLOT  
INVALID MAINTENANCE CHANNEL ORDER X'a  
ONLINE CU: b  
FAULTY UNIT: o p  
TIME OF ERROR: c d  
  
SAVE STATE  
PA: e PSW: f PSBR: g SSBR: h  
  
GENERAL REGISTERS  
0: i 1: i 2: i 3: i  
4: i 5: i 6: i 7: i  
8: i 9: i A: i B: i  
C: i D: i E: i F: i  
UTILITY ID: j PROCESS NUMBER: k  
ONLINE MCH MASTER STATUS: n1  
ONLINE MCH SLAVE STATUS: o1  
ONLINE MCH BUFFER: p1  
ONLINE MCH SLAVE COMMAND: q1  
OFFLINE MCH MASTER STATUS: r1  
OFFLINE MCH SLAVE STATUS: s1  
OFFLINE MCH BUFFER: t1  
REAL TIME CLOCK: n

[9] REPT ERSLOT  
OTHER STORE TIME-OUT ERROR X'a  
ONLINE CU: b  
FAULTY UNIT: u1 v1 o p  
TIME OF ERROR: c d  
REAL TIME CLOCK: n

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- [10] REPT ERSLOT  
INVALID ERROR INTERRUPT TYPE IS: w1 X'a  
ER: x1 UER: y1 UER1: z1  
REAL TIME CLOCK: n
- [11] REPT ERSLOT  
INVALID ERROR NUMBER: a2 SEQ NO: X'a
- [12] REPT ERSLOT  
MY STORE C DURING DMA X'a  
ONLINE CU: b  
FAULTY UNIT: u1 v1 o p  
TIME OF ERROR: c d  
DMA ADDRESS: t DMA STATUS REGISTER: u  
MAIN STORE CONTROLLER 0  
TRAPPED ADDRESS REGISTER: b2  
ERROR REGISTER 1: c2  
ERROR REGISTER 2: d2  
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)  
TRAPPED ADDRESS REGISTER: e2  
ERROR REGISTER 1: f2  
ERROR REGISTER 2: g2  
ERROR DATA: h2  
PHYSICAL MEMORY ADDRESS: i2  
[CHANNEL DATA REGISTER: i1]  
REAL TIME CLOCK: n
- [13] REPT ERSLOT  
MY STORE C DURING DMA X'a  
ONLINE CU: b  
FAULTY UNIT: u1 v1 o p  
TIME OF ERROR: c d  
DMA ADDRESS: t DMA STATUS REGISTER: u  
MCERT ERROR ADDRESS REGISTER: j2  
MCERT ERROR REGISTER: k2 MCERT STATUS  
REGISTER: l2  
MCERT COMMAND REGISTER: m2  
MCERT STROBE SHAPE REGISTER: n2  
MCERT MAIN MEMORY REGISTER: o2  
DP ERROR DATA REGISTER: p2  
DP STATUS REGISTER: q2 DP COMMAND  
REGISTER: r2  
ERROR DATA: h2  
PHYSICAL MEMORY ADDRESS: i2  
BANK CORRESPONDING TO THE PHYSICAL ADDRESS: s2  
REAL TIME CLOCK: n

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- [14] REPT ERSLOT  
OTHER STORE HARDWARE ERROR X'a  
ONLINE CU: b  
FAULTY UNIT: u1 v1 o p  
TIME OF ERROR: c d  
MAIN STORE CONTROLLER 0  
TRAPPED ADDRESS REGISTER: b2  
ERROR REGISTER 1: c2  
ERROR REGISTER 2: d2  
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)  
TRAPPED ADDRESS REGISTER: e2  
ERROR REGISTER 1: f2  
ERROR REGISTER 2: g2  
REAL TIME CLOCK: n
- [15] REPT ERSLOT  
OTHER STORE HARDWARE ERROR X'a  
ONLINE CU: b  
FAULTY UNIT: u1 v1 o p  
TIME OF ERROR: c d  
MAIN STORE CONTROLLER 0  
MCERT ERROR ADDRESS REGISTER: j2  
MCERT ERROR REGISTER: k2 MCERT STATUS  
REGISTER: l2  
MCERT COMMAND REGISTER: m2  
MCERT STROBE SHAPE REGISTER: n2  
MCERT MAIN MEMORY REGISTER: o2  
DP ERROR DATA REGISTER: p2  
DP STATUS REGISTER: q2 DP COMMAND  
REGISTER: r2  
REAL TIME CLOCK: n
- [16] REPT ERSLOT  
t2 X'a  
ONLINE CU: b  
FAULTY UNIT: u1 v1 o p  
TIME OF ERROR: c d  
MAIN STORE CONTROLLER 0  
TRAPPED ADDRESS REGISTER: b2  
ERROR REGISTER 1: c2  
ERROR REGISTER 2: d2  
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)  
TRAPPED ADDRESS REGISTER: e2  
ERROR REGISTER 1: f2  
ERROR REGISTER 2: g2  
ERROR DATA: h2  
PHYSICAL MEMORY ADDRESS: i2  
REAL TIME CLOCK: n

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- [17] REPT ERSLOT  
t2 X'a  
ONLINE CU: b  
FAULTY UNIT: u1 v1 o p  
TIME OF ERROR: c d  
MAIN STORE CONTROLLER 0  
MCERT ERROR ADDRESS REGISTER: j2  
MCERT ERROR REGISTER: k2 MCERT STATUS  
REGISTER: l2  
MCERT COMMAND REGISTER: m2  
MCERT STROBE SHAPE REGISTER: n2  
MCERT MAIN MEMORY REGISTER: o2  
DP ERROR DATA REGISTER: p2  
DP STATUS REGISTER: q2 DP COMMAND  
REGISTER: r2  
ERROR DATA: h2  
PHYSICAL MEMORY ADDRESS: i2  
BANK CORRESPONDING TO THE PHYSICAL ADDRESS: s2  
REAL TIME CLOCK: n
- [18] REPT ERSLOT  
EAI INTERRUPT: X'a  
ONLINE CU: b  
FAULTY UNIT: u1 v1 o p  
TIME OF ERROR: c d  
EAI ERROR REGISTER: u2  
REAL TIME CLOCK: n

## **2. REASON FOR OUTPUT**

To report error interrupts handled by the Error Interrupt Handler (EIH) that are not associated with the main memory. Among the errors handled are input/output errors, Direct Memory Access (DMA) errors, other Control Unit (CU) hardware errors, and software errors.

Format 1 indicates that the kernel determined that a process attempted an Operating System Trap (OST) with a bad argument.

Format 2 indicates that a faulty unit encountered a fatal error condition. The channel status and channel address are provided in the report.

Format 8 indicates that the maintenance channel is faulty, or a maintenance channel order has been sent to a processor that is not disabled or marked off-line.

Format 9 indicates the off-line CU memory controller has not responded to a memory access.

Format 10 indicates EIH was dispatched to handle an error, but no error bit in the error registers was set.

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Format 11 indicates an error type which EIH does not recognize occurred.

Format 12 indicates that a non-correctable parity error has occurred during a DMA read of a memory location on the currently running CU.

Format 13 is for 3B21D machine only and indicates that a non-correctable parity error has occurred during a DMA read of a memory location on the currently running CU.

Format 14 indicates that an error has occurred because the memory controller of the mate processor had a store error A condition. This error occurs in the off-line CU, but is detected by the on-line CU.

Format 15 is for 3B21D machine only and indicates that an error has occurred because the memory controller of the mate processor had a store error A condition. This error occurs in the off-line CU, but is detected by the on-line CU.

Format 18 is for the 3B21D machine only. This indicates that an error has occurred in the Central Controller (CC) EAI hardware.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                                                                                                     |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | The sequence number of the report (in hexadecimal).                                                                                                                                                                                                                                                                 |
| b | CU member number.                                                                                                                                                                                                                                                                                                   |
| c | The date in the form mm/dd/yy, month/day/year.                                                                                                                                                                                                                                                                      |
| d | The time in the form hh:mm:ss, hours:minutes:seconds.                                                                                                                                                                                                                                                               |
| e | The program address at the time of error interrupt (in hexadecimal). For software-requested initializations, this is the address of the phase OST and not the address where the problem was detected.                                                                                                               |
| f | The Processor Status Word (PSW) (in hexadecimal). Among the information it contains are the execution level and the processor mode - the kernel mode, kernel process, supervisor process, or user process. See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> . |
| g | The contents of the primary segment base register (in hexadecimal).                                                                                                                                                                                                                                                 |
| h | The contents of the secondary segment base register (in hexadecimal).                                                                                                                                                                                                                                               |
| i | The contents, in hexadecimal, of the 16 general-purpose registers:<br>R9: — Argument pointer.<br>RA: — Frame pointer.<br>RB: — Stack pointer.                                                                                                                                                                       |
| j | Process utility Identification (ID) (in hexadecimal). See the Error Analysis chapter of the <i>System Maintenance Manual</i> , Process/Problem Table.                                                                                                                                                               |
| k | Process number (in hexadecimal).                                                                                                                                                                                                                                                                                    |

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|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| l | OST code (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| m | OST arguments (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| n | Value of the Real Time Clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| o | Unit name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| p | Member number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| q | The input/output address, in hexadecimal, of the channel that caused the problem.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| r | The contents, in hexadecimal, of the Dual Serial Channel (DSCH) channel status register. See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| s | <p>A string defining one of six error types:</p> <p><b>BAD PARITY ON DMA READ</b>—The Direct Memory Access (DMA) Controller (DMAC) detected bad parity on its internal bus. This can be caused by a DMAC failure, or a request from a device that has not had its DMAC Random Access Memory (RAM) block initialized.</p> <p><b>CCIO - DATA PARITY FAILURE</b>—A command received by the DMAC on a Processor Input/Output (PIO) operation had bad parity.</p> <p><b>DMA - ROM PARITY FAILURE</b>—A parity error was detected in the DMAC Read Only Memory (ROM).</p> <p><b>DMA RAM PARITY FAILURE</b>—A parity error occurred on the DMAC internal RAM.</p> <p><b>MY STORE A DURING DMA</b>—This error type indicates the DMAC encountered a fatal main memory problem during DMA transfer. See the <i>System Maintenance Manual</i>, Register Layouts section of the Error Analysis chapter, Error Register error bit 6.</p> <p><b>MY STORE B DURING DMA</b>—A device attempted to access a location in memory that is not physically equipped. See the <i>System Maintenance Manual</i>, Register Layouts section of the Error Analysis chapter, Error Register error bit 23.</p> |
| t | The input/output address, in hexadecimal, of the DMAC that encountered the fault.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| u | The contents, in hexadecimal, of the DMA status register. See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| v | First word entry in the DMA RAM for the device that failed (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| w  | Second word entry in the DMA RAM for the device that failed (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| x  | Third word entry in the DMA RAM for the device that failed (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| y  | Fourth word entry in the DMA RAM for the device that failed (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| z  | Internal DMAC register contents (in hexadecimal). This register contains the last main store memory accessed by DMA for either a read or a write.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| a1 | Internal DMAC register contents (in hexadecimal). This data represents the last data word either written or read from main store.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b1 | Internal DMAC register contents (in hexadecimal). This data represents the value of the DMA incrementor which is a counter used by the DMAC to increment the physical address, map address, and the transfer count during the store operation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| c1 | Internal DMAC register contents (in hexadecimal). This register contains the data being passed between the DMAC and the channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| d1 | Internal DMAC register contents (in hexadecimal). This register is used as a scratch register by microcode during the virtual to physical translation in a DMA access.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| e1 | Internal DMAC register contents (in hexadecimal). This register contains the current channel mask setup.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| f1 | Contents of the Channel Data Register (CDR), also known as the Central Control Input / Output (CCIO) bus data register (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| g1 | <p>A string defining one of six error types:</p> <p><b>BAD PARITY ON DIO BUS</b>—The DMAC received bad parity from named CHANNEL ADDRESS device on data destined for the main memory during a DMA transfer.</p> <p><b>DIO - ACKNOWLEDGE FAILURE</b>—Either more than one or no channel responded to the DMAC.</p> <p><b>DIO - READY FAILURE</b>—The named channel did not return a READY signal to the DMAC.</p> <p><b>DMA - ADDRESS ERROR</b>—During the virtual to physical address translation, the DMAC found that the requested input/output access was not permitted to physical memory, or, during the data transfer, the data would have been written beyond the end of a segment.</p> <p><b>DMA - ASW FAILURE</b>—The named channel did not return All Seems Well (ASW) to the DMAC.</p> |

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- DMA - CHANNEL REQUEST ERROR— A device made a request with an invalid DMA RAM entry.
- h1 Status, in hexadecimal, of the channel under the DMAC that encountered the fault. See the Register Layouts section of the Error Analysis chapter of the *System Maintenance Manual*. For Model 1.
- i1 The contents, in hexadecimal, of the faulted channels data register. For Model 2.
- j1 A string defining one of eleven error types:
- BAD ALIGNMENT ON MEMORY REFERENCE— This indicates software fault - the instruction executed with the wrong address (for example, a full-word instruction executed with a half-word address).
- CCIO - COMMAND FAILURE— A second programmed input/output order was sent to the DMAC before the first one was completed.
- ILLEGAL INSTRUCTION— The data in the instruction buffer did not correspond to a valid instruction.
- ILLEGAL OPERAND— One of the operands specified in an instruction is invalid for the opcode.
- ILLEGAL STACK SWITCH— The program attempted to switch to a private stack while it was running on a private stack, or attempted to switch to the kernel stack while it was already running on the kernel stack.
- PARITY DIVERT ERROR— The named unit returned a word with bad parity.
- PRIVILEGED INSTRUCTION VIOLATION— The program tried to execute one of the special instructions without a corresponding privilege bit set in the PSW.
- PROTECTION VIOLATION— A program tried to execute from a segment that did not have execute permission, or tried to write into a segment that did not have write permission.
- OUT OF RANGE MEMORY REFERENCE— A program tried to access unequipped memory.
- OUT OF RANGE MEMORY REFERENCE (OTHER STORE)— The off-line main memory considered the address to be out of range while the on-line memory did not. This usually indicates a problem with the off-line memory.
- VIRTUAL ADDRESS OUT OF RANGE— Microcode has determined that a virtual address is not mappable in a process's address space.

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| k1 | <p>A string defining one of two error types:</p> <p>3/6 MAIN CHANNEL ADDRESS SEQUENCING ERROR — Either an illegal 3-out-of-6 (3/6) code on the CCIO bus, or more than one input/output pulse point was active in the command to the channel. See the <i>System Maintenance Manual</i>, Register Layouts section of the Error Analysis chapter, Error Register error bit 18.</p> <p>3/6 MAIN CHANNEL IO RESPONSE ERROR — More than one device responded to an input/output address. See the <i>System Maintenance Manual</i>, Register Layouts section of the Error Analysis chapter, Error Register error bit 17.</p> |
| l1 | Contents of the hardware status register (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| m1 | <p>A string defining one of three error types:</p> <p>PINV - PAGE INVALID X'a — A process attempted to access a page that is not in its page table.</p> <p>SIND - SEGMENT INDEX TOO LARGE X'a — Microcode detected a segment index too large for the segment being accessed.</p> <p>SINV - SEGMENT INVALID X'a — A process attempted to access a segment that is not in its segment table.</p>                                                                                                                                                                                                                        |
| n1 | On-line maintenance channel master status (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| o1 | <p>For 3B21D: On-line maintenance channel slave status (in hexadecimal).</p> <p>For 3B20D: This field is meaningless. It is set to 0xffffffff.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| p1 | On-line maintenance channel buffer (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| q1 | <p>For 3B21D: On-line maintenance channel slave command (in hexadecimal).</p> <p>For 3B20D: This field is meaningless. It is set to 0xffffffff.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| r1 | <p>For 3B21D: Off-line maintenance channel master status (in hexadecimal).</p> <p>For 3B20D: This field is meaningless. It is set to 0xffffffff.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| s1 | Off-line maintenance channel slave status (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| t1 | Off-line maintenance channel buffer (in hexadecimal).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| u1 | Community name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| v1 | Community number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| w1 | The invalid error interrupt type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| x1 | The contents of the Error Register (ER) (in hexadecimal). See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| y1 | The contents of the Microinterrupt Error Register (UER) (in hexadecimal). See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| z1 | The contents of the UER1 (in hexadecimal). See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> .                                            |
| a2 | The invalid error number.                                                                                                                                                                      |
| b2 | If bit 27 of the main store controller 0 Trapped Address Register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred.                                          |
| c2 | The contents, in hexadecimal, of the main store controller 0 Error Register 1 (ER01). See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> . |
| d2 | The contents, in hexadecimal, of the main store controller 0 Error Register 2 (ER02). See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> . |
| e2 | The contents, in hexadecimal, of the main store controller 1 trapped address register (TAR1).                                                                                                  |
| f2 | The contents, in hexadecimal, of the main store controller 1 Error Register 1 (ER11). See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> . |
| g2 | The contents, in hexadecimal, of the main store controller 1 Error Register 2 (ER12). See the Register Layouts section of the Error Analysis chapter of the <i>System Maintenance Manual</i> . |
| h2 | Error data (in hexadecimal).                                                                                                                                                                   |
| i2 | Physical memory address (in hexadecimal).                                                                                                                                                      |
| j2 | The contents of the MCERT error address register. This is the address where the error occurred.                                                                                                |
| k2 | The contents of the MCERT error register. This register has all the relevant information that caused an error B.                                                                               |
| l2 | The contents of the MCERT status register. This indicates the banks that are present, the size of each bank and the result of the march test.                                                  |
| m2 | The contents of the MCERT command register.                                                                                                                                                    |
| n2 | The contents of the MCERT strobe shape register. This register encodes the timing requirements for various operations in the MCERT circuit.                                                    |
| o2 | The contents of the MCERT main memory register. This register has all the relevant error information.                                                                                          |
| p2 | The contents of the data path MCERT error data register. This register contains the data when the error occurred.                                                                              |
| q2 | The contents of the data path MCERT status register. This register contains information that caused the error A, C, or D.                                                                      |
| r2 | The contents of the MCERT data path command register. This register contains application specific information.                                                                                 |

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| s2 | The bank number, in hexadecimal, corresponding to the physical memory address. A value of 0xFF is invalid. This indicates an error in accessing the MCERT (memory controller for the 3B21D machine).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| t2 | <p>A string defining one of four error types:</p> <p><b>MEMORY PARITY FAILURE</b> — Indicates a correctable memory failure occurred in the on-line processor (my store D).</p> <p><b>NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE</b> — Indicates noncorrectable memory parity failure in the on-line CU.</p> <p><b>OTHER STORE REFRESH PARITY ERROR</b> — Indicates a correctable parity error (other store D) in the mate processor. This type of error can only occur if the mate processor is in the standby state.</p> <p><b>OTHER STORE READ PARITY ERROR</b> — Indicates a noncorrectable memory error (other store C) in the mate processor. This type of error can only occur if the mate processor is in the standby state.</p> |
| u2 | Contents of the EAI error register. This indicates the actual error on the EAI hardware.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

#### 4. ACTION TO BE TAKEN

For Format 1, save the Read Only Printer (ROP) output, note the Utility ID (UID) of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 2, examine the DSCH channel status register layout to determine the error type, and run diagnostics on the unit.

For Formats 3 and 4, for all six error types, run diagnostics on the indicated unit.

For Format 5, for error types **PARITY DIVERT ERROR** and **CCIO - COMMAND FAILURE**, run diagnostics on the indicated unit.

For error types **PROTECTION VIOLATION**, **OUT OF RANGE MEMORY REFERENCE**, **PRIVILEGED INSTRUCTION VIOLATION**, **BAD ALIGNMENT ON MEMORY REFERENCE**, **ILLEGAL OPERAND**, **ILLEGAL INSTRUCTION** and **ILLEGAL STACK SWITCH**, forward the software log entry information from ERLOG to the next level of support.

For error type **OUT OF RANGE MEMORY REFERENCE (OTHER STORE)**, check the fuses in the off-line memory and replace as needed. Run diagnostics on the off-line memory.

For error type **VIRTUAL ADDRESS OUT OF RANGE**, save the information from ERLOG output, note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 6, run diagnostics on the processor encountering the fault.

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For Format 7, save the information from ERLOG output, note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 8, if the error occurs more than once in 24 hours, run diagnostics on the off-line processor. If no problem is found, switch processors and run diagnostics on the off-line processor.

For Format 9, check the update cables on both processors and run diagnostics on the off-line processor.

For Format 10, run diagnostics on the CU in which the error occurred and forward the information from ERLOG and ROP output to the next level of support.

For Format 11, if possible, switch processors so that the faulty CU can be diagnosed. Forward the diagnostic results and the information from ERLOG to the next level of support.

For Formats 12 and 13, if the processor switched as a result of the error, run diagnostics on the processor encountering the fault.

For Formats 14 and 15, diagnose the fault unit and forward the diagnostic results and the information from ERLOG to the next level of support.

For Formats 16 and 17, if the error occurred on the off-line CU, check the update cable on both the processors. In all cases, run diagnostics on the faulty processor.

**NOTE:** To run CU diagnostics, the CU that is being diagnosed should be out of service and the other CU active.

Format 18 indicates a fault in the EAI hardware of the CC pack.

Some classes of EAI faults will cause hard failures for which there is no automatic recovery of the EAI. An example of this type of error is a stuck microprocessor address/data bit which will cause indeterminate code execution and block internal recovery. Invalid error register contents reported in the error log (e.g. 00) is an indication that the EAI hardware has detected a fault but is not able to perform fault recovery functions for the EAI. As a result of this hard fault, RTR fault recovery code will not be able to access the EAI hardware, including the EAI error register. The main symptom of this problem is that the EAI hardware routinely report errors even after automatic recovery. When this type of error occurs and if the CUs are in ACT/STBY state, a CU switch will occur and the machine will continue to run on the non-faulty CU (a CU switch will NOT occur if the CUs are in ACT/OOS state). Also, all other system functions should continue as normal.

In any case ensure that the machine is running on the other (non-faulty) CU and run diagnostics on the faulty CU. If the diagnostics fail, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG and ROP output to the next level of support.

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## 5. REFERENCES

### OMDB Keys

Format 1 has an OMDB key of 104.  
Format 2 has an OMDB key of 115.  
Format 3 has OMDB keys of 381, 382, 384, 386, 391, and 393.  
Format 4 has OMDB key of 385, 388, 389, 390, 394, and 395.  
Format 5 has OMDB key of 215, 373, 374, 375, 376, 377, 378, 379, 380, 392, and 465.  
Format 6 has OMDB key of 116 and 174.  
Format 7 has OMDB key of 397, 398, and 399.  
Format 8 has an OMDB key of 107.  
Format 9 has an OMDB key of 114.  
Format 10 has an OMDB key of 396.  
Format 11 has an OMDB key of 400.  
Format 12 has an OMDB key of 383.  
Format 13 has an OMDB key of 679.  
Format 14 has an OMDB key of 108.  
Format 15 has an OMDB key of 680.  
Format 16 has OMDB keys of 105, 112, 113, and 216.  
Format 17 has OMDB keys of 681, 682, 683, and 684.  
Format 18 has an OMDB key of 685.

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Input Message  
DGN:CU

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ID ..... REPT:FAN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT FAN INHIBITS CLEARED a b
- [2] REPT FAN INHIBITS NOT CLEARED a b
- [3] REPT FAN INHIBIT TIMER HAS EXPIRED a b
- [4] REPT FAN INHIBITS CLEARED c CABINET
- [5] REPT FAN INHIBITS NOT CLEARED c CABINET
- [6] REPT FAN INHIBIT TIMER HAS EXPIRED c CABINET
- [7] REPT FAN ALARM c CABINET
- [8] REPT FAN ALARM CLEARED c CABINET

## 2. REASON FOR OUTPUT

To report on fan alarm scan points.

Formats 1 and 4 indicate that the fan alarm scan points are no longer inhibited. This is a result of a 30-minute inhibit timer expiring.

Formats 2 and 5 report that the Power Switch Monitor (PSM) failed to remove scan point inhibits.

Formats 3 and 6 report that the inhibit timer has expired and the PSM is taking action to allow the points.

Format 7 reports a scan point transition which indicates a fan alarm in one of the cabinets of the 3B21D computer.

Format 8 reports a scan point transition which indicates the fan alarm in one of the cabinets of the 3B21D computer was cleared.

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### 3. VARIABLE FIELD DEFINITIONS

- |   |                          |
|---|--------------------------|
| a | Unit name.               |
| b | Unit number.             |
| c | Basic or growth cabinet. |

### 4. ACTION TO BE TAKEN

For Formats 1 through 6, if inhibits could not be cleared, information from the REPT:PSM output message will indicate the reason for the failure. Maintenance on the fan units may be required.

For Format 7, determine if the fan units in the indicated cabinet of the 3B21D computer need to be repaired. If all fan units are operational, then fan alarm is the result of the fan circuitry experiencing excessive heat. This causes the fan to run at high speeds. Seek technical assistance if needed.

For Format 8, no action is needed.

### 5. REFERENCES

#### OMDB Keys

Formats 1 through 6, and 8 have an OMDB key of 137.

Format 2 also has OMDB keys of 135 (major alarm) and 136 (minor alarm).

Formats 5 and 7 also have OMDB keys of 135 and 697 (critical alarm).

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#### Output Message

REPT:PSM

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ID ..... REPT:FAULT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT FAULT  
{RPCN|RPCD}a b FAULTED, TIME c, FAULT CODE X'd  
3BI STATUS IS X'e SSRET IS X'f
  
- [2] REPT FAULT  
CONFIG FAULT CODE X'd RCVD BY \_RMDFLT FOR {RPCN|RPCD}a b  
TIME = c
  
- [3] REPT FAULT  
CONFIG FAULT CODE X'd RCVD BY \_RMDFLT FOR {RPCN|RPCD}a b  
WHEN {RPCN|RPCD}a b IS NOT OOS
  
- [4] REPT FAULT  
{RPCN|RPCD}a b IS RECURSIVELY FAULTED g TIMES
  
- [5] REPT FAULT  
\_OP\_RSDMA RETURNS OP\_BSNQ, TIME c  
{RPCN|RPCD}a b, FLTCODE X'd
  
- [6] REPT FAULT  
\_OP\_RSDMA RETURNS OP\_NCMLPT, TIME c  
{RPCN|RPCD}a b, FLTCODE X'd
  
- [7] REPT FAULT  
\_OP\_RSDMA RETURNS OP\_CMPLT, TIME c  
{RPCN|RPCD}a b, FLTCODE X'd
  
- [8] REPT FAULT  
RCVD FAULT TYPE FLT\_Nhhhh, CODE X'd, TIME c

## 2. REASON FOR OUTPUT

Format 1 prints when a node hardware fault indication is dispatched to the fault module and the device has been identified. This message also reports the time stamp, the fault code, as well as the current 3B Interface (3BI) status. This information is for technical study purposes.

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Format 2 reports that the Interprocessor Message Switch (IMS) driver received a fault sent from the config library. The time stamp is also printed.

Format 3 reports that the IMS driver received a fault sent from the config library. At the time of the fault arrival, the node involved was not in the Out Of Service (OOS) status.

Format 4 prints when a hardware fault indication is dispatched to the fault module while it was handling a fault on the same node.

Format 5 reports the return status from the Ring Peripheral Controller (RPC) Direct Memory Access (DMA) restart. In this case a bad RPC DMA sequence number is found when the restart process begins. This information is for technical study purposes.

Format 6 reports the return status from the RPC DMA restart. In this case the RPC has not completed its current DMA job when the restart process begins. This information is for technical study purposes.

Format 7 reports the return status from the RPC DMA restart. In this case the RPC has completed its current DMA job when the restart process begins. This information is for technical study purposes.

Format 8 reports that the IMS driver received a fault indication of type FLT\_Nhhhh. The user need not be concerned with this message; it is for technical study purposes only.

### 3. VARIABLE FIELD DEFINITIONS

|      |                                                                                                                                                                                              |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RPCN | Prints for RPC.                                                                                                                                                                              |
| RPCD | Prints for Direct Link Node (DLN).                                                                                                                                                           |
| a    | Node group number (00-63).                                                                                                                                                                   |
| b    | Node member number. For RPC it is 0 and for a DLN it is not 0.                                                                                                                               |
| c    | Current real time clock stamp (in milliseconds).                                                                                                                                             |
| d    | Fault code in hexadecimal.                                                                                                                                                                   |
| e    | The current 3BI status in hexadecimal.                                                                                                                                                       |
| f    | The return code from the status sensing routing. Use reservation when interpreting the corresponding 3BI status if this code is not X'1 (SUCCESS); 3BI status could be garbage in this case. |
| g    | The number of recursive faults received.                                                                                                                                                     |
| h    | ADRP                                                                                                                                                                                         |
|      | DREP                                                                                                                                                                                         |
|      | PICP                                                                                                                                                                                         |

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#### 4. ACTION TO BE TAKEN

Format 1, if the node is removed, the node should be diagnosed and then restored to service using normal maintenance procedures.

**NOTE:** The Automatic Ring Recovery (ARR) routine, unless inhibited, will attempt (up to 3 times) automatic recovery of Out of Service (OOS) nodes if the node maintenance state is not marked "MANUAL".

The node should self-recover for an occasional transient fault unless the error threshold is exceeded (in this case, the node is removed and the recommended maintenance action should be taken). Each office is encouraged to keep a history of such fault occurrences to help in planning maintenance decisions. When clusters of faults occur and the system is not recovering reasonably, save the Receive Only Printer (ROP) output and seek technical assistance.

Formats 2, 3, these messages accompany message Format 1 when config library faults are involved. No special action is needed.

Format 4, this message accompanies message Format 1 when a fault occurs while the IMS driver is handling a previous fault on the same node. No special action is needed.

Formats 5, 6, 7, these messages accompany message Format 1 when the fault threshold is not exceeded. No special action is needed.

Format 8, this message is for data collection purposes only. No special action is needed.

#### 5. REFERENCES

Practice 256-090-180 *CNI System Description Manual* - D-Channel and Special Access Data Channel Signaling Section

Practice 256-090-182 *CNI Maintenance Manual* - Link Operating Procedures Section

Output Messages

REPT: COM100

REPT: IMSDRV-FLT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:FF-MULTI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT FAN MULTIPLE FAILURE a b
- [2] REPT FAN MULTIPLE ALARM CLEARED a b

## 2. REASON FOR OUTPUT

Format 1 reports a scan point transition indicating multiple fan failures.

Format 2 reports a scan point transition indicating the fan alarm was cleared.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name.
- b Unit number.

## 4. ACTION TO BE TAKEN

For Format 1, determine if the fans need to be repaired.

For Format 2, no action is needed.

## 5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 135.

Format 2 has an OMDB key of 137.

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ID ..... REPT:FF-SING  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT FAN SINGLE FAILURE a b
- [2] REPT FAN SINGLE ALARM CLEARED a b

## 2. REASON FOR OUTPUT

Format 1 reports a scan point transition indicating a single fan failure.

Format 2 reports a scan point transition indicating the fan alarm was cleared.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit name.
- b Unit number.

## 4. ACTION TO BE TAKEN

For Format 1, determine if the fan needs to be repaired.

For Format 2, no action is needed.

## 5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 136.

Format 2 has an OMDB key of 137.

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ID ..... REPT:FIELD-MAINT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FIELD MAINT a

## 2. REASON FOR OUTPUT

To report that a poked input message from a field maintenance command page has failed.

## 3. VARIABLE FIELD DEFINITIONS

a Reason for failure:

DISPLAY PAGE FAILED — A request for the display administration process to display the input page failed.

INPUT BUFFER LIMIT EXCEEDED — Fmctrl could not store all of the input message line in the command buffer.

INPUT TEXT EXECUTION FAILED — Failure to communicate with the craft shell when passing the input message for processing.

MESSAGE NOT RECEIVED — An attempt to update the screen via sending a message string to the display administration process has failed.

UNABLE TO SEND MESSAGE TO DAP — An attempt to communicate with the display administration process failed.

UNKNOWN INDICATOR — The input message was not found in the fmctrl command table.

## 4. ACTION TO BE TAKEN

If the error does not involve the display administration process, retry the command. If the error does involve Display Administration Process (DAP), restart DAP. If this does not correct the problem, seek technical assistance.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 285.

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ID ..... REPT:FILESYS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FILESYS a OVERFLOW b

## 2. REASON FOR OUTPUT

To report that a UNIX® RTR file system is full or nearly full.

## 3. VARIABLE FIELD DEFINITIONS

- a Severity of overflow condition:
- WARNING — File system is in danger of overflowing, possibly within two hours.
- CRITICAL — File system is completely full.
- b File system name.

## 4. ACTION TO BE TAKEN

Manual action may be required to remove data from the file system named. In order to remove data safely, the user must know which files in the file system are permanent and which are temporary. Refer to the application's specific document for file system maintenance and trouble-clearing procedures.

After the files are removed, the amount of free space in the file system can be displayed by using the UNIX® command `df`, or the `OP:ST-FREEDISK` input command. If the free space is still low, or if the file system overflow condition continues, it is likely that some active processes have opens on files in the file system. The removal of files will not take effect until all opens to the file are closed.

The processes with active opens can be identified by using the UNIX® command `umount`, or the `INH:FILESYS;UMOUNT` input command. The `umount` command will fail to unmount if there are open files in the file system. The processes with active opens may have to be terminated to remove the overflow condition, but discretion is advised. In case of uncertainty, the next level of support personnel should be consulted.

In particular, when an overflow condition is reported for `/dev/tmp`, it is recommended that a corrective measure be taken to clear the overflow condition. A shortage in `/dev/tmp` free space may result in loss or mutilation of ROP messages, or other unforeseen malfunctions in the system.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 451.

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Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Input Messages

CLR:F-FILE

DEL:LOG

INH:F-UMOUNT

OP:ST-FRDISK

OP:ST-LSTDIR

Output Messages

CLR:F-FILE

OP:ST-FRDISK

OP:ST-LSTDIR

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ID ..... REPT:FMGR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR a TABLE b FAIL  
ERROR = c DATA X'd

## 2. REASON FOR OUTPUT

To report an alteration or a failed attempt to alter the size of File Manager (FMGR) tables.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Name of FMGR table:
- CAPABILITY — Capability table.
- FILE            — File table.
- INODE         — Inode table.
- b                      Action taken on FMGR table:
- GROWTH     — Increase in size.
- DEGROWTH — Decrease in size.
- c                      Reason FMGR was unable to grow:
- 1 —     System is currently in Disk Independent Operation (DIOP).
- 2 —     Insufficient time since last unsuccessful growth attempt.
- 3 —     Resource is already at its maximum size.
- 4 —     Cannot allocate a message buffer for message to the memory manager.
- 5 —     Cannot allocate additional memory.
- 6 —     Cannot send the message to the memory manager.
- 7 —     Another task is growing the resource.
- d                      If non-zero, status indicates why memory manager cannot allocate additional memory.

## 4. ACTION TO BE TAKEN

If GROWTH failure, reduce system load. If DEGROWTH failure, FMGR will deallocate as needed at a later time.

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**5. REFERENCES**

None.

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ID ..... REPT:FMGR-DSW  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR DIR SW FAILED:  
INODE a OPEN BY PID b ON c

## 2. REASON FOR OUTPUT

To report that a directory switch request failed because of a busy inode.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                         |
|---|-------------------------------------------------------------------------|
| a | The busy inode number.                                                  |
| b | The process Identification (ID) of the process that has the inode open. |
| c | The name of the file system that contains the inode.                    |

## 4. ACTION TO BE TAKEN

Kill the process(es) that has the inode open and try the switch again. Repeat until all processes that have inodes open in the directory structure have been killed. If the switch still does not succeed, report the problem to UNIX® RTR system support.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 678.

CIC Select Code 303-023 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Operating System Interfaces Programmer's Manual*, Volume 3, Part 2, fmatomsw(6), dirsw(9F)

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ID ..... REPT:FMGR-ECD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR ECD a[-b] PID=c UID=d e

## 2. REASON FOR OUTPUT

To report that the file manager attempted to access an Equipment Configuration Database (ECD) record defining a special device file. In the attempt, something malfunctioned.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Message:
- BAD-DCN — The major device number is invalid for the specified driver type.
- BAD-DRIVER — The driver type is undefined.
- BAD-FIFO — The partition number exceeded the maximum allowed for a fifo device.
- BAD-PERM — One or more of the file permissions exceeded the value of seven.
- RETURN — The lla access function failed, returning number code. This would normally indicate that the special device file is not in the database.
- b                      Number code.
- c                      Process Identification (ID) of the process that sent the message to the File Manager (FMGR).
- d                      Utility ID of the process that sent the message to the FMGR.
- e                      Fully qualified pathname for which the ECD access occurred.

## 4. ACTION TO BE TAKEN

The driver required information normally extracted from the ECD will instead be used as specified in the special device file contained in the file system. If the special device file information (the mdct-rid, partition, and dcN) is inappropriate, then the ECD must be corrected.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 336.

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ID ..... REPT:FMGR-FILSYS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR a IN FILE SYSTEM b

## 2. REASON FOR OUTPUT

To report that space for a file system could not be allocated during `falloc()` or `writetape()` (POSSIBLE CORRUPTION), or that static data in the root file system incore super block was corrupted but has been recovered (SUPER BLOCK RECOVERED).

## 3. VARIABLE FIELD DEFINITIONS

- a Reason for output:
- FMGR INCORE SUPER BLOCK RECOVERED—Static data in root file system incore super block was corrupted but has been recovered.
- POSSIBLE CORRUPTION—Build of a file system's bitmap failed (during `falloc()` or `writetape()`), and file system may be corrupted.
- b The name of the file system.

## 4. ACTION TO BE TAKEN

For FMGR INCORE SUPER BLOCK RECOVERED, file system audit has been requested; examine output when audit completes. If condition persists, report audit results and name of file system to next level of technical support.

For POSSIBLE CORRUPTION, run file system audits.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 518.

Input Messages  
AUD: FMGR  
AUD: FSBLK  
AUD: FSLINK

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ID ..... REPT:FMGR-GRW  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR a TABLE b SUCCESS  
NEW RESOURCE SIZE = X'c PAGES  
NUMBER OF FREE ENTRIES = X'd ENTRIES

REPT FMGR a TABLE b FAIL  
ERROR = e DATA1 X'f

## 2. REASON FOR OUTPUT

To report the successful allocation or deallocation of File Manager internal table resources and the new size of the specified resource or the cause of a failed attempt.

## 3. VARIABLE FIELD DEFINITIONS

- a Name of the resource that has increased size. Possible values are:
- CAPABILITY — Capability table.
  - FILE — File table.
  - INODE — Inode table.
- b Action taken on resource. Possible values are:
- GROWTH — Resource has increased in size.
  - DEGROWTH — Resource has decreased in size.
- c Current (after growth/degrowth) size of the resource in pages of memory.
- d Current number of resource entries on the free list.
- e Reason FMGR was unable to grow the resource. Possible values are:
- 1 — System is currently in DIOP.
  - 2 — Insufficient time has passed since the last unsuccessful growth attempt.
  - 3 — Resource is already at its maximum size.
  - 4 — Unable to allocate a message buffer for message to the Memory Manager.
  - 5 — Attempt to allocate additional memory failed.
- f Status returned in acknowledgement from Memory Manager.
- 6 — Unable to send the message to the memory manager.
  - 7 — Another task is growing the resource.

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#### **4. ACTION TO BE TAKEN**

There is no action to be taken for the first message. It is intended for informational purposes only.

In case of resource growth failure, attempt to reduce system load.

In case of resource deallocation failure, no action is necessary. The File Manager will attempt to deallocate the resource, as needed, at a later time.

#### **5. REFERENCES**

None.

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ID ..... REPT:FMGR-MOUNT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR MOUNT FAILED:  
PROCESS PID=a,UID=b,HAS OPEN MOUNT POINT=c

## 2. REASON FOR OUTPUT

To report that mount failed and print the Process Identification (PID) and Utility Identification (UID) of the process which has the mount point open.

## 3. VARIABLE FIELD DEFINITIONS

- a                      The PID of the process which has the mount point open.
- b                      The UID of the process which has the mount point open.
- c                      The name of the mount point.

## 4. ACTION TO BE TAKEN

Kill the processes which have the mount point open and retry the mount. If the mount still does not succeed, report the problem to UNIX® RTR System Support.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 651.

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ID ..... REPT:FMGR-NF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR NONTASK FAULT a ADDR b

## 2. REASON FOR OUTPUT

To report that a file manager fault has occurred that was not within a task.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Fault code. See DFC Output Appendix I, APP:DFC-I.  
b                      Program address at which the fault occurred.

## 4. ACTION TO BE TAKEN

The fault has been resolved by the file manager and no further action should be necessary.  
Should this condition become chronic, the problem should be referred to UNIX® RTR  
System Support.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 337.

Output Appendix  
APP:DFC-I

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ID ..... REPT:FMGR-OVLD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR: a TABLE OVERLOAD b, COUNT = c

## 2. REASON FOR OUTPUT

To report that one of the file manager tables is approaching an overload condition or to report that the overload condition has been cleared.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Name of file manager internal table:
- CAP    — Capability table.
- FILE   — File table.
- INODE — Inode table.
- b                      Indicates severity of overload:
- CLEARED — A number of table entries have been freed since last warning/critical report.
- CRITICAL — Very close to complete exhaustion.
- WARNING — Most table entries have been allocated, still a few free entries.
- c                      Number of table entries in use.

## 4. ACTION TO BE TAKEN

No action is necessary. AUD:FMGR;2, AUD:FMGR;4, or AUD:FMGR;5 could be taken to ensure correctness of the use count of the inode, file, or capability table.

## 5. REFERENCES

Input Message  
AUD:FMGR

Output Messages  
AUD:FMGR2  
AUD:FMGR4  
AUD:FMGR5

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ID ..... REPT:FMGR-PROC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR PROCESS KILLED BY UNCONDITIONAL MOUNT  
PID=a, UID=b, MOUNT POINT=c

## 2. REASON FOR OUTPUT

To report that the FMGR has terminated a process due to an unconditional mount request.

If the FMGR is requested to mount a file system unconditionally, all non-kernel processes that have the mount point open (for example, a process with the mount point at its current working directory) will be terminated.

## 3. VARIABLE FIELD DEFINITIONS

- a Process Identification (ID) of the terminated process.
- b Utility ID of the terminated process.
- c Mount point of the unconditional mount request.

## 4. ACTION TO BE TAKEN

Important system processes should restart automatically, so no direct action is required of the craft. Save the Receive-Only Printer (ROP) output and seek technical assistance to determine why it was necessary to terminate the indicated process.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 602.

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ID ..... REPT:FMGR-TS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR TASK STATUS a, PID=b TYPE=c ADDR=d

## 2. REASON FOR OUTPUT

To report that a file manager task has been prematurely terminated.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Reason for task termination:<br><br><b>FAULT</b> — Task was running when a file manager fault occurred.<br><br><b>PHASE1</b> — Task was running when a phase level 1 occurred.<br><br><b>TIMEOUT</b> — Task execution time exceeded limit. |
| b | Process Identification (ID) of the process that requested the task.<br>Decimal.                                                                                                                                                            |
| c | Type of message (from head/mstyp.h) that initiated the task.<br>Decimal.                                                                                                                                                                   |
| d | Address of resource that a timed out task was waiting for.<br>Hexadecimal.                                                                                                                                                                 |

## 4. ACTION TO BE TAKEN

An error condition has been resolved by the file manager. No further action is necessary.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 335.

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ID ..... REPT:FMGR-UMNTFLD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR UNMOUNT FAILED:  
PROCESS a HAS OPEN FOR INODE b FOR c

## 2. REASON FOR OUTPUT

To report that a unmount request failed because the file system is busy, and to specify which processes have locks on files in the file system to be unmounted.

## 3. VARIABLE FIELD DEFINITIONS

a                      Process Identification (ID) of the process which has the inode open.  
b                      The busy inode number.  
c                      The name of the file system.

## 4. ACTION TO BE TAKEN

Support processes such as recent change, audits and measurements may be killed. Kill the processes that have the inodes open and try the unmount again. Some processes affect call processing and should never be killed. If the unmount still does not succeed, report the problem to the next level of technical support and/or contact technical support for assistance in determining which processes may be killed.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 583.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:FMGR-UNMNT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT FMGR a UNMOUNTED DUE TO DISK REMOVAL
- [2] REPT FMGR UNMOUNT FAILED:  
PROCESS b HAS OPEN FOR INODE c FOR d

## 2. REASON FOR OUTPUT

Format 1 reports that the file manager has unmounted the named file system due to disk removal (by fault or request).

Format 2 reports that an unmount request failed because the file system is busy, and to specify which processes have locks on files in the file system to be unmounted.

## 3. VARIABLE FIELD DEFINITIONS

- a Name of the file system unmounted.
- b Process Identification (ID) of the process which has the inode open.
- c Busy inode number.
- d Name of the file system.

## 4. ACTION TO BE TAKEN

Format 1, no action needs to be taken.

Format 2, support processes such as recent change, audits and measurements may be killed. Kill the processes that have the inodes open and try the unmount again. Some processes affect call processing and should never be killed. If the unmount still does not succeed, report the problem to the next level of technical support and/or contact technical support for assistance in determining which processes may be killed.

## 5. REFERENCES

OMDB Key  
Format 2 has an OMDB Key of 583.

Input Message  
RMV:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:FMGR-WNDW  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT FMGR ACCESS WINDOW TO BLOCK DEVICE FOR MOUNTED  
FILE SYSTEM IS a

## 2. REASON FOR OUTPUT

To report that the window to access the block device for mounted file system is open/closed for write operation. This message will be produced as a result of the `openwd`, or `closewd` UNIX® commands.

## 3. VARIABLE FIELD DEFINITIONS

a                      Access window status:  
  
CLOSED — Access window is closed.  
  
OPEN — Access window is open.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

CIC Select Code 303-023 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System  
Operating System Interfaces Programmer's Manual*, Volume 3, Part 2

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:FUSE-ALM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT FUSE ALARM a CABINET
- [2] REPT FUSE ALARM CLEARED a CABINET

## 2. REASON FOR OUTPUT

To report on fuse alarm scan points.

Format 1 reports a scan point transition which indicates a fuse alarm in one of the cabinets of the 3B21D computer.

Format 2 reports a scan point transition which indicates a fuse alarm was cleared in one of the cabinets of the 3B21D computer.

## 3. VARIABLE FIELD DEFINITIONS

a Basic or growth cabinet.

## 4. ACTION TO BE TAKEN

For Format 1, determine if any of the fuses, within the indicated cabinet of the 3B21D computer, need to be repaired.

For Format 2, no action is needed.

## 5. REFERENCES

OMDB Key(s)

Format 1 has an OMDB key of 698 (major alarm).

Format 2 has an OMDB key of 747.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:GRASP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT GRASP a b [c]  
REPT GRASP d c
  
- [2] REPT GRASP RMBPT e COMPLETED  
BREAKPOINT CLEARED SYSTEM DIRECTIVE #f
  
- [3] REPT GRASP BREAKPOINT e IN CRITICAL PLACE REMOVED
  
- [4] REPT GRASP BREAKPOINT FIRED  
UTILID=g PID=h BREAKPOINT=e FIRENUM=i
  
- [5] REPT GRASP COMPLETED
  
- [6] REPT GRASP NOT STARTED  
INVALID ACTION FIELD
  
- [7] REPT GRASP NOT STARTED  
INVALID ID FIELD j
  
- [8] REPT GRASP NOT STARTED  
RETRY LATER

## 2. REASON FOR OUTPUT

To report on Generic Access Package (GRASP) conditions of a general or emergency nature.

## 3. VARIABLE FIELD DEFINITIONS

- a Condition reported:
- DATA BUF — GRASP dump data is affected.
  - DYNAMIC — The status of the dynamic timer is changing.
  - FLDOP — There are other field operation processes with which GRASP cannot coexist. GRASP cannot proceed.
  - MESSAGE BUF — GRASP completion messages are affected.
  - STATIC — The static memory area internal to GRASP is affected.
  - UC — The utility circuit is affected.

SEE PROPRIETARY NOTICE ON COVER PAGE

- b                      Status:
- ABORT — GRASP is being terminated. Stop issuing additional commands immediately. Expect no additional message.
- FULL — The trace was stopped as requested in the INIT:UMEM input message. Trace memory is full.
- LOST — If condition reported is DYNAMIC, then the timer override has been lost and the default will take effect with the next debugging session.  
                            If condition reported is STATIC, then the static memory area used by GRASP is full, or an internal error occurred in trying to allocate memory from this area.
- OVFL — More data is being produced than can be printed. The oldest data is overwritten with the newest data.
- RESET — The default value of the timer is in effect.
- UNAV — The facility in a is not available.
- c                      CONDITION RUNNING WAS RUNNING NOW STOPPED. The trace was stopped.
- d                      CONDITION TRIGGERED. An external event trigger occurred.
- e                      Numeric identifier (one or more decimal digits) for the breakpoint affected.
- f                      Generic Access Package (GRASP) execution sequence number.
- g                      Utility ID (UID) of the target process as specified in Practice 254-341-115.
- h                      Process ID (PID) of the target process.
- i                      Firing number (one or more decimal digits) of breakpoint.
- j                      RANGE ERROR (DTIME)  
                            RANGE ERROR (UNTIL)

#### 4. ACTION TO BE TAKEN

None.

#### 5. REFERENCES

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*  
3B20D/3B21D Processor

Input Messages  
ALW:UTILFLAG  
IN:DTIME  
INIT:UMEM  
WHEN:COND

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:GROWTH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT GROWTH a b {COMPLETED|IN PROGRESS|FAILED} [ c ]

## 2. REASON FOR OUTPUT

To report when a unit is grown. This could be either due to normal initialization or due to a craft person dynamically growing a unit.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                              |
|---|----------------------------------------------------------------------------------------------------------------------------------------------|
| a | Unit name.                                                                                                                                   |
| b | Unit number.                                                                                                                                 |
| c | Reason for output. For an Input/Output Processor (IOP) unit, refer to IOP Output Appendix J, APP:IOP-J for an explanation of the error code. |

## 4. ACTION TO BE TAKEN

No action is needed if reason indicates COMPLETED or IN PROGRESS.

If reason is FAILED and the unit name is an IOP or an IOP subunit, check the error code to determine action.

If reason is FAILED and the unit name is a Disk File Controller (DFC) or a DFC subunit, see accompanying REPT:DKDRV report on the Read Only Printer (ROP) for the error/info code. Refer to DFC Output Appendix A, APP:DFC-A for an explanation of the error/info code.

## 5. REFERENCES

### OMDB Keys

There are OMDB keys of 197, 198, and 241.

### Output Appendixes

APP:DFC-A

APP:IOP-J

### Output Message

REPT:DKDRV

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:HSD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT HSD a {ERROR b [c] [COMPL CODE d]|  
UNIDENTIFIED RESPONSE WD1=e WD2=f}
- [2] REPT HSD a WARNING LAST LINK IN DUPLEX LINK  
GROUP BEING REMOVED
- [3] REPT HSD a STARTED
- [4] REPT HSD a STOPPED

## 2. REASON FOR OUTPUT

Format 1 reports a High-Speed Synchronous Datalink (HSD) link related software or hardware error.

Format 2 reports the last available link in a duplex link group is being removed from service.

Format 3 reports that the HSD has changed state from STBY to ACT. An HSD will change to ACT state when the level 2 connection is established, and the data link is in information transfer state.

Format 4 reports that the HSD has changed state from ACT to STBY. An HSD will change to STBY state when the level 2 connection is terminated, and the level 1 connection remains established.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies, in hexadecimal notation, the point within the Input/Output Processor (IOP) Driver (IODRV) where a software or hardware error was detected. See IOP Output Appendix F, APP:IOP-F.
- c Character string giving more information about the error identified. Refer to IOP Output Appendix F, APP:IOP-F for additional explanation.
- d Hardware error type, in hexadecimal notation. See IOP Output Appendix A, APP:IOP-A.
- e First word of an unidentified completion report.
- f Second word of an unidentified completion report.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### 4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

For Format 2, removal of the last available link in a duplex link group indicates that no data transmission can take place over the link facility. One of the links in the group should be repaired and then restored to service.

Formats 3 and 4 are informational messages and indicate that the HSD has changed states. No action is necessary.

#### 5. REFERENCES

##### OMDB Key(s)

Format 1 has an OMDB key of 208.

Format 2 has an OMDB key of 590.

Formats 3 and 4 have an OMDB key of 308.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

##### Output Appendixes

APP: IOP-A

APP: IOP-F

##### Input Messages

CLR: IODRV

DGN: HSDC

RMV: HSD

RST: HSD

UPD: OMDB

##### Output Messages

RCVRY: IOP

REPT: HSD

REPT: IOP

REPT: RCVRY-HSD

REPT: RCVRY-HSDC

REPT: RCVRY-IOP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:HSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT HSDC a {ERROR b [COMPL CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}
- [2] REPT HSDC a CODE VERSION X'f
- [3] REPT HSDC a FLASH RAM VERSION X'g

## 2. REASON FOR OUTPUT

Format 1 reports a High Speed Synchronous Data Link Controller (HSDC) related software or hardware error.

Format 2 is output during the restoration of the unit.

Format 3 is requested by diagnostics and output prior to the update of flash Random Access Memory (RAM) on the unit.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies the point, in hexadecimal notation, within Input/Output Processor (IOP) Driver (IODRV) where a software or hardware error was detected. See IOP Output Appendix F, APP: IOP-F.
- c Hardware error type, in hexadecimal notation. See IOP Output Appendix A, APP: IOP-A.
- d First word of an unidentifiable completion report.
- e Second word of an unidentifiable completion report.
- f Peripheral controller pump code version number.
- g Peripheral controller flash RAM version number.

## 4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Formats 2 and 3, no action is necessary unless the controller and/or its subdevices are not acting normal, or cannot be restored. Contact the service organization with the code version number and/or flash RAM version number that was used.

SEE PROPRIETARY NOTICE ON COVER PAGE

## **5. REFERENCES**

### OMDB Key(s)

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 226.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation* Lucent Technologies 3B20D/3B21D Model 1 Computer

### Output Appendixes

APP: IOP-A

APP: IOP-F

### Input Messages

CLR: IODRV

DGN: SDLC

RMV: SDLC

RST: SDLC

### Output Messages

RCVRY: IOP

REPT: IOP

REPT: RCVRY-HSDC

REPT: RCVRY-IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:HUST-CNT-SND  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT HUSTAT CANNOT SEND NSC a b CNTS

## 2. REASON FOR OUTPUT

All machine performance and machine service failure counts have been successfully collected for an NSC frame. The system function call to send the failure counts to APS apsmeas failed due to an excessive number of outstanding messages on its input message queue, or the system message buffers are temporarily full.

## 3. VARIABLE FIELD DEFINITIONS

a                      NSC frame number.

b                      MPR        — Machine performance report.  
                      MSR DSD — Machine service report (for direct services dialing).  
                      MSR T/C — Machine service report (for teleconferencing).

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:HUST-CTS-FL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT HUSTAT a COUNTS FAILED

**2. REASON FOR OUTPUT**

One or more of the NSC counts to be collected could not be retrieved. A partial output message was sent to the hustat process.

**3. VARIABLE FIELD DEFINITIONS**

a                    MPR        — Machine performance report.  
                     MSR DSD — Machine service report (for direct service dialing).  
                     MSR T/C — Machine service report (for teleconferencing).

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:HUST-NSC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT HUSTAT NSC a DATA LINK DOWN OR DOES NOT EXIST

## 2. REASON FOR OUTPUT

This message prints when a poke command is entered from the NSC overview display page (113). The frame to receive the input message is down and cannot process the message or the frame does not exist for the complex.

## 3. VARIABLE FIELD DEFINITIONS

a                      Frame number.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Display / Menu Page Name  
113 Page

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:HUST-NSC-LST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT HUSTAT NSC a LOST b c CNTS

## 2. REASON FOR OUTPUT

COAMS hustat collects machine protection and machine service failure counts on a daily basis per NSC frame. This message prints when failure counts are lost due to a partial output message sent by an NSC frame. Even though count(s) were lost, any collected failure counts are forwarded to APS apsmeas, which in turn will forward the failure counts to the 1B.

Failure counts are collected in the following manner:

MPR — alrmi, alrmj, audm, and auda

MSR DSD — icrej, invcmd, invdta, illann, ica, and icabn

MSR T/C — icrej, icnani, ictr, icdsu, icab, icdb, iclev2, icsoft, ica, icabn, ogtr, ogdsu, ogab, ogdb, oglev2, ogsoft, oga, ogvca ogbsy, llp, cctr, ccdsu, ccab, ccdb, cclev2, and ccsoft

If REPT HUSTAT NSC 1 LOST 2 MPR CNTS printed on the Read Only Printer (ROP), it means failure counts alrmi and alrmj were collected and sent to apsmeas, and failure counts audm and auda were lost.

## 3. VARIABLE FIELD DEFINITIONS

a NSC frame number.

b Number of lost counts.

c MPR — Machine performance report.

MSR DSD — Machine service report (for direct services dialing).

MSR T/C — Machine service report (for teleconferencing).

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:HUST-REC-INC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT HUSTAT RECEIVED AN INCOMPLETE MESSAGE FROM NSC a

**2. REASON FOR OUTPUT**

This message prints only if debug mode is on. An NSC output message was received but is missing information necessary for processing, such as a unit name, unit number or the unit's current status. The output message cannot be processed.

**3. VARIABLE FIELD DEFINITIONS**

a                      NSC frame number.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:HUST-UNREC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT HUSTAT UNRECOGNIZE MTYPE = a

**2. REASON FOR OUTPUT**

This message prints only if debug mode is on. An unrecognized input message type was received by COAMS hustat. The input message is not processed.

**3. VARIABLE FIELD DEFINITIONS**

a                    RTR message type number.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:ICDR-CONFIG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ICDR CONFIG FILE  
a
- [2] REPT ICDR CONFIG FILE  
RETRY EQUIP/UNEQUIP REQUEST LATER  
b
- [3] REPT ICDR CONFIG FILE  
NUMBER OF EQUIPPED PARTITIONS c  
TOTAL NUMBER OF ICDR BLOCKS d  
[ e f g ]

## 2. REASON FOR OUTPUT

To provide responses to the OP:ICDR-CONFIG and SET:ICDR-CONFIG input messages.

## 3. VARIABLE FIELD DEFINITIONS

- a Text phrase indicating the outcome of the operation requested by either the OP:ICDR-CONFIG or SET:ICDR-CONFIG input message. (See Action To Be Taken for a list.)
- b Text phrase indicating why the EQUIP or UNEQUIP request must be tried at a later time. (See Action To Be Taken for a list.)
- c Number of equipped international call detail recording (ICDR) partitions.
- d Total number of ICDR blocks that can be stored on disk.
- e ICDR partition number (0-11).
- f ICDR partition file name.
- g Number of ICDR blocks in this partition.

If c = 0, then e, f, and g will not appear in the output message. Variables e, f, and g will only be printed for each ICDR partition that is equipped.

## 4. ACTION TO BE TAKEN

For Format 1, if a =

CONFIG FILE COULD NOT BE OPENED

Refer to ICDR TOPS procedures for resolution.

SEE PROPRIETARY NOTICE ON COVER PAGE

- CONFIG FILE COULD NOT BE READ**  
Refer to ICDR TOPS procedures for resolution.
- COULD NOT ATTACH TO ECD DATABASE**  
Seek technical assistance immediately.
- COULD NOT OBTAIN INFORMATION ABOUT THE PARTITION**  
Seek technical assistance.
- COULD NOT RELEASE ECD DATABASE**  
Seek technical assistance immediately.
- COULD NOT RETRIEVE ECD ORIGIN RECORD**  
Seek technical assistance immediately.
- COULD NOT RETRIEVE ECD ORIGIN RECORD  
AND RELEASE ECD DATABASE**  
Seek technical assistance immediately.
- COULD NOT RETRIEVE MDCT RECORD**  
Seek technical assistance immediately.
- COULD NOT RETRIEVE UCB RECORD**  
Seek technical assistance.
- DEVICE DOES NOT HAVE MAJOR/MINOR NUMBERS**  
Seek technical assistance.
- EQUIP OR UNEQUIP OPTION MISSING FROM INPUT MESSAGE**  
Be sure to include either the EQUIP or UNEQUIP option in the SET:ICDR-CONFIG input message when it is reentered.
- INVALID COMBINATION OF INPUT PARAMETERS**  
Check for one of two errors in the SET:ICDR-CONFIG message. First make sure only one of the following options is used - EQUIP or UNEQUIP, not both. Second, make sure the NOINIT option is not being used with the UNEQUIP option. Try the message again.
- INVALID ERROR CODE RECEIVED**  
Refer to ICDR TOPS procedures for resolution.
- INVALID KEYWORD IN INPUT MESSAGE**  
Check the last SET:ICDR-CONFIG message to determine which keyword is invalid. Be sure to leave out the invalid keyword when the SET:ICDR-CONFIG message is reentered.
- INVALID PARTITION NUMBER IN INPUT MESSAGE**  
The SET:ICDR-CONFIG input message should be reentered using a valid ICDR partition number. Currently, the valid partition numbers are 0 through 11.
- INVALID SPECIAL DEVICE TYPE**  
Seek technical assistance.
- NO INPUT DATA SPECIFIED**  
The SET:ICDR-CONFIG input message should be reentered. Be sure to include the fields needed after the second colon.

SEE PROPRIETARY NOTICE ON COVER PAGE



NO UCB FOR THE DEVICE

Seek technical assistance.

PARTITION x WAS SUCCESSFULLY UNEQUIPPED

Where x is the partition number (0-11). Indicates that the specified partition was successfully unequipped. No action is necessary.

PARTITION NOT EQUIPPED FOR THIS STREAM

The ICDR partition specified in the SET:ICDR-CONFIG message is not equipped for the requested stream. Enter the OP:ICDR-CONFIG input message to determine the state of the configuration file(s) and proceed accordingly.

PARTITION NUMBER MISSING FROM INPUT MESSAGE

Reenter the SET:ICDR-CONFIG input message and be sure to specify the PART keyword and a valid ICDR partition number (0-11).

REQUESTED PARTITION IS ALREADY EQUIPPED

The SET:ICDR-CONFIG input message attempted to equip an already equipped partition. Use the OP:ICDR-CONFIG input message to determine the state of the configuration file(s) and proceed accordingly.

TEMPORARY FILE COULD NOT BE CREATED

A file could not be created to print the appropriate output message. Enter the OP:ICDR-CONFIG input message to determine the state of the configuration file(s) and proceed accordingly.

UNEQUIP REQUEST STOPPED

THERE IS PRIMARY DATA ON THIS PARTITION

The UNEQUIP operation was stopped because there is primary data on the partition. Once all the primary data has been removed, the partition can be unequipped.

WARNING - ICDR PARTITION COULD NOT BE OPENED

UNEQUIP OPERATION CONTINUING

In this case, the ICDR partition map could not be opened to determine if there was any primary data on the partition; therefore, the next time this partition is equipped it should be equipped using the NOINIT option so any primary data can be retrieved. **If the NOINIT option is not used, any primary data that was on this partition will be lost.**

WARNING - ICDR PARTITION COULD NOT BE READ

UNEQUIP OPERATION CONTINUING

In this case, the ICDR partition map could not be read to determine if there was any primary data on the partition; therefore, the next time this partition is equipped it should be equipped using the NOINIT option so any primary data can be retrieved. **If the NOINIT option is not used, any primary data that was on this partition will be lost.**

WARNING - REQUEST CONFLICTS WITH

CURRENT ICDR RECORDING INDICATOR

EQUIPPING PROCESS IS IN PROGRESS

LOOK FOR FURTHER OUTPUT

This message indicates that an ICDR partition is being equipped for the ICDR stream even though ICDR is turned off. No action need be taken.

SEE PROPRIETARY NOTICE ON COVER PAGE

For Format 2, if b =

**CONFIG FILE COULD NOT BE OPENED**

Refer to ICDR TOPS procedures for further resolution.

**CONFIG FILE COULD NOT BE READ**

Refer to ICDR TOPS procedures for further resolution.

**CONFIG FILE COULD NOT BE WRITTEN**

Refer to ICDR TOPS procedures for further resolution.

**COULD NOT ATTACH TO PAS**

Seek technical assistance immediately.

**DISK NOT AVAILABLE FOR NORMAL OPERATIONS**

When the disk that the requested ICDR partition resides on returns to the active or standby state, the ICDR partition can be equipped.

**ICDR CONFIG FILE COULD NOT BE WRITTEN**

Refer to ICDR TOPS procedures for further resolution.

**ICDR CONFIG FILE COULD NOT BE OPENED**

Refer to ICDR TOPS procedures for further resolution.

**ICDR CONFIG FILE COULD NOT BE READ**

Refer to ICDR TOPS procedures for further resolution.

**ICDR PARTITION COULD NOT BE OPENED**

Refer to ICDR TOPS procedures for further resolution.

**ICDR PARTITION COULD NOT BE WRITTEN**

Refer to ICDR TOPS procedures for further resolution.

**VTOC FILE COULD NOT BE OPENED**

Refer to ICDR TOPS procedures for further resolution.

**VTOC FILE COULD NOT BE READ**

Refer to ICDR TOPS procedures for further resolution.

For Format 3, no actions need to be taken.

## **5. REFERENCES**

Input Messages

OP:ICDR-CONFIG

OP:ICDR-RECORD

SET:ICDR-CONFIG

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:ICDR-CONT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ICDR CONTROL FILE  
PROCESS START TIME a  
PROCESS STOP TIME b  
c  
d  
MAXIMUM DISK WRITE DELAY e SECONDS
- [2] REPT ICDR CONTROL FILE  
TEMPORARY FILE COULD NOT BE CREATED
- [3] REPT ICDR CONTROL FILE  
INVALID INPUT DATA SPECIFIED
- [4] REPT ICDR CONTROL FILE  
NO INPUT DATA SPECIFIED
- [5] REPT ICDR CONTROL FILE  
INVALID NUMBER OF CHARACTERS IN AN INPUT FIELD
- [6] REPT ICDR CONTROL FILE  
INVALID KEYWORD IN INPUT MESSAGE

## 2. REASON FOR OUTPUT

Format 1 reports the current state of the international call detail recording (ICDR) control file. Format 2 indicates that the system could not allocate a temporary file to print the control file information. Formats 3, 4, 5, and 6 print in response to input message SET:ICDR-CONTROL and indicate that the user made an error while entering that input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Start time in hours and minutes for teleprocessing.
- b Stop time in hours and minutes for teleprocessing.
- c Indicates whether or not ICDR teleprocessing sessions have been manually inhibited via the INH:ICDR-SESSION message.
- d Indicates whether or not a teleprocessing session is currently in progress.
- e Maximum delay from when a record is created until it is written to disk.

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#### **4. ACTION TO BE TAKEN**

If Format 1 prints, take no action. If Format 2 is output, reenter input message OP:ICDR-CONTROL. If Formats 3, 4, 5, and 6 are output, reenter input message SET:ICDR-CONTROL.

#### **5. REFERENCES**

Input Messages

ALW:ICDR-SESSION  
INH:ICDR-SESSION  
OP:ICDR-CONTROL  
SET:ICDR-CONTROL

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ID ..... REPT:ICDR-CONTAUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ICDR CONTROL FILE AUDIT  
PROCESS START TIME a  
PROCESS STOP TIME b  
c  
d  
DISK SPACE OCCUPANCY e
- [2] REPT ICDR CONTROL FILE AUDIT  
ICDR CONTROL FILE COULD NOT BE f
- [3] REPT ICDR CONTROL FILE AUDIT  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To indicate the state of the international call detail recording (ICDR) control file after its audit has been run (Format 1), that the control file could not be opened or read (Format 2), or that the system could not allocate a temporary file to print the audit results (Format 3). This message is accompanied by a minor alarm.

## 3. VARIABLE FIELD DEFINITIONS

- a Start time in hours and minutes for teleprocessing.
- b Stop time in hours and minutes for teleprocessing.
- c Indicates whether or not the ICDR data transfer sessions have been manually inhibited via the INH:ICDR-SESSION message.
- d Indicates whether or not a teleprocessing session is currently in progress.
- e Indicates percentage of disk space containing primary data.
- f OPENED — Control file could not be opened.  
READ — Control file could not be read.

## 4. ACTION TO BE TAKEN

For Format 1, examine the values that the audit assigned to the fields in the control file. If any values need to be corrected, use the input messages listed under References.

If Format 2 prints, refer to the ICDR TOPS procedure for further resolution.

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If Format 3 prints, use the OP:ICDR-CONTROL input message to check the contents of the control file. If any of the values are invalid, correct them using the input messages listed under references.

## **5. REFERENCES**

### Input Messages

ALW:ICDR-SESSION

INH:ICDR-SESSION

OP:ICDR-CONTROL

SET:ICDR-CONTROL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:ICDR-CRIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT ICDR CRIT ALARM DOWNGRADED TO A MAJOR ALARM  
DISK IS a% FULL

## 2. REASON FOR OUTPUT

To report that the international call detail recording (ICDR) disk space occupancy has dropped to below 98 percent full. Major alarm is sounded.

## 3. VARIABLE FIELD DEFINITIONS

a                      Percent of current disk space occupied by primary ICDR data.

## 4. ACTION TO BE TAKEN

Refer to ICDR TOPS procedures for specific actions.

## 5. REFERENCES

Input Message  
OP: ICDR-DISK

Output Messages  
REPT: ICDR-DISK-ST  
REPT: ICDR-DISK-SU

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ID ..... REPT:ICDR-D-WRIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ICDR DISK WRITER INITIALIZATION COMPLETE
- [2] REPT ICDR DISK WRITER ERROR CODE b [c]
- [3] REPT ICDR DISK WRITER TERMINATION CODE d
- [4] REPT ICDR DISK WRITER FAULT CODE e [VIRT ADDR f]
- [5] REPT ICDR DISK WRITER MARKED g BLOCKS PRIMARY DATA TO  
SECONDARY DATA

## 2. REASON FOR OUTPUT

To report an International Call Detail Recording (ICDR) disk writer related software error condition.

## 3. VARIABLE FIELD DEFINITIONS

- b                      Disk writer error type:
- 1 — Unexpected event received.
  - 2 — Unexpected message received.
  - 4 — Primary disk copy of disk map was corrupted.
  - 6 — Both disk copies of disk map were corrupted.
  - 7 — Could not allocate a message buffer.
  - 8 — Could not queue a message.
  - 9 — Could not attach the Equipment Configuration Database (ECD).
  - 10 — Could not release the ECD.
  - 11 — Could not read ucb record from ECD.
  - 12 — Could not read eaiopt record from ECD.
  - 13 — Could not read mdct record from ECD.
  - 14 — Could not get partition Logical Device Identification Number (LDIN) from file manager.
  - 15 — Could not read partition disk map.
  - 16 — Could not write partition disk map.
  - 17 — Could not write data from Shared Data Segment (SDS) buffer.
  - 18 — Configuration file open failed.
  - 19 — Configuration file read failed.
  - 20 — Configuration file audit failed.
  - 21 — Global map open failed.
  - 22 — Global map read failed.
  - 23 — Global map create failed.

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- 24 — Global map write failed.
- 25 — Global map audit failed.
- 26 — Global map was rebuilt.
- 27 — No Automatic Message Accounting (AMA) partitions are equipped.

c Additional information about the error:

If b = 4, 6, or 14 through 17,  
c = ICDR partition number to which message applies.

If b = 18 through 25,  
c = copy of file to which message applies:

BKUP — Backup copy.  
PRIM — Primary copy.

d Disk writer termination code:

- 1 — Could not connect to a message port.
- 2 — A terminate request was received from another process.
- 3 — Disk writer was faulted during initialization.
- 4 — Disk writer was faulted during an internal audit.
- 5 — Disk writer was faulted when it was running.
- 6 — Disk writer memory corruption detected.
- 8 — Too many unexpected faults received.
- 9 — IOBADMSG returned from the disk driver.
- 10 — FLT\_BADOST returned from the disk driver.
- 11 — BADPORT returned from a kportid kernel call.
- 21 — An internal sanity check failed.
- 22 — Both copies of configuration file were inaccessible or unusable.
- 102 — Too many type 2 errors.
- 104 — Too many type 4 errors.
- 106 — Too many type 6 errors.
- 107 — Too many type 7 errors.
- 108 — Too many type 8 errors.

e Hexadecimal number representing the fault code of the disk writer.  
See Output Appendix APP:DFC-F for a description of the fault codes.

f Hexadecimal number representing the virtual address if the writer was running.

g Number of blocks which have been marked to secondary data.

#### 4. ACTION TO BE TAKEN

If b = 6 or 9-17; d = 1, 9, or 22; or anytime format 4 is output, refer to ICDR TOPS procedures for further resolution. If any message appears several times, seek technical assistance.

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**5. REFERENCES**

Output Appendix  
APP:DFC-F

Output Message  
REPT:AMA-D-WRIT

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ID ..... REPT:ICDR-DISK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

[1] REPT ICDR DISK MAPS  
a

[2] REPT ICDR DISK MAPS  
b  
PARTITION c DISK MAP d  
FP0 e LP0 f FPS g LPS h  
FS0 i LS0 j FSS k LSS l  
FB0 m LB0 n FBS o LBS p

## 2. REASON FOR OUTPUT

To show the current state of the international call detail recording (ICDR) disk maps.  
Printed in response to the OP:ICDR-MAPS input message.

## 3. VARIABLE FIELD DEFINITIONS

a Text phrase indicating an error condition. (See Action To Be Taken for a list.)

b Text phrase indicating which partition is being read and which partition is being written. (See Action To Be Taken for a list.) If a problem was encountered while opening or reading the global map, the error will be noted here.

c ICDR partition number.

d Indicates whether or not the disk map was accessible.

e Offset of first primary ICDR data block.

f Offset of last primary block.

g Sequence number of first primary block.

h Sequence number of last primary block.

i Offset of first secondary block.

j Offset of last secondary block.

k Sequence number of first secondary block.

l Sequence number of last secondary block.

m Offset of first data block.

n Offset of last data block.

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o                      Sequence number of first data block.  
p                      Sequence number of last data block.

#### **4. ACTION TO BE TAKEN**

For Format 1, if a =

COULD NOT OPEN CONFIG FILE — Refer to ICDR TOPS procedures.

COULD NOT READ CONFIG FILE — Refer to ICDR TOPS procedures.

TEMPORARY FILE COULD NOT BE CREATED — Reenter the OP:ICDR-MAPS input message. If the problem persists, refer to the ICDR TOPS procedures for further resolution.

For Format 2, if b =

GLOBAL MAP NOT AVAILABLE — Refer to ICDR TOPS procedures.

GLOBAL MAP NOT READABLE — Refer to ICDR TOPS procedures.

For Format 2, if d =

NOT READABLE — Refer to ICDR TOPS procedures.

UNAVAILABLE — Refer to ICDR TOPS procedures.

In all other cases no action is required.

#### **5. REFERENCES**

Input Messages

OP:ICDR-MAPS

OP:ICDR-RECORD

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ID ..... REPT:ICDR-DISK-ST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT ICDR DISK STORAGE IS a% FULL

## 2. REASON FOR OUTPUT

To report the potential loss of International Call Detail Recording (ICDR) data. A major, minor, or critical alarm may accompany this message.

## 3. VARIABLE FIELD DEFINITIONS

a                      Percentage of ICDR disk space occupied by primary data.

**NOTE:** If a = 70-89, a minor alarm occurs. If a = 90-99, a major alarm occurs. If a = 100, a critical alarm occurs.

## 4. ACTION TO BE TAKEN

Refer to ICDR TOPS procedures for specific instructions.

## 5. REFERENCES

Output Messages  
REPT:ICDR-CRIT  
REPT:ICDR-MAJOR  
REPT:ICDR-MINOR

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ID ..... REPT:ICDR-DISK-SU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT ICDR DISK SUMMARY  
DISK IS CURRENTLY a% FULL

**2. REASON FOR OUTPUT**

To report the amount of international call detail recording (ICDR) disk space currently occupied by primary ICDR records. This message prints in response to the OP:ICDR-DISK input message.

**3. VARIABLE FIELD DEFINITIONS**

a                      Percentage of disk occupancy.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Message  
OP:ICDR-DISK

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ID ..... REPT:ICDR-MAJOR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT ICDR MAJOR ALARM DOWNGRADED TO A MINOR ALARM  
DISK IS a% FULL

**2. REASON FOR OUTPUT**

To report that the international call detail recording (ICDR) disk space occupancy has dropped to below 87 percent full. Minor alarm is sounded.

**3. VARIABLE FIELD DEFINITIONS**

a                      Current ICDR disk space occupancy.

**4. ACTION TO BE TAKEN**

Refer to ICDR TOPS procedures for specific actions.

**5. REFERENCES**

Input Message  
OP: ICDR-DISK

Output Messages  
REPT: ICDR-DISK-ST  
REPT: ICDR-DISK-SU

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ID ..... REPT:ICDR-MINOR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT ICDR MINOR ALARM HAS BEEN RETIRED  
DISK IS a% FULL

**2. REASON FOR OUTPUT**

To report that the international call detail recording (ICDR) disk space occupancy has dropped to below 65 percent full.

**3. VARIABLE FIELD DEFINITIONS**

a                      Current ICDR disk space occupancy.

**4. ACTION TO BE TAKEN**

Refer to ICDR TOPS procedures for specific actions.

**5. REFERENCES**

Input Message  
OP:ICDR-DISK

Output Messages  
REPT:ICDR-DISK-ST  
REPT:ICDR-DISK-SU

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ID ..... REPT:ICDR-MON  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

REPT ICDR MONITOR a  
[b]  
[c]

## 2. REASON FOR OUTPUT

To print in response to an international call detail recording (ICDR) input message or an event detected by the ICDR monitor process.

## 3. VARIABLE FIELD DEFINITIONS

a                INIT COMPLETE — The ICDR monitor process was successfully started or restarted.

INIT FAILED — The ICDR monitor process was not successfully started or restarted.

CONTROL FILE CHANGE ABORTED — The control file was not updated because an ICDR session was in progress or because the control file was audited.

CONTROL FILE BACKUP FAILED — Indicates that the memory copy of the ICDR control file could not be backed up to disk; if this prints in response to an input message, the most recent change to the control file will probably not be permanent.

CONTROL FILE INITIALIZED — During initialization, the disk copy of the control file did not exist or was unreadable; a new control file was created and initialized with default values.

ICDR INDICATOR FILE INITIALIZED — The file which contains the ICDR indicator could not be opened. A new file was created and initialized.

INVALID MESSAGE RECEIVED FROM DISK WRITER — A disk occupancy message from the ICDR disk writer process contained garbled information. The disk occupancy information reported by the REPT ICDR DISK SUMMARY output message may no longer be accurate.

SANITY CHECK FAILURE — An internal sanity check failed.

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If a = INIT FAILED:

- b Reason for failure:
- COULD NOT CONNECT TO MESSAGE PORT
  - COULD NOT ENABLE MESSAGE RECEPTION
  - COULD NOT INITIALIZE CONTROL FILE
  - COULD NOT ATTACH TO PROTECTED APPLICATION SEGMENT
  - COULD NOT INITIALIZE ICDR RECORDING FILE
- c MONITOR TERMINATING AND RESTARTING AFTER 60 SECS

If a = ICDR INDICATOR FILE INITIALIZED:

- b INDICATOR MUST BE RESET

If a = CONTROL FILE CHANGE ABORTED:

- b Reason for abort:
- ICDR SESSION IN PROGRESS
  - CONTROL FILE WAS AUDITED

If a = CONTROL FILE INITIALIZED

- b OFFICE-DEPENDENT VALUES MUST BE RESET

If a = SANITY CHECK FAILURE:

- b Reason for failure:
- RECVW CALL FAILED
  - INTERNAL INCONSISTENCY FOLLOWING CONTROL FILE AUDIT
- c MONITOR TERMINATING AND RESTARTING AFTER 60 SECS

#### **4. ACTION TO BE TAKEN**

If a = INIT COMPLETE — Take no action.

If a = INIT FAILED, INVALID MESSAGE RECEIVED FROM DISK WRITER —  
Take no action for isolated instances. If the problem persists, seek technical assistance.

If a = CONTROL FILE CHANGE ABORTED and:

- b ICDR SESSION IN PROGRESS — Retry the operation after the ICDR session is complete.
- b CONTROL FILE WAS AUDITED — Verify that the control file is correct following the audit and retry the operation.

If a = CONTROL FILE BACKUP FAILED — The most recent changes to the control file may not be permanent and may have to be redone if the ICDR monitor process restarts for any reason. If the problem persists, seek technical assistance.

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If a = ICDR INDICATOR FILE INITIALIZED — Set the office-dependent indicator value (on or off).

If a = CONTROL FILE INITIALIZED — Set office-dependent data before any ICDR sessions are established. The control file will contain default values.

If a = SANITY CHECK FAILURE — Refer to the ICDR TOPS procedure.

## **5. REFERENCES**

### Input Messages

ALW:ICDR-SESSION  
INH:ICDR-SESSION  
OP:ICDR-CONTROL  
OP:ICDR-DISK  
OP:ICDR-RECORD  
SET:ICDR-CONTROL  
SET:ICDR-RECORD

### Output Messages

REPT:ICDR-CONT  
REPT:ICDR-DISK-SU  
REPT:ICDR-RECORD

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ID ..... REPT:ICDR-RECORD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT ICDR RECORDING IS a

## 2. REASON FOR OUTPUT

To indicate whether the international call detail recording (ICDR) capability is turned on or off.

## 3. VARIABLE FIELD DEFINITIONS

|   |         |                               |
|---|---------|-------------------------------|
| a | INVALID | — An invalid value was found. |
|   | OFF     | — ICDR is turned off.         |
|   | ON      | — ICDR is turned on.          |

## 4. ACTION TO BE TAKEN

If the ICDR recording indicator is INVALID, use input message  
SET : ICDR-RECORD to set the indicator to the proper value.

## 5. REFERENCES

Input Message  
SET : ICDR-RECORD

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ID ..... REPT:ICDR-S-CON  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT ICDR SESSION CONNECT FAILED  
REASON a

**2. REASON FOR OUTPUT**

To report that an international call detail recording (ICDR) teleprocessing session could not be started. A minor alarm is sounded.

**3. VARIABLE FIELD DEFINITIONS**

a Reason for failure.

**4. ACTION TO BE TAKEN**

Refer to the ICDR TOPS procedures for all cases.

**5. REFERENCES**

None.

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ID ..... REPT:ICDR-S-EST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT ICDR SESSION ESTABLISHED

**2. REASON FOR OUTPUT**

To indicate the start of an international call detail recording (ICDR) teleprocessing session.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:ICDR-S-TER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ICDR SESSION TERMINATED  
a TERMINATION [b]  
FIRST BLOCK TRANSMITTED c  
LAST BLOCK TRANSMITTED d  
BLOCKS TRANSMITTED e  
RECORDS TRANSMITTED f  
PRIMARY POLLS REJECTED g  
SECONDARY POLLS REJECTED h  
CURRENT DISK SPACE OCCUPANCY IS i  
SESSION START TIME j  
SESSION STOP TIME k  
SESSION LENGTH l
- [2] REPT ICDR SESSION TERMINATED  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To report the termination of an international call detail recording (ICDR) teleprocessing session (Format 1). Format 2 indicates that the system could not create a temporary file to print the termination message.

## 3. VARIABLE FIELD DEFINITIONS

- a Type of termination:
- NORMAL
- ABNORMAL
- b Text phrase that prints if a = ABNORMAL.
- The text phrase indicates the reason the session terminated abnormally.
- c Sequence number of the first block transmitted.
- d Sequence number of the last block transmitted.
- e Total number of blocks transmitted.
- f Total number of ICDR records transmitted.
- g Total number of primary polls rejected.
- h Total number of secondary polls rejected.

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- i Current amount of disk space occupied by primary data. Expressed as a percentage.
- j Start time of the session, where j = mmm dd hh:nn:ss, as follows:  
mmm — Start month.  
dd — Start day.  
hh — Start hour.  
nn — Start minute.  
ss — Start second.
- k Stop time of the session, where k = mmm ddd hh:nn:ss, as follows:  
mmm — Stop month.  
ddd — Stop day.  
hh — Stop hour.  
nn — Stop minute.  
ss — Stop second.
- l Session length, where l = hh:mm:ss, as follows:  
hh — Hours of session length.  
mm — Minutes of session length.  
ss — Seconds of session length.

#### **4. ACTION TO BE TAKEN**

Refer to ICDR TOPS procedures if the session terminated abnormally (a = ABNORMAL). If Format 2 was output, use input message OP:ICDR-SESSION to get information on the status of the session.

#### **5. REFERENCES**

Input Message  
OP:ICDR-SESSION

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ID ..... REPT:ICDR-SESS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT ICDR SESSIONS ARE MANUALLY INHIBITED

**2. REASON FOR OUTPUT**

To indicate that international call detail recording (ICDR) teleprocessing has been inhibited.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

To remove the inhibit, and thus allow ICDR data transfers, use input message ALW:ICDR-SESSION.

**5. REFERENCES**

Input Messages  
ALW:ICDR-SESSION  
INH:ICDR-SESSION

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ID ..... REPT:ICDR-TELE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT ICDR TELEPROCESSING a

## 2. REASON FOR OUTPUT

To detect an abnormal condition for the International Call Detail Recording (ICDR) teleprocessing operation.

## 3. VARIABLE FIELD DEFINITIONS

a Cause of condition:

AMA DATA UNREADABLE - NEXT PARTITION OOS  
CANNOT READ DATA - DISK OUT OF SERVICE  
ERROR WHEN READING CINMAP  
FAILED TO ATTACH TO PAS  
FILE REJECTED BY HOC  
HOC CONFIRM SEQUENCE NUMBER WRONG  
HOC ERROR ON FILE OPEN ATTEMPT  
HOC FILE ERROR  
HOC FILE LAYER TIMER EXPIRED  
HOC INTERRUPT COUNTER EXCEEDED  
HOC OPERATOR SHUTDOWN  
HOC OUT OF SPACE  
HOC PROGRAM ERROR  
HOC RECEIVED INVALID PROTOCOL MESSAGE  
HOC RECEIVED OUT OF SEQUENCE MESSAGE  
HOC REJECT COUNTER EXCEEDED  
HOC REPORTS OUT OF SEQUENCE BLOCK  
INITIALIZATION COMPLETE  
UNABLE TO ESTABLISH SESSION  
UNABLE TO OPEN CINMAP FILE  
UNEXPECTED DISK READER FAILURE

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Output Message  
REPT:ICDR-TELE-SE

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ID ..... REPT:ICDR-TELE-SE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ICDR TELEPROCESSING SESSION  
a TELEPROCESSING SESSION STATUS  
START TIME b  
c TIME d  
BLOCKS TRANSMITTED e  
PRIMARY POLLS REJECTED f  
SECONDARY POLLS REJECTED g  
[h]
- [2] REPT ICDR TELEPROCESSING SESSION  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

To report the status of the current or previous international call detail recording (ICDR) teleprocessing session (Format 1). This message prints in response to the OP:ICDR-SESSION input message. Format 2 indicates that the system could not create a temporary file to print the status information.

## 3. VARIABLE FIELD DEFINITIONS

- a Session status:  
CURRENT — Session is in progress at this time.  
PREVIOUS — No session is in progress now.
- b Start time in month, day, hour, minute, and second.
- c CURRENT — Session is in progress at this time.  
STOP — This report is for the previous session.
- d Current time or stop time in month, day, hour, minute, and second.
- e Total number of blocks transmitted.
- f Number of primary file polls that were rejected.
- g Number of secondary file polls that were rejected.
- h Text phrase indicating the outcome of the previous ICDR teleprocessing session. This line only prints if this is the status of the previous session.

## 4. ACTION TO BE TAKEN

If Format 1 prints, take no action. If Format 2 prints, reenter input message OP:ICDR-SESSION.

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**5. REFERENCES**

Input Message  
OP: ICDR-SESSION

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ID ..... REPT:ICDR-TELE-SU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ICDR TELEPROCESSING SUMMARY  
SESSIONS a  
NORMAL TERMINATIONS b  
ABNORMAL TERMINATIONS c  
SESSIONS REJECTED d  
PRIMARY BLOCKS TRANSMITTED e  
SECONDARY BLOCKS TRANSMITTED f  
PRIMARY POLLS REJECTED g  
SECONDARY POLLS REJECTED h  
RECORDS WRITTEN TO DISK i  
RECORDS SENT TO LINK j  
RECORDS LOST k  
MINOR DISK ALARMS l  
MAJOR DISK ALARMS m  
CRITICAL DISK ALARMS n  
FIRST BLOCK TRANSMITTED o  
LAST BLOCK TRANSMITTED p
- [2] REPT ICDR TELEPROCESSING SUMMARY  
TEMPORARY FILE COULD NOT BE CREATED

## 2. REASON FOR OUTPUT

Format 1 summarizes international call detail recording (ICDR) teleprocessing activity that has occurred since midnight. If Format 2 is output; the system could not create a temporary file to print the summary information.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                               |
|---|---------------------------------------------------------------|
| a | Total number of ICDR teleprocessing sessions conducted today. |
| b | Number of sessions that terminated normally.                  |
| c | Number of sessions that terminated abnormally.                |
| d | Number of sessions that were rejected.                        |
| e | Number of primary data blocks transmitted.                    |
| f | Number of secondary data blocks transmitted.                  |
| g | Number of primary file polls that were rejected.              |
| h | Number of secondary file polls that were rejected.            |

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|   |                                                                              |
|---|------------------------------------------------------------------------------|
| i | Number of records written to disk.                                           |
| j | Number of records sent to the data link.                                     |
| k | Number of records lost.                                                      |
| l | Number of minutes that primary data occupied 70 percent of ICDR disk space.  |
| m | Number of minutes that primary data occupied 90 percent of ICDR disk space.  |
| n | Number of minutes that primary data occupied 100 percent of ICDR disk space. |
| o | Sequence number of first primary block transmitted over the past 24 hours.   |
| p | Sequence number of last primary block transmitted over the past 24 hours.    |

#### **4. ACTION TO BE TAKEN**

For Format 1, no action need be taken. For Format 2, refer to ICDR TOPS procedures.

#### **5. REFERENCES**

Input Message  
OP: ICDR-TELE

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ID ..... REPT:IMS-GENERIC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

### 1. FORMAT

REPT IMS GENERIC  
RELEASE a

### 2. REASON FOR OUTPUT

This message identifies the generic and release of the IMS subsystem. It is automatically printed during IMS initializations and aborts.

This information is often essential in troubleshooting software. It should be included in all trouble reports. To see it without running an initialization, see the OP:RING input command.

### 3. VARIABLE FIELD DEFINITIONS

a                      Generic id. A line of text which identifies the version of the IMS software.

### 4. ACTION TO BE TAKEN

Include this information when reporting problems which may be affected by IMS software.

### 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Input Message  
OP:RING

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:IMSDRV-AUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IMSDRV AUD  
RTR REJECTED THE REQUEST TO RUN a b [c] AUDIT  
REPLY CODE = d
- [2] REPT IMSDRV AUD  
RTR REJECTED THE REQUEST TO BLOCK/UNBLOCK a b [c] AUDIT  
REPLY CODE = d
- [3] REPT IMSDRV AUD  
RTR ABORTED THE REQUEST TO RUN a b [c] AUDIT  
REPLY CODE = e
- [4] REPT IMSDRV AUD  
TIMEOUT FOR REQUEST TO RUN a b [c] AUDIT  
LAST REQUEST f MS AGO - LAST REPLY g MS AGO CODE = d

## 2. REASON FOR OUTPUT

Format 1 is printed when an audit requested by the IMS driver process could not be started, and the reply code indicates the reason is not transient.

Format 2 is printed when the IMS driver process could not block or unblock an audit.

Format 3 is printed when an audit requested by the IMS driver process was aborted before completion.

Format 4 is printed when the IMS driver process exceeded a time limit in the process of attempting to run an audit.

## 3. VARIABLE FIELD DEFINITIONS

- a The audit class name:
  - CNC — Central Node Control.
  - NODEST — Node State (Node Availability Map).
- b The audit member number (1).
- c The audit instance name or blank.

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- d                   The acknowledgement code from RTR:
- 1 — IMS has received no replies (acknowledgements).
  - 3 — Audit system initialization in progress.
  - 4 — Audit system initialization failed.
  - 5 — Access to audit record in the ECD failed.
  - 6 — Requested audit is running.
  - 7 — Another kernel process requested audit is running.
  - 8 — Maximum number of supervisor audits are running.
  - 9 — Requested audit instance is blocked.
  - 10 — Attempt to init or dispatch audit failed.
  - 11 — An audit with the same name is running.
  - 12 — Audit running in demand mode, cannot block.
  - 13 — Audit running requested, cannot stop & block.
  - 14 — Requested audit or instance is inhibited.
  - 15 — System Integrity Output Formatter is dead.
  - 19 — Invalid audit specified.
  - 20 — Invalid audit instance specified.
  - 21 — Mode of request not permitted.
  - 22 — Cannot stop an audit that is not running.
  - 23 — Cannot stop a non-segmented kernel audit.
  - 30 — Request resulted in no change.
- e                   The termination status from RTR:
- 2 — Aborted by the user.
  - 3 — Aborted by the audit.
  - 4 — Aborted by fault -- possible damage.
  - 5 — SIM abort -- failed to dispatch audit.
  - 6 — SIM abort -- audit control / interface failure.
  - 7 — SIM abort -- audit exceeded time or segment limit.
  - 8 — SIM abort -- aborted by stop-and-block request.
  - 9 — Transient audit process died.
  - 10 — Segmented audit exceeded an error threshold.
- f                   How long (ms) before the timeout the last request was sent.
- g                   How long (ms) before the timeout the last reply was received.

#### 4. ACTION TO BE TAKEN

Format 1:

If the acknowledgement code from RTR is 14 — Issue the ALW:AUD command for the audit specified in the fields a, b, and c to allow the audit to be run.

If the acknowledgement code from RTR is 19 — Check the audit class name and member number specified in the "auderr", "audinst", and "audrec" records in the ECD for the audit indicated by the fields a and b.

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If the acknowledgement code from RTR is 20 — Check the audit instance name specified in the "audinst" record in the ECD for the audit indicated by the fields a and b.

Seek technical assistance if any other value for the acknowledgement code from RTR is printed.

Format 2:

If the acknowledgement code from RTR is 19 — Check the audit class name and member number specified in the "auderr", "audinst", and "audrec" records in the ECD for the audit indicated by the fields a and b.

If the acknowledgement code from RTR is 20 — Check the audit instance name specified in the "audinst" record in the ECD for the audit indicated by the fields a and b.

Seek technical assistance if any other value for the acknowledgement code from RTR is printed.

Format 3:

If the termination status from RTR is 3 — Should only occur while IMS is aborting.

If the termination status from RTR is 6 — Can be caused by ECD errors, such as indicating not segmented for a segmented audit in the "audrec" form for the audit indicated in fields a and b.

Seek technical assistance if any other value for the termination status from RTR is printed.

Format 4:

If the time of the timeout since the last request was sent is less than time of the timeout since the last reply was received, then the timeout was because no reply was received for the last request to run the audit. A reply is expected when the request is rejected or completed.

If the time of the timeout since the last request was sent is greater than time of the timeout since the last reply was received, then the last request to run the audit was rejected for the acknowledgement code from RTR, and the time limit on retrying was exceeded.

If the time of the timeout since the last request was sent is equal to time of the timeout since the last reply was received and the acknowledgement code from RTR is 1, it indicates that all attempts to send the request failed and the time limit on retrying was exceeded.

Seek technical assistance.

## 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Audit Section

Output Appendixes

APP: AUD-A

APP: AUD-B

APP: AUD-C

APP: AUD-D

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Input Messages

ALW:AUD  
AUD:CNC-1  
AUD:NODEST  
OP:AUD  
STOP:AUD

Output Message

OP:AUD

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:IMSDRV-FLT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IMSDRV FLT  
EFLAGS=a, FLTCODE=b
- [2] REPT IMSDRV FLT  
EFLAGS=a, FLTCODE=b, PA=c  
PSW=d PSBR=e SSBR=f  
RTC=g
- [3] REPT IMSDRV FLT  
REGISTERS AT RTC=g:  
0 'X'h i j k  
4 'X'l m n o  
8 'X'p q r s

## 2. REASON FOR OUTPUT

The IMS driver process (imsdrv.p) has encountered a hardware or software fault.

Format 1 is printed when the IMS driver process was not executing at the instant the fault was encountered or there is no saved execution state. The latter case applies to UNIX® RTR level 1 initializations, fault X'E1, which flushes the stack.

Formats 2 and 3 are printed together to describe the execution state of the IMS driver process at the instant the fault was encountered.

## 3. VARIABLE FIELD DEFINITIONS

- a Hexadecimal number which is the sum of the codes for all UNIX® RTR events outstanding for the IMS driver process. (These are defined in UNIX® RTR header file evflag.h. Those described there as "USR" events are described in more detail in the IMS header file ims\_event.h.

**NOTE:** The contents of the latter varies in different systems.

- b The UNIX® RTR fault code. Values X'B1 through X'BA are related to I/O between the 3B and peripheral units controlled by the IMS driver process, such as RPCNs. Values X'BC through X'BD are related to message buffer audit faults. Values X'A0 through X'A2 are DIOP (disk) status changes on RTR release 1; for RTR release 6, values X'B0, X'BE, and X'BF are related DIOP status changes. Values X'C3 through X'C9 are configuration reports and are typically related to the peripheral faults. Values X'D1 through X'D9 are related to software

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- errors. Values X'E0 through X'E2 are related to RTR system initializations. (Values are defined in UNIX® RTR header file fault.h)
- c If this is present, then the IMS driver process was in execution at this virtual address when the fault was encountered.
- d The contents of the 3B CU register PSW.
- e The contents of the 3B CU register PSBR.
- f The contents of the 3B CU register SSBR.
- g The content of the 3B CU real time clock register in 1-msec units. A message pair (one each of Formats 2 and 3 printed at the same time) will show the same value.
- h-s The contents of 3B CU registers %r0-%r10, respectively.

#### 4. ACTION TO BE TAKEN

Analyze the fault code b. If the header files are not available see the REPT-IODRV output messages for similar material.

If the fault is associated with I/O to RPCN(s), there will be other messages giving more details.

If the fault is not attributed to a hardware problem, seek technical assistance and specify the exact software version.

Note to technical support personnel:

Analysis of the program address c is the key to further analysis. It will indicate which part of the IMS driver was in execution. Some parts of the IMS driver are the responsibility of subsystems other than IMS. This analysis must usually be performed by application technical support personnel rather than IMS personnel because it requires access to an unstripped copy of the exact version of the imsdv.p file and, frequently, the other source and object files and libraries which were used in building it.

#### 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

evflag.h header file (UNIX® RTR)

ims.event header file (IMS)

fault.h header file (UNIX® RTR)

Output Messages

REPT:IODRV-AT

REPT:IODRV-ERR

REPT:IODRV-ERROR

REPT:IODRV-FAULT

REPT:RPC-ERINT

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ID ..... REPT:IMSDRV-INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IMSDRV INIT  
STARTED a [b]  
REQ c ESCF X'd  
AT e
- [2] REPT IMSDRV INIT  
COMPLETED a [b]  
AT e
- [3] REPT IMSDRV INIT  
ABORTED a PHASE f SQS g FCODE h  
AT e
- [4] REPT IMSDRV INIT  
IMS LEVEL 2 INITIALIZATION NOT IMPLEMENTED - RUNNING  
LEVEL 3  
AT e
- [5] REPT IMSDRV INIT  
MIN-MODE INHIBITED a  
REQ c  
AT e

## 2. REASON FOR OUTPUT

Formats 1-4 are progress reports for initialization and abort sequences of the Interprocess Message Switch (IMS) subsystem.

Format 5 indicates that the IMS subsystem encountered a situation which would normally have resulted in an initialization, but the initialization was inhibited because IMS was in min-mode.

## 3. VARIABLE FIELD DEFINITIONS

- a                    The particular initialization or abort sequence:
- ABORT SEQUENCE
  - BOOT INITIALIZATION PROLOGUE
  - CRITICAL LEVEL 2 INITIALIZATION
  - CRITICAL LEVEL 3 INITIALIZATION

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CRITICAL LEVEL 4 INITIALIZATION

FPI INITIALIZATION PROLOGUE

LEVEL 0 INITIALIZATION

LEVEL 1A INITIALIZATION

LEVEL 1B INITIALIZATION

NON-CRITICAL PROCESS CREATIONS

- b If present, this item indicates IMS is IN MIN-MODE. (See REPT:MIN-MODE output message.) This will not appear with BOOT INITIALIZATION PROLOGUE or with FPI INITIALIZATION PROLOGUE because it isn't known at that time.
- c Request code (1-15). Reason initialization sequence was requested. See APP:APPENDIX-07 output appendix for specific values.
- d Escalation flags (0 - X'FFFF). If this is not zero, it indicates the reason(s) that a request for an initialization sequence resulted in a more severe initialization or abort than requested. See APP:APPENDIX-07 output appendix for specific values.
- e The value of the 3B20D/3B21D's real time clock register in 1 millisecond units. The time elapsed between two events which print these messages can be determined by subtracting the time values from the two messages.
- f The name of the failing phase of the initialization sequence. See APP:APPENDIX-07 output appendix for a dictionary of these names.
- g Indicates what progress had been made for the failing phase.
  - 0 — Sequence requested but not started.
  - 1 — Starting or ending phase.
  - 2 — Waiting for phase completion.
  - 3 — Pausing after completion of phase.
  - 4 — Pausing before retry of phase.
  - 5 — No sequence in progress.
- h A failure code (0-18) indicating the type of failure which caused the initialization sequence to abort. See APP:APPENDIX-07 output appendix for specific values.

#### 4. ACTION TO BE TAKEN

Analyze in context with surrounding messages, including initializations of other subsystems. In many cases these output messages will be the expected result of initializations of UNIX® RTR or other subsystems.

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When successful, the BOOT INITIALIZATION PROLOGUE sequence and the FPI INITIALIZATION PROLOGUE sequence lack completion messages because they lead directly into one of the other sequences.

When these messages are found to be unexpected, seek technical assistance.

An alarm will sound based on the initialization level or abort sequence:

ABORT SEQUENCE — A Major alarm sounds.

FPI INITIALIZATION PROLOGUE — A major alarm sounds.

LEVEL 1A INITIALIZATION — A minor alarm sounds.

LEVEL 1B INITIALIZATION — A minor alarm sounds.

## **5. REFERENCES**

Practice 256-090-182 *CNI Maintenance Manual*

Output Appendix  
APP:APPENDIX-07

Output Message  
REPT:MIN-MODE

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ID ..... REPT:IMSRMVRST-ER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

REPT IMSRMVRST ERROR a b

## 2. REASON FOR OUTPUT

To report an error condition in the IMSRMVRST user process.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Function call failure type.
- 3 — Send to port.
- b                      Error code returned by the failing function call. This is defined in the  
                        System Error Codes Output Appendix, APP:SYSERR.

## 4. ACTION TO BE TAKEN

An operating system function call is failing, obtain technical assistance to clear the trouble.

## 5. REFERENCES

Output Appendix  
APP:SYSERR

Input Messages  
DGN:LN  
DGN:RPCN  
RMV:LN  
RMV:RPCN  
RST:LN  
RST:RPCN

Output Messages  
DGN:LN  
DGN:RPCN  
RMV:LN  
RMV:RPCN  
RST:LN  
RST:RPCN

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ID ..... REPT:IN  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

```
REPT IN LNa b ERR X'c SEQ d
FILE e LINE f ACTION 0 g AUX DATA WDS (X')
 hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
 .
 .
 .
 hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
```

## 2. REASON FOR OUTPUT

To report error conditions encountered by the application process running on the Interface Node (IN) Common Network Interface (CNI) ring node.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | IN group number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| b | IN member number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| c | IN error code:<br>01 — 3B Direct Memory Access (DMA) job queue audit failure.<br>02 — 3B/IN status table audit failure.<br>03 — 3B has not made state change requested by IN.<br>04 — Invalid link transition state.<br>05 — Invalid link transition.<br>06 — Invalid message block state.<br>07 — NOT USED.<br>08 — Could not build Interprocess Message Switch (IMS) header for a message.<br>09 — Could not write IMS message.<br>10 — Unknown IMS message type received.<br>11 — Could not read IMS message.<br>12 — Could not open channel.<br>13 — Could not <code>ioctl</code> channel.<br>14 — Could not start a timer. |

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- 15 — Unknown message type received.
- 16 — Could not read Small Computer System Interface (SCSI) message.
- 17 — Could not queue SCSI read.
- 18 — Received invalid message for current link state.
- 19 — Received negative or invalid acknowledgement.
- 20 — Could not queue write to Call Detail Recording Platform (CDRP).
- 21 — Tried to send CDRP message with invalid type.
- 22 — Tried to send IMS message with invalid type.
- 23 — Invalid link state.
- 24 — CDRP polling timer timeout.
- 25 — Sent a SCSI message with an invalid type.
- 26 — Could not write SCSI message.
- 27 — Job is already in job queue.
- 28 — Could not queue DMA job.
- 29 — Invalid message block number.
- 30 — Invalid message address.
- 31 — Could not bind to the listening socket.
- 32 — Could not listen on socket.
- 33 — Could not get IN stats.
- 34 — More than two outstanding messages.
- 35 — Event data acknowledgement timeout.
- 36 — Authorization failed.
- 37 — Invalid CDRP password.
- 38 — Invalid CDRP ID.
- 39 — Link going out of service.
- 40 — Could not get read / write socket.
- 41 — s\_fcntl failed for read / write socket.
- 42 — Could not initialize the Transmission Control Protocol/Internet Protocol (TCP/IP) stream.
- 43 — Could not get listening socket.
- 44 — Could not install hardware swabbing module.
- 45 — Could not set up SIGPOLL event.

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|   |                                                                 |
|---|-----------------------------------------------------------------|
|   | 46 — Could not set socket read mode.                            |
|   | 47 — Could not read CDRP message.                               |
| d | Number of errors detected by IN since the IN was last restored. |
| e | IN source file name where the error was detected.               |
| f | IN source file line number where the error was detected.        |
| g | Number of words of additional data printed.                     |
| h | Additional data that can be used to debug the problem.          |

#### **4. ACTION TO BE TAKEN**

For error X'24, maintenance actions should be performed on the CDRP.

For other errors, seek technical assistance.

#### **5. REFERENCES**

None.

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ID ..... REPT:IN-PBUF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has six formats.

- [1] REPT IN PBUF (IN PROGRESS)  
C C C C C C C.  
TYPEVALUADDRNEW\_DATAOLD\_DATA  
abcdef
- [2] REPT IN PBUF ABORTED - g
- [3] REPT IN PBUF COMPLETED
- [4] REPT IN PBUF (rptable) CANNOT OPEN h
- [5] REPT IN PBUF (rptable) OUTDATED OWBUFFER DATE = i
- [6] REPT IN PBUF (rptable) INVALID OWBUFFER

## 2. REASON FOR OUTPUT

Format 1 indicates the values used with IN:PBUF command. If the OLDDATA option is not used, no value is printed. However, if the L option is not used, the default value will be 1.

Format 2 is a general format of information due to errors detected. This information is meant to be self-explanatory.

Format 3 indicates completion of command.

Formats 4 through 6 indicate that a problem exists in reading the DISKFILE or a problem with the data entries.

## 3. VARIABLE FIELD DEFINITIONS

- a Overwrite type (UID, PID, PMEM, or KERN).
- b Process or utility ID.
- c Address to be overwritten, corresponding to overwrite type.
- d Full word of new data.
- e Full word of old data; default value is (ffffffff).
- f Number of words; default value is (1).

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- g Supplemental data describing the problem found.
- h Indicates DISKFILE name.
- i Indicates date of outdated owbuffer.

#### **4. ACTION TO BE TAKEN**

All DISKFILE failures should be reported to the Technical Support Organization.

#### **5. REFERENCES**

Output Messages  
REPT : COPY - PBUF  
REPT : DUMP - PBUF  
REPT : IN - PBUF

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ID ..... REPT:INH-RCV-APPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT INH RCV APPDB ACTIVE

## 2. REASON FOR OUTPUT

During the intervals when the "DLN Inhibit" feature is active (i.e., GTT10D RCV is inhibited due to potential RCV software problems that are causing total DLN outages), this 4ESS output message will print on the system ROP on a 15-minute basis. The output message prints with a MINOR alarm status.

The message is also output when the trigger in RC:MISC initially activates the "DLN Inhibit" feature. In this case, the output message is printed with a MAJOR alarm status.

The "DLN Inhibit" feature can be deactivated via the ALW:RCV-APPDB input command. HOWEVER, it is HIGHLY recommended that the cause of the inhibit activation be studied and determined before it is deemed "safe" to allow GTT10D recent change.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

Call NESAC.

## 5. REFERENCES

### Input Messages

ALW:RCV-APPDB  
INH:RCV-APPDB  
OP:INH-APPDB

### Output Messages

ALW:RCV-APPDB  
INH:RCV-APPDB  
OP:INH-APPDB

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ID ..... REPT:INHADM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT INHADM UNABLE TO MAINTAIN INHIBITS
- [2] REPT INHADM FAULTED FCODE a
- [3] REPT INHADM UNABLE TO SEND INHIBIT  
MESSAGE TO DRIVER b
- [4] REPT INHADM CANNOT GET UCB RECORD
- [5] REPT INHADM MINOR ALARM FROM INHIBIT  
ADMINISTRATOR

## 2. REASON FOR OUTPUT

For Format 1, to report that the inhibit administrator process attempted to maintain consistency of the error interrupt inhibits between the Emergency Action Interface (EAI) and the Unit Control Blocks (UCBs) in the Equipment Configuration Database (ECD) during an initialization, but failed to access the ECD or could not send a message to a driver. The error interrupt inhibit options selected by the EAI must be propagated to the ECD on any initialization to ensure consistency.

For Format 2, the inhibit administrator received the fault code.

For Format 3, the inhibit administrator does not inhibit a device directly, it sends a message to the corresponding driver. This error indicates that the "queuemn" system call failed when sending to the driver with Process ID (PID).

For Format 4, an ECD access function (either `lla_opensq` or `lla_nextseq`) failed when accessing a UCB record.

For Format 5, inhibiting hardware checks, software checks, and error interrupts can prevent the system from recovering automatically from hardware or software faults. This error is printed when any of the checks are inhibited as a warning to the user.

## 3. VARIABLE FIELD DEFINITIONS

- a Fault code received by INHADM. See the Fault Code Output Appendix, APP:FAULT-CODE.
- b PID of driver.

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#### **4. ACTION TO BE TAKEN**

For Formats 1-4, run ECD audits. If there are no errors in the ECD, then seek technical assistance. For format 5, no action is required.

#### **5. REFERENCES**

##### **OMDB Keys**

Format 1 has an OMDB key of 408.

Format 2 has an OMDB key of 407.

Format 3 has an OMDB key of 410.

Format 4 has an OMDB key of 409.

Format 5 has an OMDB key of 411.

##### **Output Appendix**

APP: FAULT-CODE

##### **Input Message**

OP: ERRCHK

##### **Output Message**

OP: ERRCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:INHIBIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT INHIBIT SCAN POINT a ON SCSD b

## 2. REASON FOR OUTPUT

To report that the Scanner and Signal Distributor Administrator (SCSDA) has detected a scan point which is chattering (greater than four transistors a second).

## 3. VARIABLE FIELD DEFINITIONS

a                      Physical scan point number.  
b                      Member number.

## 4. ACTION TO BE TAKEN

This message indicates that a scan point is changing state continually. This could cause a message buffer overload for the clients of the SCSDA monitoring that point. This scan point should be investigated to determine why it is changing state frequently.

## 5. REFERENCES

None.

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ID ..... REPT:INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT INIT DEVICE STATUS

a b c

- 
- 
- 

## 2. REASON FOR OUTPUT

To report initial device states obtained from the Equipment Configuration Database (ECD) by the real time status report program.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Hardware unit name:
- CSU    — Cache store unit
  - CU     — Control unit
  - DFC    — Disk file controller
  - EAI    — Emergency action interface
  - IOP    — Input/output processor
  - MHD    — Moving head disk
  - MTTY   — Maintenance teletypewriter
  - MTTYC — Maintenance teletypewriter controller
  - ROP    — Receive only printer
  - SCC    — Switching control center
- b                      Unit number in decimal notation.
- c                      Unit status:
- ACTIVE
  - GROWTH IN PROGRESS
  - INITIALIZING
  - OFF LINE
  - OUT OF SERVICE
  - STANDBY

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UNAVAILABLE

UNEQUIPPED

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

OMDB Key

There is an OMDB key of 310.

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ID ..... REPT:INIT-3BN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT INIT 3BN ERR  
CAN NOT SHUT DOWN DMA FOR NODE a b (c)
- [2] REPT INIT 3BN ERR  
FALSE INTERRUPT, ID = d (c)
- [3] REPT INIT 3BN ERR  
FALSE INTERRUPT, NODE = e (c)
- [4] REPT INIT 3BN ERR  
CAN NOT CLR INTR FOR NODE a b (c)
- [5] REPT INIT 3BN ERR  
SENSE STATUS FAILURE FOR NODE a b (c)
- [6] REPT INIT 3BN ERR  
a b TEST DMA FAILURE, SOURCE = f
- [7] REPT INIT 3BN ERR  
a b INTERRUPTED 3B WITH WRONG STATE
- [8] REPT INIT 3BN ERR  
a b INTERRUPTED 3B WHEN IT IS NOT IN INIT
- [9] REPT INIT 3BN ERR  
a b DMA INITIALIZATION TIMEOUT, STATUS = g (c)
- [10] REPT INIT 3BN ERR  
IMS APPLICATION DID NOT PROVIDE ADDRESS FOR NODE a b
- [11] REPT INIT 3BN ERR  
UNEXPECTED ERR WHEN SHUT DOWN a b, STATUS = h, PIOFLG = i
- [12] REPT INIT 3BN ERR  
UNEXPECTED ERR AFTER TEST DMA PASSED, NODE=a b,  
STATE=j, SOURCE = f
- [13] REPT INIT 3BN ERR  
UNEXPECTED ERR BEFORE NP RESTART DMA, NODE = a b,  
STATE = k, SOURCE = f

SEE PROPRIETARY NOTICE ON COVER PAGE

## 2. REASON FOR OUTPUT

Format 1 is printed when the shut down DMA job fails.

Format 2 is printed when an interrupt is received by the 3B with an illegal internal interrupt number.

Format 3 is printed when an interrupt is received by the 3B with an illegal physical node ID.

Format 4 is printed when the command clear interrupt fails.

Format 5 is printed when the command sense 3BI status fails.

Format 6 is printed if test DMA fails for the specified node.

Format 7 is printed when the 3B node interrupted 3B while it is undergoing the DMA initialization sequence yet the internal substate of this node does not appear to expect such an interrupt.

Format 8 is printed when the 3B node interrupted 3B, yet the node is not currently undergoing the DMA initialization sequence.

Format 9 is printed when the DMA initialization sequence on the specified node times out.

Format 10 is printed when the DMA initialization sequence detects that the application of IMS did not provide the address for the expanded DMA map table.

Format 11 is printed if any of the hardware commands executed during the DMA shutdown sequence fails.

Format 12 is printed if any of the hardware commands executed fails right after the test DMA procedure has passed.

Format 13 is printed if any of the hardware commands executed fails before NP restarts DMA fails.

**NOTE:** A 3B node is defined to be a node that is not an RPC and yet connected directly to the 3B.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                        |
|---|--------------------------------------------------------|
| a | The 3B Node name (e.g., DLN) and group number (00-63). |
| b | The 3B Node member number (1-15).                      |
| c | Internal sequence number for technical error tracking. |

SEE PROPRIETARY NOTICE ON COVER PAGE



- d The internal interrupt number for this 3B node. This is possibly an illegal interrupt number.
- e The physical node ID for this 3B node. This is possibly an illegal physical node ID.
- f The source of the request for the DMA init job:  
2 — From ring node restore.  
8 — From diagnostic.
- g The reason for timeout:  
2 — Test DMA timeout.  
4 — NP restart DMA timeout.  
8 — Overall job timeout.
- h The error status, if **i** has the value 0, cannot cancel DMA restart timer:  
1 — Detach interrupt failure.  
2 — Clear ddsbs failure.  
3 — Cannot send reset 3BI pio.  
4 — Sense status command failure.  
5 — Should never be this value.  
6 — If **i** has the value 0, send STOP DMA pio failure.  
If **i** has a value other than 0, cannot cancel overall timer.  
7 — If **i** has the value 0, cannot cancel overall timer.  
If **i** has a value other than 0, cannot cancel DMA restart timer.  
8 — Only valid when **i** has the value 0.
- i Leftover PIO indicator. If the value is 0, there was no leftover PIO command in the 3BI register for the NP when DMA shutdown took place. Otherwise, there was some leftover PIO command. This item is for technical information only.
- j The error status:  
1 — If **f** has the value 8, cannot setup timer.  
If **f** has the value 2, fail to program MAC to the user's area.  
2 — Only valid when **f** has the value 2.  
If **f** has the value 2, cannot send test DMA ack pio.  
3 — Only valid when **f** has the value 2.  
If **f** has the value 2, cannot switch interrupt handler.  
4 — Only valid when **f** has the value 2.  
If **f** has the value 2, cannot setup timer.
- k The error status:  
1 — Attach interrupt failure.  
2 — Clear ddsbs failure.  
3 — Cannot send reset 3BI pio.  
4 — Enable interrupt failure.  
5 — Cannot send NP restart DMA pio.  
6 — Cannot setup timer.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### 4. ACTION TO BE TAKEN

Formats 1, 4, 5, 7, 8:

Using normal maintenance procedures, the 3B node should be diagnosed and then restored to service. Messages of Format 8 can also be printed as a result of node initiated restart. If this is the case, there should be other ARR/ACNR messages (see REFERENCES) indicating this fact; and there is no action to be taken by user.

Formats 2, 3:

If any 3B node is removed as a result of the interrupt, use normal maintenance procedures, diagnose and restore to service.

Formats 6, 10:

Use normal maintenance procedures and contact appropriate IMS application organization personnel.

Formats 9, 11, 12, 13:

Use normal maintenance procedures, diagnose the 3B node. If ATP, contact IMS technical personnel and restore the node to service.

**NOTE:** The Automatic Ring Recovery (ARR) routine, unless inhibited, will attempt (up to 3 times) automatic recovery of OOS 3B nodes if the node maintenance state is not marked MANUAL.

#### 5. REFERENCES

Practice 234-100-120 *CNI System Description* (non-AT&T) -  
Practice 234-100-120AC *CNI System Description* (AT&T only) -  
D-Channel and Special Access Data Channel Signaling

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* -  
Link Operating Procedures Section

Output Message  
REPT : 3BN-DMA  
REPT : ARR-AUTORST

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:IODRV-AT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**1. FORMAT**

REPT IODRV ATTRIBUTE FILE UPDATED

**2. REASON FOR OUTPUT**

To report that the attribute file for the Input/Output Processor (IOP) driver messages was inconsistent with the IOP driver, and has been updated to the correct settings.

**3. VARIABLE FIELD DEFINITIONS**

See Reason For Output.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

OMDB Key  
There is an OMDB key of 161.

Input Message  
OP: IODRV

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:IODRV-ERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IODRV ERR X'ld50000 a b c d [e] f g
- [2] REPT IODRV ERR X'ld50000 a b c {4|7} h f g
- [3] REPT IODRV ERR X'ld50000 a b c 8 i f g
- [4] REPT IODRV ERR X'ld50000 a b c {10|11|12|13|15} j f g
- [5] REPT IODRV ERR X'ld50000 a b c 16 k f g
- [6] REPT IODRV ERR X'ld50000 a b c {17|18|19|20} l f g

## 2. REASON FOR OUTPUT

To report an Input/Output Processor (IOP) related software error.

## 3. VARIABLE FIELD DEFINITIONS

- a Single character for device type. See the CIC Select Code 303-007, *Processor Recovery Message Guide*, Appendix D.
- b Real time stamp in eight alphanumericals.
- c Single character for the unit number in hexadecimal.
- d Alphanumeric location code indicating calling function:
  - 1 — iocccerror
  - 2 — cserror
  - 3 — sserror
  - 4 — dserror
  - 7 — pcnotequip
  - 8 — pcommoff
  - a — prtfault
  - 10-13 — kfault
  - 15 — procfmsg
  - 16 — callphase
  - 17 — iopfatal
  - 18 — iop1fatal
  - 19 — feaioprm
  - 20 — seaioprm
- e Error code.

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- f Additional error code for debugging in hexadecimal.
- g Additional error code for debugging in hexadecimal.
- h Field contains a four-digit (hexadecimal) error code. Error codes are defined in IOP Output Appendix F, APP: IOP-F.
- i Field contains a four-digit (hexadecimal) code of 2400. This indicates that the PC community is powered down.
- j Field contains a one- or two-digit (hexadecimal) fault code. Fault codes are defined in IOP Output Appendix E, APP: IOP-E.
- k Field contains a single-digit panic code:
- 1 — Encountered a fault while handling a fault.
  - 2 — Excessive S/W faults.
  - 3 — Excessive unrecoverable errors while processing a fault.
  - 4 — Excessive unrecoverable errors while processing a fault where the IOPs were affected but not implicated.
- l Field contains a two-digit (hexadecimal) code that represents the function within a major step. This is the same code that would be found in digits 4 and 5 of the Process Recovery Message (PRM), function within a major step (also known as PRM number), had the PRM been issued. The meanings of these codes can be found in the *Process Recovery Messages Guide* by finding the IOP Driver PRM (digit 1 is a 7) with the indicated function-within-a-major-step, and reading the PRM description.

#### 4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

#### 5. REFERENCES

OMDB Key

There is an OMDB key of 585.

CIC Select Code 303-007 *Lucent Technologies 3B20D/3B21D Computer UNIX®  
RTR Operating System Processor Recovery Messages User's Guide*

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers  
UNIX® RTR Operating System System Maintenance Manual*

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description  
Lucent Technologies 3B20D/3B21D Computer*

Output Appendixes

APP: IOP-E

APP: IOP-F

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

CLR: IODRV  
DGN: IOP  
RMV: IOP  
RST: IOP

Output Messages

DGN: IOP  
RCVRY: IOP  
REPT: RCVRY - IOP  
RMV: IOP  
RST: IOP

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:IODRV-ERROR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT IODRV ERROR a [b]

## 2. REASON FOR OUTPUT

To report an Input/Output Processor (IOP) related software error.

## 3. VARIABLE FIELD DEFINITIONS

- a Location code in hexadecimal indicating the fault source. Refer to IOP Output Appendix F, APP: IOP-F for more information.
- b Character string giving more information about the error. Refer to IOP Output Appendix F, APP: IOP-F for more explanation.

## 4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

## 5. REFERENCES

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description*  
*Lucent Technologies 3B20D/3B21D Computer*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: IOP  
RMV: IOP  
RST: IOP

Output Messages  
DGN: IOP  
RCVRY: IOP  
REPT: RCVRY-IOP  
RMV: IOP  
RST: IOP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:IODRV-FAULT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT IODRV FAULT CODE a [b] [VIRTUAL ADDRESS c]

## 2. REASON FOR OUTPUT

To report an Input/Output Processor (IOP) related software error.

## 3. VARIABLE FIELD DEFINITIONS

- a Input/Output Driver (IODRV) fault code. See IOP Output Appendix E, APP: IOP-E.
- b Sequence number for stack back trace of d5 fault code (bad Operating System Trap [OST]). The most recent function called will be listed first.
- c Virtual address within IODRV where fault occurred, if IODRV was running at the time. If this message is a d5 fault stack back trace, the address is the program address from the stack.

## 4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

## 5. REFERENCES

OMDB Key

This message has an OMDB key of 155.

Practice 254-341-105 *Input/Output Software Structures Software Subsystem Description*  
*Lucent Technologies 3B20D/3B21D Computer*

Output Appendix  
APP: IOP-E

Input Messages  
CLR: IODRV  
DGN: IOP  
RMV: IOP  
RST: IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

DGN: IOP

RCVRY: IOP

REPT: RCVRY- IOP

RMV: IOP

RST: IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:IOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IOP a ERROR b [c]
- [2] REPT IOP a ERROR b COMPL CODE d
- [3] REPT IOP a ERROR b CHAN STATUS e
- [4] REPT IOP a ERROR b BIC STATUS f
- [5] REPT IOP a ERROR b DBS STATUS g
- [6] REPT IOP a NOT EQUIPPED h i SLOT j
- [7] REPT IOP a PC COMMUNITY k POWER REMOVED
- [8] REPT IOP a UNIDENTIFIED RESPONSE WD1=l WD2=m
- [9] REPT IOP a CODE VERSION n
- [10] REPT IOP a MEM ALLOC o MEM USED p

## 2. REASON FOR OUTPUT

To report an Input/Output Processor (IOP) related software or hardware error, or the occurrence of an abnormal IOP-related event.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies the point within the Input/Output Driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See IOP Output Appendix F, APP: IOP-F.
- c Character string giving more information about the error.
- d Hardware error type, in hexadecimal notation. See IOP Output Appendix A, APP: IOP-A.
- e Returned channel status, in hexadecimal notation. See IOP Output Appendix B, APP: IOP-B.
- f Returned Bus Interface Controller (BIC) status, in hexadecimal notation. See IOP Output Appendix C, APP: IOP-C.

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|   |                                                                                                            |
|---|------------------------------------------------------------------------------------------------------------|
| g | Returned Duplex Bus Selector (DBS) status, in hexadecimal notation. See IOP Output Appendix D, APP: IOP-D. |
| h | Unit name of missing Peripheral controller (PC).                                                           |
| i | Member number of missing PC.                                                                               |
| j | Pack position of missing PC (0-15).                                                                        |
| k | Identifies PC community that is powered down (0-3).                                                        |
| l | First word of an unidentifiable completion report.                                                         |
| m | Second word of an unidentifiable completion report.                                                        |
| n | Version number of code that exists in the device.                                                          |
| o | Number of bytes received.                                                                                  |
| p | Number of bytes requested.                                                                                 |

#### 4. ACTION TO BE TAKEN

With the exception of Formats 6 and 7, the error messages indicate error conditions that could cause the removal of a unit. Any removed unit should be repaired and restored to service. Formats 6 and 7 indicate improper manual operations.

#### 5. REFERENCES

##### OMDB Keys

Formats 1,2,6, and 7 have an OMDB key of 208.

Formats 3,4, and 5 have an OMDB key of 224.

Format 8 has an OMDB key of 228.

Format 9 has an OMDB key of 226.

Practice 254-301-105 *Input/Output Processor Description and Theory of Operation*  
*3B Processor*

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory*  
*of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Practice 254-301-800 *Emergency Action Facilities Description 3B20D/3B21D Model 1 Computer*

##### Output Appendixes

APP: IOP-A

APP: IOP-B

APP: IOP-C

APP: IOP-D

APP: IOP-F

##### Input Messages

CLR: IODRV

DGN: IOP

RMV: IOP

RST: IOP

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Output Messages  
RCVRY: IOP  
REPT: RCVRY - IOP

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:IORMVRST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT IORMVRST ERROR a b

## 2. REASON FOR OUTPUT

To report an error condition in the IORMVRST user process.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Function call failure type:
- 1 —    Message enable.
  - 2 —    Receive wait.
  - 3 —    Send to port.
- b                      Error code returned by the failing function call.

## 4. ACTION TO BE TAKEN

An operating system function call is failing; seek technical assistance to clear the trouble.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 58.

### Input Messages

RMV:DUI  
RMV:DUIC  
RMV:IOP  
RMV:MT  
RMV:MTC  
RMV:MTTY  
RMV:MTTYC  
RMV:SDL  
RMV:SDLC  
RMV:TTY  
RMV:TTYC

### Output Messages

RST:DUI  
RST:DUIC  
RST:IOP  
RST:MT

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RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:IUN-INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IUN INIT  
IUN LEVEL 2-3 INITIALIZATION COMPLETED  
a IUNS PLACED IN ACTIVE STATE b IUNS IN THE SYSTEM
- [2] REPT IUN INIT  
IUN LEVEL 4 INITIALIZATION STARTED
- [3] REPT IUN INIT  
INITIALIZATION OF IUNS OF TYPE c COMPLETED  
d IUNS PLACED IN THE ACTIVE STATE  
e IUNS EQUIPPED
- [4] REPT IUN INIT  
IUN LEVEL 4 INITIALIZATION COMPLETED
- [5] REPT IUN INIT  
IUN INITIALIZATION IN PROGRESS

## 2. REASON FOR OUTPUT

Format 1 is printed at the conclusion of the level 2-3 IMS User Node (IUN) initialization sequence, which is part of an IMS level 2 or 3 initialization.

Format 2 is printed at the start of the level 4 IUN initialization (pump - download - of IUN(s)) sequence, which is part of an IMS level 4 initialization.

Format 3 is printed when the restore of a group of IUN(s), all having one or more files in common, has completed. There may be one or more occurrences of this message. The first instance of a format 3 message will follow a format 2 message. This message will only be printed during an IMS level 4 initialization.

Format 4 is printed when the level 4 IUN initialization (pump - download - of IUN(s)), which is part of an IMS level 4 initialization, is finished.

Format 5 is printed when an initialization of a group of IUN(s), all having one or more files in common, is in progress and has not completed. This message will occur approximately every 2 minutes until the initialization of this group of IUN(s) is finished.

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### 3. VARIABLE FIELD DEFINITIONS

- a Number of IUN(s) placed in the active state.
- b Number of equipped IUN(s) in the system.
- c Name of a group of IUN(s), all having one or more files in common (generic spec file name).
- d Number of IUN(s), in this group, placed in the active state.
- e Number of equipped IUN(s) in this group.

### 4. ACTION TO BE TAKEN

Formats 2, 4, 5: None

Format 1, 3: If the number of IUN(s) placed in the active state is less than the number of IUN(s) equipped, normal maintenance procedures should be used, after the initialization is finished, to restore any out-of-service (OOS) IUN(s).

**NOTE:** The Automatic Ring Recovery (ARR) routine, unless it is inhibited, will attempt automatic recovery of OOS IUN(s) shortly after the level 4 IMS initialization has completed.

### 5. REFERENCES

Practice 234-100-120 *CNI System Description* (non-AT&T) -  
Practice 234-100-120AC *CNI System Description* (AT&T only) -  
D-Channel and Special Access Data Channel Signaling

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures Link Operating Procedures Section*

Input Message  
INH:DMQ-B

Output Messages  
REPT:ARR-AUTORST  
REPT:IMSDRV-INIT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:IUN-PUMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IUN PUMP  
ABORTED PUMP OF IUN a b  
REASON = c, CONTROL CODE = d
- [2] REPT IUN PUMP  
ABORTED PUMP OF IUN ???e b  
REASON = c, CONTROL CODE = d

## 2. REASON FOR OUTPUT

Format 1 is printed if pump of the operational code or the diagnostic code to a single IUN is aborted.

Format 2 is printed if pump of the operational code or the diagnostic code to a single IUN is aborted and the ring node name could not be determined.

## 3. VARIABLE FIELD DEFINITIONS

- a The Ring Node (RN) name (e.g., LN) and group number (00-63).
- b The Ring Node member number (1-15).
- c The reason why the pump job is aborted:
- 1 — Received a source-matched pump message.
  - 2 — Received a returned pump message.
  - 3 — Insufficient message switch buffer space.
  - 4 — Failed to get message switch buffer space.
  - 5 — Failed to determine best route to node.
  - 6 — Obtained a bad channel from best route.
  - 7 — Failed to build relay header.
  - 8 — Failed to build IMS message header.
  - 9 — Failed to write message.
  - 10 — Failed to relay message.
  - 11 — Time out waiting for relay response message.
- d The internal control code primarily intended for BTL use.
- e The group number (00-63).

## 4. ACTION TO BE TAKEN

If the reason the pump job was aborted is 1 or 2, use normal maintenance procedures to run IUN diagnostic.

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If the reason the pump job was aborted is 3, wait a few minutes, then try to perform the same restore or diagnostic action again. If the same messages are printed frequently during a 24-hour period, seek technical assistance.

If the reason the pump job was aborted is 10, use normal maintenance procedure to run IUN diagnostic; seek technical assistance if the same messages are printed repeatedly with the reason pump job was aborted is 10.

Seek technical assistance if any other value for the reason the pump job was aborted was printed.

## **5. REFERENCES**

Practice 234-100-120 *CNI System Description* (non-AT&T) -  
Practice 234-100-120AC *CNI System Description* (AT&T only) -  
D-Channel and Special Access Data Channel Signaling

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* -  
*Link Operating Procedures Section*

### Input Messages

DGN:LN  
INH:DMQ-B  
RST:LN

### Output Messages

DGN:AUDIT-RING  
DGN:LN  
REPT:IUN-RST

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:IUN-RESTRT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IUN RESTRT  
RSTRT FOR IUN a b AP STARTED
- [2] REPT IUN RESTRT  
RSTRT FOR IUN a b FAILED  
ERROR NUMBER = c  
ERROR CODE (C S) = d d
- [3] REPT IUN RESTRT  
RSTRT FOR IUN a b AP FAILED  
ERROR NUMBER = e

## 2. REASON FOR OUTPUT

Format 1 is printed when the Attached Processor (AP) of an IUN has started to perform a restart.

Format 2 is printed if an IUN restart failed.

Format 3 is printed if an IUN's Attached Processor (AP) restart failed.

## 3. VARIABLE FIELD DEFINITIONS

- a The Ring Node (RN) name (e.g., LN) and group number (00-63).
- b The Ring Node member number (1-15).
- c The IUN restart failure code:
  - 0 — Failed to unquarantine the IUN.
  - 1 — Failed to allocate internal timer.
  - 2 — Failed to send 3B paths data.
  - 3 — Failed to allocate internal timer.
  - 4 — Failed to send RI paths data.
  - 5 — Failed to allocate internal timer.
  - 6 — Restart timed out waiting for NP response.
  - 7 — Failed to change IUN major state to INIT.
  - 8 — Failed to allocate internal timer.
  - 9 — Failed to allocate internal timer.
  - 10 — Failed the DMA initialization request.
  - 11 — Failed to change IUN major state to Active (ACT).
  - 13 — Failed the DMA initialization request.
  - 14 — Failed the DMA initialization due to a fault.
  - 15 — Failed the DMA initialization request.

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- 16 — Restart timed out waiting for AP response.
  - 17 — Failed due to an AP error.
  - 18 — Failed to allocate internal timer.
  - 19 — IUN not in active ring.
  - 20 — IUN restart aborted by request.
  - 21 — Failed to allocate internal timer.
  - 22 — IUN restart guard timer expired.
  - 23 — Failed to change IUN major state to INIT.
  - 24 — Failed to restore create RI paths message.
- d           The internal error code primarily intended for BTL use.
- e           The IUN AP restart failure code:
- 50 — AP restart threshold has been exceeded.
  - 51 — AP restart failed.
  - 52 — AP restart timed out.
  - 53 — AP restart aborted by request.
  - 54 — Failed to allocate internal timer.
  - 56 — Failed to change IUN major state to INIT.
  - 57 — IUN does not have major state of ACT.
  - 58 — IUN not in the active ring.
  - 59 — AP restart timed out.
  - 60 — Failed to change IUN major state to ACT.
  - 61 — Failed to allocate internal timer.
  - 62 — Failed the DMA initialization request.
  - 63 — Failed the DMA initialization request.
  - 64 — Failed the DMA initialization due to a fault.
  - 65 — Failed to change IUN major state to ACT.
  - 66 — Failed the DMA initialization.

#### 4. ACTION TO BE TAKEN

Format 1: None.

Formats 2, 3: Using normal maintenance procedures, the IUN should be restored to service.

#### 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Link Operating Procedures Section

Input Message  
RST:LN

Output Messages  
REPT:ARR-AUTORST  
RST:LN

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:IUN-RST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT IUN RST  
FAILED TO RESTORE IUN a b  
FAILURE CODE = c JOB STATE = d
  
- [2] REPT IUN RST  
FAILED TO RESTORE IUN ???e b  
FAILURE CODE = c JOB STATE = d
  
- [3] REPT IUN RST  
FAILED TO RESTORE IUN(S) OF TYPE f  
FAILURE CODE = c JOB STATE = d
  
- [4] REPT IUN RST  
UNABLE TO SEND AN EXECUTE MESSAGE TO IUN(S) OF TYPE  
f ZERO ELIGIBLE IUN NP(S)
  
- [5] REPT IUN RST  
UNABLE TO SEND AN EXECUTE MESSAGE TO IUN(S) OF TYPE  
f ZERO ELIGIBLE IUN AP(S)
  
- [6] REPT IUN RST  
RESTORE OF IUN a b STOPPED DUE TO IMS INITIALIZATION
  
- [7] REPT IUN RST  
RESTORE OF IUN ???e b STOPPED DUE TO IMS INITIALIZATION
  
- [8] REPT IUN RST  
RESTORE OF IUN a b STOPPED DUE TO FAULT
  
- [9] REPT IUN RST  
RESTORE OF IUN ???e b STOPPED DUE TO FAULT
  
- [10] REPT IUN RST  
RESTORE OF IUN a b STOPPED  
[g]

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## 2. REASON FOR OUTPUT

Format 1 is printed if a single IUN failed to be restored to service.

Format 2 is printed if a single IUN failed to be restored to service and the ring node name could not be determined.

Format 3 is printed if a group of IUN(s) fail to be restored to service during a Level 4 IMS initialization.

Format 4 is printed if there are zero (0) Node Processors (NPs), in this group of IUN(s) eligible to be sent a message which will cause the IUN NP(s) to be available for service. This message will only be printed during a Level 4 IMS initialization.

Format 5 is printed if there are zero (0) Attached Processors (APs), in this group of IUN(s) eligible to be sent a message which will cause the IUN AP(s) to be available for service. This message will only be printed during a Level 4 IMS initialization.

Format 6 is printed if an IUN is undergoing a DMA channel initialization while being restored during a Level 1B IMS initialization. The IUN will be left out of service.

Format 7 is printed if an IUN is undergoing a DMA channel initialization while being restored during a Level 1B IMS initialization and the ring node name could not be determined. The IUN will be left out of service.

Format 8 is printed if a restore is in progress and IMS is notified that a DMA channel error, associated with the IUN, has occurred. The IUN will be left out of service.

Format 9 is printed if a restore is in progress and IMS is notified that a DMA channel error, associated with the IUN, has occurred and the ring node name could not be determined. The IUN will be left out of service.

Format 10 is printed if a restore of an IUN is started using the RST:a b;GSFN filename;UCL command and the restore is stopped before completing. In most cases the IUN will be left out of service.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | The Ring Node (RN) name (e.g., LN) and group number (00-63).                                                                                                                                                                              |
| b | The Ring Node member number (1-15).                                                                                                                                                                                                       |
| c | The failure code: <ul style="list-style-type: none"><li>1 — IUN restore job failed to complete.</li><li>15 — IUN restore job was aborted.</li><li>43 — IUN restore job was stopped however, a retry of the restore may succeed.</li></ul> |

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- d                   The internal job state at the time of restore failure:
- 1 — Waiting for an IUN NP reset command to complete.
  - 2 — Trying to unquarantine the IUN NP(s).
  - 3 — Trying to send the IUN NP its ROM patch load.
  - 4 — Sending (downloading) the IUN NP(s) a common program or data file.
  - 5 — Sending (downloading) an IUN NP a file or files destined only for that IUN (e.g. an IUN specific data file).
  - 6 — Sending the IUN NP(s) a command to execute the downloaded program.
  - 7 — Sending the IUN NP the name of the Generic Spec File it was downloaded from, 3B paths data and RI paths data.
  - 8 — Waiting for the IUN NP(s) to receive a selective broadcast setup message.
  - 9 — Sending the IUN NP(s) the name of the Generic Spec File they were downloaded from.
  - 10 — Sending the IUN NP(s) 3B paths data.
  - 11 — Sending the IUN NP(s) RI paths data.
  - 12 — Done with executing IUN NP(s).
  - 13 — Waiting for the IUN AP reset to complete.
  - 14 — Polling the IUN AP reset status.
  - 15 — Done with the IUN(s) AP reset.
  - 16 — Waiting for the IUN NP(s) to receive a selective broadcast setup message.
  - 17 — Sending (downloading) the IUN AP(s) a common program or data file.
  - 18 — Sending (downloading) an IUN AP a file or files destined only for that IUN (e.g., an IUN specific data file).
  - 19 — Sending the IUN AP(s) a command to execute the downloaded program.
  - 20 — Done with executing IUN AP(s).
  - 21 — Changing the IUN(s) major state to the active state.
  - 22 — Initializing an IUN's DMA channel.
  - 23 — Auditing the IUN(s) major and minor states.
  - 24 — Failed to restore a group of IUN(s), place all IUN(s) out of service.
  - 25 — Aborting this restore job.
- e                   The group number (00-63).
- f                   Name of a group of IUN(s), all having one or more files in common (generic spec file name).

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g                   The reason the restore of the IUN was stopped:

                  FAILED - ABORT REQUEST OR ERROR

                  MIRA ABORTED RESTORE BY REQUEST

                  MIRA FAILED - CAN'T SPAWN DIAMON

                  MIRA FAILED - INTERNAL PROBLEM

                  MIRA FOUND DUPLICATE RESTORE REQUEST ALREADY QUEUED

                  MIRA OUT OF BUFFERS

                  MIRA RESTORE SOURCE INHIBITED

                  RESTORE REQUEST TIMED OUT

#### 4. ACTION TO BE TAKEN

Formats 1, 2, 6, 7, 8, 9:

Using normal maintenance procedures, the IUN should be diagnosed and then restored to service.

Format 3, 4, 5:

If the number of IUN(s) placed in the active state is less than the number of IUN(s) equipped, as reported by the Level 4 IMS IUN initialization message (see REPT : IUN-INIT output message), normal maintenance procedures should be used, after the initialization is finished, to diagnose and restore any Out of Service (OOS) IUN(s).

Format 10: Take the action based on the reason the restore of the IUN was stopped:

If MIRA ABORTED RESTORE BY REQUEST — The restore request was aborted by request i.e. STOP:DMQ. Resubmit the restore request.

If MIRA FOUND DUPLICATE RESTORE REQUEST ALREADY QUEUED — The restore request is a duplicate of already queued maintenance request. No action need be taken, since the LN will be restored by the existing maintenance request.

If MIRA FAILED - ABORT REQUEST OR ERROR,  
MIRA FAILED - CAN'T SPAWN DIAMON, or  
MIRA FAILED - INTERNAL PROBLEM — An error was encountered by the MIRA subsystem. Verify it is working correctly then resubmit restore request.

If MIRA OUT OF BUFFERS — The MIRA subsystem is out of buffers (slots) to queue maintenance requests. When a buffer becomes free then resubmit the restore request. OP:DMQ can be used to see the contents of MIRA's buffers.

If MIRA RESTORE SOURCE INHIBITED — The source (ISR) of the RST:a b;GSFN filename;UCL command is inhibited. Perform the command: ALW:DMQ;SRC ISR and resubmit restore request.

If RESTORE REQUEST TIMED OUT — The restore did not finish before a timer expired. This may be due to other LN maintenance activity. An attempt will be made to abort the restore request. The status of the restore can be verified with the OP:DMQ

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command. If the original restore request is still active it should be stopped using the **STOP:DMQ** command. Also check (**OP:DMQ**) for other LN maintenance activity (active or queued). If there is LN maintenance activity wait until it has completed then resubmit the restore request, otherwise resubmit the restore request.

**NOTE:** The Automatic Ring Recovery (ARR) routine, unless it is inhibited, will attempt automatic recovery of Out Of Service (OOS) IUN(s) shortly after the Level 4 IMS initialization has completed.

## **5. REFERENCES**

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Link Operating Procedures Section

### Input Messages

ALW:DMQ-B  
INH:DMQ-B  
OP:DMQ  
RST:LN  
STOP:DMQ

### Output Messages

REPT:ARR-AUTORST  
REPT:IMSDRV-INIT  
REPT:IUN-INIT  
RST:LN  
STOP:DMQ

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ID ..... REPT:KAUDPRC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT KAUDPRC FAULT CODE a [AUDIT MMGR b]
- [2] REPT KAUDPRC FAULT CODE a [AUDIT MSGBUF c]
- [3] REPT KAUDPRC FAULT CODE a [AUDIT PROAD d]

## 2. REASON FOR OUTPUT

To report that the kernel audit process was faulted.

## 3. VARIABLE FIELD DEFINITIONS

- a Fault code, in hexadecimal notation.
- MMGR Memory manager audits.
- b Audit member:
  - 1 — Segment Descriptor Table (SDT) audit.
  - 2 — Page Table (PGT) audit.
  - 3 — Page Descriptor Table (PDT) audit.
  - 4 — Segment release audit.
  - 5 — Segment unlock audit.
- MSGBUF Message buffer audits.
- c Audit member:
  - 1 — Message queue audit.
  - 2 — Message extender audit.
- PROAD Process administration audits.
- d Audit member:
  - 1 — Process creation and termination audits.

## 4. ACTION TO BE TAKEN

Report the occurrence of the message if an audit is identified in the message.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 332.

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CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

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ID ..... REPT:KLLA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

This message has 14 formats:

- [1] REPT KLLA TASK STATUS - a, F3PID=b] TYPE=c ADDR=d
- [2] REPT KLLA MON-TASK FAULT e ADDR f
- [3] REPT KLLA STOP AND FLUSH IN PROGRESS FOR g
- [4] REPT KLLA RECOVERY FAILED, RELEASED DATABASE g
- [5] REPT KLLA NO PROCESS ATTACHED,  
RELEASE DATABASE g
- [6] REPT KLLA {ADD|GROW|FREE} SEGMENT ERROR = h INDEX = j
- [7] REPT KLLA UNSHARE SEGMENT FAILED INDEX = j
- [8] REPT KLLA MEMORY LOCK CLEARED
- [9] REPT KLLA LOCK CLEARED ON g
- [10] REPT KLLA BAD MESSAGE QUEUE REPAIRED FOR g
- [11] REPT KLLA UPDATE MAP OVERLOAD FOR g
- [12] REPT KLLA FILENAME TOO LONG k
- [13] REPT KLLA LLA ERROR CODES m
- [14] REPT KLLA LLA DATA SEGMENT ERROR

## 2. REASON FOR OUTPUT

To report status or error conditions in the process /prc/klla.

Format 1 reports that a task was faulted or timed out.

Format 2 reports that /prc/klla faulted while not in a task.

Format 3 reports that a database is in a stop and flush mode. Output approximately every five minutes while the stop and flush is in effect.

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Format 4 reports that an attempt to recover from a fault has failed and that the database is being related.

Format 5 reports that no living process remains attached to a database and therefore the database is being released.

Format 6 reports an error in adding or freeing dynamic memory.

Format 7 reports that a shared segment cannot be unshared.

Format 8 reports that a memory lock that was stuck has been cleared.

Format 9 reports that a lock on a database that was stuck has been cleared.

Format 10 reports that bad links were found in the message queue for a database and the queue has been repaired.

Format 11 reports that the capacity of the update map for a database has been exceeded.

Format 12 reports an attempt to build a database file name that would contain more than fourteen characters.

Format 13 reports internal LLA errors.

Format 14 reports internal KLLA error in administering the LLA library data segment associated with a task.

### **3. VARIABLE FIELD DEFINITIONS**

|   |                                                                                                                                                               |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Reason for terminating the task, PHASE 1, FAULT or TIMEOUT.                                                                                                   |
| b | Process number of the process requesting the task.                                                                                                            |
| c | Type of request being serviced.                                                                                                                               |
| d | If a is PHASE 1 or FAULT, the address at which the task was faulted with the fault code in the first two hex digits. If a is TIMEOUT, the task sleep address. |
| e | Fault code.                                                                                                                                                   |
| f | Address in /prc/klla at which fault occurred.                                                                                                                 |
| g | Name of the database.                                                                                                                                         |
| h | Error code returned by the memory manager.                                                                                                                    |
| j | Segment index of the affected segment.                                                                                                                        |
| k | Name of the file.                                                                                                                                             |
| m | A string of mnemonic LLA error codes separated by commas.                                                                                                     |

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#### **4. ACTION TO BE TAKEN**

Format 4,5: When a format 4 or 5 message appears, further KLLA access to that database will be denied until a new attach request is made.

Format 6: The following messages indicate a failure to allocate memory for the database environment because of a shortage of memory resources:

```
REPT KLLA ADD SEGMENT ERROR = X'ef
REPT KLLA ADD SEGMENT ERROR = X'ed
REPT KLLA GROW SEGMENT ERROR = X'fb
```

Retry the attached request when the memory shortage is cleared.

Any other SEGMENT ERROR message is an indication of a failure in KLLA's management of dynamic memory. Report this error to UNIX® RTR support.

Format 7: This is a failure in KLLA's management of shared memory. Report this error to UNIX® RTR support.

Format 8-10: These messages report errors found and repaired by internal audits of KLLA's structures. They are useful for explaining a possible slowdown or deadlock in KLLA processing. Frequent appearance of these messages should be reported to UNIX® RTR support.

Format 11: This warns that the capacity of the updated map structure has been exceeded. If this error occurs frequently, pass this information to the UNIX® RTR support organization.

Format 13: This message contains useful debugging information for UNIX® RTR developers.

Format 14: This message reports a failure to set up the proper addressing for a task. The task involved will eventually be torn down with a TIMEOUT. Frequent appearance of this message should be reported to UNIX® RTR support.

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## **5. REFERENCES**

### OMDB Keys (UNIX® RTR R1 only)

Format 1 has an OMDB key of 461.  
Format 2 has an OMDB key of 463.  
Format 3 has an OMDB key of 464.  
Format 4 has an OMDB key of 464.  
Format 5 has an OMDB key of 464.  
Format 6 has an OMDB key of 462.  
Format 7 has an OMDB key of 462.  
Format 8 has an OMDB key of 462.  
Format 9 has an OMDB key of 464.  
Format 10 has an OMDB key of 464.  
Format 11 has an OMDB key of 464.  
Format 12 has an OMDB key of 464.  
Format 13 has an OMDB key of 464.  
Format 14 has an OMDB key of 462.

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ID ..... REPT:LACID-ERROR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT LACID ERROR  
NODE a LINK\_ID b LACID c:

## 2. REASON FOR OUTPUT

Prints when the LACID table audit has failed. The LACID table audit checks the data in the LACID table (lcd\_tbl[]) with the incore link node data (lndata). This audit is part of the LKBDST audit and runs whenever the LKBDST audit is scheduled to run. This audit runs to completion for all DCHN and SADC type nodes.

## 3. VARIABLE FIELD DEFINITIONS

- a Ring Node Address (RNA).
- b Link within this RNA.
- c Incore LACID value for this link.
- d One of the following error messages:
  - 1 RNA/PLID MISMATCH BETWEEN INCORE LNDATA AND LACID TBL
  - 2 LACID TBL RNA - PLID OUT OF RANGE
  - 3 NODETYPE NOT A DCHN OR SADC FOR THIS RNA
  - 4 LACID MISMATCH BETWEEN INCORE LNDATA AND LACID TBL
  - 5 BAD LACID ROUTING: SAME LACID ASSIGNED TO MORE THAN ONE RNA/PLID

## 4. ACTION TO BE TAKEN

This output message is printed to indicate to the user that there was a mismatch between the Incore link node data and the data in the LACID Table when the LACID audit (lcd\_aud()) was run. The audit corrects the error when appropriate and then updates the corresponding link nodes accordingly via REMACS.

For error messages 2, 3 and 4, the RNA/PLID is set to zero in the LACID table which means that this LACID value becomes unequipped. For error message 1 the LACID table is updated to reflect the Incore LNDATA. For error message 5 no correction is done. This message indicates that there are two or more links that have the same LACID value. The user must verify the Link Node Data via the RC/V tools and make appropriate corrections to the Link Node Data. The AUD:LKBDST must then be run such that the LACID table audit can run again and correct the data in the LACID table.

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**5. REFERENCES**

Input Message  
AUD: LKBDST -1

Output Message  
AUD: LKBDST -1

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ID ..... REPT:LFS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has two output formats.

[1] REPT LFS [IN PROGRESS | COMPL]  
LFS a b c {NEAR|FAR} AT d [PASSED | IN PROGRESS | STOPPED] [e]

| LPBK<br>CMPT | TEST<br>REPT | LPBK<br>EVAL | ELAPSED<br>TIME | ERRORED<br>BITS | SEC | BIT<br>E-RT | PCT<br>E-F-S | LST<br>SYNC |
|--------------|--------------|--------------|-----------------|-----------------|-----|-------------|--------------|-------------|
| ----         | ----         | ----         | -----           | ----            | --- | ----        | -----        | ----        |
| f            | g            | h            | i               | j               | k   | l           | m            | n           |
| .            | .            | .            | .               | .               | .   | .           | .            | .           |
| .            | .            | .            | .               | .               | .   | .           | .            | .           |
| .            | .            | .            | .               | .               | .   | .           | .            | .           |

[2] REPT LFS COMPL  
LFS b c REQUEST ABORTED  
[o]

## 2. REASON FOR OUTPUT

Format 1 reports at completion of EXC:LFS test.

Format 2 reports abnormal EXC:LFS test terminations.

## 3. VARIABLE FIELD DEFINITIONS

- a Link group number (0-63).
- b Link member number (1-15).
- c Number of loopback components (LC) specified in the EXC:LFS command line.

TEST sequence progression specifier:

NEAR — Indicates link fault sectionalization (LFS) test started from the nearest specified loopback component to the farthest.

FAR — Indicates LFS test started from the farthest specified loopback component to the nearest.

- d Loopback point to which the test sequence has progressed. Must be one of the following:

CSUL — Channel service unit latching loopback.

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CSUN — Channel service unit non-latching loopback.

DPuu — Indicates the uuth digital signal zero (DS0) data port relative to the near-end. The uu is a number in the range: (01-50).

DSUL — Digital service unit dataport latching loopback.

DSUN — Data service unit non-latching loopback.

LID0 — Indicates test sequence has not progressed beyond the local loopback test.

NEI — Far-end network element interface. (Loopback select code octet value = x1000001).

OCUL — Office channel unit latching loopback.

OCUN — Office channel unit non-latching loopback.

REM — Manual remote loopback.

RPT1 — Represents non-latching loopback test for the first 56K bps local loop regenerative repeater.

RPT2 — Represents non-latching loopback test for the second 56K bps local loop regenerative repeater.

e Disposition of the test. Must be one of the following:

ERROR THRESHOLD EXCEEDED.  
FARTHER AWAY LOOPBACK POINT(S) FAILED.  
LID0 COMPOSITE CLOCK FAILURE.  
LID0 LOCAL LOOPBACK TEST FAILURE.  
LID0 MALFUNCTION.  
LID0 MEASUREMENT COUNTERS SATURATED.  
LID0 SOFTWARE MALFUNCTION.  
PASSED.  
TOO MANY LOST SYNCHRONIZATIONS.  
UNABLE TO ALIGN ON RETURNED TEST PATTERN.  
UNABLE TO OPERATE LOOPBACK.  
UNABLE TO RE-ALIGN AFTER LOST SYNC.  
UNABLE TO REMOVE LOOPBACK.  
WRONG FACILITY COMPONENT LOOPED BACK.

f Loopback component (LC). Must be one of the following:

CSUL, CSUN, DSUL, DSUN, NEI, REM, RPT1 and RPT2 DPuu, where uu is a number in the range: (01-50).

g Repetitive (>1) or single (1) operation. Must be a value in the range: (1-99).

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|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | 1 — Indicates 1st operation of the loopback component.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|   | 2 — Indicates the 2nd operation of a unique loopback component.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| h | Individual evaluations of loopback tests.<br><br>PASS — Indicates a successful test based on input criteria.<br><br>FAIL — Indicates test failure based on input criteria.<br><br>TINP — Indicates the designated LC is being tested.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| i | Elapsed duration of measurement for individual loopback points in hours:minutes:seconds respectively.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| j | Number of errored bits for this LC (0 to 65535).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| k | Number of errored seconds for this loopback point (0 to 9999).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| l | Bit error ratio (BIT-ERT) for this loopback point. Expressed as one of the following:<br><br>- x.yE-z<br>- UNFLW to indicate underflow.<br>- OVFLW to indicate overflow.<br><br>Where x, y and z are integer values in the range (0-9).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| m | Percent error free seconds (PCT E-F-S) for this LC. Also represented as a fixed point with precision = 0.1%.<br><br><b>Note:</b> The BIT-ERT and PCT E-F-S values in an intermediate report could be worse than the specified threshold, but the test will not necessarily fail (yet). This is due to a difference in the way calculations are done for reporting vs. thresholding. For example, the reported BIT-ERT is calculated by dividing the number of errored bits by the total number of bits from the start of the test up to the time of the calculation (elapsed time). For thresholding, the denominator is always the number of bits for the entire specified duration. Thresholding is done in this way so that the test is not overly sensitive to bit errors early in a long test. |
| n | Number of lost synchronization for the loopback point (0 to 999).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| o | Reason for abort:<br><br>- DUE TO OMAP INITIALIZATION<br>- NODE REMOVED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

#### 4. ACTION TO BE TAKEN

None.

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**5. REFERENCES**

Input Message  
EXC:LFS

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ID ..... REPT:LIBC-ARGU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT LIBC ARGUMENTS TO FUNC a UTID: b  
c

## 2. REASON FOR OUTPUT

To report arguments to the faulting function and to the function that called the faulting function.

## 3. VARIABLE FIELD DEFINITIONS

- a Address of the faulting instruction or the caller of the faulting function.  
This will identify the function to which these arguments refer.
- b Utility ID of the process that faulted.
- c List of arguments to the function (maximum of 14) from the stack.

## 4. ACTION TO BE TAKEN

This is a supplementary message to REPT:LIBC-FAULT. No separate action is required if actions are taken for REPT:LIBC-FAULT message.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 677.

Output Messages  
REPT:LIBC-FAULT  
REPT:LIBC-PROGRAM  
REPT:LIBC-SAVE

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ID ..... REPT:LIBC-EX  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT LIBC ERROR EXEC ADDSEG FAILED SEG  
NUMBER a FNAME:b PNAME:[c] PID:d UTID:e
- [2] REPT LIBC ERROR EXEC ALOCSEG FAILED  
FNAME:b PNAME:[c] PID:d UTID:e  
SIZE:f SNAME: g
- [3] REPT LIBC ERROR EXEC CHANGE ATTRIB FAILED  
FNAME:b PNAME:[c] PID:d UTID:e  
ATTRIB: [stat|dyn] PRI:h TSLICE:i SHLIB:j k
- [4] REPT LIBC ERROR EXEC SET CLASS FAILED CLASS l  
FNAME:b PNAME:[c] PID:d UTID:e
- [5] REPT LIBC ERROR EXEC CHGPCB FAILED PCB SIZE m  
FNAME:b PNAME:[c] PID:d UTID:e
- [6] REPT LIBC ERROR EXEC BAD LIB HEAD DATA  
LIBNAME:n FILEMAGIC:o AOUTMAGIV:p SEGMAPS:q  
FNAME:b PNAME:[c] PID:d UTID:e
- [7] REPT LIBC ERROR EXEC LIB HEAD READ FAILED  
ERRNO r LIBNAME:n FNAME:b PNAME:[c] PID:d  
UTID:e
- [8] REPT LIBC ERROR LIB HEAD OPEN FAILED  
ERRNO r LIBNAME:n FNAME:b PNAME:[c]  
PID:d UTID:e
- [9] REPT LIBC ERROR EXEC BAD SHLIB PATH DATA IN  
PFILE HPATH s NAME:b PNAME:[c] PID:d UTID:e
- [10] REPT LIBC ERROR EXEC UNAVAILABLE LIB SEGCODE  
ERRNO r LIBNAME:n FNAME:b PNAME:[c] PID:d UTID:e
- [11] REPT LIBC ERROR EXEC BAD SEG INDEX  
FNAME:b PNAME:[c] PID:d UTID:e  
INDEX:t SEGDESC:u

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- [12] REPT LIBC ERROR EXEC SEGMENT OVERLAY  
FNAME:b PNAME:[c] PID:d UTID:e  
INDEX:t SEGDESC:u
- [13] REPT LIBC ERROR EXEC BAD PCB INDEX  
FNAME:b PNAME:[c] PID:d UTID:e  
INDEX:t SEGDESC:u
- [14] REPT LIBC ERROR EXEC SEG READ FAILED ERRNO r  
FNAME:b PNAME:[c] PID:d UTID:e
- [15] REPT LIBC ERROR EXEC NO AVAILABLE SEG NUMBER  
FNAME:b PNAME:[c] PID:d UTID:e
- [16] REPT LIBC ERROR EXEC BAD STACK INDEX  
FNAME:b PNAME:[c] PID:d UTID:e  
INDEX:t SEGDESC:u
- [17] REPT LIBC ERROR EXEV ADDSEG FAILED FOR TEMP  
SEGMENT FNAME:b PNAME:[c] PID:d UTID:e
- [18] REPT LIBC ERROR EXEV ALOCSEG FAILED FOR TEMP  
SEGMENT FNAME:b PNAME:[c] PID:d UTID:e

## 2. REASON FOR OUTPUT

To report that a UNIX® process was overlaying itself with another image and an unexpected error occurred.

Format 1 is printed when a new segment could not be added to the address space.

Format 2 is printed when a new segment could not be allocated.

Format 3 is printed when the process attributes could not be changed.

Format 4 is printed when the process class could not be set.

Format 5 is printed when chgpcb failed when setting the profiling address. MAXSEG error occurs when the chgpcb ost fails to change the segment list size when executing a child with a different number of segments than the parent. PCBSIZE error occurs when the pcb could not be grown or shrunk for the new process identified in FNAME.

Format 6 is printed when a shared library file header contained bad data.

Format 7 is printed when a shared library file could not be read.

Format 8 is printed when a shared library file could not be opened.

Format 9 is printed when the new process image's file contained invalid shared library data.

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Format 10 is printed when a segment name template could not be obtained for a shared library file.

Format 11 is printed when a segment index in the file header was invalid.

Format 12 is printed when a segment overlay in the process being executed.

Format 13 is printed when the PCB data in the file header was invalid.

Format 14 is printed when a segment image could not be read from a file.

Format 15 is printed when a segment number for a new segment could not be found.

Format 16 is printed when the stack data in the file header was invalid.

Format 17 is printed when a temporary segment could not be added to the address space.

Format 18 is printed when a temporary segment could not be allocated.

### **3. VARIABLE FIELD DEFINITIONS**

|   |                                                                                                                              |
|---|------------------------------------------------------------------------------------------------------------------------------|
| a | Segment number of the one that could not be attached.                                                                        |
| b | Name of the file in which the error happened. In some cases, the name will have the utility Identification (ID) as a prefix. |
| c | Process name from the Process Control Block (PCB). For some cases, this may be NULL.                                         |
| d | Process number.                                                                                                              |
| e | Utility ID.                                                                                                                  |
| f | Size of the requested segment.                                                                                               |
| g | Name of the requested segment.                                                                                               |
| h | Priority requested.                                                                                                          |
| i | Time slice requested.                                                                                                        |
| j | Shared library bits.                                                                                                         |
| k | Shared library bits.                                                                                                         |
| l | Class requested.                                                                                                             |
| m | Profiling address, or the new segment list size, of the new PCB size.                                                        |
| n | Name of the shared library.                                                                                                  |
| o | Magic number in file header.                                                                                                 |
| p | Magic number in a.out header.                                                                                                |
| q | Number of segment maps.                                                                                                      |

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|   |                                                                        |
|---|------------------------------------------------------------------------|
| r | System error code. See System Error Codes Output Appendix, APP:SYSERR. |
| s | Invalid path data.                                                     |
| t | Segment index of bad segment in pfile.                                 |
| u | File's invalid segment descriptor.                                     |

#### **4. ACTION TO BE TAKEN**

File an operational trouble report accompanied by the message. Many conditions indicate a file whose data have been damaged.

#### **5. REFERENCES**

##### OMDB Keys

Format 1 has an OMDB key of 346.  
Format 2 has an OMDB key of 345.  
Formats 3 and 5 have an OMDB key of 342.  
Format 4 has an OMDB key of 341.  
Format 6 has an OMDB key of 349.  
Formats 7, 8, and 10 have an OMDB key of 348.  
Format 9 has an OMDB key of 339.  
Formats 11, 12, 13, and 16 have an OMDB key of 343.  
Format 14 has an OMDB key of 347.  
Formats 15, 17, and 18 have an OMDB key of 344.

Output Appendix  
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:LIBC-FAULT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT LIBC FAULT IN a FLTCODE b PA c  
PNAME:d PID:e UTID:f

## 2. REASON FOR OUTPUT

To report that a UNIX® process caused a software fault that made it terminate.

## 3. VARIABLE FIELD DEFINITIONS

- a                    A general indicator of what caused the fault:
- LIB — The UNIX® portion of the library.
- USER — The process itself.
- SBTRACE — The stack back trace execution.
- b                    Fault number.
- c                    Program address at which the fault occurred. In some cases, this value may point to the next instruction.
- d                    Process name from the Process Control Block (PCB).
- e                    Process number.
- f                    Utility ID of the process that faulted.

## 4. ACTION TO BE TAKEN

File an operational trouble report accompanied by REPT:LIBC-FAULT, REPT:LIBC-PROGRAM, REPT:LIBC-SAVE, and REPT:LIBC-ARGU output messages. In some cases, a file is created in /cdmp that contains an image of the process when it terminates. The file's name will be the same as variable field showing the process name from the PCB in the output message.

If the general indicator is USER and the fault number is 0xe1 (H'e1), a phase 1 has occurred, and the currently running supervisor or UNIX® process (indicated by process name from the PCB) is killed by sending it a phase fault (0xe1). This is part of the phase 1 recovery process, and the process is reporting that it has received a fault. The postmortem should be analyzed to determine the cause of the phase 1. If bit 31 of the Process Status Word (PSW) in the postmortem is 0xa1 and the process indicated in variable field showing the process name from the PCB was dumped into /cdmp, then save the core dump for analysis.

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**5. REFERENCES**

OMDB Key

This message has an OMDB key of 338.

Output Messages

REPT:LIBC-ARGU

REPT:LIBC-PROGRAM

REPT:LIBC-SAVE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:LIBC-FO  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT LIBC ERROR FORK COPYSEG FAILED RET d  
PNAME:a PID:b UTID:c
- [2] REPT LIBC ERROR FORK ADDSEG FAILED FOR PCB  
PNAME:a PID:b UTID:c
- [3] REPT LIBC ERROR FORK COPYSEG FAILED FOR PCB  
RET d PNAME:a PID:b UTID:c
- [4] REPT LIBC ERROR FORK PFORK1 FAILED  
PNAME:a PID:b UTID:c
- [5] REPT LIBC ERROR FORK PFORK2 FAILED  
PNAME:a PID:b UTID:c

## 2. REASON FOR OUTPUT

To report that an error prevented a UNIX® process from creating a new process with the fork system call.

Format 1 is printed when the process could not duplicate all segments of its address space.

Format 2 is printed when the process could not add the new Process Control Block (PCB) segment to its address space.

Format 3 is printed when the process could not create a copy of its PCB segment.

Formats 4 and 5 are printed if the new process could not be created because of other system limitations. This condition may be temporary.

## 3. VARIABLE FIELD DEFINITIONS

- a Process name from the PCB.
- b Process number.
- c Utility Identification (ID).
- d Return value from an unsuccessful request.

## 4. ACTION TO BE TAKEN

If the condition persists, file an operational trouble report accompanied with the output message.

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## **5. REFERENCES**

### OMDB Keys

Formats 1 and 3 have an OMDB key of 350.

Formats 2, 4, and 5 have an OMDB key of 351.

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ID ..... REPT:LIBC-PROGRAM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT LIBC PROGRAM ADDRESS BACKTRACE UTID: a  
b

## 2. REASON FOR OUTPUT

To report the function addresses of the faulting process.

## 3. VARIABLE FIELD DEFINITIONS

- a Utility Identification (ID) of the process that faulted.
- b List of program addresses on the stack (maximum of 15) when the fault occurred, listed in the order of latest to first.

## 4. ACTION TO BE TAKEN

This is a supplementary message to REPT:LIBC-FAULT. No separate action is required if actions are taken for REPT:LIBC-FAULT message.

## 5. REFERENCES

OMDB Key

This message has an OMDB key of 675.

Output Messages

REPT:LIBC-ARGU  
REPT:LIBC-FAULT  
REPT:LIBC-SAVE

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:LIBC-SAVE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT LIBC SAVE STATE REGISTERS UTID: a  
0-5: b c d e f g  
6-B: h i j k l m

## 2. REASON FOR OUTPUT

To report save-state registers (0 through 12) for the faulting process.

## 3. VARIABLE FIELD DEFINITIONS

|     |                                                              |
|-----|--------------------------------------------------------------|
| a   | Utility ID of the process that faulted.                      |
| b-g | Save state registers R0, R1, R2, R3, R4, R5, respectively.   |
| h-m | Save state registers R6, R7, R8, R9, R10, R11, respectively. |

## 4. ACTION TO BE TAKEN

This is a supplementary message to REPT:LIBC-FAULT. No separate action is required if actions are taken for REPT:LIBC-FAULT output message.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 676.

Output Messages  
REPT:LIBC-ARGU  
REPT:LIBC-FAULT  
REPT:LIBC-PROGRAM

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ID ..... REPT:LIBC-ST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT LIBC ERROR START COULD NOT OPEN ROOT DIRECTORY  
ERRNO a PNAME:b PID:c UTID:d

## 2. REASON FOR OUTPUT

To report that a UNIX® process created by the process manager failed to open the root directory of the file system. This occurred during the initialization for the UNIX® process.

## 3. VARIABLE FIELD DEFINITIONS

- a                    System error code. See System Error Codes Output Appendix, APP:SYSERR.
- b                    Process name from the Process Control Block (PCB).
- c                    Process number.
- d                    Utility Identification (ID).

## 4. ACTION TO BE TAKEN

File an operational trouble report accompanied by the output message.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 352.

Output Appendix  
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:LIBC-START  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT LIBC a b c START / d

## 2. REASON FOR OUTPUT

To report that a UNIX® process created by the process manager failed to open the root directory of the file system. This occurred during the initialization for the UNIX® process.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                        |
|---|------------------------------------------------------------------------|
| a | Process name from the Process Control Block (PCB).                     |
| b | Process number.                                                        |
| c | Utility Identification (ID).                                           |
| d | System error code. See System Error Codes Output Appendix, APP:SYSERR. |

## 4. ACTION TO BE TAKEN

File an operational trouble report accompanied by the output message.

## 5. REFERENCES

Output Appendix  
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:LKC-SLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK INTERNAL PASSED
- [2] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK INTERNAL FAILED
- [3] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK INTERNAL STOPPED
- [4] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK PASSED  
DURATION: e ERRORS: f ERRSEC: g
- [5] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK FAILED  
DURATION: e ERRORS: f ERRSEC: g REASON: h
- [6] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK STAT  
DURATION: e ERRORS: f ERRSEC: g
- [7] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK STOPPED  
DURATION: e ERRORS: f ERRSEC: g
- [8] REPT LKC SLK COMPL  
SLK a b c d LOOPBACK ESTABLISHED
- [9] REPT LKC SLK COMPL  
SLK a b c d LOOPBACK RELEASED
- [10] REPT LKC SLK COMPL  
SLK a b c d REQUEST DENIED,  
LINK CHECK IN PROGRESS
- [11] REPT LKC SLK COMPL  
SLK a b c d REQUEST DENIED,  
LINK CHECK INTERNAL IN PROGRESS

SEE PROPRIETARY NOTICE ON COVER PAGE

- [12] REPT LKC SLK COMPL  
SLK a b c d REQUEST DENIED, LOOPBACK SET
- [13] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK DENIED,  
MAXIMUM NUMBER OF TESTS EXCEEDED
- [14] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK IN PROGRESS
- [15] REPT LKC SLK COMPL  
SLK a b c d LINK CHECK INTERNAL IN PROGRESS
- [16] REPT LKC SLK COMPL  
SLK a b c d LOOPBACK SET
- [17] REPT LKC SLK COMPL  
SLK a b c d NO LINK CHECK TEST IN PROGRESS
- [18] REPT LKC SLK COMPL  
SLK a b i j LINK CHECK INTERNAL PASSED
- [19] REPT LKC SLK COMPL  
SLK a b i j LINK CHECK INTERNAL FAILED  
REASON : k
- [20] REPT LKC SLK COMPL  
SLK a b i j LINK CHECK INTERNAL STOPPED
- [21] REPT LKC SLK IN PROG  
SLK a b i j LINK CHECK TIMED OUT  
DURATION: l

L3\_MSG\_X: l3\_msg\_x      L3\_MSG\_R: l3\_msg\_r  
NO\_CHGOV: no\_chgov      LK\_OOS\_T: lk\_oos\_t

REPT LKC SLK COMPL  
SLK a b i j  
L2\_MSU\_X: l2\_msu\_x      L2\_MSU\_R: l2\_msu\_r  
NO\_FORCE: no\_force      NO\_FOR\_B: no\_for\_b  
R\_ABORT : r\_abort      R\_ABRTER: r\_abrter  
S\_ERRSEC: s\_errsec      ERRSEC : errsec  
CRC\_ER : crc\_er

SEE PROPRIETARY NOTICE ON COVER PAGE

- [22] REPT LKC SLK IN PROG  
SLK a b i j LINK CHECK FAILED  
DURATION: l REASON : k
- L3\_MSG\_X: l3\_msg\_x L3\_MSG\_R: l3\_msg\_r  
NO\_CHGOV: no\_chgov LK\_OOS\_T: lk\_oos\_t
- REPT LKC SLK COMPL  
SLK a b i j  
L2\_MSU\_X: l2\_msu\_x L2\_MSU\_R: l2\_msu\_r  
NO\_FORCE: no\_force NO\_FOR\_B: no\_for\_b  
R\_ABORT : r\_abort R\_ABRTER: r\_abrter  
S\_ERRSEC: s\_errsec ERRSEC : errsec  
CRC\_ER : crc\_er
- [23] REPT LKC SLK IN PROG  
SLK a b i j LINK CHECK PERIODIC MEASUREMENT REPORT  
DURATION: l
- L3\_MSG\_X: l3\_msg\_x L3\_MSG\_R: l3\_msg\_r  
NO\_CHGOV: no\_chgov LK\_OOS\_T: lk\_oos\_t
- REPT LKC SLK IN PROG  
SLK a b i j  
L2\_MSU\_X: l2\_msu\_x L2\_MSU\_R: l2\_msu\_r  
NO\_FORCE: no\_force NO\_FOR\_B: no\_for\_b  
R\_ABORT : r\_abort R\_ABRTER: r\_abrter  
S\_ERRSEC: s\_errsec ERRSEC : errsec  
CRC\_ER : crc\_er
- [24] REPT LKC SLK IN PROG  
SLK a b i j LINK CHECK STAT  
DURATION: l FAILCODE: k
- L3\_MSG\_X: l3\_msg\_x L3\_MSG\_R: l3\_msg\_r  
NO\_CHGOV: no\_chgov LK\_OOS\_T: lk\_oos\_t
- REPT LKC SLK COMPL  
SLK a b i j  
L2\_MSU\_X: l2\_msu\_x L2\_MSU\_R: l2\_msu\_r  
NO\_FORCE: no\_force NO\_FOR\_B: no\_for\_b  
R\_ABORT : r\_abort R\_ABRTER: r\_abrter  
S\_ERRSEC: s\_errsec ERRSEC : errsec  
CRC\_ER : crc\_er

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- [25] REPT LKC SLK IN PROG  
SLK a b i j LINK CHECK LEVEL 2 OOS REPORT  
DURATION: l REASON : k
- L3\_MSG\_X: l3\_msg\_x L3\_MSG\_R: l3\_msg\_r  
NO\_CHGOV: no\_chgov LK\_OOS\_T: lk\_oos\_t
- REPT LKC SLK IN PROG  
SLK a b i j  
L2\_MSU\_X: l2\_msu\_x L2\_MSU\_R: l2\_msu\_r  
NO\_FORCE: no\_force NO\_FOR\_B: no\_for\_b  
R\_ABORT : r\_abort R\_ABRTER: r\_abrter  
S\_ERRSEC: s\_errsec ERRSEC : errsec  
CRC\_ER : crc\_er
- [26] REPT LKC SLK IN PROG  
SLK a b i j LINK CHECK STOPPED  
DURATION: l
- L3\_MSG\_X: l3\_msg\_x L3\_MSG\_R: l3\_msg\_r  
NO\_CHGOV: no\_chgov LK\_OOS\_T: lk\_oos\_t
- REPT LKC SLK COMPL  
SLK a b i j  
L2\_MSU\_X: l2\_msu\_x L2\_MSU\_R: l2\_msu\_r  
NO\_FORCE: no\_force NO\_FOR\_B: no\_for\_b  
R\_ABORT : r\_abort R\_ABRTER: r\_abrter  
S\_ERRSEC: s\_errsec ERRSEC : errsec  
CRC\_ER : crc\_er
- [27] REPT LKC SLK COMPL  
SLK a b i j LOOPBACK ESTABLISHED
- [28] REPT LKC SLK COMPL  
SLK a b i j LOOPBACK RELEASED
- [29] REPT LKC SLK COMPL  
SLK a b i j REQUEST DENIED,  
LINK CHECK INTERNAL IN PROGRESS
- [30] REPT LKC SLK COMPL  
SLK a b i j REQUEST DENIED, LOOPBACK SET
- [31] REPT LKC SLK COMPL  
SLK a b i j REQUEST DENIED, LINK CHECK IN PROGRESS
- [32] REPT LKC SLK COMPL  
SLK a b i j LINK CHECK DENIED,  
MAXIMUM NUMBER OF TESTS EXCEEDED

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- [33] REPT LKC SLK COMPL  
SLK a b i j LINK CHECK IN PROGRESS
- [34] REPT LKC SLK COMPL  
SLK a b i j LINK CHECK INTERNAL IN PROGRESS
- [35] REPT LKC SLK COMPL  
SLK a b i j LOOPBACK SET
- [36] REPT LKC SLK COMPL  
SLK a b i j NO LINK CHECK TEST IN PROGRESS
- [37] REPT LKC SLK COMPL  
SLK a b i j INVALID MINOR STATE,  
VALID STATE = MOOS OR OOS(EMR)
- [38] REPT LKC SLK COMPL  
SLK a b i j INVALID MINOR STATE,  
VALID STATE = TEST
- [39] REPT LKC SLK COMPL  
SLK a b i j INVALID MAJOR STATE,  
VALID STATE = AVL/UNA
- [40] REPT LKC SLK COMPL  
SLK a b i j REQUEST DENIED,  
SLM IS NOT IN GOOD STATE FOR LINK CHECK
- [41] REPT LKC SLK COMPL  
SLK a b i j LINK CHECK UNGRACEFULLY REMOVED
- [42] REPT LKC SLK COMPL  
SLK a b i j LINK CHECK REQUEST FAILED,  
TIMED OUT AWAITING NODE RESPONSE
- [43] REPT LKC SLK COMPL  
SLK a b i j NODE OOS, MANUAL LINK CHECK BYPASSED

## 2. REASON FOR OUTPUT

Response to a manual request for a Link Check test procedure.

Formats 1 through Format 17 are for DCHN & SADC only.

Formats 18 through Format 43 are for ILN links only.

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### 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Group Number (0-63).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| b | Member Number (1-15).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| c | Circuit pack number (0-1).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| d | Port number (0-3).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| e | Test duration in seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| f | Number of errors detected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| g | Number of errored seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| h | Reason for test failure: <ul style="list-style-type: none"> <li>1 — No flags received, loopback may not be present.</li> <li>2 — Flags received but no Link Check messages, flags may be from far-end if no loopback set.</li> <li>3 — Error threshold exceeded.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| i | Circuit pack number (always 0).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| j | Port number (always 0).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| k | Reason for test failure: <ul style="list-style-type: none"> <li>0 — No failure.</li> <li>(1xxxx — Hardware failures detected by LI). <ul style="list-style-type: none"> <li>10040 — LI parity failure.</li> <li>10041 — LI parity-checking circuit failure.</li> <li>10042 — LI checksum failure.</li> <li>10044 — LI 8086 test failure.</li> <li>10046 — LI illegal interrupt detected.</li> </ul> </li> <li>(2xxxx — Failures detected by level 2 protocol). <ul style="list-style-type: none"> <li>20001 — Alignment guard timer, t1 expired.</li> <li>20002 — Alignment not possible, t2 expired.</li> <li>20003 — Alignment not possible, t3 expired.</li> <li>20004 — SU error rate monitor threshold exceeded.</li> <li>20005 — Alignment error rate threshold exceeded.</li> <li>20006 — LSSU received with SIO, SIOS, SIN, SIE.</li> <li>20007 — Receiver Link Failure.</li> <li>20008 — Excessive acknowledgement timer expired.</li> <li>20009 — Congestion guard timer expired.</li> <li>20010 — 2/3 bad backward sequence numbers received.</li> <li>20011 — 2/3 bad forward indicator bits received.</li> <li>20012 — Invalid transmit frame size.</li> <li>20013 — Invalid internal state transition.</li> <li>20014 — Null pointer found in re-xmit queue.</li> <li>20045 — Link idle is detected.</li> </ul> </li> <li>30000 — Remote loopback does not seem set.</li> </ul> |

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40000 — Ring/3B up / down.  
50000 — Level 2 restarted during a link check.  
60000 — Bad start parameters.  
70000 — Receiving data does not match with transmitting data.  
80000 — LI silent.  
90000 — An internal link check has started, but timed out awaiting result back.  
a0000 — Automatic link check request failed, awaiting ACK to the request from the node.

k

Time (in seconds) since the beginning of the test.

l3\_msg\_x — number of level 3 messages transmitted.  
l3\_msg\_r — number of level 3 messages received.  
no\_chgov — number of change over (failed).  
lk\_oos\_t — number of 100ms during which the link is out of service.  
l2\_msu\_x — number of MSUs level 2 has transmitted.  
l2\_msu\_r — number of MSUs level 2 has received.  
no\_force — number of forced retransmission.  
no\_for\_b — number of bytes transmitted during forced retransmission.  
r\_abort — number of aborts.  
r\_abrter — octet count which is added to SERM.  
s\_errsec — number of severe error second.  
errsec — number of error second.  
crc\_er — number of SUs that have CRC errors.

#### 4. ACTION TO BE TAKEN

Formats 1, 3, 4, 6, 7, 8, 9, 14: No action necessary.

Format 2: A Link Check Internal test has failed. Faulty links should be repaired as soon as possible.

Format 5: A Link Check test has failed. Faulty links should be repaired as soon as possible.

Formats 10-12: A Link Check test procedure was already in progress when the current request was entered. Since no more than one Link Check procedure may be active at one time for a given link, the active procedure must be stopped or allowed to complete. Test may be requested after the active test is complete or stopped.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 13: A Link Check test procedure was requested when the maximum number of tests allowed were in progress. The test may be submitted once an active test completes, or an active test may be stopped. The user must be careful when stopping a loopback test to be sure that a far-end office is not using the loopback.

Formats: 18, 20, 23, 25, 26, 27, 28: No action necessary.

Format 19: Link check internal failed. Replace the LI4D if the REASON field is not 2xxxx. Check cable connections if it is 2xxxx, typically true when it is 20002.

Format 21: This message tells that the last test for a given link check has not detected any failure, and does not guarantee that there has not been any failure over the link checking. One should look at the measurement NO\_CHGOV for number of failures and other data to determine whether the link is capable of being used.

Format 22: Depending on the code of the field REASON, one of the following action is suggested to be taken:

- 1xxxx — Replace the LI4D.
- 2xxxx — Same as the action taken for format 4.
- 30000 — Call the remote to set up the loop.
- 40000 — Retry a new link check.
- 50000 — Retry a new link check.
- 60000 — Check the node code.
- 70000 — Call the remote to set up the loop.
- 80000 — Replace the LI4D.
- 90000 — Replace the LI4D.
- a0000 — (apply to automatic link check only).

Format 24: This is the response to a request of link check status.

Formats 29-31: A Link Check test procedure was already in progress when the current request was entered. Since no more than one Link Check procedure may be active at one time for a given link, the active procedure must be stopped or allowed to complete. Test may be requested after the active test is complete or stopped.

Format 32: Maximum number of link checks is limited by tty's available, try it again when one of on-going checks is done.

Formats 33-36: Response from a status request

Formats 37-39: Not in a right state, change state before trying it again.

Format 40: Normally, a manual request will be granted when the link state is in MOOS or some of OOS(EMR). For OOS(EMR), it also depends on the state Signaling Link Management is in.

Format 41: For some reasons, a node that is exercising link check may be removed. The message simply tells one that his link checking is stopped.

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Format 42: For some reasons, the node does not respond within a time limit when the node is in service.

Format 43: A link check request was given when the node was in service. An expected ACK from the node is not received within timeout. Recheck the node, and it is found out of service.

## **5. REFERENCES**

Practice 234-100-121 *CNI Operations Manual* (non-AT&T) -

Practice 234-100-121AC *CNI Operations Manual* (AT&T Only) -

Digital Signaling Link Operating Procedures Section

Digital Signaling Link Test Procedures Section

D-Channel and International Link Node Signaling

Link Test Procedures Section

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Ring and Ring Node Maintenance Procedures Section

Input Messages

CHG:SLK

OP:SLK

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:LN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

REPT LNa b IS c

## 2. REASON FOR OUTPUT

To report the new state of a Link Node (LN). The new state change may only be entered through a manual request from UNIX® RTR Recent Change and Verify (RC/V).

A minor alarm sounds whenever an LN is removed from service.

## 3. VARIABLE FIELD DEFINITIONS

a                    A Ring Node (RN) group number (00-63).  
b                    The ring node member number (1-15).  
c                    New State:  
  
                     IN THE GROWTH STATE  
  
                     OFFLINE  
  
                     OUT OF SERVICE  
  
                     UNAVAILABLE  
  
                     UNEQUIPPED

## 4. ACTION TO BE TAKEN

Verify that this state transition occurred because of a UNIX® RTR RC/V action.

## 5. REFERENCES

CIC Select Code 303-010 *Recent Change and Verify User's Guide*

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:LOG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has one output format:

REPT LOG a b c d  
e

## 2. REASON FOR OUTPUT

This message is output to a logfile to record certain data or code execution to supplement the analysis of system failures. These messages are intended primarily for use by AT&T Bell Laboratories.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                  |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Trace subsystem - assigned by an initialization macro at the beginning of the process. Subsystem names are defined in file 'ims/head/tr_stcb.h'. |
| b | Source file name.                                                                                                                                |
| c | Source file line number.                                                                                                                         |
| d | Real time clock.                                                                                                                                 |
| e | User message as ASCII text.                                                                                                                      |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:LSNC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT LSNC OPENED a AN NORMAL AND a AS UPDATE
- [2] REPT LSNC NOR GEN = b UPD GEN = b
- [3] REPT LSNC: STARTING NAILUP PURGE OF NEW ODA
- [4] REPT LSNC: STILL PURGING TANS
- [5] REPT LSNC: c NAILUPS WERE PURGED
- [6] REPT LSNC: STARTING NAILUP MAPPING
- [7] REPT LSNC: STILL NAILING UP TANS
- [8] REPT LSNC: c NAILUPS WERE CREATED
- [9] REPT LSNC: STARTING TOSL MAPPING
- [10] REPT LSNC: TOSL DATA MAPPED FOR d TSN'S
- [11] REPT LSNC: STARTING UPDATE OF HASH TABLE
- [12] REPT LSNC: LSNC MAPPING COMPLETE
- [13] REPT LSNCERR: 1ASTAT FILE INDICATES PROBLEM
- [14] REPT LSNCERR: 1ASTAT INIT: e LK: f ST: g NORM h
- [15] REPT LSNCERR: CAN'T DETERMINE GENERIC FOR b
- [16] REPT LSNCERR: NO ADDR INFO FOR OLD 4E b
- [17] REPT LSNCERR: NO ADDR INFO FOR NEW 4E b
- [18] REPT LSNCERR: TAN i COULD NOT BE NAILED UP
- [19] REPT LSNCERR: TAN i IS PURGED, MATE TAN i IS UNASSIGNED
- [20] REPT LSNCERR: COULD NOT FIND MATE TO TAN i
- [21] REPT LSNCERR: MATE TO TAN i MAY STILL BE NAILED UP

SEE PROPRIETARY NOTICE ON COVER PAGE

- [22] REPT LSNCERR: BAD TSN j
- [23] REPT LSNCERR: ABORT EXCESSIVE UNASSIGNED TANS
- [24] REPT LSNCERR: UPDATE FILE NAILUPS IN UNDETERMINATE STATE
- [25] REPT LSNCERR: CALL TO SPACE ADMINISTRATION FAILED
- [26] REPT LSNCERR: TERMINATION, RAN OUT OF MEMORY
- [27] REPT LSNCERR: ADDR OUT OF RANGE = k
- [28] REPT LSNCERR: MAXSPACE = k
- [29] REPT LSNCERR: OTOSL ADDR k OUT OF RANGE
- [30] REPT LSNCERR: OTOSL MAX ADDR = k
- [31] REPT LSNCERR: NTOSL ADDR k OUT OF RANGE
- [32] REPT LSNCERR: NTOSL MAX ADDR = k
- [33] REPT LSNCERR: CALL TO UPDATE HASH FAILED
- [34] REPT LSNCERR: ILLEGAL CSFS CONVERSION ATTEMPT
- [35] REPT LSNCERR: CSFS ARGS: GEN = b ADDR = k INDEX = l
- [36] REPT LSNCERR: PHASE m - n ERROR IN o ERRNO: p
- [37] REPT LSNCERR: LSNC TERMINATED DUE TO ERRORS

## **2. REASON FOR OUTPUT**

To report the result of executing a COPY:LSNC command.

Formats 1-12 indicate normal operational output messages.

Formats 13-37 indicate an error has occurred and the explanation of the error.

## **3. VARIABLE FIELD DEFINITIONS**

- |   |                                                       |
|---|-------------------------------------------------------|
| a | Number of the 1B file.                                |
| b | Number of the generic.                                |
| c | Number by pair of TAN's in decimal.                   |
| d | Number of the TSN's in decimal.                       |
| e | 1B Stat file is initialized in hex. (Expect f0ff0fff) |

SEE PROPRIETARY NOTICE ON COVER PAGE

|   |                                                          |
|---|----------------------------------------------------------|
| f | Lock or Unlock bit. (Locked = 1 : Unlocked = 0)          |
| g | Normal or Update mode. (Normal = 1 : Update = 2)         |
| h | Indicates which 1B file (1B file 0 = 0 : 1B file 1 = 1). |
| i | Number of the TAN in octal.                              |
| j | The number of the TSN in octal.                          |
| k | The address in octal.                                    |
| l | Index into the csfs maps.                                |
| m | Phase within the program where the error occurred.       |
| n | The type of error which occurred.                        |
| o | The name of the file which caused the error.             |
| p | The number of the error.                                 |

#### **4. ACTION TO BE TAKEN**

If formats 23 and 24 appear as output, seek technical assistance. For all other formats 13-37, fix the error and reenter the command. If errors still persist, seek technical assistance.

#### **5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MAINT-REQ  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MAINTENANCE REQUESTS LOST

## 2. REASON FOR OUTPUT

To report that messages to the Maintenance Input Request Administrator (MIRA) were discarded by the System Integrity Monitor (SIM) in an effort to recover from message buffer overload.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

Expect that requests to remove, diagnose, or restore a unit will not be run. Use the OP:DGN input message to determine which requests were lost, and then reenter those requests.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 449.

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System*  
*Lucent Technologies 3B20D/3B21D Computer*

### Input Messages

DGN:CU  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MT  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
RMV:CU  
RMV:DFC  
RMV:DUI  
RMV:DUIC  
RMV:HSD

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RMV:HSDC  
RMV:IOP  
RMV:MHD  
RMV:MT  
RMV:MTC  
RMV:MTTY  
RMV:MTTYC  
RMV:ROP  
RMV:SBUS  
RMV:SCC  
RMV:SCSDC  
RMV:SDL  
RMV:SDLC  
RMV:TTY  
RMV:TTYC  
RST:CU  
RST:DFC  
RST:DUI  
RST:DUIC  
RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

Output Messages

PRM:0  
REPT:SIMCHK

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MAN-RING-MOD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

REPT MANUAL RING MODE  
WARNING: ECD SPECIFIES MANUAL RING MODE

## 2. REASON FOR OUTPUT

This message is printed periodically when IMS is in the manual ring mode but the ring is no longer down and the ring initialization has been done successfully. It is printed when the stated condition is first met and every 30 minutes thereafter as long as the condition remains the same. This message is to remind the user that the IMS automatic recovery is inhibited.

## 3. VARIABLE FIELD DEFINITIONS

None

## 4. ACTION TO BE TAKEN

When the user is ready to return to normal mode, the ECD manual ring mode flag must be reset to null.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MAPFILE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**1. FORMAT**

REPT MAPFILE.P NOT ACCESSIBLE

**2. REASON FOR OUTPUT**

To report that the Coordinator Of Spooler Output Processes (CSOP) is not able to access the spooler mapfile.

**3. VARIABLE FIELD DEFINITIONS**

See Reason For Output.

**4. ACTION TO BE TAKEN**

Check that /cft/spl/mapfile.p has read / write file permissions.

**5. REFERENCES**

Input Messages  
ALW:F-ACCESS  
OP:ST-LSTDIR

Output Messages  
ALW:F-ACCESS  
OP:ST-LSTDIR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MAXINTVL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MAXINTVL a

## 2. REASON FOR OUTPUT

To report the utility Identification (ID) of a process which requested a time-out exceeding the maximum allowable value.

## 3. VARIABLE FIELD DEFINITIONS

a                      Utility ID of process requesting time-out.

## 4. ACTION TO BE TAKEN

The timeout request, by default, will succeed unless failure is requested via the (s)maxintvl call. The process may use the (s)maxintvl call to eliminate the message.

## 5. REFERENCES

OMDB Key  
There is an MDB key of 333.

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ID ..... REPT:MBD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] REPT MBD DATA 1-1  
00000000

[2] REPT MBD DATA a-b  
C C C C C C C C  
C C C C C C C C

## 2. REASON FOR OUTPUT

To print system message buffer data when the disk driver message buffer contains invalid data.

Format 1 prints when the disk driver message buffer pointer is NULL.

Format 2 prints when a critical field in the disk driver message buffer is considered to be invalid.

The Message Buffer Dump (MBD) will always contain the disk driver message buffer that is considered invalid. If it exists, message buffer data preceding the disk driver message buffer will also be printed.

The maximum amount of data printed is the size of the largest message buffer plus the size of the smallest message buffer followed by the disk driver message buffer. The boundaries between message buffers contained in the dump are determined by interpreting the data.

## 3. VARIABLE FIELD DEFINITIONS

a Current print segment number.  
b Total number of print segments in this report.  
c Message buffer data in hexadecimal notation.

## 4. ACTION TO BE TAKEN

Save a copy of the Receive-Only Printer (ROP) and contact your technical support organization.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:MEAS-DUMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has three formats.

- [1] REPT MEAS DUMP MSG  
INVALID IMS MESSAGE RECEIVED  
a
- [2] REPT MEAS DUMP MSG  
INVALID IMS MESSAGE RECEIVED (continued)  
a
- [3] REPT MEAS DUMP MSG  
THE MESSAGE:  
"INVALID IMS MESSAGE RECEIVED"  
OCCURRED b TIMES IN THE PAST c MINUTES

## 2. REASON FOR OUTPUT

To report that an unexpected message has been received.

Format 1 is used when the unexpected message is short. It will accommodate messages up to 14 words (4 octets per word, 7 words per line). If a message is longer than 14 words, it will be continued with another message of Format 2.

Format 2 prints continuation of message printed as Format 1. It will also accommodate continuations of up to 14 words and will be repeated as many times as necessary to dump the complete message.

To limit the number of messages being printed on the ROP, a limit has been placed on the total number of messages that will be printed within a particular time period. This limit has been set to 5 messages per 5-minute period. If the total number of requests for a particular description of an error exceeds this limit, the message will not be printed and a message of Format 3 will be printed at the end of the period.

## 3. VARIABLE FIELD DEFINITIONS

- a The message dumped in hexadecimal.
- b The number of times the message should have been printed during the last time period.
- c The time period over which the message should have been printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### **4. ACTION TO BE TAKEN**

It is not intended that the contents of this output message be analyzed by the on-site work force. Rather it is an indication that the CMMSADM process has received a message which it cannot decipher or an extremely rare or unexpected event has occurred. The contents of this message can greatly enhance the analysis of certain service-affecting events and as such, the message may be of great benefit to field support organizations.

#### **5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:MEMORY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MEMORY PARITY FAILURE X'a

## 2. REASON FOR OUTPUT

To report a correctable memory failure in the online CU.

## 3. VARIABLE FIELD DEFINITIONS

a                      The error message sequence number. This sequence number corresponds to the sequence number of the associated REPT CU n ERROR INTERRUPT message, where n is 0 or 1.

## 4. ACTION TO BE TAKEN

Refer to the Error Analysis section of the CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

## 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Output Message  
REPT:CU

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MHD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT MHD a ERROR COMPLETION CODE bbccdeff DEVICE STATUS g
- [2] REPT MHD a ERROR DEVICE STATUS g
- [3] REPT MHD a ERROR CHAN STATUS h
- [4] REPT MHD a ERROR DBS STATUS i
- [5] REPT MHD a ERROR BIC REGISTER STATUS j
- [6] REPT MHD a ERROR STATUS k MASK l EXP m
- [7] REPT MHD a ERROR DATA n
- [8] REPT MHD a FAULT CODE o
- [9] REPT MHD a UNIDENTIFIED RESPONSE WD1=p WD2=q
- [10] REPT MHD a AUTONOMOUS RESPONSE rrccdsff
- [11] REPT MHD a INFO HA SHADOW REGISTER STATUS t
- [12] REPT MHD a INFO CODE u
- [13] REPT MHD a SJR DATA v w x y z

## 2. REASON FOR OUTPUT

To specify the error condition detected on the Moving Head Disk (MHD).

Format 13 provides Small Computer System Interface (SCSI) Job Response (SJR) information when an explicit SCSI command, built by the Disk File Controller (DFC) driver, fails. The SJR data is necessary to determine the exact cause of the error condition.

## 3. VARIABLE FIELD DEFINITIONS

- a Unit number.
- b Command completion code. See Tables 1 and 2 in DFC Output Appendix B, APP:DFC-B.
- c Number of disk blocks read or written.

SEE PROPRIETARY NOTICE ON COVER PAGE

|   |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| d | Device ID number.                                                                                                                                                                                                                                                                                                                                                                                                  |
| e | Special completion code; valid only when DMA job number is 00. See Table 3 in DFC Output Appendix B, APP:DFC-B.                                                                                                                                                                                                                                                                                                    |
| f | DMA job number (job ID).                                                                                                                                                                                                                                                                                                                                                                                           |
| g | Device status, in hexadecimal. See DFC Output Appendix C, APP:DFC-C.                                                                                                                                                                                                                                                                                                                                               |
| h | Channel status, in hexadecimal. See DFC Output Appendix D, APP:DFC-D.                                                                                                                                                                                                                                                                                                                                              |
| i | Bus selector status, in hexadecimal. See DFC Output Appendix E, APP:DFC-E.                                                                                                                                                                                                                                                                                                                                         |
| j | Bus Interface Controller (BIC) status, in hexadecimal. See DFC Output Appendix F, APP:DFC-F.                                                                                                                                                                                                                                                                                                                       |
| k | BIC status, in hexadecimal. See DFC Output Appendix F, APP:DFC-F.                                                                                                                                                                                                                                                                                                                                                  |
| l | Mask.                                                                                                                                                                                                                                                                                                                                                                                                              |
| m | Expected value of BIC status after being masked with mask given.                                                                                                                                                                                                                                                                                                                                                   |
| n | Supplemental data for previous REPT-DKDRV message.                                                                                                                                                                                                                                                                                                                                                                 |
| o | Fault code, in hexadecimal. See DFC Output Appendix I, APP:DFC-I.                                                                                                                                                                                                                                                                                                                                                  |
| p | First word of an unidentifiable completion report. This would normally be the command completion word.                                                                                                                                                                                                                                                                                                             |
| q | Second word of an unidentifiable completion report. This would normally be the device status word.                                                                                                                                                                                                                                                                                                                 |
| r | Autonomous response special completion code. See Tables 1 and 2 in DFC Output Appendix B, APP:DFC-B.                                                                                                                                                                                                                                                                                                               |
| s | The special completion code hexadecimal digit provides the reason for the autonomous response. See Table 3 in DFC Output Appendix B, APP:DFC-B.                                                                                                                                                                                                                                                                    |
| t | The SCSI Host Adapter (HA) shadow register status, in hexadecimal. See DFC Output Appendix P, APP:DFC-P.                                                                                                                                                                                                                                                                                                           |
| u | Information code. See DFC Output Appendix A, APP:DFC-A.                                                                                                                                                                                                                                                                                                                                                            |
| v | Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.<br><br>AAAA = SCSI Job Block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, APP:DFC-K.<br><br>BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, APP:DFC-K.<br><br>CC = Fill. Not used. |

SEE PROPRIETARY NOTICE ON COVER PAGE

- w First word of Extended Sense Data (ESD). See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 0 of ESD.
  - BB = Byte 1 of ESD.
  - CC = Byte 2 of ESD.
  - DD = Byte 3 of ESD.
- x Second word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 4 of ESD.
  - BB = Byte 5 of ESD.
  - CC = Byte 6 of ESD.
  - DD = Byte 7 of ESD.
- y Third word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 8 of ESD.
  - BB = Byte 9 of ESD.
  - CC = Byte 10 of ESD.
  - DD = Byte 11 of ESD.
- z Fourth word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 12 of ESD.
  - BB = Byte 13 of ESD.
  - CC = Byte 14 of ESD.
  - DD = Byte 15 of ESD.

#### **4. ACTION TO BE TAKEN**

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages may be output which provide useful data.

If Format 13 prints, the SCSI drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

#### **5. REFERENCES**

OMDB Keys

Format 1 has OMDB keys of 232 and 244.

Formats 2,3,4, and 5 have an OMDB key of 233.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 6 has an OMDB key of 236.  
Format 7 has an OMDB key of 231.  
Format 8 has an OMDB key of 234.  
Format 9 has an OMDB key of 235.  
Format 10 has OMDB keys of 237, 238, and 239.  
Format 11 has an OMDB key of 200.  
Format 12 has an OMDB key of 199.  
Format 13 does not use OMDB.

Practice 254-301-215 *Disk File Controller Description and Theory of Operation*  
*3B20D/3B21D Model 1 Computer*

Practice 254-301-216 *SCSI Disk File Controller Description and Theory of Operation*

Output Appendixes

APP:DFC-A  
APP:DFC-B  
APP:DFC-C  
APP:DFC-D  
APP:DFC-E  
APP:DFC-F  
APP:DFC-I  
APP:DFC-J  
APP:DFC-K  
APP:DFC-P

Input Messages

DGN:MHD  
RMV:MHD  
RST:MHD

Output Messages

DGN:MHD  
RMV:MHD  
RST:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MIN-MODE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

REPT MIN-MODE  
IMS IS IN MIN-MODE

## 2. REASON FOR OUTPUT

This message is printed periodically when IMS is in min-mode to remind the user that the IMS automatic recovery is inhibited.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

When the user is ready to return to normal mode, IMS must be rebooted without the min-mode option.

## 5. REFERENCES

*CNI System Description* - 234-100-120 (non-AT&T)  
- 234-100-120AC (AT&T only)  
D-Channel and Special Access Data Channel Signaling

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MIRA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT MIRA QUEUE FULL - RETRY LATER
- [2] REPT MIRA ERROR a b c [d e] RETRY FAILED
- [3] REPT MIRA FAILED TO CHANGE PRIORITY ERRNO = f
- [4] REPT MIRA ECD OPEN FAILED ERRNO = f
- [5] REPT MIRA ECDMAN FAILED TO GET TOP UCB RECORD ERRNO = f
- [6] REPT MIRA NO UCB FOR EQUIPMENT ID = b c [d e]
- [7] REPT MIRA CANNOT LCALL g
- [8] REPT MIRA NOTHING TO STOP NO UNITS QUEUED
- [9] REPT MIRA CANNOT RECEIVE MESSAGE
- [10] REPT MIRA UNIDENTIFIABLE MESSAGE RECEIVED
- [11] REPT MIRA NULL MESSAGE RECEIVED
- [12] REPT MIRA CANNOT SEND MESSAGE TO g ERRNO = f
- [13] REPT MIRA PORT CONNECTION FAILURE
- [14] REPT MIRA INVALID UNIT ID IN DIAGNOSTIC ABORT REQUEST  
b c [d e]
- [15] REPT MIRA INVALID MESSAGE COMMAND RECEIVED
- [16] REPT MIRA a b c [d e] ABORT REQUESTED REASON h
- [17] REPT MIRA DIAGNOSTICS ARE NOT IN THE SUSPENDED STATE
- [18] REPT MIRA ILLEGAL REQUEST FOR b c [d e]
- [19] REPT MIRA NO UNITS QUEUED OF THAT TYPE
- [20] REPT MIRA INVALID UNIT ID IN INTERACTIVE REQUEST EX a b c [d e]

SEE PROPRIETARY NOTICE ON COVER PAGE

[21] REPT MIRA CANNOT RESERVE UNITS FOR a b c [d e]

## **2. REASON FOR OUTPUT**

To report one of the conditions encountered by the Maintenance Input Request Administrator (MIRA).

Format 1 indicates that all slots in the MIRA queue are taken.

Formats 2 and 21 indicate that the Unit Control Block (UCB) for the unit is reserved.

Format 3 indicates that MIRA could not change to a different UNIX® priority.

Format 4 indicates that MIRA could not to open the Equipment Configuration Database (ECD) manager.

Format 5 indicates that the ECD manager failed to locate the top UCB for the request.

Format 6 indicates that the UCB for the requested unit was not found by the ECD manager.

Format 7 indicates that MIRA could not create a child process.

Format 8 indicates that a STOP command has been received but there are no units queued.

Format 9 indicates that MIRA could not enable message reception.

Format 10 indicates that the message tag is invalid.

Format 11 indicates that an error in the message reception occurred.

Format 12 indicates that MIRA could not send a message to a process.

Format 13 indicates that MIRA could not connect to port 2.

Format 14 indicates that the UCB for the unit Identification (ID) in a diagnostic abort was not found by the ECD manager.

Format 15 indicates that MIRA could not execute the command in a message.

Format 16 indicates that an abort of an active diagnostic has been initiated by MIRA.

Format 17 indicates that the input command ALW:DMQ;RUN was entered while normal execution of diagnostics was allowed.

Format 18 indicates that the unit cannot be diagnosed or restored because it is a software device.

Format 19 indicates that there is no unit queued of the type requested in the STOP message.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 20 indicates that the UCB for the unit ID in the EX request was not matched, no action was taken.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                                                                                                                                                   |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Type of input request.                                                                                                                                                                                                                                                                                                                            |
| b | Unit name.                                                                                                                                                                                                                                                                                                                                        |
| c | Unit number.                                                                                                                                                                                                                                                                                                                                      |
| d | Subunit name.                                                                                                                                                                                                                                                                                                                                     |
| e | Subunit number.                                                                                                                                                                                                                                                                                                                                   |
| f | System error number. See System Error Codes Appendix, APP:SYSERR.                                                                                                                                                                                                                                                                                 |
| g | Name of process in directory /diag/dgnc.                                                                                                                                                                                                                                                                                                          |
| h | Reason code for the diagnostic abort:<br><br>0 — STOP:DMQ command entered.<br><br>1 — Abort request received from the DMERT fault recovery process.<br><br>2 — Software diagnostic abort request was received.<br><br>3 — Operating system signal received by MIRA.<br><br>4 — Timeout message received from diagnostic timer (dgntimer) process. |

### 4. ACTION TO BE TAKEN

For Format 1, wait until a slot is available (see OP:DMQ input message) or remove a request from the queue. See STOP:DMQ or input message. If problem persists, seek technical assistance.

For Formats 2 and 21, actions should be taken in the order given. If the problem persists, do the next action on the list.

|             |                  |
|-------------|------------------|
| <b>Step</b> | <b>Procedure</b> |
|-------------|------------------|

- |   |                                                                                                                                                                                                                                                                                             |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Wait until the UCB is no longer reserved. The unit specified in the diagnostic request may be in use by another process. Both INIT:MHD (initialize moving head disk) and UPD:GEN (generic update) reserve units. Verify that these processes are not active. Retry the maintenance request. |
| 2 | Enter RMV:unit a! where unit is the unit name and a is the unit number from the original maintenance request. Retry the maintenance request.                                                                                                                                                |
| 3 | Enter AUD:ECDOWN 1! to run the ECD audit. Retry the maintenance request.                                                                                                                                                                                                                    |
| 4 | Enter: OP:STATUS-PROCESS,ALL! Record the identifications for all processes named "ppdiamon," "cudiagc," "iodiag," and "dfdiag".<br>Enter STOP:EXC:ANY,PID a! to kill these processes.<br>Enter AUD:ECDOWN 1! to run the ECD audit. Try the maintenance request again.                       |

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- 5 Repeat Step 4 using the commands: Enter: STOP:EXC;USER,PID a,SIG 9!, This generates a kill that cannot be caught or ignored. Use of this command will result in the need to reinitialize ularp. INIT:ULARP will restart all monitored processes.
- 6 If problems persist, seek technical assistance.

For Format 3, MIRA can change its priority if it is spawned with a command line parameter of prty=x, where  $-39 \leq x \leq 39$ . MIRA's priority then becomes default priority minus 6x. When x is negative, the priority increases. When x is positive, the priority decreases. In no case will MIRA's priority rise above 191 or go below zero. MIRA's command line can be found in the file /etc/ularpfile. The typical error causing this output will be an out-of-range command line prty value.

For Format 4, verify that the file /dev/ecd exists and the access permissions are correct.

For Formats 5 and 6, verify that a valid unit name was entered on the input request. Examine the UCB of the unit requested for correctness, using the recent change and verify command RCV:M;BROWSE.

For Format 7, verify that process g exists in the directory /diag/dgnc and is executable. This failure also occurs if insufficient swap space exists.

For Format 8, 12, 14, 16, 17, 18, and 20, no action is required.

For Formats 9 and 13, no action is required. MIRA will terminate and be restarted by UNIX® Level Automatic Restart Process (ULARP).

For Formats 10, 11, 15, and 19, if a manual input command preceded this message, retry the input command.

## 5. REFERENCES

### OMDB Keys

- Formats 1, 8 through 11, 13, 15, 17, and 19 have an OMDB key of 59.
- Format 2 and 21 have an OMDB key of 60.
- Formats 3, 4, and 5 have an OMDB key of 72.
- Formats 6, 14, 18, and 20 have an OMDB key of 73.
- Format 7 has an OMDB key of 68.
- Format 12 has an OMDB key of 69.
- Format 16 has an OMDB key of 86.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Output Appendix  
APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

ALW:DMQ-A  
DGN:CU  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
EX:CU  
EX:DFC  
EX:DUIC  
EX:HSDC  
EX:IOP  
EX:LDPARM  
EX:LOOP  
EX:MHD  
EX:MTC  
EX:MTTYC  
EX:PAUSE  
EX:SCSDC  
EX:SDLC  
EX:STEP  
EX:STOP  
EX:TTYC  
INIT:MHD  
OP:DMQ  
OP:ST-PROC  
RCV:M-BROWSE  
RMV:CU  
RMV:DFC  
RMV:DUI  
RMV:DUIC  
RMV:HSD  
RMV:HSDC  
RMV:IOP  
RMV:MHD  
RMV:MT  
RMV:MTC  
RMV:MTTY  
RMV:MTTYC  
RMV:ROP  
RMV:SBUS  
RMV:SCC  
RMV:SCSDC  
RMV:SDL  
RMV:SDLC

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RMV:TTY  
RMV:TTYC  
RST:CU  
RST:DFC  
RST:DUI  
RST:DUIC  
RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC  
STOP:DMQ

Output Messages

DGN:AUDIT  
DGN:CU  
DGN:CU-MASC  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:IOP  
DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
EX:CU  
EX:DFC  
EX:DUIC  
EX:HSDC  
EX:IOP  
EX:LDPARM  
EX:LOOP  
EX:MHD  
EX:MTC  
EX:MTTYC  
EX:PAUSE  
EX:SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE



EX:SDLC  
EX:STEP  
EX:TTYC  
OP:DMQ  
OP:ST-PROC  
RMV:CU  
RMV:DFC  
RMV:DUI  
RMV:DUIC  
RMV:HSD  
RMV:HSDC  
RMV:IOP  
RMV:MHD  
RMV:MT  
RMV:MTC  
RMV:MTTY  
RMV:MTTYC  
RMV:ROP  
RMV:SBUS  
RMV:SCC  
RMV:SCSDC  
RMV:SDL  
RMV:SDLC  
RMV:TTY  
RMV:TTYC  
RST:CU  
RST:DFC  
RST:DUI  
RST:DUIC  
RST:HSD  
RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

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ID ..... REPT:MKDSK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT MKDSK PLEASE MOUNT NEXT TAPE IN SEQUENCE  
REMEMBER TO PLACE TAPE DRIVE ONLINE  
TO RESTART TYPE MKSTART
- [2] REPT MKDSK STILL WAITING FOR NEXT TAPE IN SEQUENCE  
REMEMBER TO PLACE TAPE DRIVE ONLINE  
TO RESTART TYPE MKSTART

## 2. REASON FOR OUTPUT

Format 1 is output when another tape should be mounted when multiple tapes are being read.

Format 2 reports that mkdsk has not terminated, and the next tape should be mounted.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

Mount the next tape in the sequence. If the user waits more than five minutes to mount the next tape, the process will terminate and must be restarted.

## 5. REFERENCES

OMDB Key  
Formats 1 and 2 have an OMDB key of 604.

CIC Select Code 303-023 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System  
Operating System Interfaces Programmer's Manual, Volume 3*

Input Message  
EXC:E-UPROC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MMGR001  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MMGR001 BAD DKDRV STAT a

## 2. REASON FOR OUTPUT

To report that the memory manager has received an acknowledgement message with an invalid response field from the disk driver. Legal responses are: success, failure, retry or bad message. The memory manager, not sure of how to proceed, will retry the input/output request.

## 3. VARIABLE FIELD DEFINITIONS

a                      Offending status code, in decimal notation.

## 4. ACTION TO BE TAKEN

There is a software coding error. Unless the condition causing the unusual return clears spontaneously, recovery in the field is remote. Submit an operational trouble report accompanied by the printout of this message.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 328.

Practice 254-301-210 *Moving Head Disk Drive General Description 3B20D/3B21D Processor*

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MMGR002  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MMGR002 EXCESSIVE RETRIES FOR I/O SWAP  
SEGID a RETRIED b TIMES

## 2. REASON FOR OUTPUT

To report that the disk driver has returned a message status of 'retry' an unexpectedly large number of times. This message is repeated every 20 times a retry message is received until the Input/Output request is satisfied.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Segment Identification (ID) of the segment being swapped. Useful in debugging.
- b                      Number of times this was retried.

## 4. ACTION TO BE TAKEN

There is trouble in the disk driver. The swapping function of memory management is probably not working while this condition continues. Diagnose the moving head disk.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 329.

Practice 254-301-210 *Moving Head Disk Drive General Description 3B20D/3B21D Processor*

Input Messages  
DGN:MHD  
RMV:MHD  
RST:MHD

Output Messages  
DGN:MHD  
RMV:MHD  
RST:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:MMGR003  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MMGR003 ADD [EXTENDED] MEMORY FAILED. AVAILABLE MEMORY = a PAGES  
ATTEMPTED TO GROW MEMORY TO b PAGES  
[MUST REGEN SYSTEM TO ADD MEMORY]

## 2. REASON FOR OUTPUT

To report that a request to make some added memory available for system use failed. Recent Change/Verify (RC/V) had requested that the memory manager make some added memory available for system use.

## 3. VARIABLE FIELD DEFINITIONS

- a Amount of usable memory, in pages. One page = 2048 bytes.
- b Number of pages that RC/V attempted to make available for system use.

## 4. ACTION TO BE TAKEN

If RC/V attempts to increase the memory size beyond the maximum memory size specified during system generation, the memory manager will attempt to grow memory to a pages (Usable memory should equal the system generation specified maximum memory size). To increase this size, the system must be resysgened, and the computer rebooted to use the additional memory. However, if this is not desirable, then the system can be left to run with the original amount of memory.

If RC/V attempts to add memory beyond the physical size of memory the attempt will fail. For Very Large Main Memory (VLMM) the physical size of memory is 32768 pages; for Expanded Main Memory (EMM) it is 16384; otherwise, it is 8192. Number of pages that RC/V attempted to make available for system use is greater than 32768 pages, and indicates a faulty RC/V request.

Number of pages that RC/V attempted to make available for system use is less than or equal to usable memory, then a request was made to add memory with the memory size being equal to the old size or smaller. This could be caused by an error when entering RC/V commands.

## 5. REFERENCES

OMDB Key  
The OMDB key for this message is 330.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message  
UPD:BLDBOOT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:MMGR004  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MMGR004 SWAP SPACE REQUEST FAILED  
AVAIL BLKS = b REQUESTED BLKS = a

## 2. REASON FOR OUTPUT

Swap disk space is allocated to new segments as they are created, and each segment must get contiguous blocks on the disk. This raises the possibility of fragmentation. That is, there might be enough free space for any given segment, but no single set of contiguous free blocks is large enough by itself. Instead of denying a space request immediately, the Memory Manager will attempt to re-arrange the disk space of existing segments. This can be done reasonably cheaply for all segments that happen to be in main memory at the time.

This message is produced when such a compaction has been done. However, the request that triggered the compaction could NOT be satisfied, even after the compaction.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                     |
|---|-----------------------------------------------------------------------------------------------------|
| a | The size, in 512-byte disk blocks, of the failing request.                                          |
| b | The size, in 512-byte disk blocks, of the largest free contiguous extent ("hole") after compaction. |

## 4. ACTION TO BE TAKEN

If this message occurs, a request for swap space has been denied. This implies that some process was unable to function properly. Urgent action to be taken includes:

1. Request a more effective but more expensive compaction using the AUD:MMGR input message. This may be postponed until a time when the load is lighter.
2. If the message persists, more disk space may be required. This entails a regeneration of the system, and a re-boot.

**NOTE:** The automatic compaction will not be attempted, and this message will not appear, if the system is in a state of absolute swap disk overload (output message REPT-SIMCHK 602 A6 has appeared).

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 331.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages  
AUD:MMGR  
UPD:BLDBOOT

Output Message  
REPT:SIMCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:MMGR005  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**1. FORMAT**

REPT MMGR005 AVAILABLE [EXTENDED] MEMORY NOW a PAGES

**2. REASON FOR OUTPUT**

To report that real memory was added to the system via recent change/verify. The memory manager has made this memory available.

**3. VARIABLE FIELD DEFINITIONS**

a                      New size of usable memory, in pages. One page equals 2048 bytes.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

OMDB Keys  
This message has an OMDB key of 674.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MON-SLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT MON SLK  
SLK a b [c] [d] [e]  
f, g

## 2. REASON FOR OUTPUT

Response to MON:SLK input request and a link event.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                              |
|---|------------------------------------------------------------------------------------------------------------------------------|
| a | Group number (0-63).                                                                                                         |
| b | Member number (1-15).                                                                                                        |
| c | Far end CLLI® of this link.                                                                                                  |
| d | Major link state:<br>AVL — Available<br>UNA — Unavailable                                                                    |
| e | Minor link state:<br>GROW — Growth<br>IS — In service<br>MOOS — Manual out of service<br>OOS — Out of service<br>TEST — Test |
| f | ASCII text describing the event (see Output APP:APPENDIX-10).                                                                |
| g | Real time clock in milliseconds.                                                                                             |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Practice 234-100-121 *CNI Operations Manual* (non-AT&T) -  
Practice 234-100-121AC *CNI Operations Manual* (AT&T only) -  
Analog Signaling Link Operating Procedures Section  
Digital Signaling Link Operating Procedures Section

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Practice 234-151-120 *Trouble Clearing and Maintenance Procedures -*  
Analog Signaling Link Maintenance Procedures Section  
Digital Signaling Link Maintenance Procedures Section

Output Appendix  
APP:APPENDIX-10

Input Message  
MON:SLK

Output Message  
MON:SLK

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MON-TRAP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT MON\_TRAP  
MTRP: CAN'T START TRAP; a; ID = b
  
- [2] REPT MON\_TRAP  
MTRP: TRAP NOT STARTED ON LN; REC'D NEG ACK;  
ID = b RNA = c LN RSN = d
  
- [3] REPT MON\_TRAP  
MTRP: CAN'T START TRAP ON e LN(S); ID = b  
RNA = c
  
- [4] REPT MON\_TRAP  
MTRP: TRAP STARTED; ID = b
  
- [5] REPT MON\_TRAP  
MTRP: TRAP COMPLETED; ID = b
  
- [6] REPT MON\_TRAP  
MTRP: TRAP REMOVED; ID = b
  
- [7] REPT MON\_TRAP  
MTRP: TRAP TERMINATED; ID = b TRM RSN = f
  
- [8] REPT MON\_TRAP  
MTRP: TRAP ABORTED; ID = b TRM RSN = f
  
- [9] REPT MON\_TRAP  
MTRP: TRAP ABORTED; LAST LN REMOVED FROM TRAP  
ID = b RNA = c RM RSN = g
  
- [10] REPT MON\_TRAP  
MTRP: TRAP ABORTED; INCONSISTENT ID'S IN STATUS CHECK;  
ID'S = h,i RNA = c
  
- [11] REPT MON\_TRAP  
MTRP: NO ACK FROM e NODE(S); ID = b  
RNA = c  
j

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- [12] REPT MON\_TRAP  
MTRP: TRAP ABORTED IN LN(S); LN TRANSITION  
RNA = c ID = b
- [13] REPT MON\_TRAP  
MTRP: LN REMOVED FROM TRAP; ID = b RNA = c RM RSN = g
- [14] REPT MON\_TRAP  
MTRP: LN REMOVED FROM TRAP; REC'D LN ABORT MSG  
ID = b STATE = k RNA = c LN RSN = d
- [15] REPT MON\_TRAP  
MTRP: ALL TRAPPED MSG(S) OVERWRITTEN; ID = b NUM\_MSG = l
- [16] REPT MON\_TRAP  
MTRP: SOME TRAPPED MSG(S) OVERWRITTEN; ID = b NUM\_MSG = l
- [17] REPT MON\_TRAP  
MTRP: INCORE BUF UNAVAIL; ALL TRAPS ABORTED
- [18] REPT MON\_TRAP  
MTRP: DISK FILE SPACE EXHAUSTED; DUE TO NO OVERWRITE
- [19] REPT MON\_TRAP  
MTRP: MESSAGE TRAP DISK FILE m PERCENT FULL; n
- [20] REPT MON\_TRAP  
MTRP: TUNABLE PARAM EXCEEDS LIMIT; o
- [21] REPT MON\_TRAP  
MTRP: RTDSP ERROR; PRINT BUF RESULTS LOST
- [22] REPT MON\_TRAP  
MTRP: REC'D UNEXPECTED SIGNAL; SIG = p
- [23] REPT MON\_TRAP  
MTRP: MON\_TRAP ABORTS; BE RE-CREATED BY CNIINIT
- [24] REPT MON\_TRAP  
MTRP: CAN'T SEND RTR MSG; NO EBD OUTPUT; ERRNO = q
- [25] REPT MON\_TRAP  
MTRP: EBD DOES NOT EXIST; NO EBD OUTPUT
- [26] REPT MON\_TRAP  
MTRP: NOT ABLE TO CREATE (EXECL) EBD; NO EBD OUTPUT

SEE PROPRIETARY NOTICE ON COVER PAGE

[27] REPT MON\_TRAP  
MTRP: DISK SPACE RESRC UNAVAIL; FILE = q  
MESSAGE TRAP NOT FUNCTIONAL

[28] REPT MON\_TRAP  
MTRP: AUTOMATIC DATA DUMP FOR RNA=c

## 2. REASON FOR OUTPUT

**NOTE:** MON\_TRAP refers to the permanent Message Trap process at the 3B. EBD refers to the Enhanced Buffer Dump process at the 3B. The EBD process mentioned in this output message is a child process of MON\_TRAP.

Format 1: A SET:TRAP input message has been entered and processed successfully. When it is time to start the trap, MON\_TRAP cannot do so due to the reason being displayed. Any trap entry belonging to this trap is removed from the message trap database.

Format 2: A SET:TRAP input message has been entered and processed successfully. When it is time to start the trap, an attempt is made to start the trap on all the given link nodes. However, one of the link nodes sends a negative acknowledgement back to the 3B with the reason being displayed. Hence, MON\_TRAP will remove that link node from the list of link nodes belonging to this trap.

Format 3: A SET:TRAP input message has been entered and processed successfully. When it is time to start the trap, an attempt is made to start the trap on all the link nodes specified in the SET:TRAP input message. This format results when MON\_TRAP is not able to start trap on one or more of the given link nodes. This format gives a listing of the nodes that MON\_TRAP fails to start the trap on. The trap would have started on the remaining nodes.

Format 4: A SET:TRAP input message has been entered and processed successfully. This format results when MON\_TRAP is able to start the trap successfully on one or more of the link nodes specified in the SET:TRAP input message. The trap is in an active state.

Format 5: A trap has gone to completion gracefully. One of the completion criteria (i.e., message count and duration) has been satisfied. The trap is in a completed state.

Format 6: A trap and its trap entry have been removed from the message trap database. Its trapped results, if any, have been lost. For instance, this will occur when a completed, aborted or terminated trap has been on the message trap database for more than 24 hours.

Format 7: A trap has terminated with the reason of termination being displayed. The trap is in a terminated state.

Format 8: A trap has aborted with the reason of termination being displayed. The trap is in an aborted state.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 9: MON\_TRAP has removed the last link node from the list of link nodes belonging to this trap due to the reason being displayed, thereby causing the trap to abort.

Format 10: During a status check procedure, MON\_TRAP finds that the trap ID recorded in the link node is different from the trap ID recorded for that link node in the message trap database at the 3B. MON\_TRAP then aborts the trap.

Format 11: A SET:TRAP input message has been entered and processed successfully. When it is time to start the trap, an attempt is made to start the trap on all the link nodes specified in the SET:TRAP input message. MON\_TRAP expects acknowledgements from all the link nodes within certain time interval. MON\_TRAP will remove those link nodes which give no or negative acknowledgements from the list of the link nodes belonging to this trap. The trap should have started on the remaining nodes. If all nodes give no or negative acknowledgements, MON\_TRAP will abort the trap. This format gives a summary of the condition when MON\_TRAP does not receive any acknowledgement from one or more of the given link nodes.

Format 12: Any trap on a node will be disabled when the node has gone from IS to OOS. This format results when MON\_TRAP finds that one or more link nodes, which are supposed to have trap on, have gone from IS to OOS at least once during the last one-minute interval.

Format 13: This format results when one of the link nodes belonging to a trap has been removed from the trap due to the reason displayed.

Format 14: This format results when a link node with trap on has sent an abort trap message along with a reason to the 3B. MON\_TRAP then removes the link node from the list of link nodes belonging to the trap. The reason is printed.

Format 15: This format results when an OP:TRAP input message with ID given is being processed, and MON\_TRAP finds that all the trapped results belonging to the specified trap have been overwritten. The number of trapped messages lost, which belonged to this trap, is printed.

Format 16: This format results when an OP:TRAP input message with ID given is being processed, and MON\_TRAP finds that some of the trapped results belonging to the specified trap have been overwritten. The number of trapped messages lost, which belonged to this trap, is printed. The remaining trapped messages should have been displayed.

Format 17: This format results when all the message trap incore buffers become unavailable at the 3B. These incore buffers are used for collecting trapped results before the results are written to the disk file for long term storage. This condition may be due to a high volume of trapped results, not expected to be handled by this tool, being sent to the 3B in a short interval. Hence, MON\_TRAP aborts all the traps to stop the excessive incoming traffic.

Format 18: This format results when the overwrite option has been disabled and the disk file has been filled with trapped results.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 19: This format is to report the percentage usage of the disk file.

Format 20: This format results when an application of the Message Trap feature has tuned one of the application tunable parameters to a value larger than the internal limit allowed by the feature. The value of the parameter is then set to the value of the internal limit which is displayed in this format.

Format 21: This format results when an error occurs in the real time display of trapped results. Part of the results to be displayed is lost.

Format 22: This format results when an unexpected RTR signal is received by MON\_TRAP. Information on the RTR signals can be obtained from the RTR documents.

Format 23: This format results when MON\_TRAP aborts. Other message format may precede this format to explain the reason why MON\_TRAP has aborted.

Format 24: This format results when MON\_TRAP cannot send any RTR message to EBD due to the unavailability of RTR buffers. Since EBD is responsible for printing out the trap information and results, no output is expected from EBD because MON\_TRAP cannot instruct EBD regarding the output of trap information and results. The errno information can be obtained from the RTR documents.

Format 25: This format results when the following scenario occurs. Before MON\_TRAP sends an RTR message to EBD, it checks if EBD exists. If yes, MON\_TRAP will build the RTR message and send it out. EBD is then killed for some reason during this time frame when MON\_TRAP is building the RTR message.

Format 26: This format results when MON\_TRAP cannot execute the EBD object module using the RTR system call "execl()".

Format 27: This format results when MON\_TRAP cannot find any or enough contiguous disk space in the system. Normally, MON\_TRAP uses the RTR system call "falloc()" to create the disk file, which contains the contiguous disk space, at the appropriate directory. Message Trap cannot carry out its normal trapping activities without enough contiguous disk space.

Format 28: This format results when a System 7 link node performs an automatic data dump, the MON\_TRAP process receives this data and writes it to the file /etc/log/LNDMP\_DATA.

### 3. VARIABLE FIELD DEFINITIONS

a                    ALL LN 00S  
                     ALL LN OCCUPIED  
                     ALL LN 00S OR OCCUPIED  
                     TOO MANY ATTRIBUTES

SEE PROPRIETARY NOTICE ON COVER PAGE

- TRAPPING ON MORE THAN xx LINKS—Where xx = Maximum number of links allowed to be trapped on at any time.
- b Trap Identification number.
- c Ring node address.
- d Reason used in abort trap message or negative acknowledgement message from link node:
- 1 — A different trap already running.
  - 2 — Same trap already running.
  - 3 — Ring write for a response failed.
  - 4 — Ring write for a report message failed.
  - 5 — Command's trap id not matching node's.
  - 6 — Node state is same as the cmd received.
  - 7 — Undefined command.
  - 8 — Msg trap buffer unavailable.
  - 9 — XMIT mbox level 1 or higher congestion.
  - 10 — Real-time level 1 or higher overload.
  - 11 — IMS RRB level 1 or higher congestion.
  - 12 — RPC level 1 or higher congestion.
  - 13 — Trap buffer at node congested.
  - 14 — Received a 3B returned message.
  - 15 — Received a source-matched message.
  - 16 — RCV mbox level 1 or higher congestion.
- e Number of link nodes.
- f Termination Reason (trap state = TRM | ABT | CMP):
- 0 — Unspecified.
  - 1 — The trap has gone to completion gracefully (due to message count).
  - 2 — The trap has gone to completion gracefully (due to duration).
  - 3 — Craft initiated stop:trap.
  - 4 — Inhibited for too long; abort trap.
  - 5 — Resource problem at the 3B computer.
  - 6 — Frequency of disk write at the 3B computer exceeds threshold.
  - 7 — Disk space exhausted in "no overwrite" mode.
  - 8 — MTRP incore buffers unavailable during disk\_write.
  - 9 — CNI level 1 initialization has occurred.
  - 10 — Trap aborted at all concerned link node(s), due to resource or congestion problem(s) at link node(s).
  - 11 — All concerned link nodes are OOS.
  - 12 — All concerned link nodes are either OOS or have aborted the trap.
  - 13 — Problem occurred during status check or audit.

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- g Reason for removal of a link node from trap:
- 1 — Link node has been through a state transition.
  - 2 — Received an abort\_trap message from link node.
  - 3 — Received a returned message destined to link node.
  - 4 — Received an src-matched message destined to link node.
  - 5 — Link node occupied by other trap.
  - 6 — Status check indicates link node has aborted trap.
  - 7 — Have not received ack (of start\_trap) from link node.
  - 8 — Received a negative ack (of start\_trap) from link node.
- h Trap ID recorded at 3B.
- i Trap ID recorded at node.
- j MTRP: TRAP ABORTED DUE TO NO ACK; ID = a  
MTRP: TRAP SET ON REMAINING c NODE(S); ID = a
- k Trap state:
- 0 FRE — Trap entry is free (Not a Trap State).
  - 1 ACT — Trap is active.
  - 2 PND — Trap has never been started; pending to be activated.
  - 3 INH — Trap has been started; is inhibited.
  - 4 CMP — Trap has gone to completion as specified in message count/duration.
  - 5 ABT — Trap has been aborted prior to the specified completion criteria due to congestion/resource/node\_removal problems at link nodes or resource problem at 3B.
  - 6 TRM — Trap has been explicitly terminated prior to the specified completion criteria by a STOP:TRAP input message.
- l Number of messages lost:
- ALL — Number of messages lost = number of messages collected.
- SOME — Number of messages lost = number of messages collected minus number of messages printed.
- m Percentage use of disk space.
- n OVERWRITE DISABLED — Disk file overwrite is disabled.  
OVERWRITE ENABLED — Disk file overwrite is enabled.
- o MAX MCNT — Maximum message count.  
MAX DUR (MINUTES) — Maximum duration.  
MAX MGSZ (BYTES) — Maximum message size.
- p RTR signal (see RTR documents).
- q RTR error number given when an RTR system call fails (see RTR documents).
- r Path and file name of the Message Trap contiguous disk file.

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#### 4. ACTION TO BE TAKEN

Format 1: If the reason printed is:

**TRAP NEEDS TOO MANY ATTRIBUTES** Input parameters are transformed into trap attributes which will be used by the link nodes to perform message matching. Realtime concerns at link nodes impose a limit on the number of attributes that can be used for trapping. The number of attributes generated from the parameters given in the SET:TRAP input message exceeds that limit.

Reduce the number of input parameters given in the SET:TRAP input message.

**TRAPPING ON MORE THAN xx LINKS** — Maximum number of links that can have trap on at any time has been reached (including this trap).

Attempt any of the following:

1. Retry SET:TRAP input message with fewer links; or
2. Use STOP:TRAP input message to stop any unwanted active or inhibited trap.

**ALL LN OOS** — All the link nodes of the links specified in the SET:TRAP input message are out of service.

**ALL LN OCCUPIED** — All the links specified in the SET:TRAP input message are occupied by other traps.

**ALL LN OOS OR OCCUPIED** — Message is self-explanatory. Refer to previous two items.

Format 2,8-11,13,14,18: Message is self-explanatory.

Formats 3-7,12,15-17,19,20,23,25: None.

Format 21: The condition may be due to a relatively high rate of incoming trapped results for this trap which has real time display on. The message trap real time display print buffers may become unavailable or EBD is not able to output the trapped results as fast as the trapped results are given to it. May consider turning off the real time display mode.

Format 22: Refer to RTR documents for the meaning of the signal.

Format 24: Refer to RTR documents for the meaning of the error number.

Format 26: Check if the object module of the process EBD is in the correct directory; if yes, check if it is executable.

Format 27: Check if the appropriate directory has been created for the disk file that is supposed to contain the contiguous disk space; and check if enough contiguous disk space has been partitioned (or allocated) for the file system related to the directory. If there is no directory but there is enough contiguous disk space in the file system, create the directory and kill the MON\_TRAP process which will then be re-created by the CNIINIT process. If there is not enough contiguous disk space in the file system, partition enough contiguous disk space (may need to reboot the system).

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## **5. REFERENCES**

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Message Trap Section

Input Messages

ALW: TRAP

INH: TRAP

OP: TRAP

SET: TRAP

STOP: TRAP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:MOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MOP CANNOT UNMOUNT DEVICE a ERROR = b

## 2. REASON FOR OUTPUT

To report that the process Mount Off-Line Partition (MOP) is unable to unmount the off-line partition mounted as device listed due to error given.

## 3. VARIABLE FIELD DEFINITIONS

a                      Name of device.  
b                      Error code:  
                        See System Error Codes Output Appendix, APP:SYSERR.

## 4. ACTION TO BE TAKEN

If MOP is unable to unmount device listed because a file on the device is open (busy), close the file and MOP will unmount device listed approximately two minutes after most recent REPT time.

If MOP is unable to unmount the device due to an input/output error, kill the current MOP process before executing a second MOP message.

## 5. REFERENCES

OMDB Key  
This message had an OMDB key of 542.

CIC Select Code 303-023 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System  
Operating System Interfaces Programmer's Manual*, Volume 3, Part 1

Output Appendix  
APP:SYSERR

Input Messages  
CMPR:D-CORE  
VFY:FILE

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ID ..... REPT:MRVR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 3 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT MRVR  
a b  
c

## 2. REASON FOR OUTPUT

This output is in response to a receipt of an unexpected MRVR message. The output will be directed to the standard output associated with the initiator of the test, and also to the maintenance class. If they are the same device, only one printout will occur.

## 3. VARIABLE FIELD DEFINITIONS

- a                    One of the following text phrases based on the information received in the MRVR message.
- STPS   CROSSED  
LOOP  
EXCESSIVE LENGTH ROUTE  
UNKNOWN TERMINATOR POINT CODE  
INACCESSIBLE SIGNALING POINT  
TIMER EXPIRED  
UNKNOWN INITIATOR POINT CODE  
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS  
WRONG SIGNALING POINT  
ASYMMETRICAL ROUTE  
SUCCESS TO GATEWAY  
UNKNOWN ERROR CODE
- b                    Error number associated with error described in a. Note that if a is STPS CROSSED, this item will not be included in the output message.
- 1 — Detected loop.  
2 — Excessive length route.  
3 — Unknown resource instance.  
4 — Route inaccessible.  
5 — Processing failure.  
6 — Unknown initiating SP.  
7 — Timer expired.  
8 — Wrong signaling point.  
9 — Asymmetrical route.  
10 — Success to gateway.

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c Point code(s) associated with the failure being reported.

| Value of a                                       | Explanation of c                                                                                                                                                                                                                    |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STPS_CROSSED                                     | List of STPS crossed paired with the routing priorities.                                                                                                                                                                            |
| LOOP                                             | Point code of the signaling point (SP) detecting the loop followed by the point codes paired with the routing priorities used to get to the PCs enclosed in parentheses. Primary route = (1), f-links = (2), alternate route = (3). |
| EXCESSIVE<br>LENGTH_ROUTE                        | Point code of the SP detecting the excessive length route followed by the point codes paired with the route priorities that were in the route up to the detecting SP.                                                               |
| UNKNOWN<br>TERMINATOR<br>POINT_CODE              | Point code of the SP that doesn't know the terminator, followed by the unknown terminator point code.                                                                                                                               |
| INACCESSIBLE<br>SIGNALING<br>POINT               | Point code of the SP that cannot access the inaccessible SP followed by the point code of the inaccessible SP.                                                                                                                      |
| TIMER<br>EXPIRED                                 | Point code of the SP where the timer expired followed by the list of point codes from which expected MRVA messages were not received.                                                                                               |
| UNKNOWN<br>INITIATOR<br>POINT_CODE               | Point code of the reporting SP followed by the point code of the SP that does not know the initiator.                                                                                                                               |
| TEST_CANNOT<br>BE_RUN_DUE_TO<br>LOCAL_CONDITIONS | Point code of the SP that cannot run the test.                                                                                                                                                                                      |
| WRONG_SIGNALING<br>POINT                         | Point code of the SP that detected the error followed by the list of point codes in the TRACE.                                                                                                                                      |
| ASYMMETRICAL<br>ROUTE                            | Point code of the SP that detected the asymmetrical route followed by the point code of the SP that sent the MRVT message causing the asymmetrical route.                                                                           |

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| <u>Value of a</u>     | <u>Explanation of c</u>                                                                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SUCCESS TO<br>GATEWAY | Point code of the gateway STP followed by the point codes paired in the route priorities used to get to the gateway and the nonlocal gateway STP point code. |
| UNKNOWN ERROR<br>CODE | The error number received that is not on the preceding list.                                                                                                 |

#### 4. ACTION TO BE TAKEN

None.

#### 5. REFERENCES

Input Messages

CHG:MRVT

EXC:MRVT

Output Messages

CHG:MRVT

EXC:MRVT

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ID ..... REPT:MSDC-FLT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

- [1] REPT MSDC FLT  
EFLAGS=a, FLTCODE=b
- [2] REPT MSDC FLT  
EFLAGS=a, FLTCODE=b, PA=c  
R0=d, R7=e, R8=f

## 2. REASON FOR OUTPUT

The IMS measurement process (msdc.p) has encountered a hardware or software fault.

## 3. VARIABLE FIELD DEFINITIONS

- a Hexadecimal number which is the sum of the codes for all UNIX® RTR events outstanding for the IMS measurement process. (These are defined in UNIX® RTR header file evflag.h.)
- b The UNIX® RTR fault code.
- c If this is present, then the IMS measurement process was in execution at this virtual address when the fault was encountered.
- d Contents of 3B CU register r0.
- e Contents of 3B CU register r7.
- f Contents of 3B CU register r8.

## 4. ACTION TO BE TAKEN

Analyze the fault code (See Output Appendix APP: FAULT-CODE).

If the fault is not attributed to a hardware problem, seek technical assistance.

## 5. REFERENCES

evflag.h header file (UNIX® RTR)  
fault.h header file (UNIX® RTR)

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Output Appendix  
APP: FAULT-CODE

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Output Message

REPT: IODRV-AT  
REPT: IODRV-ERR  
REPT: IODRV-ERROR  
REPT: IODRV-FAULT

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ID ..... REPT:MT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT MT a ERROR b
- [2] REPT MT a ERROR b COMPLETED CODE c
- [3] REPT MT a UNIDENTIFIED RESPONSE WD1=d WD2=e
- [4] REPT MT a ERROR COMPLETION CODE ffgghijj DEVICE STATUS k
- [5] REPT MT a ERROR DEVICE STATUS k
- [6] REPT MT a ERROR CHAN STATUS l
- [7] REPT MT a ERROR DBS STATUS m
- [8] REPT MT a ERROR BIC REGISTER STATUS n
- [9] REPT MT a ERROR STATUS o MASK p EXP q
- [10] REPT MT a ERROR DATA r
- [11] REPT MT a FAULT CODE s
- [12] REPT MT a AUTONOMOUS RESPONSE ttgghujj
- [13] REPT MT a INFO HA SHADOW REGISTER STATUS v
- [14] REPT MT a INFO CODE w
- [15] REPT MT a SJR DATA x y z a1 b1

## 2. REASON FOR OUTPUT

To report a Magnetic Tape (MT) related software or hardware error.

Formats 1 and 2 are output exclusively by the Input/Output Processor (IOP) tape device driver. Format 3 is common and may be output by both the drivers. Formats 4 through 15 are output exclusively by the Small Computer System Interface (SCSI) Disk File Controller (DFC) driver.

Format 15 provides SCSI Job Response (SJR) information when an explicit SCSI command, built by the DFC. driver, fails. The SJR data is necessary to determine the exact cause of the error condition.

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### 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                                                 |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                                                                  |
| b | Identifies point within the Input/Output Driver (IODRV) where a software or hardware error was detected, in hexadecimal. See IOP Output Appendix F, APP: IOP-F. |
| c | Hardware error type, in hexadecimal. See IOP Output Appendix A, APP: IOP-A.                                                                                     |
| d | First word of an unidentifiable completion report.                                                                                                              |
| e | Second word of an unidentifiable completion report.                                                                                                             |
| f | Command completion code. See Tables 1 and 2 in DFC Output Appendix B, APP: DFC-B.                                                                               |
| g | Number of blocks read or written.                                                                                                                               |
| h | Device ID number.                                                                                                                                               |
| i | Special completion code; valid only when the DMA job number is 00. See Table 3 in DFC Output Appendix B, APP: DFC-B.                                            |
| j | DMA job number (job ID).                                                                                                                                        |
| k | Device status, in hexadecimal. See DFC Output Appendix C, APP: DFC-C.                                                                                           |
| l | Channel status, in hexadecimal. See DFC Output Appendix D, APP: DFC-D.                                                                                          |
| m | Bus selector status, in hexadecimal. See DFC Output Appendix E, APP: DFC-E.                                                                                     |
| n | Bus Interface Controller (BIC) status, in hexadecimal. See DFC Output Appendix F, APP: DFC-F.                                                                   |
| o | BIC status, in hexadecimal. See DFC Output Appendix F, APP: DFC-F.                                                                                              |
| p | Mask.                                                                                                                                                           |
| q | Expected value of BIC status after being masked with mask given.                                                                                                |
| r | Supplemental data for the previous REPT-DKDRV message.                                                                                                          |
| s | Fault code, in hexadecimal. See DFC Output Appendix I, APP: DFC-I.                                                                                              |
| t | Autonomous response special completion code. See Tables 1 and 2 in DFC Output Appendix B, APP: DFC-B.                                                           |
| u | Provides the reason for the autonomous response. See Table 3 in DFC Output Appendix B, APP: DFC-B.                                                              |
| v | The SCSI Host Adapter (HA) shadow register status, in hexadecimal. See DFC Output Appendix P, APP: DFC-P.                                                       |
| w | Information code. See DFC Output Appendix A, APP: DFC-A.                                                                                                        |

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- x Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.
- AAAA = SCSI Job Block (SJB) completion code. See "Job completion code" under "General Job Information" in DFC Output Appendix K, APP:DFC-K.
- BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in DFC Output Appendix K, APP:DFC-K.
- CC = Fill. Not used.
- y First word of Extended Sense Data (ESD). See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 0 of ESD.
- BB = Byte 1 of ESD.
- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.
- z Second word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.
- a1 Third word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.
- b1 Fourth word of ESD. See DFC Output Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

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#### 4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

If Format 15 prints, the SCSI drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

#### 5. REFERENCES

##### OMDB Keys

Formats 1 and 2 have an OMDB key of 208.  
Format 3 has OMDB keys of 208 and 235.  
Format 4 has OMDB keys of 232 and 244.  
Formats 5, 6, 7, and 8 have an OMDB key of 233.  
Format 9 has an OMDB key of 236.  
Format 10 has an OMDB key of 231.  
Format 11 has an OMDB key of 234.  
Format 12 has OMDB keys of 237, 238, and 239.  
Format 13 has an OMDB key of 200.  
Format 14 has an OMDB key of 199.  
Format 15 does not use OMDB.

Practice 254-301-220 *Magnetic Tape System General Description 3B20D/3B21D Model 1 Processor*

##### Output Appendixes

APP:DFC-A  
APP:DFC-B  
APP:DFC-C  
APP:DFC-D  
APP:DFC-E  
APP:DFC-F  
APP:DFC-I  
APP:DFC-J  
APP:DFC-K  
APP:DFC-P  
APP:IOP-A  
APP:IOP-F

##### Input Messages

CLR:IODRV  
DGN:MT  
RMV:MT  
RST:MT

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Output Messages

RCVRY: IOP

RCVRY: MT

RCVRY: MTC

REPT: IOP

REPT: RCVRY- IOP

REPT: RCVRY- MT

REPT: RCVRY- MTC

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ID ..... REPT:MTC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT MTC a{ERROR b[COMPL CODE c]|  
UNIDENTIFIED RESPONSE WD1=d WD2=e}
- [2] REPT MTC a CODE VERSION X'f

## 2. REASON FOR OUTPUT

Format 1 reports a Magnetic Tape Controller (MTC) related software or hardware error.

Format 2 is output during the restoral of the unit.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies point within the Input/Output Driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. See IOP Output Appendix F, APP: IOP-F.
- c Hardware error type, in hexadecimal notation. See IOP Output Appendix A, APP: IOP-A.
- d First word of an unidentifiable completion report.
- e Second word of an unidentifiable completion report.
- f Peripheral controller pump code version.

## 4. ACTION TO BE TAKEN

These error messages indicate error conditions that could cause the removal of a unit. Any removed unit must be repaired and restored to service. No action is necessary for the message in Format 2 unless the controller and /or its subdevices are not acting normally or could not be restored. Contact the service organization with the code version which was used.

## 5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 208.

Format 2 has an OMDB key of 226.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation* Lucent Technologies 3B20D/3B21D Model 1 Computer

SEE PROPRIETARY NOTICE ON COVER PAGE

Practice 254-301-220 *Magnetic Tape System General Description 3B20D/3B21D Model 1*  
*Processor*

Output Appendixes

APP: IOP-A

APP: IOP-F

Input Messages

CLR: IODRV

DGN: MTC

RMV: MTC

RST: MTC

Output Messages

RCVRY: IOP

RCVRY: MTC

REPT: IOP

REPT: RCVRY-IOP

REPT: RCVRY-MTC

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ID ..... REPT:MTTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

- [1] REPT MTTY a {ERROR b [c] [COMPLETED CODE d] |  
UNIDENTIFIED RESPONSE WD1=e WD2=f}
- [2] REPT MTTY a STARTED
- [3] REPT MTTY a STOPPED

### 2. REASON FOR OUTPUT

Format 1 reports a Maintenance Teletypewriter (MTTY) related software or hardware error.

Format 2 reports that the MTTY has changed state from STBY to ACT. An MTTY will change to ACT state when Data Terminal Ready (DTR) is ON.

Format 3 reports that the MTTY has changed state from ACT to STBY. An MTTY will change to STBY state when DTR is OFF.

### 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies, in hexadecimal notation, the point within the Input/Output Driver (IODRV) where a software or hardware error was detected. See IOP Output Appendix F, APP:IOP-F.
- c Character string giving more information about the error identified. Refer to IOP Output Appendix F, APP:IOP-F for additional explanation.
- d Hardware error type, in hexadecimal notation. See IOP Output Appendix A, APP:IOP-A.
- e First word of an unidentified completion report.
- f Second word of an unidentified completion report.

### 4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit must be repaired and then restored to service.

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Formats 2 and 3 are informational messages and indicate that the MTTY has changed states. These messages will be output when the currently active MTTY changes state to STBY, and the currently STBY MTTY changes state to ACT. An active MTTY will change state to STBY when powered off, and a standby MTTY will change state to ACT when powered up. No action is necessary.

## **5. REFERENCES**

### OMDB Keys

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 308.

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies*  
*3B20D/3B21D Computer*

### Output Appendixes

APP:IOP-A

APP:IOP-F

### Input Messages

CLR:IODRV

DGN:MTTYC

RMV:MTTY

RST:MTTY

SW:PORTSW

### Output Messages

RCVRY:IOP

RCVRY:MTTY

RCVRY:MTTYC

REPT:IOP

REPT:MTTYC

REPT:RCVRY-IOP

REPT:RCVRY-MTTY

REPT:RCVRY-MTTYC

SW:PORTSW

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ID ..... REPT:MTTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT MTTYC a {ERROR b [COMPLETED CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}
- [2] REPT MTTYC a CODE VERSION X'f
- [3] REPT MTTYC a FLASH RAM VERSION X'g

## 2. REASON FOR OUTPUT

Format 1 reports a Maintenance Teletypewriter Controller (MTTYC) related software or hardware error.

Format 2 is output during unit restoration.

Format 3 is requested by diagnostics and output prior to the update of flash Random Access Memory (RAM) on the unit.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies the point, in hexadecimal notation, within Input/Output Driver (IODRV) where a software or hardware error was detected. See IOP Output Appendix F, APP: IOP-F.
- c Hardware error type, in hexadecimal notation. See IOP Output Appendix A, APP: IOP-F.
- d First word of an unidentifiable completion report.
- e Second word of an unidentifiable completion report.
- f Peripheral controller pump code version number.
- g Peripheral controller flash RAM version number.

## 4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Formats 2 and 3, no action is necessary unless the controller and/or its subdevices are not acting normal, or cannot be restored. Contact the service organization with the code version number and/or flash RAM version number that was used.

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## **5. REFERENCES**

### OMDB Key(s)

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 226.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory  
of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

### Output Appendixes

APP: IOP-A

APP: IOP-F

### Input Messages

CLR: IODRV

DGN: MTTYC

RMV: MTTYC

RST: MTTYC

### Output Messages

RCVRY: IOP

RCVRY: MTTYC

REPT: IOP

REPT: RCVRY-IOP

REPT: RCVRY-MTTYC

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ID ..... REPT:MY-STORE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT MY STORE DURING DMA X'a  
ONLINE CU: b  
FAULTY UNIT: c d  
TIME OF ERROR: e  
DMA ADDRESS: ffffffff DMA STATUS REGISTER: gggggggg  
MAIN STORE CONTROLLER 0  
TRAPPED ADDRESS REGISTER: hhhhhhhh  
ERROR REGISTER 1: iiiiii  
ERROR REGISTER 2: jjjjjj  
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)  
TRAPPED ADDRESS REGISTER: kkkkkkkk  
ERROR REGISTER 1: llllllll  
ERROR REGISTER 2: mmmmmmm  
ERROR DATA: nnnnnnnn  
PHYSICAL MEMORY ADDRESS: ooooooooo  
[CHANNEL DATA REGISTER: pppppppp]  
REAL TIME CLOCK: qq qq qq qq

## 2. REASON FOR OUTPUT

A non-correctable parity error has occurred during a Direct Memory Access (DMA) read of a memory location on the currently running Control Unit (CU).

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                       |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | The sequence number, in hexadecimal, of the report.                                                                                                   |
| b | Active CU number.                                                                                                                                     |
| c | Unit name.                                                                                                                                            |
| d | Member number.                                                                                                                                        |
| e | Time in form mm/dd/yy hh:mm:ss.                                                                                                                       |
| f | Input/output address, in hexadecimal, of the DMA Controller (DMAC) encountering the fault.                                                            |
| g | The contents, in hexadecimal, of the DMA status register. See the <i>System Maintenance Manual</i> , Appendixes C and D.                              |
| h | If bit 27 of the main store controller 0 Trapped Address Register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred. |

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|   |                                                                                                                                              |
|---|----------------------------------------------------------------------------------------------------------------------------------------------|
| i | The contents, in hexadecimal, of the main store controller 0 Error Register 1 (ER01). See the <i>System Maintenance Manual</i> , Appendix F. |
| j | The contents, in hexadecimal, of the main store controller 0 Error Register 2 (ER02). See the <i>System Maintenance Manual</i> , Appendix F. |
| k | The contents, in hexadecimal, of the main store controller 1 Trapped Address Register (TAR1).                                                |
| l | The contents, in hexadecimal, of the main store controller 1 Error Register 1 (ER11). See the <i>System Maintenance Manual</i> , Appendix F. |
| m | The contents, in hexadecimal, of the main store controller 1 Error Register 2 (ER12). See the <i>System Maintenance Manual</i> , Appendix F. |
| n | Error data (in hexadecimal).                                                                                                                 |
| o | Physical memory address (in hexadecimal).                                                                                                    |
| p | For Model 1 the contents, in hexadecimal, of the faulted channels data register. For Model 2 this line is blank.                             |
| q | Value, in milliseconds and hexadecimal, of the Real Time Clock (RTC) at the time of the error interrupt.                                     |

#### 4. ACTION TO BE TAKEN

If the processors switched as a result of the error, run diagnostics on the processor encountering the fault.

#### 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System  
System Maintenance Manual*

Output Message  
DGN:CU

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ID ..... REPT:NM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT NM CNI RING CONFIG DATA COMPL CODE a

## 2. REASON FOR OUTPUT

This output message provides the completion code for writing CNI ring configuration information to the network management 1B disk structure NM4DCNIDD. The 1B disk attributes of the structure are found in 1B disk only data pident TRAF3BDT (SET5). Process (/usr/bin/nmconfig) accesses pident TRAF3BDT using 1B vector table disk address 06200+04566. Vector index 04566 has been assigned to TRAF3BSS.

The process (/usr/bin/nmconfig) is scheduled to run by parent "cron" every day at time 0103 in the morning.

## 3. VARIABLE FIELD DEFINITIONS

a                      Completion code defined as follows:

- 0     — Success.
- 1xx   — File /dev/1astat open failed.  
      xx = System error code.
- 2xx   — File /dev/1astat read failed.  
      xx = System error code.
- 3xx   — File /dev/1afile0 or /dev/1afile1 open failed.  
      xx = System error code.
- 4xx   — 1B file vector table read failed.  
      xx = System error code.
- 5xx   — Pident TRAF3BDT read failed (062000+04566 base 8).  
      xx = System error code.
- 600   — Pident TRAF3BDT has an incorrect magic number.
- 7xx   — Pident TRAF3BDT set header read failed.  
      xx = System error code.
- 800   — Failed to find SET5 in pident TRAF3BDT.
- 9xx   — Failed to read SET5 information from pident TRAF3BDT.  
      xx = System error code.
- 10xx — Failed to write NM ring configuration data to 1B disk  
      structure NM4DCNIDD.  
      xx = System error code.

## 4. ACTION TO BE TAKEN

If the completion code is nonzero, seek technical assistance.

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**5. REFERENCES**

None.

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ID ..... REPT:NONCORTABLE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE X'a

## 2. REASON FOR OUTPUT

To report noncorrectable memory parity failure in the online CU.

## 3. VARIABLE FIELD DEFINITIONS

a                      The error message sequence number. This sequence number corresponds to the sequence number of the associated REPT CU n ERROR INTERRUPT message, where n is 0 or 1.

## 4. ACTION TO BE TAKEN

Refer to the Error Analysis section of the CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

## 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Output Message  
REPT:CU

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ID ..... REPT:OFFLINE  
WORK CENTER.. MOC  
GENERIC ..... 4AP19 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT OFFLINE BOOT IN PROGRESS a
- [2] REPT OFFLINE BOOT {ABORTED | STOPPED | TERMINATED}

## 2. REASON FOR OUTPUT

These messages are output to report information about the execution of the offline boot feature.

Format 1 is printed every 5 minutes, after the off-line side has booted successfully, to indicate that the system is still in offline boot and therefore, is still logically split.

Format 2 is printed after the off-line side has booted successfully and offline boot is being stopped. Whether devices moved to the off-line side are restored or not depends on the abort type.

## 3. VARIABLE FIELD DEFINITIONS

- a Offline side boot completion status. If this part of the message is not printed, a side-switch was performed and the initial offline side boot completion status is no longer valid. Otherwise, the following text will be printed, respectively, when the offline side boot completes without errors and with non-fatal errors:
- OFFLINE SIDE BOOT COMPLETED
  - OFFLINE SIDE BOOT COMPLETED WITH ERRORS
- ABORTED Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.
- STOPPED Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.
- TERMINATED UNIX® RTR software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

## 4. ACTION TO BE TAKEN

For Format 1, in the case where non-fatal errors occurred, the ROP should be examined for additional messages associated with the offline boot. Any action to be taken is based on these messages.

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## **5. REFERENCES**

### OMDB Keys

Format 1 has an OMDB key of 690.

Format 2 has an OMDB key of 690.

Practice 254-303-106 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System*  
*System Maintenance Manual*

### Input Messages

EXC:OFLB00T

STOP:OFLB00T

SW:OFLB00T

### Output Messages

EXC:OFLB00T

REPT:OFLB00T

STOP:OFLB00T

SW:OFLB00T

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ID ..... REPT:OFLBOOT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT OFLBOOT a  
b  
OLBSTATE LASTATE FUNCTION LINE  
c d e f
- [2] REPT OFLBOOT a  
b { g h | i | j | k | l | m | n | o }  
OLBSTATE LASTATE FUNCTION LINE  
c d e f
- [3] REPT OFLBOOT a  
b  
PID TYPE  
i k  
OLBSTATE LASTATE FUNCTION LINE  
c d e f
- [4] REPT OFLBOOT a  
b  
LOCATION VALUE  
p q  
OLBSTATE LASTATE FUNCTION LINE  
c d e f
- [5] REPT OFLBOOT a  
b  
PID RID  
i r  
OLBSTATE LASTATE FUNCTION LINE  
c d e f
- [6] REPT OFLBOOT a  
g h [s] b  
OLBSTATE LASTATE FUNCTION LINE  
c d e f
- [7] REPT OFLBOOT a  
b t u v AUDITS REASON w  
OLBSTATE LASTATE FUNCTION LINE  
c d e f

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## 2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Message type:
- ABORTED            — Application request to stop the offline boot procedure; devices moved to the off-line side will be restored.
  - COMPLETED      — Indicates off-line side boot has completed.
  - INFO                — For information only.
  - STOPPED            — Manual request to stop the offline boot procedure. If the RST option was specified, devices moved to the off-line side will be restored.
  - TERMINATED        — UNIX® RTR software-initiated termination of the offline boot procedure; devices moved to the off-line side will not be restored.

- b                      Text line:
- ABORT DENIED DURING SWITCH  
Application-initiated aborts are ignored while SW:OFLBOOT is running.
  - ADP IS NOT RUNNING, CANNOT RESTORE g h  
Automatic Diagnostic Process (ADP) is not running, so the automatic restore of the specified unit will not be done.
  - AIM PRINTING OF PRE-CHECKS OR POST-CHECKS TIMED OUT  
Offline boot did not receive results of activities before the timers expired.
  - AIM REPORTED FAILURE TO REDUPLEX  
AIM reported failure to put the system back to its state previous to the off-line boot.
  - AIM REPORTED FAILURE TO SPLIT  
AIM reported failure to split in preparation for booting off-line.
  - AIM REPORTED FAILURE TO TURN CALL PROCESSING OFF  
AIM reported call origination could not be turned off in preparation for side switching. If retrofit was not specified, SW:OFLBOOT will fail.
  - AIM REPORTED FAILURE TO TURN CALL PROCESSING ON  
AIM reported call origination could not be turned on.
  - AIM REPORTED PRE-CONFIGURATION FAILURES  
AIM reported pre-configuration errors in preparation for booting off-line.

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CANNOT ACCESS A DIAGNOSTIC/MAINTENANCE SPECIAL  
DEVICE FILE

There were problems in obtaining a special device file; therefore, a DFC cannot be removed. Offline boot will be terminated.

CANNOT ACCESS ECD

Device information cannot be accessed from the RC/V ECD while booting off-line or side switching. Depending on the function name printed, there are different consequences:

CHECK\_OOS — Cannot get a UCB record to verify that the unit has indeed been removed as part of RTR offline boot pre-configuration. Offline boot will be automatically terminated.

CHG\_DFC — Cannot get a DFC UCB or a DFC sub-unit UCB record before moving it to the OOS state as part of stopping the offline boot. The DFC or its sub-unit will remain in the GROW state.

CHG\_IOPS — Cannot get an IOP UCB or an IOP sub-unit UCB record before moving it to the OOS state as part of stopping the offline boot. The IOP or its sub-unit will remain in the GROW state.

DEGROW\_DFC — Cannot get a DFC UCB record before unequipping it. The DFC will remain in the OOS state. Offline boot will be automatically terminated.

DEGROW\_IOP — Cannot get an IOP UCB record before unequipping it. The IOP will remain in the OOS state. Offline boot will be automatically terminated.

EQUIP\_CU — Cannot get CU UCB when equipping the CU community as part of stopping the offline boot. The complete CU community or some of its sub-units will remain in the UNEQIP state.

GROW\_DFC — Cannot get a DFC UCB or a DFC sub-unit UCB record before equipping it as part of stopping the offline boot. The DFC or its sub-unit will remain in the UNEQIP state.

GROW\_IOPS — Cannot get an IOP UCB or an IOP sub-unit UCB record before moving it to the OOS state as part of stopping the offline boot. The IOP or its sub-unit will remain in the UNEQIP state.

OLBCONTROL — Cannot get CU UCB record before removing the CU community. Offline boot will be automatically terminated.

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- RMV\_DFC — Cannot get a DFC UCB record before removing it. Offline boot will be automatically terminated.
- RMV\_IOPS — Cannot get an IOP UCB record before removing it. If more than one IOP was specified in the EXC\_OFLBOOT command line, then one or more IOPs may have been moved to the OOS state and remain that way even though offline boot has been automatically terminated. This is because one or more messages to remove IOP may have already been dispatched to the IODRV before this failure occurred.
- RSTFCN — Cannot get a CU UCB record before sending ADP a message to restore the CU as part of stopping offline boot. The CU will remain in the OOS state.
- RST\_DFC — Cannot get a DFC UCB record before sending ADP a message to restore the DFC as part of stopping offline boot. The DFC will remain in the OOS state.
- RST\_IOPS — Cannot get an IOP UCB record before sending ADP a message to restore it as part of stopping offline boot. If more than one IOP was specified in the EXC:OFLBOOT command line, then one or more IOPs may have been restored despite this failure. This is because one or more messages to ADP may have already been dispatched.
- TIM\_UNIT — Cannot get an IOP UCB record or an IOP sub-unit UCB record to report that the IODRV timed out when growing this device. The unknown device will remain in the UNEQIP or GROW state.
- UNRESERVE — Cannot get a UCB record while stopping offline boot. Some units' records may remain reserved.
- CANNOT CLOSE SPECIAL DEVICE FILE**  
DKDRV could not close a special device file. Consequently, its internal tables are corrupt and indicate a DFC is undergoing maintenance forever.
- CANNOT COPY MEMORY AREA FROM OFFLINE CU TO ONLINE CU**  
Information cannot be transferred either from the on-line CU to the off-line side or vice versa.

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**CANNOT COPY MEMORY AREA FROM ONLINE CU TO OFFLINE CU**  
Information cannot be transferred either from the on-line CU to the off-line side or vice versa.

**CANNOT CREATE VFYDISKECD PROCESS**  
The process that checks to see if a disk ECD RC/V session is in progress cannot be created.

**CANNOT DETERMINE ACT IOP FOR MTTY OR ROP**  
Either the system is missing its MTTY or ROP or the RC/V ECD is corrupt. Offline boot cannot be guaranteed under these conditions.

**CANNOT DETERMINE IF OFFLINE SIDE IS RUNNING**  
The on-line CU cannot determine if the off-line CU is running or not. Before the on-line CU tries to access the off-line CU for a memory copy, it needs to know whether the off-line CU is running. This is done by reading the off-line CU SSR through a series of MCH instructions. These instructions failed, which indicates problems with the MCH. This condition sometimes results in automatic termination of offline boot.

**CANNOT GROW g h**  
Prints if a device cannot be grown.

**CANNOT OUTPUT POST MORTEM, REASON n**  
EIH could not output the post-mortem for reason listed.

**CANNOT PORT SWITCH MTTY**  
A message could not be sent to the IODRV to port switch an MTTY or ROP device.

**CANNOT PORT SWITCH MTTY OR ROP**  
The IODRV did not respond to the port switch message in the allotted time frame. When the timer expired, EIH checked the MTTY and ROP devices and found that they had not been port switched.

**CANNOT PORT SWITCH ROP**  
A message could not be sent to the IODRV to port switch an MTTY or ROP device.

**CANNOT READ OFFLINE CU SSR**  
The on-line CU cannot determine if the off-line CU is running. Periodically, the on-line CU checks the off-line CU's SSR to know whether the off-line CU is running or not. This is done by reading the off-line CU SSR through a series of MCH instructions. The instructions failed which indicates problems with the MCH. This condition will result in the automatic termination of offline boot.

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**CANNOT RECONFIGURE CU COMMUNITY**

Devices could not be reconfigured due to RC/V ECD access or update failures. Another possibility is that the device was properly reconfigured, but a message could not be sent to RTS to update the display pages information.

**CANNOT RELEASE AN MDCT RECORD**

While trying to release an MDCT RC/V ECD record of type diagnostic that is associated with the disk community, the RC/V ECD could not be accessed or updated.

**CANNOT REMOVE DFC**

Units could not be removed in preparation for booting off-line.

**CANNOT REMOVE IOP**

Units could not be removed in preparation for booting off-line.

**CANNOT RESET SANITY TIMERS**

Sanity timers cannot be reset or cleared.

**CANNOT RESTORE TO ORIGINAL STATE g h**

Devices could not be reconfigured due to RC/V ECD access or update failures. Another possibility is that the device was properly reconfigured, but a message could not be sent to RTS to update the display pages information.

**CANNOT RESTORE g h**

A message could not be sent to ADP to unconditionally restore a CU, DFC, or IOP community.

**CANNOT SEND DEGROWTH MESSAGE TO IODRV**

Degrowth requests cannot be sent to IODRV in preparation for booting off-line.

**CANNOT SEND GROWTH MESSAGE TO DKDRV**

Growth requests cannot be sent to DKDRV in order to reduplex the system.

**CANNOT SEND GROWTH MESSAGE TO IODRV**

Growth requests cannot be sent to IODRV in order to reduplex the system.

**CANNOT SEND IOCLOSE MESSAGE TO DKDRV**

A message cannot be sent to DKDRV requesting it to close a special device file. If the message prints twice, it means DKDRV will not have a chance to close a special device file. Consequently, its internal tables are corrupt and indicate a DFC is undergoing maintenance forever.

**CANNOT SEND IOOPEN MESSAGE TO DKDRV**

Message cannot be sent to DKDRV. Usually the reason is that a message buffer cannot be allocated for the message.

**CANNOT SEND MESSAGE TO PMPRC**

Message cannot be sent to PMPRC. Usually the reason is that a message buffer cannot be allocated for the message.

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- CANNOT SEND MESSAGE TO USER PROCESS, PID i  
Message cannot be sent to a user process identified by its process ID. Usually the reason is that a message buffer cannot be allocated for the message.
- CANNOT SEND OLBCPOFF MESSAGE TO AIM ERROR 1  
Message requesting AIM to turn call origination off failed. Reason for the failure is given in variable listed.
- CANNOT SEND OLBCPON MESSAGE TO AIM ERROR 1  
EIH could not send a message to AIM of activity OLBCPON. This message is serious; the system does not have call origination. Reason for the failure is given in variable listed.
- CANNOT SEND OLBDUPLEX MESSAGE TO AIM ERROR 1  
Message requesting AIM to reduplex failed. Reason for the failure is given in variable listed.
- CANNOT SEND OLBPOSTSW MESSAGE TO AIM ERROR 1  
Message requesting AIM to take post-switch actions failed. Reason for the failure is given in variable listed.
- CANNOT SEND OLBPRECFG MESSAGE TO AIM ERROR 1  
Message requesting AIM to pre-configure for an offline boot failed. Reason for the failure is given in variable listed.
- CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR 1  
Message requesting AIM to perform offline boot pre-checks failed. Reason for the failure is given in variable listed.
- CANNOT SEND OLBPRINT MESSAGE TO AIM ERROR 1  
Message requesting AIM to print the results of a previous check failed. Reason for the failure is given in variable listed.
- CANNOT SEND OLBSPLIT MESSAGE TO AIM ERROR 1  
Message requesting AIM to unequip application hardware RC/V ECD UCBs failed. Reason for the failure is given in variable listed.
- CANNOT SEND REC\_UPDATE MESSAGE TO DKDRV  
Message cannot be sent to DKDRV to update its disk display pages. Usually the reason is that a message buffer cannot be allocated for the message.
- CANNOT SEND UNTRMV MESSAGE TO DKDRV  
DFC remove request cannot be sent to DKDRV in preparation for booting off-line.
- CANNOT SEND UNTRMV MESSAGE TO IODRV  
IOP remove request cannot be sent to IODRV in preparation for booting off-line.

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CANNOT SEND UNTRST MESSAGE TO IODRV

EIH could not send a message during a side switch to restore an MTTY, ROP, or SCC device.

CANNOT UNEQIP DEVICES

CU community devices cannot be unequipped.

CANNOT UNEQIP g h

DFC and IOP devices and their sub-units cannot be unequipped.

CANNOT UPDATE ECD

The RC/V ECD cannot be updated. The reason is dependent on the function name printed:

DFS — Could not reserve a unit's UCB record as part of EXC:OFLBOOT pre-checks.

UNRESERVE — Could not unreserve a UCB record while stopping offline boot. Some units' UCB records may remain reserved.

CC\_OTH A IN THE ON-LINE

A level 1 interrupt has occurred. The other CC hardware has reported a store hardware fault error (ER12). See the *System Maintenance Manual* for more information on ER12. Offline boot will be terminated because of faulty hardware.

CC\_OTH C IN THE ON-LINE

A level 1 interrupt has occurred. The other CC hardware has reported a read parity fault hardware error (ER14). See the *System Maintenance Manual* for more information on ER14. Offline boot will be terminated because of faulty hardware.

CC\_OTH D IN THE ON-LINE

A level 1 interrupt has occurred. The other CC hardware has reported a refresh parity fault hardware error (ER13). See the *System Maintenance Manual* for more information on ER13. Offline boot will be terminated because of faulty hardware.

CC\_OTH T0 IN THE ON-LINE

A level 1 interrupt has occurred. The other CC hardware has reported a store time-out hardware error (ER15). See the *System Maintenance Manual* for more information on ER15. Offline boot will be terminated because of faulty hardware.

CHANGED DISK FORCES

The DFC that is now forced on-line is not the same DFC that was forced on-line when the offline boot procedure was started. Offline boot will be terminated.

CORRUPT TIMER SLOT

EIH found that the timer slot did not correspond to the ongoing action. Because EIH cannot use the corrupt time value from the slot, it uses a best guess of the time value instead.

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**CORRUPT VALUE FOR ABORT TIMER**

The offline boot stop sequence can be started when EIH is performing an action that:

- Does not need a timer to monitor it (NOTIMER).
- Needs a timer to monitor it, but the timer has not been started (NEEDTIMER).
- Needs a timer to monitor it and the timer has been started (RUNNING).

This information (NOTIMER, NEEDTIMER, or RUNNING) has been found to be inconsistent or corrupted in comparison with the ongoing action. EIH will assume the worst case (a timer is RUNNING) and continue with the stop sequence. This assumption may result in this text line printing several times.

**COULD NOT PORT SWITCH**

The IODRV returned a port switch request message with a failure code.

**COULD NOT TELL SIM TO BLOCK ECD 1 AUDITS**

The EIH process could not tell the SIM process to block the ECD 1 audits.

**COULD NOT TELL SIM TO BLOCK ECD 3 AUDITS**

The EIH process could not tell the SIM process to block the ECD 3 audits.

**COULD NOT TELL SIM TO BLOCK ECD 2 (APPECD) AUDITS**

The EIH process could not tell the SIM process to block the ECD 2 (appecd) audits.

**COULD NOT TELL SIM TO BLOCK ECD 2 (ECD) AUDITS**

The EIH process could not tell the SIM process to block the ECD 2 (ecd) audits.

**COULD NOT TELL SIM TO UNBLOCK ECD 1 AUDITS**

The EIH process could not tell the SIM process to unblock the ECD 1 audits.

**COULD NOT TELL SIM TO UNBLOCK ECD 3 AUDITS**

The EIH process could not tell the SIM process to unblock the ECD 3 audits.

**COULD NOT TELL SIM TO UNBLOCK ECD 2 (APPECD) AUDITS**

The EIH process could not tell the SIM process to unblock the ECD 2 (appecd) audits.

**COULD NOT TELL SIM TO UNBLOCK ECD 2 (ECD) AUDITS**

The EIH process could not tell the SIM process to unblock the ECD 2 (ecd) audits.

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**DFC PRECHECKS FAILED**

DFC-related checks failed. Offline boot will be terminated.

**DISK RC/V ECD SESSION IN PROGRESS**

A disk RC/V ECD session is in progress. Offline boot will be terminated.

**DKDRV HAS NOT CLOSED SPECIAL DEVICE FILE FOR g h**

Indicates that RTR pre-configuration has not completed because the DKDRV has not closed a file used in removing the specified device.

**ILLEGAL SW OFLBOOT COMMAND**

A side switch was requested outside of offline boot (that is, offline boot is not running).

**INCORRECT OLBSTATE c**

When EIH was processing a system initialization fault, it found that it had to resume offline boot activities. However, the state information was corrupt. Hence, EIH will not be able to resume the offline boot.

**INTERNAL DFC NUMBER CORRUPT**

Indicates corruption of EIH's internal offline boot data.

**INTERNAL DFC TABLE CORRUPT**

Indicates corruption of EIH's internal offline boot data.

**INTERNAL ERROR, BAD OLBSTATE c SEEK TECHNICAL ASSISTANCE**

An illegal instruction in EIH was found during the offline boot procedure.

**INTERNAL INITLEVEL CORRUPT**

A system wide initialization (FLT\_SINIT) was processed by EIH. EIH found it had to resume offline boot activities, but could not because the specified initialization level (2) might use a corrupt RC/V ECD. Offline boot will be terminated.

**INTERNAL IOP TABLE CORRUPT**

Indicates corruption of EIH's internal offline boot data.

**INTERNAL LOGIC ERROR**

Indicates a logic error has been encountered. Offline boot will be terminated.

**INTERNAL UNITS TABLE CORRUPT**

EIH used an RC/V ECD RID stored internally to read a RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it pointed to the incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.

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**INVALID MESSAGE RECEIVED**

Invalid message was received from the process identified by its process ID.

**INVALID MESSAGE RECEIVED FROM AIM, ACTIVITY j**

Invalid message was received from AIM.

**INVALID MESSAGE RECEIVED FROM IODRV, TYPE k**

Invalid message was received from IODRV.

**INVALID OLBSTATUS FOR MESSAGE RECEIVED FROM AIM,  
ACTIVITY j**

The activity carried out by AIM is inconsistent with the current OLBSTATE.

**LAST OLBSTATE d INVALID**

During the stop offline boot sequence, state information used to determine how much work needs to be done was found to be corrupt. The stop sequence will assume the highest level of work is needed and continue.

**LAST OLBSTATE d INVALID FOR ABORT**

During the stop offline boot sequence, state information used to determine how much work needs to be done was found to be corrupt. The stop sequence will assume the highest level of work is needed and continue.

**LATE MESSAGE RECEIVED**

A message was received too late from the process identified by its process ID.

**LOW CORE AMODE CORRUPT**

Indicates corruption of low core.

**LOW CORE IOPMASK CORRUPT**

EIH cannot interpret the contents of the lowcore IOPMASK value because the contents of lowcore ORIGSIDE is corrupt.

**LOW CORE ORIGSIDE CORRUPT**

Indicates corruption of low core.

**MEMORY COPY FAILED**

A memory-to-memory copy failed because either the off-line CU never halted to allow the copy or there was a CC\_OTHM or CC\_OTHM fault.

**MESSAGE FROM AIM TOO LATE -- DISCARDING**

Message was received out of time from AIM. EIH took a default action, which could include terminating the offline boot procedure.

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MESSAGE FROM PMPRC TOO LATE -- DISCARDING

Message was received out of time from PMPRC. EIH took a default action, which could include terminating the offline boot procedure.

MESSAGE FROM DKDRV TOO LATE -- DISCARDING

Message was received out of time from DKDRV. EIH took a default action, which could include terminating the offline boot procedure.

MESSAGE FROM VFYDISKECD TOO LATE -- DISCARDING

Message was received out of time from the VFYDISKECD process. EIH took a default action, which could include terminating the offline boot procedure.

MTTY OR ROP NOT ACTIVE FOR ONLINE SIDE

MTTY, or ROP, or both are not active for the on-line CU. Offline boot is not supported without an MTTY and a ROP. Offline boot will be terminated.

MUST BE ACT TO REMOVE

A device is in the wrong state to remove. The incorrect state is given in variable for the device state. which immediately precedes this text line.

MUST BE IN ACT OR INIT STATE TO DEGROW

A device is in the ACT or INIT states when it should be in a state valid for the degrowth operation (OOS state). The incorrect state is given in variable for the device state. which immediately precedes this text line.

MUST BE IN ACT OR INIT STATE TO REMOVE

A device is in the wrong state to remove. The incorrect state is given in variable for the device state. which immediately precedes this text line.

MUST BE OOS TO RESTORE

A device is not in the state that the offline boot procedure expects it to be. The incorrect state is given in variable for the device state. which immediately precedes this text line.

NO DISK FORCED

There is no DFC forced on-line.

NO TIMER SLOTS AVAILABLE

Indicates internal timer slots are all used up. Timer slots are freed at this point and the "no timer slots available" message is printed.

NOT ALL UNITS ARE OOS

Indicates not all units are OOS. Before offline boot moves a device to the off-line side, it first puts the device in the OOS state. One or more of the devices that are to be moved to the off-line side are not in the OOS state. Offline boot will be terminated.

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**NOT IN GROW STATE**

During the stop offline boot process, a unit has been found that is not in the correct state to allow it to be reconfigured back into service, or the unit in question has already been moved (not by offline boot) to some other unexpected state. In either case, the reconfiguration sequence is not followed for this device. The incorrect state is given in variable for the device state. which immediately precedes this text line.

**NOT IN UNEQIP STATE**

A device is not in the state that the offline boot procedure expects it to be. The incorrect state is given in variable for the device state. which immediately precedes this text line.

**NOT OOS**

EIH is expecting all the devices going to the off-line side to be in the OOS state. However, it has found that one or more of these devices are not in the OOS state. Offline boot will be terminated. The incorrect state is given in variable for the device state. which immediately precedes this text line.

**OFFLINE AIM REPORTED CHECKS FAILURE**

AIM reported pre-check errors.

**OFFLINE BOOT TIMED OUT**

The timer set for booting off-line has expired. Another timer will be set with the original timeout value and offline boot will continue until manually stopped or off-line AIM writes the completion word in low core.

**OFFLINE CU NOT RUNNING**

Output by the on-line CU, this message indicates that the off-line CU is not running. Offline boot will be terminated.

**OFFLINE LOW CORE BOOT STATUS IS CORRUPT**

The periodic monitor that checks whether AIM has written the boot completion word in the off-line low core found the contents of the word corrupt. It will assume that the boot is not done.

**OFFLINE RTR CHECKS FAILED ERROR m**

UNIX® RTR encountered pre-check errors. Error is given in variable for the pre-check errors.

**OFFLINE RTR-AIM COMMUNICATION FAILED**

Indicates EIH could not send a message to AIM in the off-line side or that AIM did not reply on time.

**OFFLINE SIDE DID NOT COMPLETE THE LBOOT STEP**

If failure PRMs are present, they will indicate that the disk unit (MHD 0 or MHD 1) used to boot the offline side is bad. Examples of corruption are a bad or non-existent VTOC or junk in the LBOOT partition. If failure PRMs are not present, there may be a problem with the MCH or the CU complex.

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**OLBABORT EVENT RECEIVED -- ABORTING**

Indicates EIH has received an abort event; procedures to stop the offline boot have begun. Procedures will attempt to restore units.

**OLBCONFIG EVENT RECEIVED -- ABORTING**

Indicates EIH has received an abort event because an essential device like an SCC or MHD is not active nor unequipped; procedures to stop the offline boot have begun. Procedures will attempt to restore units.

**OLBSTATE C EXPECTED EXC\_BOOT OR SW\_PRCHK**

A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

**OLBSTATE C NOT EXC\_AIMECD**

A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

**OLBSTATE C NOT EXC\_CFGAIM**

A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

**OLBSTATE C NOT EXC\_POSTSW**

A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

**OLBSTATE C NOT EXC\_RMV**

A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

**OLBSTATE C NOT STOP\_IOPS**

A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

**PORT SWITCH NOT DONE**

The IODRV returned a port switch request message with a success code. However, when EIH verified this against the ECD, it found that the devices had not really been port switched.

**RC/V ECD SESSION IN PROGRESS**

An incore RC/V ECD session is in progress. Offline boot will be terminated.

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RESTORE OF MTTY,ROP,SCC AND/OR SCSDC FAILED AFTER  
SIDE SWITCH

During a side-switch, EIH received a message from the IODRV saying that it could not restore an MTTY, ROP, SCC, or SCSDC device.

RETROFIT NOT SPECIFIED -- REDUPLEXING

Call origination could not be turned on in the new on-line side during a side switch. Since the RETROFIT option was not specified, offline boot will be terminated immediately.

RETROFIT SPECIFIED -- CONTINUING

Call origination could not be turned on in the new on-line side during a side switch. Since the RETROFIT option was specified, the side switch will continue its normal sequence. Notice, however, there is no call origination going on.

SANITY TIMER NOT CLEARED

The off-line sanity timer cannot be cleared.

SIM COULD NOT BLOCK r s t AUDITS REASON u

SIM reported to EIH that it could not block the requested audits. The requested audit name, with member number, and the audit instance name. The reason is explained by the code.

SIM COULD NOT UNBLOCK r s t AUDITS REASON u

SIM reported to EIH that it could not unblock the requested audits. The requested audit name, with member number, and the audit instance name. The reason is explained by the code.

SOME TERMINAL(S) UNDER OFF-LINE IOP MAY BE LOCKED

Some IOP assigned to the off-line side will not have all its subdevices equipped, and as a consequence, some terminal in the office, if any, will appear to be locked, i. e., the information displayed is out-dated, and no input is accepted.

STOP DENIED DURING SWITCH

Offline boot cannot be stopped manually or through application requests during a side switch.

SWITCH CALL PROCESSING OFF FAILED

AIM reported call origination could not be turned off in preparation for side switching. If retrofit was not specified, SW:OFLBOOT will fail.

SWITCH CALL PROCESSING ON FAILED

AIM reported call origination could not be turned on.

SWITCH POSTSW FAILED

AIM reported post-switch work failed. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

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**SWITCH POSTSW TIMED OUT**

AIM post-switch work timed out. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

**SWITCH PRE-CHECK ONLY COMPLETED**

The pre-check only option was specified in the application message requesting the side switch (that is, not a manual request to side switch).

**SWITCH TERMINATED**

The side switch was terminated. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

**SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS**

Command line options do not match system status. This message will be output if any of the conditions are true:

- Required unit is OOS and neither OOS nor UCL was specified.
- Specified TTY does not exist.
- Specified IOP does not exist.
- Both IOP 0 and IOP 1 are selected for moving to the off-line side.
- A primary disk was not forced.
- A CU is forced.
- Only one bootable disk is available or one of the bootable disks is not equipped.
- Mate CU state is not STBY or OOS.
- If any RC/V ECD UCB record is reserved..

This list is not exhaustive. Another output message has been output prior to this output message describing the problem.

**TIME OUT - AIM POST-BOOT CHECKS**

EIH did not receive results of activities before timers expired. Either the on-line side or the off-line side timer to receive the results from the off-line AIM post-boot checks has expired. These post-boot results will not be available.

**TIME OUT - AIM PRECONFIGURATION**

EIH did not receive results of activities before timers expired.

**TIME OUT - CANNOT REMOVE EITHER CU, DFC AND/OR IOP**

EIH did not receive all the successful removal confirmation messages when the timer expired. It verified against the RC/V ECD that not all of the units were in the OOS state as expected.

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**TIME OUT DUPLEX ECD: AIM REPORTED x, RTR REPORTED x**

This message always results in continuing the STOP sequence in progress to the point where IOPs are duplexed and then to the end part of the STOP. Although AIM is involved in the STOP sequence, it did not cause the timeout. Therefore, the AIM duplex completion value given is printed for information purposes only. If value given is NOTHING, AIM had not finished its duplexing at the moment the timeout occurred. If value given is SUCCESS, AIM had successfully finished its STOP sequence. If value given is FAILURE, AIM reported errors during its STOP sequence. This timeout was caused by RTR problems when growing DFC units. A value of NOTHING means RTR did not complete or report to EIH the status of the grow operations for the DFC units involved in the STOP sequence. A value of FAILURE means RTR failed to complete the grow operations for the DFCs units involved in the STOP sequence. A value of SUCCESS means RTR indicated a successful grow of the DFC units involved in a side switch; a logic error happened.

**TIME OUT FOR RECEIVING RESULTS OF POST-BOOT CHECKS**

EIH did not receive results of activities before timers expired. Either the on-line side or the off-line side timer to receive the results from the off-line AIM post-boot checks has expired. These post-boot results will not be available.

**TIME OUT RTR GROW: AIM REPORTED x, RTR REPORTED x**

This message always results in termination of the offboot procedure. AIM is not involved in the side switch growth of units, hence, the value given is always NOTHING; otherwise, a logic error happened. A value of NOTHING means RTR did not complete or did not report to EIH the status of the grow operations for the MTTY, ROP, SCC, and SCSDCs units involved in a side switch. A value of FAILURE means RTR failed to complete the grow operations for the MTTY, ROP, SCC, and SCSDCs units involved in a side switch. A value of SUCCESS means RTR indicated a successful grow of the units involved in a side switch; a logic error happened.

**TIME OUT SPLIT ECD: AIM REPORTED x, RTR REPORTED x**

This message always results in termination of the offboot procedure. A value of NOTHING means AIM or RTR or both did not complete or did not report to EIH the status of the split operation. A value of FAILURE means AIM or RTR or both failed to complete the split operation. A value of SUCCESS means AIM or RTR or both indicated a successful split of its units. Notice that, if both are SUCCESS, a logic error happened.

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TIME OUT WHEN GROWING g h

EIH did not receive the result of growing an IOP unit or sub-unit. The specified unit and its sub-units if any will be left in the UNEQIP state.

TRYING TO WRITE INVALID BOOTSTATUS TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID IOPMASK TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID IOPSUBUNIT TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID MODE TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID MODIFIEDEC D TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID OFLTTY TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID OLBACK TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID OLBDFC TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID OLBTRACE TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID OLBUC L TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID ORIGSIDE TO LOW CORE

EIH is trying to write an invalid value to low core.

TRYING TO WRITE INVALID VALUE TO LOW CORE

EIH is trying to write an invalid value to low core.

UNEXPECTED MESSAGE FROM AIM

EIH received a message from AIM (type OFLBOOT) whose activity was OLBPRECHK. However, EIH's internal state information (OLBSTATE) was inconsistent with the value specified in lowcore MODE for the specified activity (OLBPRECHK). This situation indicates either an illegal message was received from AIM or that a message buffer was overwritten and corrupted. EIH will drop this message and not take action on it.

UNEXPECTED MESSAGE RECEIVED FROM

EIH received a message it cannot identify. The process ID and message type are provided to help identify the message.

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#### UNIT REMOVAL FAILURE

During a side switch, the following devices are removed from the on-line side: MTTY, ROP, SCC, and SCSDs. The IODRV returned a message stating that one or more of these devices could not be moved to the OOS state. The side switch will continue. Furthermore, to prevent the IODRV from stealing these devices from the new on-line side, their RC/V ECD UCB records will be unequipped and messages will be sent to the IODRV to move them to the DEGROW state.

- c Current offline boot state.
- d Previous offline boot state.
- e Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.
- f Line number in the function from which the output message originated. This field is used by UNIX® RTR, in conjunction with fields for current offline boot state, previous offline boot state, and name of the function from which the output message originated, to diagnose offline boot problems.
- g String giving device type information; CU, DFC, IOP, MHD, TTY, TTYC, and DSCH, for example. Unit names are listed in the Member Number Input Appendix C, APP:MEM-NUM-C.
- h Device number. A value of zero, which used with string giving device type information; could form DFC 0, for example.
- i Process identification number.
- j Activity defined in message sent from the AIM process.
- k Message type in message sent from the IODRV, AIM, or any other unknown process.
- l Reason message could not be sent:
  - 1 — Cannot allocate system message buffer.
  - 0 — Process is not attached to its port or port is invalid.
  - 8192 — Process cannot queue more messages.
- m Pre-check errors:
  - 1 — Offline side is running in minimum configuration mode. System must be in full configuration mode for a side switch.
  - 2 — Internal DFC table corrupt. Indicates corruption of EIH's internal offline boot data.
  - 3 — Cannot get a DFC UCB record to get information for running pre-checks.
  - 4 — An offline side DFC or DFC sub-unit is in the INIT state.

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- 5 — Corrupt ECD UCB record for a DFC or DFC sub-unit. The device is in the STBY state which is not supported for DFC communities.
- 6 — An offline side DFC or DFC sub-unit either has a non-supported essential field or it is an essential or no\_man\_rmv device that is not active. For the latter, it could be UNAV, OFL, OOS, or GROW.
- 7 — Corrupt ECD UCB record for a DFC or DFC sub-unit. The device has an unsupported major state field in its UCB.
- 10 — Low core IOPMASK corrupt. EIH cannot interpret the contents of the low core IOPMASK value because the contents of low core ORIGSIDE is corrupt.
- 11 — No IOP in the off-line side. Indicates that IOP 0 and IOP 1 are both on the on-line side. The switch will fail because it will not have a MTTY or ROP on the other side.
- 12 — No IOP in the off-line side. Indicates that IOP 0 and IOP 1 are both on the on-line side. The switch will fail because it will not have a MTTY or ROP on the other side.
- 13 — Low core ORIGSIDE corrupt. Indicates corruption of low core.
- 14 — Internal IOP table corrupt. Indicates corruption of EIH's internal offline boot data.
- 15 — Cannot get IOP 0 or 1 UCB record to get information for running pre-checks.
- 16 — Internal units table corrupt. EIH used an RC/V ECD RID stored internally to read a RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it pointed to the incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.
- 17 — Not ACT. The IOP is not in the ACT state.
- 18 — Diagnostics running. Indicates the specified IOP, 0 or 1, RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.
- 19 — The off-line side is running in full Disk Independent Operation (DIOP) mode. The offline boot procedure cannot side switch to an impaired side.
- 20 — Cannot get MTTYC 0 or 1 UCB record to get information for running pre-checks.
- 21 — Internal units table corrupt. EIH used an RC/V ECD RID stored internally to read a MTTY controller RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it

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pointed to the incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.

- 22 — Not ACT. MTTYC 0 or 1 is not in the ACT state.
- 23 — Diagnostics running. Indicates MTTYC 0 or 1 RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.
- n Possible reason codes why EIH could not output a post-mortem report:
  - 10 — Cannot copy post-mortem slots from off-line CU - the on-line CU is holding information in its slots.
  - 11 — RMF is not running.
  - 12 — Cannot copy off-line post-mortem slots.
- o RID of the RC/V ECD UCB record for the unit that cannot be restored automatically.
- p Memory location where the invalid value RID is being written.
- q Invalid value that is being written to low core.
- r RID of the RC/V ECD UCB record for the unit that cannot be removed.
- s Device state.
- t Audit name, such as ECD.
- u Audit member number, such as 1, 2, or 3.
- v Audit instance, such as "ecd" or "appecd".
- w Possible errors codes returned by SIM to the EIH request to block or unblock an ECD audit:
  - 3 — Audit system initialization in progress.
  - 4 — Audit system initialization failed.
  - 5 — Access to audit record in the ECD failed.
  - 9 — Requested audit instance is blocked.
  - 19 — Invalid audit specified.
  - 20 — Invalid audit instance specified.
  - 30 — Request resulted in no change.
- x FAILURE  
NOTHING  
SUCCESS

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#### 4. ACTION TO BE TAKEN

- ABORT DENIED DURING SWITCH — Indicates AIM tried to abort the offline boot while SW:OFLBOOT was executing.
- ADP IS NOT RUNNING, CANNOT RESTORE g h — Restore the unit manually.
- AIM PRINTING OF PRE-CHECKS OR POST-CHECKS TIMED OUT — This message is for information only; no action is needed.
- AIM REPORTED FAILURE TO REDUPLEX — Wait for offline boot to terminate. Some application devices may be in an incorrect state. If so, issue a STOP:OFLBOOT;RST command within 1 hour. Once the hour is passed, manual actions will be required to restore the application devices to their original states.
- AIM REPORTED FAILURE TO SPLIT — Wait for offline boot to terminate, clear the problem with the application, and try offline boot again.
- AIM REPORTED FAILURE TO TURN CALL PROCESSING OFF — If retrofit was not specified, offline boot will be terminated on the current on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.
- AIM REPORTED FAILURE TO TURN CALL PROCESSING ON — If retrofit was not specified, offline boot will be terminated on the new on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.
- AIM REPORTED PRE-CONFIGURATION FAILURES — Wait for offline boot to terminate, then try offline boot again.
- CANNOT ACCESS A DIAGNOSTIC/MAINTENANCE SPECIAL DEVICE FILE — Wait for offline boot to terminate, then try offline boot again.
- CANNOT ACCESS ECD — Wait for offline boot to be terminated, then run RC/V ECD audits.
- CANNOT CLOSE SPECIAL DEVICE FILE — Seek technical assistance.
- CANNOT COPY MEMORY AREA FROM OFFLINE CU TO ONLINE CU — Wait for offline boot to terminate, then try offline boot again.
- CANNOT COPY MEMORY AREA FROM ONLINE CU TO OFFLINE CU — Wait for offline boot to terminate, then try offline boot again.
- CANNOT CREATE VFYDISKECD PROCESS — Wait for offline boot to terminate, then try offline boot again.

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- CANNOT DETERMINE ACT IOP FOR MTTY OR ROP — If there is no active MTTY or ROP, restore them and try offline boot again. Otherwise, RC/V ECD is corrupt and RC/V ECD audits must be run. If the audits pass, try offline boot again.
- CANNOT DETERMINE IF OFFLINE SIDE IS RUNNING — If the message did not result in an automatic termination of offline boot, manually stop the procedure. Once offline boot is stopped, run the CU diagnostics, phases 1 through 4, 11, and 62; if successful, try offline boot again.
- CANNOT GROW g h — Manual recovery is needed to restore the device to its pre-offline boot state.
- CANNOT OUTPUT POST MORTEM, REASON n — If the reported reason was 10 or 12, the problem is either that the output slot is being used by a higher priority message or that EIH is unable to complete copy. In either case, no action is needed. A reason of 11 indicates that the Recovery Message Formatter (RMF) process is not running; seek technical assistance.
- CANNOT PORT SWITCH MTTY — Indicates there were errors in port switching a device. Check device state and restore if needed.
- CANNOT PORT SWITCH MTTY OR ROP — Manual recovery is needed to restore the device to its pre-offline boot state.
- CANNOT PORT SWITCH ROP — Manual recovery is needed to restore the device to its pre-offline boot state.
- CANNOT READ OFFLINE CU SSR — Wait for offline boot to terminate, then run the CU diagnostics, phases 1 through 4, 11, and 63, to check the maintenance channel. If these particular phases do not reveal anything then run the complete CU diagnostics before trying offline boot again.
- CANNOT RECONFIGURE CU COMMUNITY — Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
- CANNOT RELEASE AN MDCT RECORD — A scarce system resource (a MDCT record of type diagnostic) has been lost. To recover it, run the ECDOWN audit or manually unreserve the RC/V ECD MDCT record.
- CANNOT REMOVE DFC — Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
- CANNOT REMOVE IOP — Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
- CANNOT RESET SANITY TIMERS — This message is for information only; no action is needed.

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- CANNOT RESTORE TO ORIGINAL STATE g h — Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
- CANNOT RESTORE g h — Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
- CANNOT SEND DEGROWTH MESSAGE TO IODRV — Wait for offline boot to terminate, then try offline boot again.
- CANNOT SEND GROWTH MESSAGE TO DKDRV — Manual recovery is needed to restore the device to its pre-offline boot state.
- CANNOT SEND GROWTH MESSAGE TO IODRV — Manual recovery is needed to restore the device to its pre-offline boot state.
- CANNOT SEND IOCLOSE MESSAGE TO DKDRV — This message can occur twice. The first time this message occurs, ignore it; no action is needed. The second time this message prints, seek technical assistance.
- CANNOT SEND IOOPEN MESSAGE TO DKDRV — Wait for offline boot to terminate, then try offline boot again.
- CANNOT SEND MESSAGE TO PMPRC — Wait for offline boot to terminate, then try offline boot again.
- CANNOT SEND MESSAGE TO USER PROCESS, PID i — This message is for information only; no action is needed.
- CANNOT SEND OLBCPOFF MESSAGE TO AIM ERROR l — If retrofit was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If retrofit was specified, the side switch will continue; no action is needed.
- CANNOT SEND OLBCPON MESSAGE TO AIM ERROR l — If retrofit was not specified, offline boot will be terminated on the new on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.
- CANNOT SEND OLBDUPLEX MESSAGE TO AIM ERROR l — Application recovery must be carried out manually.
- CANNOT SEND OLBPOSTSW MESSAGE TO AIM ERROR l — Seek technical assistance.
- CANNOT SEND OLBPRECFG MESSAGE TO AIM ERROR l — Wait for offline boot to terminate, then try offline boot again.
- CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR l — The action to be taken depends on the function name output with the message:
- HDL\_OLB\_OPCODE — The off-line side EIH could not ask AIM to perform post-boot checks. No action is needed.

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- OLBCONTROL — The off-line side EIH could not ask AIM to perform side switch pre-checks; try the side switch again.
- CANNOT SEND OLBPRINT MESSAGE TO AIM ERROR 1 — This message is for information only; no action is needed.
- CANNOT SEND OLSPLIT MESSAGE TO AIM ERROR 1 — Wait for offline boot to terminate, then try offline boot again.
- CANNOT SEND REC\_UPDATE MESSAGE TO DKDRV — DKDRV did not have a chance to update its disk display pages. Restart the DKDIP process to have the pages show the correct information.
- CANNOT SEND UNTRMV MESSAGE TO DKDRV — Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
- CANNOT SEND UNTRMV MESSAGE TO IODRV — Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
- CANNOT SEND UNTRST MESSAGE TO IODRV — Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
- CANNOT UNEQIP DEVICES — Check to see why the device cannot be unequipped, resolve the problem, and try offline boot again.
- CANNOT UNEQIP g h — Check to see why the device cannot be unequipped, resolve the problem, and try offline boot again.
- CANNOT UPDATE ECD — The action to be taken depends on the function name output with the message:
- DFS — Run RC/V ECD audits. If the audits pass, try offline boot again.
  - UNRESERVE — If diagnostics are not running, then the RC/V ECD UCB record is corrupted; in which case, the UCB record needs to be unreserved manually or through the ECDOWN audit.
- CC\_OTH A IN THE ON-LINE — Seek technical assistance to run diagnostics.
- CC\_OTH C IN THE ON-LINE — Seek technical assistance to run diagnostics.
- CC\_OTH D IN THE ON-LINE — Seek technical assistance to run diagnostics.
- CC\_OTH T IN THE ON-LINE — Seek technical assistance to run diagnostics.
- CHANGED DISK FORCES — Wait for offline boot to terminate, force a DFC, and try again to boot off-line.

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CORRUPT TIMER SLOT — Notify technical assistance about this occurrence. No other action needs to be taken for STOP:OFLBOOT to complete.

CORRUPT VALUE FOR ABORT TIMER — Notify technical assistance about this occurrence. No other action needs to be taken for STOP:OFLBOOT to complete.

COULD NOT PORT SWITCH — Indicates there were errors in port switching a device. Check device state and restore if needed.

COULD NOT TELL SIM TO BLOCK ECD 1 AUDITS — This message is for information only; no action is needed.

COULD NOT TELL SIM TO BLOCK ECD 3 AUDITS — This message is for information only; no action is needed.

COULD NOT TELL SIM TO BLOCK ECD 2 (APPECD) AUDITS — This message is for information only; no action is needed.

COULD NOT TELL SIM TO BLOCK ECD 2 (ECD) AUDITS — This message is for information only; no action is needed.

COULD NOT TELL SIM TO UNBLOCK ECD 1 AUDITS — Save the ROP output and report this incident to technical assistance.

**NOTE:** The audits will automatically be unblocked in six hours.

COULD NOT TELL SIM TO UNBLOCK ECD 3 AUDITS — Save the ROP output and report this incident to technical assistance.

**NOTE:** The audits will automatically be unblocked in six hours.

COULD NOT TELL SIM TO UNBLOCK ECD 2 (APPECD) AUDITS — Save the ROP output and report this incident to technical assistance.

**NOTE:** The audits will automatically be unblocked in six hours.

COULD NOT TELL SIM TO UNBLOCK ECD 2 (ECD) AUDITS — Save the ROP output and report this incident to technical assistance.

**NOTE:** The audits will automatically be unblocked in six hours.

DFC PRECHECKS FAILED — Investigate the cause of the pre-check error, resolve the problem indicated, and try offline boot again.

DISK RC/V ECD SESSION IN PROGRESS — Wait for the RC/V ECD session to complete, then try offline boot again.

DKDRV HAS NOT CLOSED SPECIAL DEVICE FILE FOR g h — This message is for information only; no action is needed.

ILLEGAL SW OFLBOOT COMMAND — If an offline boot was underway, then the low core value of MODE has been corrupted; seek technical assistance. Otherwise, boot off-line and then side switch.

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INCORRECT OLBSTATE c — A manual STOP:OFLBOOT will be necessary because offline boot will not continue. Depending on the amount of state information corrupted, the STOP:OFLBOOT may result in cascading error messages; the stop process will complete, however.

INTERNAL DFC NUMBER CORRUPT — The action to be taken depends on the function name output with this message:

DEGROW\_DFC — RMV\_DFC - Wait for offline boot to be terminated.  
Run RC/V ECD audits, then retry offline boot.

CHG\_DFC — The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.

RST\_DFC — The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

INTERNAL DFC TABLE CORRUPT — The action to be taken depends on the function name output with this message:

DEGROW\_DFC — RMV\_DFC - Wait for offline boot to be terminated.  
Run RC/V ECD audits, then retry offline boot.

CHG\_DFC — The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.

RST\_DFC — The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

INTERNAL ERROR, BAD OLBSTATE c SEEK TECHNICAL ASSISTANCE — Seek technical assistance.

INTERNAL INITLEVEL CORRUPT — Wait for offline boot to be terminated, restore the CU community, and try offline boot again.

INTERNAL IOP TABLE CORRUPT — The action to be taken depends on the function name output with this message:

DEGROW\_IOPS — RMV\_IOPS - Wait for offline boot to be terminated.  
Run RC/V ECD audits, then retry offline boot.

GROW\_IOPS — The device will remain in the UNEQIP state. If this was not its original state, wait for offline boot to be terminated, then manually grow the device community and restore it to service.

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- RST\_IOPS — The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.
- INTERNAL LOGIC ERROR — Save the ROP output and seek technical assistance.
- INTERNAL UNITS TABLE CORRUPT — The action to be taken depends on the function name output with this message:
- CHECK\_OOS — DEGROW\_DFC, DEGROW\_IOPS, RMV\_DFC, RMV\_IOPS - Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.
- CHG\_DFC — The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.
- EQUIP\_CU — GROW\_DFC, GROW\_IOPS - The device will remain in the UNEQIP state. If this was not its original state, wait for offline boot to be terminated, then manually grow the device community and restore it to service.
- RST\_DFC — The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.
- SWPRECHECK — The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete.
- INVALID MESSAGE RECEIVED — Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.
- INVALID MESSAGE RECEIVED FROM AIM, ACTIVITY j — Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.
- INVALID MESSAGE RECEIVED FROM IODRV, TYPE k — Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.
- INVALID OLBSTATUS FOR MESSAGE RECEIVED FROM AIM, ACTIVITY j — Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.
- LAST OLBSTATE d INVALID — No action is needed.
- LAST OLBSTATE d INVALID FOR ABORT — Seek technical assistance.
- LATE MESSAGE RECEIVED — This message is for information only; no action is needed.
- LOW CORE AMODE CORRUPT — Save the ROP output and seek technical assistance.

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LOW CORE IOPMASK CORRUPT — If OLBSTATE is EXC\_ONLECD, wait for offline boot to be terminated, then try it again.

If the function name is SWPRECHECK, the side switch will not succeed. To retry to side switch, first, stop offline boot manually; second, start another offline boot; and third, try the side switch again after offline boot completes.

Otherwise, this is happening during the offline boot stop sequence. Some DFCs or IOPs belonging to the off-line side will remain in the UNEQIP, GROW, or OOS state. If these were not the original states, manually move the devices to their original states.

LOW CORE ORIGSIDE CORRUPT — If OLBSTATE is EXC\_ONLECD, wait for offline boot to be terminated, then try it again.

If the function name is SWPRECHECK, the side switch will not succeed. To retry to side switch, first, stop offline boot manually; second, start another offline boot; and third, try the side switch again after offline boot completes.

Otherwise, this is happening during the offline boot stop sequence. Some DFCs or IOPs belonging to the off-line side will remain in the UNEQIP, GROW, or OOS state. If these were not the original states, manually move the devices to their original states.

MEMORY COPY FAILED — This message is for information only; no action is needed.

MESSAGE FROM AIM TOO LATE -- DISCARDING — This message is for information only; no action is needed.

MESSAGE FROM PMPRC TOO LATE -- DISCARDING — This message is for information only; no action is needed.

MESSAGE FROM DKDRV TOO LATE -- DISCARDING — This message is for information only; no action is needed.

MESSAGE FROM VFYDISKECD TOO LATE -- DISCARDING — This message is for information only; no action is needed.

MTTY OR ROP NOT ACTIVE FOR ONLINE SIDE — Check the status of the MTTY and ROP, restore the device that is not in the ACT state, and try offline boot again.

MUST BE ACT TO REMOVE — Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

MUST BE IN ACT OR INIT STATE TO DEGROW — This message should read CANNOT BE IN ACT OR INIT STATE TO DEGROW. Stop offline boot manually, change the state of the device, and try offline boot again.

MUST BE IN ACT OR INIT STATE TO REMOVE — Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

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- MUST BE OOS TO RESTORE** — Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.
- NO DISK FORCED** — If printed while executing EXC:OFLBOOT, wait for offline boot to terminate, force a DFC, and try again to boot off-line. If this message is printed as part of SW:OFLBOOT, wait for the side switch to fail, force the DFCs as they were at the beginning of the offline boot, and try to side switch again.
- NO TIMER SLOTS AVAILABLE** — This message is for information only; no action is needed.
- NOT ALL UNITS ARE OOS** — Wait for offline boot to be terminated. Check on why the DFC and all the IOPs to be moved to the off-line side are not in the OOS state. Resolve the problem, and then try offline boot again.
- NOT IN GROW STATE** — After the offline boot process is terminated, check whether this device requires manual action to be brought back to its original state.
- NOT IN UNEQIP STATE** — No action is needed.
- NOT OOS** — Wait for offline boot to be terminated. Then, check the states of the devices that were going to the off-line side. If any device is not in the OOS state, investigate why. After resolving any problem, try offline boot again.
- OFFLINE AIM REPORTED CHECKS FAILURE** — If post-boot checks failed, no action is needed. If side switch pre-checks failed, investigate what caused the pre-check error, resolve the problem, and try the side switch again.
- OFFLINE BOOT TIMED OUT** — Either manually stop offline boot or let it run until it completes. If this message is seen twice or more, offline boot may not complete and manually stopping it is recommended.
- OFFLINE CU NOT RUNNING** — Check the on-line CU to see why it terminated. There may be some information in the off-line side post-mortem dump if one was output as part of the offline boot termination. If nothing is determined, try offline boot again after the termination is complete.
- OFFLINE LOW CORE BOOT STATUS IS CORRUPT** — If the failure is part of a side switch, the side switch will be aborted if the RETROFIT option was not specified. If the RETROFIT option was specified, the system will be booted on the side targeted for switching and offline boot will terminate.
- NOTE:** If the reason for failure indicates bad hardware, it is recommended to stop the offboot procedure and reschedule it when the hardware has been repaired.
- OFFLINE RTR CHECKS FAILED ERROR m** — The action to be taken depends on the value of variable for the pre-check errors:
- 1 To side switch, stop offboot and execute EXC:OFLBOOT without specifying the MINCONFIG option. When this second offline boot completes, try the side switch again.

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- 2 Seek technical assistance.
- 3 The error is in the off-line side ECD which cannot be audited; seek technical assistance.
- 4 Wait for the INIT operation to complete and run SW:OFLBOOT again.
- 5 The error is in the off-line side ECD which cannot be audited; seek technical assistance.
- 6 If the error is an invalid essential field then it is in the off-line side ECD which cannot be audited; seek technical assistance. ESSENTIAL or NOMANRMV devices in GROW and OFL will fail the switch always; stop offline boot manually and seek technical assistance. ESSENTIAL or NOMANRMV devices in UNAV and OOS should be restored, then run SW:OFLBOOT again. If the restore operations fail the switch will always fail; stop offline boot manually and seek technical assistance.
- 7 The error is in the off-line side ECD which cannot be audited; seek technical assistance.
- 10 Seek technical assistance.
- 11 Stop offline boot; wait for it to terminate. Try offboot with IOP 0 or IOP 1 specified. Wait for the off-line side to be booted, then try SW:OFLBOOT again.
- 12 Stop offline boot; wait for it to terminate. Try offboot with IOP 0 or IOP 1 specified. Wait for the off-line side to be booted, then try SW:OFLBOOT again.
- 13 Seek technical assistance.
- 14 Seek technical assistance.
- 15 The error is in the off-line side ECD which cannot be audited; seek technical assistance.
- 16 Seek technical assistance.
- 17 Restore the IOP and run SW:OFLBOOT again.
- 18 Run SW:OFLBOOT again after diagnostics complete.
- 19 Stop offboot, repair the equipment that caused the off-line side to go into DIOP and execute EXC:OFLBOOT. When this second offline boot completes, try the side switch again.
- 20 The error is in the off-line side ECD which cannot be audited; seek technical assistance.
- 21 If there is no active MTTY controller, restore it and try offline boot again. Otherwise, RC/V ECD is corrupt and RC/V ECD audits must be run. If the audits pass, try offline boot again.

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- 22 Restore the MTTY controller and run SW:OFLBOOT again.
- 23 Run SW:OFLBOOT again after MTTY controller diagnostics complete.

OFFLINE RTR-AIM COMMUNICATION FAILED — Check OLBLOG files on the off-line side to determine if AIM has a problem. Do NOT start a side switch if it does. Also, recover OLBLOG files and send them to technical assistance. If the message was part of a retrofit side switch, watch for correct operation on the new on-line side as AIM was having problems and it may not support call origination.

OFFLINE SIDE DID NOT COMPLETE THE LBOOT STEP — Wait for offline boot to terminate. If a disk is bad do not boot from it, booting from a corrupted disk can cause an outage; seek technical assistance. If the CU or MCH appears to be the problem, then run the CU diagnostics, phases 1 through 4, 11, and 63, to check the maintenance channel. If these particular phases do not reveal anything, then run the complete CU diagnostics before trying offline boot again.

OLBABORT EVENT RECEIVED -- ABORTING — No action is needed.

OLBCONFIG EVENT RECEIVED -- ABORTING — Restore or unequip the affected essential device before trying offline boot again.

OLBSTATE c EXPECTED EXC\_BOOT OR SW\_PRCHK — Save the ROP output and notify technical assistance of this occurrence.

OLBSTATE c NOT EXC\_AIMECD — Save the ROP output and notify technical assistance of this occurrence.

OLBSTATE c NOT EXC\_CFGAIM — Save the ROP output and notify technical assistance of this occurrence.

OLBSTATE c NOT EXC\_POSTSW — Save the ROP output and notify technical assistance of this occurrence.

OLBSTATE c NOT EXC\_RMV — Save the ROP output and notify technical assistance of this occurrence.

OLBSTATE c NOT STOP\_IOPS — Save the ROP output and notify technical assistance of this occurrence.

PORT SWITCH NOT DONE — Indicates there were errors in port switching a device. Check device state and restore if needed.

RC/V ECD SESSION IN PROGRESS — Wait for the RC/V ECD session to complete, then try offline boot again.

RESTORE OF MTTY,ROP,SCC AND/OR SCSDC FAILED AFTER SIDE SWITCH — Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

RETROFIT NOT SPECIFIED -- REDUPLEXING — Indicates offline boot has encountered fatal errors and the RETROFIT option was not specified, so offline boot is terminated and the system is immediately reduplexed.

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When offline boot has terminated, perform whatever manual recovery steps are needed to re-establish call origination.

RETROFIT SPECIFIED -- CONTINUING — If function name is TIM\_CPON, call origination is down. Wait for the side switch to finish, manually stop offline boot, and then take whatever actions are needed to re-establish call origination.

SANITY TIMER NOT CLEARED — This message is for information only; no action is needed.

SIM COULD NOT BLOCK r s t AUDITS REASON u — This message is for information only; no action is needed.

SIM COULD NOT UNBLOCK r s t AUDITS REASON u — Save the ROP output and report this incident to technical assistance.

**NOTE:** The audits will automatically be unblocked in six hours.

SOME TERMINAL(S) UNDER OFF-LINE IOP MAY BE LOCKED — No action is needed.

STOP DENIED DURING SWITCH — Wait until the side switch is finished, try STOP:OFLBOOT again on the new on-line side.

SWITCH CALL PROCESSING OFF FAILED — If retrofit was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If retrofit was specified, the side switch will continue; no action is needed.

SWITCH CALL PROCESSING ON FAILED — Check OLBLOG files on the off-line side to determine if AIM has a problem. If call origination is turned off, take whatever actions are needed to re-establish call origination.

SWITCH POSTSW FAILED — Check to see if manual recovery is needed.

SWITCH POSTSW TIMED OUT — Check to see if manual recovery is needed.

SWITCH PRE-CHECK ONLY COMPLETED — This message is for information only; no action is needed.

SWITCH TERMINATED — Check to see if manual recovery is needed. It is possible that call origination is still turned off.

SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS — If this message is preceded by a pre-check failure message, follow the action to be taken specified by the preceding message. If not, then an initialization level of 2 was specified and the CU is in the OOS state. In this case, offline boot cannot continue because the OOS CU memory will be used for booting and it may be corrupt. Either specify a higher initialization level or restore the CU before trying the offline boot again.

TIME OUT - AIM POST-BOOT CHECKS — No action is needed.

TIME OUT - AIM PRECONFIGURATION — Wait for offline boot to terminate, then try offline boot again.

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- TIME OUT - CANNOT REMOVE EITHER CU, DFC AND/OR IOP — Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.
- TIME OUT DUPLEX ECD: AIM REPORTED x, RTR REPORTED x — Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be grown. Manually, grow those units and move them to OOS through RC/V; then restore them. If the message indicates a logic error, save the ROP and seek technical assistance.
- TIME OUT FOR RECEIVING RESULTS OF POST-BOOT CHECKS — No action is needed.
- TIME OUT RTR GROW: AIM REPORTED x, RTR REPORTED x — Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be grown. Manually, grow those units and move them to OOS through RC/V; then restore them. If the message indicates a logic error, save the ROP and seek technical assistance.
- TIME OUT SPLIT ECD: AIM REPORTED x, RTR REPORTED x — Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be split. Correct the problems and try offline boot again. If the message indicates a logic error, save the ROP and seek technical assistance.
- TIME OUT WHEN GROWING g h — To recover the units, wait for offline boot to terminate; use RC/V to move the units to GROW and then to OOS. Finally, restore the units manually.
- TRYING TO WRITE INVALID BOOTSTATUS TO LOW CORE — Save the ROP output and seek technical assistance.
- TRYING TO WRITE INVALID IOPMASK TO LOW CORE — Save the ROP output and seek technical assistance.
- TRYING TO WRITE INVALID IOPSUBUNIT TO LOW CORE — Save the ROP output and seek technical assistance.
- TRYING TO WRITE INVALID MODE TO LOW CORE — Save the ROP output and seek technical assistance.
- TRYING TO WRITE INVALID MODIFIEDECD TO LOW CORE — Save the ROP output and seek technical assistance.
- TRYING TO WRITE INVALID OFLTTY TO LOW CORE — Save the ROP output and seek technical assistance.
- TRYING TO WRITE INVALID OLBACK TO LOW CORE — Save the ROP output and seek technical assistance.
- TRYING TO WRITE INVALID OLBDFC TO LOW CORE — Save the ROP output and seek technical assistance.
- TRYING TO WRITE INVALID OLBTRACE TO LOW CORE — Save the ROP output and seek technical assistance.

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TRYING TO WRITE INVALID OLBUC L TO LOW CORE — Save the ROP output and seek technical assistance.

TRYING TO WRITE INVALID ORIGSIDE TO LOW CORE — Save the ROP output and seek technical assistance.

TRYING TO WRITE INVALID VALUE TO LOW CORE — Save the ROP output and seek technical assistance.

UNEXPECTED MESSAGE FROM AIM — Save the ROP output and seek technical assistance.

UNEXPECTED MESSAGE RECEIVED FROM — Save the ROP output and seek technical assistance.

UNIT REMOVAL FAILURE — No action is needed.

## 5. REFERENCES

### OMDB Keys

Format 1 has OMDB keys of 704, 707, and 719.

Format 2 has OMDB keys of 705, and 708.

Formats 3, 4, and 5 have an OMDB key of 709.

Format 6 has an OMDB key of 706.

Format 7 has an OMDB key of 696.

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### Input Appendix

APP:MEM-NUM-C

### Input Messages

EXC:OFLB00T

STOP:OFLB00T

SW:OFLB00T

### Output Messages

EXC:OFLB00T

REPT:OFFLINE

STOP:OFLB00T

SW:OFLB00T

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ID ..... REPT:OLBCONFIG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

- [1] REPT OLBCONFIG FAULT TYPE a UNIT = b PID = c LOCID = d
- [2] REPT OLBCONFIG FAULT TYPE a INACCESSIBLE RID = e PID = c  
LOCID = d

### 2. REASON FOR OUTPUT

To report a fault condition in the Error Interrupt Handler (EIH) `olbconfig` function.

Format 1 is printed whenever the name of the unit can be determined. If not, Format 2 is printed.

### 3. VARIABLE FIELD DEFINITIONS

- a One or more fault types:
- AMB — Could not allocate a message buffer.
  - CI — `olbconfig` internal failure.
  - EA — Equipment Configuration Database (ECD) access problem.
  - ED — ECD data invalid.
  - FSM — Could not fault a process or send a message to a process.
  - IA — Possible invalid argument.
  - PA — Plant measurements database access problem.
  - PS — Unit in protected state.
- b Name and number of unit.
- c Process number of the process which called the `olbconfig` function.
- d Identification number of the fault in `olbconfig`.
- e Record ID (RID) of the Unit Control Block (UCB) record in the Equipment Configuration Database (ECD) of the unit.

### 4. ACTION TO BE TAKEN

If OFLB00T is automatically terminated, run ECD audit.

### 5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 711.

Format 2 has an OMDB key of 712.

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ID ..... REPT:OP-AMA-STAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT:OP AMA STATUS SUMMARY
- [2] REPT:OP AMA STATUS ERROR: CANNOT ATTACH TO PAS
- [3] REPT:OP AMA STATUS: CANNOT CREATE TEMP FILE

## 2. REASON FOR OUTPUT

Format 1. AMA status table information, receive buffer and disk mode receive buffer pointers.

Format 2. Cannot attach to PAS, try later.

Format 3. Cannot create a temp file to store data.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Practice 234-151-002 *Maintenance Operations Center*

Input Message  
OP:AMA-STAT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:OP-PMCR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] REPT OP PMCR REPORT a 1  
REPORTING OFFICE: b REPORT INTERVAL: c  
CURRENT GENERIC: d e REPORT  
DATE: f TIME: g  
REPORT PERIOD: h  
DATA VALID: i

### SYSTEM PERFORMANCE

#### ALARMS

|          |   |             |   |  |
|----------|---|-------------|---|--|
| CRITICAL | j |             |   |  |
| MAJOR    | j | POWER MAJOR | j |  |
| MINOR    | j | POWER MINOR | j |  |

|                 |     |     |     |     |
|-----------------|-----|-----|-----|-----|
| INITIALIZATIONS | (4) | (3) | (2) | (1) |
| HARDWARE AUTO   |     | k   | k   | k   |
| SOFTWARE AUTO   |     | k   | k   | k   |
| MANUAL          | k   | k   | k   | k   |
| POWER AUTO      | k   |     |     |     |

|            |     |     |     |     |
|------------|-----|-----|-----|-----|
| INTERRUPTS | (3) | (2) | (1) | (0) |
|            | l   | l   | l   | l   |

|        |                 |   |   |
|--------|-----------------|---|---|
| AUDITS | ATTEMPTS ERRORS |   |   |
| m      | n               | o | p |

### EQUIPMENT PERFORMANCE

|       | QUANTY | FAULTS | ERRORS | AUTO<br>DIAGS | MTCE<br>ADP | MTCE<br>MAN | MTCE<br>FLT | DUPLEX<br>MTCE<br>USAGE |
|-------|--------|--------|--------|---------------|-------------|-------------|-------------|-------------------------|
|       | q      | r      | s      | t             | u           | v           | w           | x                       |
| CU    |        |        |        |               |             |             |             |                         |
| IOP   |        |        |        |               |             |             |             |                         |
| DFC   |        |        |        |               |             |             |             |                         |
| SBUS  |        |        |        |               |             |             |             |                         |
| MHD   |        |        |        |               |             |             |             |                         |
| MTC   |        |        |        |               |             |             |             |                         |
| MT    |        |        |        |               |             |             |             |                         |
| ROP   |        |        |        |               |             |             |             |                         |
| MTTYC |        |        |        |               |             |             |             |                         |
| MTTY  |        |        |        |               |             |             |             |                         |

SEE PROPRIETARY NOTICE ON COVER PAGE

TTYC  
TTY  
SDLC  
SCC  
SDL  
DUIC  
DUI  
SCSDC

APPLICATION EQUIPMENT PERFORMANCE

y      z      r      s      t      u      v      w      x

REPT OP PMCR REPORT a 1 COMPLETED

[2] REPT OP PMCR REPORT a 2

REPORTING OFFICE: b      REPORT INTERVAL: c  
CURRENT GENERIC: d      e REPORT  
DATE: f      TIME: g  
REPORT PERIOD: h  
DATA VALID: i

EQUIPMENT PERFORMANCE

|   |      |        |        | AUTO  | MTCE | MTCE | MTCE | DUPLEX |
|---|------|--------|--------|-------|------|------|------|--------|
|   | UNIT | FAULTS | ERRORS | DIAGS | ADP  | MAN  | FLT  | MTCE   |
|   |      |        |        |       |      |      |      | USAGE  |
| y | z    | r      | s      | t     | u    | v    | w    | x      |

APPLICATION EQUIPMENT PERFORMANCE

y      z      r      s      t      u      v      w      x

REPT OP PMCR REPORT a 2 COMPLETED

## 2. REASON FOR OUTPUT

To report system performance statistics.

## 3. VARIABLE FIELD DEFINITIONS

- a      FORM
- b      Reporting office.
- c      Report interval: HOURLY, DAILY, or DAY TO HOUR.
- d      Current generic running in the reporting office.
- e      Report type: SCHEDULED, RETAINED or DEMAND.

SEE PROPRIETARY NOTICE ON COVER PAGE



|   |                                                                                                                                                                                                                                                                                                         |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| f | Date on which the report was generated.                                                                                                                                                                                                                                                                 |
| g | Time of day.                                                                                                                                                                                                                                                                                            |
| h | Report period: that is, date and time of the beginning and end of the accumulation period of the appropriate report.                                                                                                                                                                                    |
| i | Data validity field: YES or NO, INITIALIZED (followed by date and time of the last system initialization).                                                                                                                                                                                              |
| j | Number of alarms of the specified type.                                                                                                                                                                                                                                                                 |
| k | Number of system initializations of the specified type and level.                                                                                                                                                                                                                                       |
| l | Number of processor interrupts of the types:<br>0 — My (on-line) CC<br>1 — Other CC<br>2 — Software<br>3 — EAI<br>Type does not indicate priority level.                                                                                                                                                |
| m | Audit name.                                                                                                                                                                                                                                                                                             |
| n | Audit member number.                                                                                                                                                                                                                                                                                    |
| o | Number of audit attempts.                                                                                                                                                                                                                                                                               |
| p | Number of audit failures.                                                                                                                                                                                                                                                                               |
| q | Quantity of units of the specified type which have the plant bit set in the appropriate Unit Control Block (UCB).                                                                                                                                                                                       |
| r | Number of requests for the given unit to go to a non-active state due to an error threshold having been exceeded.                                                                                                                                                                                       |
| s | Number of transient errors.                                                                                                                                                                                                                                                                             |
| t | Number of routine automatic diagnostics.                                                                                                                                                                                                                                                                |
| u | The amount of time, in seconds, the unit is in a non-active state due to adp time.                                                                                                                                                                                                                      |
| v | The amount of time the unit is in a non-active state due to a manual request. Units that are unequipped for offline boot will be reported as non-active due to a manual request on the original on-line side. On the original off-line side, unequipped units for offline boot will not be reported on. |
| w | The amount of time the unit is in a non-active state due to an error threshold having been exceeded.                                                                                                                                                                                                    |
| x | The amount of time that the unit is forced active; valid for CU unit only.                                                                                                                                                                                                                              |
| y | Unit name.                                                                                                                                                                                                                                                                                              |
| z | Unit number.                                                                                                                                                                                                                                                                                            |

SEE PROPRIETARY NOTICE ON COVER PAGE

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

OMDB Keys

Format 1 has an OMDB key of 322.

Format 2 has an OMDB key of 323.

Input Messages

OP:PMCR

OP:ST-PORTS

Output Message

OP:PMCR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:OP-PMER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

- [1] REPT OP PMCR ERROR abbc
- [2] REPT OP PMCR ERROR {a01c|a02c|a03c|a13c|a14c|a15c|...  
... a16c|a181|a182}[ ,ERRNO = d]
- [3] REPT OP PMCR ERROR {a04c|a05c|a06c|a07c}[ ,ERRNO = e]
- [4] REPT OP PMCR ERROR {a17c|a183}[ ,ERRNO = f]
- [5] REPT OP PMCR ERROR {a08c|a09c|a10c|a11c|a12c|a19c}[ ,ERRNO = g]

### 2. REASON FOR OUTPUT

To report errors encountered during the execution of the processes which comprise the Plant Measurements Common Report (PMCR) capability.

The error code is a four-digit number. This code consists of a one-digit number that indicates the PMCR process in which the error was detected, a two-digit number that indicates the error type, and a one-digit number that shows the location of the error within the specific process.

### 3. VARIABLE FIELD DEFINITIONS

- a Indicates the PMCR process in which the error was detected:
  - 1 — PMCR craft interface.
  - 2 — PMCR manager.
  - 3 — PMCR collector.
  - 4 — PMCR report generator.
- b Indicates the error type:
  - 01 — Could not connect to system port.
  - 02 — Could not send or receive message.
  - 03 — Failed plib call.
  - 04 — Failed pl\_init call.
  - 05 — Failed pl\_attrec call.
  - 06 — Failed pl\_update call.
  - 07 — Failed pl\_read call.
  - 08 — Failed lla\_iatt call.
  - 09 — Failed lla\_irel call.
  - 10 — Failed lla\_rdget call.
  - 11 — Failed lla\_opensq call.
  - 12 — Failed lla\_nextseq call.

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- 13 — Could not execute PMCR collector or PMCR report generator.
- 14 — Could not get Equipment Configuration Database (ECD) segments.
- 15 — Could not get reporting office name from ECD.
- 16 — Computation of maintenance usage time for the specified unit resulted in a time greater than 86,400 seconds (one day).
- 17 — Bad arguments received by PMCR report generator.
- 18 — Spool error during output of report.
- 19 — No data has been collected to output a retained/demand report.
- 20 — fopen UNIX® operating system call failed trying to open the /etc/pmcrtab file to initialize the hourly/daily report option flags. When this error is output, the hourly/daily report flags will be set to the default. This means that the hourly reports will be output every hour, and the daily reports at midnight.
- 21 — create UNIX® call failed trying to create the /etc/pmcrtab file. This will cause the hourly/daily report flags to be reset to the default values, if the PMCR process /prc/pmcman is re-initialized (for example, if a PHASE 2 occurs).
- 22 — PMDB initialization time reset to current time.
- 23 — Start time reset to 0.
- 24 — Start time reset to current time.
- 25 — Change reason for start time and reset start time to 0.
- 26 — Start time reset to top unit start time.
- 27 — Change reason for start time to top unit reason and reset start time to top unit start time.
- 28 — Hour limit exceeded - time reset to one hour.
- 29 — Negative time count - time reset to 0.
- 30 — Day limit exceeded - time reset to one day.
- 31 — Current value (for example, alarm count) is less than count recorded from previous hour or previous count was invalid.
- 32 — Open of /etc/log/pmcrllog file failed.
- 33 — Could not execute pmdbcopy.

**NOTE:** For messages 23 through 32, see /etc/log/pmcrllog for record name information. These error messages indicate that the count or time for the unit may not be valid. The log file (/etc/log/pmcrllog) is reset every time a scheduled report runs.

- c Location of the error within the specific process.
- d Error code returned by the failing function call, see System Error Codes Output Appendix, APP:SYSERR.
- e Plant measurements error code number.
- f Value of the bad arguments passed to the function or process.
- g Does not specify an error code.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### 4. ACTION TO BE TAKEN

The table shows the action to be taken based on error code a. In all instances, seek technical assistance if the error persists.

If error code is:

- x01x — Check port 27, using the OP:STATUS;PORTS input command, to see if another process has control of the port.
- x02x — Check that the correct OP:PMCR;ERR input command was entered.
- x03x - x07x — Check the usability of the plant measurements database.
- x08x - x12x — Check the usability of the ECD.
- x13x — Check the usability of the PMCR processes.
- x14x - x15x — Check the usability of the ECD.
- x16x — Check system clock versus last clean report.
- x17x — Check that the correct OP:PMCR input command was entered.
- x18x - x32x — No action can be taken.
- x33x — Check the usability of the /prc/pmdbcopy process.

#### 5. REFERENCES

OMDB Keys

This message has OMDB keys of 213 and 319.

Output Appendix

APP:SYSERR

Input Messages

OP:PMCR

OP:ST-PORTS

Output Message

REPT:OP-PMCR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:OP-RTM-FLT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

- [1] REPT OP\_RTM FLT  
EFLAGS=a, FLTCODE=b
- [2] REPT OP\_RTM FLT  
EFLAGS=a, FLTCODE=b, PA=c  
R0=d, R7=e, R8=f

## 2. REASON FOR OUTPUT

The IMS realtime monitor process (op\_rtm.p) has encountered a hardware or software fault.

## 3. VARIABLE FIELD DEFINITIONS

- a Hexadecimal number which is the sum of the codes for all UNIX® RTR events outstanding for the IMS realtime monitor process. (These are defined in UNIX® RTR header file evflag.h.)
- b The UNIX® RTR fault code.
- c If this is present, then the IMS realtime monitor process was in execution at this virtual address when the fault was encountered.
- d Contents of 3B CU register r0.
- e Contents of 3B CU register r7.
- f Contents of 3B CU register r8.

## 4. ACTION TO BE TAKEN

Analyze the fault code (See Output Appendix APP: FAULT-CODE).

If the fault is not attributed to a hardware problem, seek technical assistance.

## 5. REFERENCES

fault.h header file (UNIX® RTR)  
evflag.h header file (UNIX® RTR)

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Output Appendix  
APP: FAULT-CODE

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message

REPT: IODRV-AT  
REPT: IODRV-ERR  
REPT: IODRV-ERROR  
REPT: IODRV-FAULT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:OTHER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT OTHER STORE HARDWARE ERROR X'a
- [2] REPT OTHER STORE READ DATA PARITY ERROR X'a
- [3] REPT OTHER STORE REFRESH PARITY ERROR X'a

## 2. REASON FOR OUTPUT

To report memory hardware errors in the standby CU. The CU must be in the STBY state for these messages to appear.

## 3. VARIABLE FIELD DEFINITIONS

- a The error message sequence number. This sequence number corresponds to the sequence number of the associated REPT CU n ERROR INTERRUPT message, where n is 0 or 1.

## 4. ACTION TO BE TAKEN

Refer to the Error Analysis section of the CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

## 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Output Message  
REPT:CU

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:OTHR-SHE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT OTHER STORE HARDWARE ERROR X'a  
ONLINE CU: b  
FAULTY UNIT: c d e f  
TIME OF ERROR: g  
MAIN STORE CONTROLLER 0  
TRAPPED ADDRESS REGISTER: hhhhhhhh  
ERROR REGISTER 1: iiiiiiii  
ERROR REGISTER 2: jjjjjjjj  
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)  
TRAPPED ADDRESS REGISTER: kkkkkkkk  
ERROR REGISTER 1: llllllll  
ERROR REGISTER 2: mmmmmmmm  
REAL TIME CLOCK: nnnnnnnn

## 2. REASON FOR OUTPUT

These errors occur in the off-line Control Unit (CU), but are detected by the on-line CU.

The OTHER STORE HARDWARE ERROR occurs because the memory controller of the mate processor has a store error A condition.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                              |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Sequence hexadecimal number associating this report with previous REPT-CU (see its parameter d).                                                             |
| b | Active CU number.                                                                                                                                            |
| c | Community name.                                                                                                                                              |
| d | Community number.                                                                                                                                            |
| e | Unit name.                                                                                                                                                   |
| f | Unit number.                                                                                                                                                 |
| g | Time in form mm/dd/yy hh:mm:ss.                                                                                                                              |
| h | If bit 27 of the Main Store Controller (MASC) 0 Trapped Address Register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred. |
| i | The contents, in hexadecimal, of the MASC 0 Error Register 1 (ER01). See <i>System Maintenance Manual</i> , Appendix F.                                      |
| j | The contents, in hexadecimal, of the MASC 0 Error Register 2 (ER02). See <i>System Maintenance Manual</i> , Appendix F.                                      |

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- k The contents, in hexadecimal, of the MASC 1 Trapped Address Register (TAR1).
- l The contents, in hexadecimal, of the MASC 1 Error Register 1 (ER11). See *System Maintenance Manual*, Appendix F.
- m The contents, in hexadecimal, of the MASC 1 Error Register 2 (ER12). See *System Maintenance Manual*, Appendix F.
- n Value of the Real Time Clock (RTC), in milliseconds and hexadecimal, at the time of the MRF.

#### 4. ACTION TO BE TAKEN

For the OS hardware error, check the update cables on both processors and run diagnostics on the off-line processor.

For the case of PARITY ERROR, run diagnostics if the mate processor is removed from a standby state.

#### 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System  
System Maintenance Manual*

Output Message  
DGN:CU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:OTHR-SRDPE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT OTHER STORE READ PARITY ERROR X'a  
ONLINE CU: b  
FAULTY UNIT: c d e f  
TIME OF ERROR: g  
MAIN STORE CONTROLLER 0  
TRAPPED ADDRESS REGISTER: hhhhhhhh  
ERROR REGISTER 1: iiiiii  
ERROR REGISTER 2: jjjjjj  
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)  
TRAPPED ADDRESS REGISTER: kkkkkkkk  
ERROR REGISTER 1: llllllll  
ERROR REGISTER 2: mmmmmmm  
ERROR DATA: nnnnnnnn  
PHYSICAL MEMORY ADDRESS: ooooooooo  
REAL TIME CLOCK: pppppppp

## 2. REASON FOR OUTPUT

These errors occur in the off-line Control Unit (CU), but are detected by the on-line CU.

The READ DATA PARITY ERROR indicates a noncorrectable memory error (other store C) in the mate processor. This type of error can only occur if the mate processor is in the standby state.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                              |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Sequence hexadecimal number associating this report with previous REPT-CU (see its parameter d).                                                             |
| b | Active CU number.                                                                                                                                            |
| c | Community name.                                                                                                                                              |
| d | Community number.                                                                                                                                            |
| e | Unit name.                                                                                                                                                   |
| f | Unit number.                                                                                                                                                 |
| g | The time in the form mm/dd/yy hh:mm:ss.                                                                                                                      |
| h | If bit 27 of the Main Store Controller (MASC) 0 Trapped Address Register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred. |

SEE PROPRIETARY NOTICE ON COVER PAGE

|   |                                                                                                                            |
|---|----------------------------------------------------------------------------------------------------------------------------|
| i | The contents of the MASC 0 Error Register 1 (ER01) (in hexadecimal).<br>See <i>System Maintenance Manual</i> , Appendix F. |
| j | The contents of the MASC 0 Error Register 2 (ER02) (in hexadecimal).<br>See <i>System Maintenance Manual</i> , Appendix F. |
| k | The contents of the MASC 1 Trapped Address Register (TAR1) (in hexadecimal).                                               |
| l | The contents of the MASC 1 Error Register 1 (ER11) (in hexadecimal).<br>See <i>System Maintenance Manual</i> , Appendix F. |
| m | The contents of the MASC 1 Error Register 2 (ER12) (in hexadecimal).<br>See <i>System Maintenance Manual</i> , Appendix F. |
| n | Error data (in hexadecimal).                                                                                               |
| o | Physical memory address (in hexadecimal).                                                                                  |
| p | Value of the Real Time Clock (RTC), in milliseconds and hexadecimal,<br>at the time of the MRF.                            |

#### 4. ACTION TO BE TAKEN

For the OS hardware error, check the update cables on both processors and run diagnostics on the off-line processor.

For the case of PARITY ERROR, run diagnostics if the mate processor is removed from a standby state.

#### 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System  
System Maintenance Manual*

Output Message  
DGN-CU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:OTHR-SRFPE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT OTHER STORE REFRESH PARITY ERROR X'a  
ONLINE CU: b  
FAULTY UNIT: c d e f  
TIME OF ERROR: g  
MAIN STORE CONTROLLER 0  
TRAPPED ADDRESS REGISTER: hhhhhhhh  
ERROR REGISTER 1: iiiiii  
ERROR REGISTER 2: jjjjjj  
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)  
TRAPPED ADDRESS REGISTER: kkkkkkkk  
ERROR REGISTER 1: llllllll  
ERROR REGISTER 2: mmmmmmm  
ERROR DATA: nnnnnnn  
PHYSICAL MEMORY ADDRESS: ooooooooo  
REAL TIME CLOCK: pppppppp

## 2. REASON FOR OUTPUT

These errors occur in the off-line Control Unit (CU), but are detected by the on-line CU.

The REFRESH PARITY ERROR indicates a correctable parity error (other store D) in the mate processor. This type of error can only occur if the mate processor is in the standby state.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                              |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Sequence hexadecimal number associating this report with previous REPT-CU (see its parameter d).                                                             |
| b | Active CU number.                                                                                                                                            |
| c | Community name.                                                                                                                                              |
| d | Community number.                                                                                                                                            |
| e | Unit name.                                                                                                                                                   |
| f | Unit number.                                                                                                                                                 |
| g | The time in the form mm/dd/yy hh:mm:ss.                                                                                                                      |
| h | If bit 27 of the Main Store Controller (MASC) 0 Trapped Address Register (TAR0) is set, TAR0 contains the address, in hexadecimal, where the fault occurred. |

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|   |                                                                                                                            |
|---|----------------------------------------------------------------------------------------------------------------------------|
| i | The contents, in hexadecimal, of the MASC 0 Error Register 1 (ER01).<br>See <i>System Maintenance Manual</i> , Appendix F. |
| j | The contents, in hexadecimal, of the MASC 0 Error Register 2 (ER02).<br>See <i>System Maintenance Manual</i> , Appendix F. |
| k | The contents, in hexadecimal, of the MASC 1 Trapped Address Register (TAR1).                                               |
| l | The contents, in hexadecimal, of the MASC 1 Error Register 1 (ER11).<br>See <i>System Maintenance Manual</i> , Appendix F. |
| m | The contents, in hexadecimal, of the MASC 1 Error Register 2 (ER12).<br>See <i>System Maintenance Manual</i> , Appendix F. |
| n | Error data (in hexadecimal).                                                                                               |
| o | Physical memory address (in hexadecimal).                                                                                  |
| p | Value of the Real Time Clock (RTC), in milliseconds and hexadecimal,<br>at the time of the MRF.                            |

#### 4. ACTION TO BE TAKEN

For the OS hardware error, check the update cables on both processors and run diagnostics on the off-line processor.

For the case of PARITY ERROR, run diagnostics if the mate processor is removed from a standby state.

#### 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System  
System Maintenance Manual*

Output Message  
DGN-CU

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:OUT-CANT-LK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT OUTDIR CANNOT LINK FILE a...ERRNO = b

**2. REASON FOR OUTPUT**

Cannot link a COAMS created temporary file to a spooler file because the file already exists.

**3. VARIABLE FIELD DEFINITIONS**

a                    /tmp/xxxx.yyy

where    o — COAMS identifying output message character.  
         xxx — Frame number.  
         . — Separator character.  
         yyy — Message number.

b                    System error return code.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:OUTPUT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT OUTPUT MESSAGES LOST

## 2. REASON FOR OUTPUT

To report that messages to the output spooler were discarded by the System Integrity Monitor (SIM) in an effort to recover from message buffer overload.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

Expect that output messages from preceding input messages will not be printed. Determine which input messages should be reentered, and take action accordingly.

## 5. REFERENCES

OMDB Key

This message has an OMDB key of 449.

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System*  
*Lucent Technologies 3B20D/3B21D Computer*

Output Messages

PRM:0

REPT:SIMCHK

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:OVLD-CNTL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT OVLD CONTROL: a

## 2. REASON FOR OUTPUT

To report that the overload system is initialized or that the control process cannot execute the overload collection process or overload report process. This message reflects the status of the overload measurement system process that controls access to the data file which stores overload data.

## 3. VARIABLE FIELD DEFINITIONS

a                      Message code:

- 1 — Cannot execute overload collector process.
- 2 — Cannot execute overload report process.
- 3 — Overload system initialized.

## 4. ACTION TO BE TAKEN

Determine whether the overload collector (/prc/ovldcoll) process and/or the overload report (/prc/ovldrpt) process exist and are executable.

## 5. REFERENCES

Output Message  
REPT:OVLD-REPT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:OVLD-COLL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT OVLD COLLECT: a[,bb]

## 2. REASON FOR OUTPUT

To report any errors that occur while reading or updating the protected application segment of the overload measurements collection process. The overload measurements collection process reads raw counts supplied by application integrity monitor (AIM) on the hour and updates the last hour, day-to-hour, and daily counts.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Message code:
- 1 — Cannot open overload data file.
  - 2 — Cannot write overload data file.
  - 3 — Cannot execute overload update process.
  - 4 — Cannot attach to protected application segment with raw overload counts.
  - 11 — Write error on overload measurement data base.
  - 13 — 3B DMERT system message error or /prc/ovldcntl not on port 81.
- b                      3B DMERT processor system error code:
- 11 — System process table.
  - 12 — Not enough core to execute a process.
  - 13 — Permission denied to access a file.
  - 23 — File table overflow.
  - 28 — No free space is left on device.

## 4. ACTION TO BE TAKEN

If a = 3, check the existence and execution permission of the update overload process (/prc/ovldupdt).

If a = 13, do OP:STATUS:PROCESS,ALL and check for multiple occurrences of /etc/ularp. Also check to see that port 81 is connected to process /prc/ovldcntl. Get port assignments using OP:STATUS:PORTS and sysports.h.

## 5. REFERENCES

Output Messages  
REPT:OVLD-CNTL  
REPT:OVLD-REPT

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:OVLD-REPT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT OVLD REPORT:a

## 2. REASON FOR OUTPUT

To report that the overload counts are unavailable, lost, or invalid. The overload counts are stored in the overload data file, which is determined by reading raw counts supplied by the application integrity monitor (AIM).

## 3. VARIABLE FIELD DEFINITIONS

a                      Error code:

- 1 — Overload data file not accessible.
- 2 — Data in overload data file not valid.

## 4. ACTION TO BE TAKEN

None. Overload system is self-correcting.

## 5. REFERENCES

Output Messages  
REPT:OVLD-CNTL  
REPT:OVLD-COLL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:PASSWD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT PASSWORD BREAK ATTEMPT  
"a" NON-EXISTING PASSWORDS OFFERED AT  
TERMINAL 'b' BY UNKNOWN USER.

## 2. REASON FOR OUTPUT

To report a possible password break attempt.

## 3. VARIABLE FIELD DEFINITIONS

a                      Number of passwords entered that do not exist.  
b                      Terminal identity.

## 4. ACTION TO BE TAKEN

Investigate. Minor.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:PCPAUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP17 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT PCPAUD FAULT TYPE a ASSERT = 0x4002
- [2] REPT PCPAUD FAULT TYPE b ASSERT = {0x3b02|0x3b03}
- [3] REPT PCPAUD FAULT TYPE c ASSERT = {d|e}

## 2. REASON FOR OUTPUT

Report errors detected during the Control Unit (CU) administrative sequences of the Processor Control Process Audit (PCPAUD) process, or to report errors in calling the PCPAUD process or internal logic errors within the PCPAUD process.

## 3. VARIABLE FIELD DEFINITIONS

- a Type of fault found. PCPAUD was faulted. See output Fault Code Appendix, APP:FAULT-CODE, for fault-type information.
- b Type of fault found. The character n refers to the hexadecimal value of the MHD number of the MHD being audited.
  - 0xc001000n — Call to lla\_rdget failed. Unable to get the MHD UCB for the MHD number in field n.
  - 0xc002000n — Call to lla\_rdget failed. Unable to get the SBUS UCB for the MHD number in field n.
  - 0xc003000n — Call to lla\_rdget failed. Unable to get the DFC UCB for the MHD number in field n.
  - 0xc004000n — Call to lla\_rdget failed. Unable to get the SBUS UCB for the MHD number in field n.
  - 0xc005000n — The SBUS device ID for MHD n did not match that in the SBUS UCB.
  - 0xc006000n — Call to lla\_rdget failed. Unable to get the MHD UCB for the MHD number in field n.
  - 0xc007000n — The MHD device ID for MHD n did not match that in the MHD UCB.
  - 0xc008000n — The unit number in the MHD ucb did not match MHD n.
- c Type of fault found:
  - 0x0 — Field unused. Refer to assert number for description of problem.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 0x2 — Bad data in Equipment Configuration Database (ECD) for a Control Unit (CU) or subunit.
- 0x4 — Could not access the ECD - possibly a bad Record ID (RID).
- 0x6 — Maintenance channel failed.
- 0xA — A call to the KCONFIG library failed.
- 0xC — Erroneous major state for a CU unit or subunit.
- 0xE — Bad on-line System Status Register (SSR) value.
- 0x10 — Bad off-line SSR value.
- 0x12 — Bad on-line Hardware Status Register (HSR) value.
- 0x14 — Bad off-line HSR value.
- 0x18 — Plant measurement library call failed.
- 0x1a — Audit control library call failed.
- 0x1c — Internal CUMEM or CUSTAT audit error.
- 0x1e — Off-line store access failed.
- 0x20 — Memory audit internal error.
- 0x28 — Failure to allocate or queue message.
- 0x2a — Emergency Action Interface (EAI) buffers data mismatch.
- 0x2c — SSR values inconsistent between CUs.
- 0x2d — Failure to attach to ECD or to get ECDORG data.
- 0x2e — Failure is related to pcreating another process.
- 0x2f — Timeout error.

d

Assert number associated with the specific cause of the error. Assert numbers 0x3000 to 0x3fff report an error detected during the CU administrative sequences of the PCPAUD process.

- 0x3000 — RID for on-line CU is IDNULL.
- 0x3001 — Call to ECD `lla_rdget` to get on-line CU UCB unsuccessful.
- 0x3002 — On-line CU UCB `u_dtype` (device type) not DEV\_CU.
- 0x3003 — RID for off-line CU is the same as RID for on-line CU.
- 0x3004 — Call to ECD `lla_rdget` to get off-line CU UCB unsuccessful.
- 0x3005 — Off-line CU UCB `u_dtype` (device type) not DEV\_CU.
- 0x3006 — Call to ECD `lla_rdget` to get on-line CU Minor Device Chain Table (MDCT) unsuccessful.
- 0x3007 — MDCT for the on-line CU has too many `m_minxt` entries. This would indicate that there are more than two CUs.
- 0x3008 — MDCT for the on-line CU has too many `m_minxt` entries. This would indicate that there are more than two CUs.
- 0x3009 — MDCT `m_minxt[0]` equals `m_minxt[1]` indicating that CU0 and CU1 have the same RIDs.
- 0x300a — MDCT `m_minxt[0]` does not equal the RID for the on-line or off-line CU.
- 0x300b — MDCT `m_minxt[1]` does not equal the RID for the on-line or off-line CU.
- 0x300c — Call to `lla_rdget` to read in new ECD org structure unsuccessful. Will continue to use preceding ECD org data.

SEE PROPRIETARY NOTICE ON COVER PAGE

0x3100 — Maintenance Channel (MCH) and update circuit not functional; but other CU UCB u\_stat is Standby (STBY).  
0x3101 — Call to kconfig fltdrvr to remove other CU unsuccessful.  
0x3102 — Call to kconfig chgstate to change off-line CU UCB u\_stat to UNAV unsuccessful.  
0x3104 — Call to kconfig chgstate to change off-line CU UCB u\_stat to UNAV unsuccessful.  
0x3105 — Call to ECD lla\_rdget to get off-line CU UCB unsuccessful.  
0x3107 — Call to ECD chucb to change off-line CU UCBs u\_manrqst to ON unsuccessful.  
0x3108 — Call to kconfig chgstate to change off-line CU UCB u\_stat to OOS unsuccessful.  
0x3109 — Call to ECD chucb to change off-line CU UCBs u\_manrqst to OFF unsuccessful.  
0x310a — Call to ECD lla\_rdget to get off-line CU UCB unsuccessful.  
0x3201 — Call to ECD chucb to change off-line CU UCBs u\_manrqst to ON unsuccessful.  
0x3202 — Call to kconfig fltdrvr to remove other CU unsuccessful.  
0x3203 — Call to kconfig chgstate to change off-line CU UCB u\_stat to UNAV unsuccessful.  
0x3204 — Call to ECD chucb to change off-line CU UCBs u\_manrqst to OFF unsuccessful.  
0x3206 — Call to ECD chucb to change off-line CU UCBs u\_manrqst to ON unsuccessful.  
0x3207 — Call to kconfig chgstate to change off-line CU UCB u\_stat to UNAV unsuccessful.  
0x3208 — Call to ECD chucb to change off-line CU UCBs u\_manrqst to OFF unsuccessful.  
0x3209 — Call to ECD lla\_rdget to get off-line CU UCB unsuccessful.  
0x320a — Call to ECD lla\_rdget to get on-line CU UCB unsuccessful.  
0x320b — Call to ECD lla\_uprid to change on-line CU UCB unsuccessful.  
0x320c — Call to plant measurements unsuccessful (PL\_RDGET\_ERROR).  
0x320d — Call to plant measurements unsuccessful (PL\_RCRT\_ERROR).  
0x320f — Call to ECD chucb to change off-line CU UCBs u\_manrqst to ON unsuccessful.  
0x3210 — Call to kconfig chgstate to change off-line CU UCB u\_stat to OOS unsuccessful.  
0x3211 — Call to ECD chucb to change off-line CU UCBs u\_manrqst to OFF unsuccessful.  
0x3212 — Call to ECD lla\_rdget to get off-line CU UCB unsuccessful.

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- 0x3213 — Call to ECD `lla_rdget` to get on-line CU UCB unsuccessful.
- 0x3214 — Call to ECD `lla_uprid` to change on-line CU UCB unsuccessful.
- 0x3215 — Call to plant measurements unsuccessful (PL\_RDGET\_ERROR).
- 0x3216 — Call to plant measurements unsuccessful (PL\_RCRT\_ERROR).
- 0x3217 — Call to ECD `lla_rdget` to get off-line CU UCB unsuccessful.
- 0x3218 — Call to ECD `lla_uprid` to change off-line CU UCB unsuccessful.
- 0x3300 — Call to `clrisc` to clear off-line CU Initialization Sequence Control (ISC) bits unsuccessful (System Status Register [SSR] bits 4 and 5 - SSR\_ISC0 and SSR\_ISC1).
- 0x3402 — Call to ECD `lla_rdget` to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
- 0x3403 — Call to ECD `lla_uprid` to change on-line CU CSU 0 UCB `u_bypass` to ON unsuccessful.
- 0x3404 — Call to ECD `lla_rdget` to get off-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for off-line CU.
- 0x3405 — Call to ECD `lla_uprid` to change off-line CU CSU 0 UCB `u_bypass` to ON unsuccessful.
- 0x3406 — Call to ECD `lla_rdget` to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
- 0x3407 — Call to ECD `lla_uprid` to change on-line CU CSU 0 UCB `u_bypass` to OFF unsuccessful.
- 0x3408 — Call to ECD `lla_rdget` to get off-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for off-line CU.
- 0x3409 — Call to ECD `lla_uprid` to change off-line CU CSU 0 UCB `u_bypass` to OFF unsuccessful.
- 0x340a — Call to ECD `lla_rdget` to get boot device 0 UCB unsuccessful; possibly bad `bdev0` RID.
- 0x340b — Call to ECD `lla_rdget` to get boot device 1 UCB unsuccessful; possibly bad `bdev1` RID.
- 0x340d — Call to PCPAUD `scoflfbd` unsuccessful; possibly bad communications to off-line CU. `scoflfbd` adjusts off-line CU SSR force boot device bits (SSR\_FBF and SSR\_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
- 0x340e — Call to PCPAUD `scoflfbd` unsuccessful; possibly bad communications to off-line CU. `scoflfbd` adjusts off-line CU SSR force boot device bits (SSR\_FBF and SSR\_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
- 0x3500 — Call to PCPAUD `syncrtc` unsuccessful; possibly bad communications to off-line CU. `syncrtc` reads the on-line CU Real Time Clock (RTC) and writes it to the off-line CU RTC.

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- 0x3501 — Call to PCPAUD `coflpso` unsuccessful; possibly bad communications to off-line CU. `coflpso` reads and clears the periodic scanned options in the off-line CU EAL.
- 0x3702 — Off-line CU is in enable update mode (SSR\_UPD bit 19 asserted) or off-line CU is isolating its main store bus from the on-line CU (SSR\_ISOUI bit 21 asserted in the off-line CU).
- 0x3703 — Call to PCPAUD `initofl` to initialize off-line CU unsuccessful; possibly bad communications to off-line CU. `initofl` initializes the MCH in the on-line and off-line CUs, and executes the initialization microcode in the off-line CU.
- 0x3704 — Call to `kconfig fltdrvr` to remove other CU unsuccessful.
- 0x3705 — Off-line CU UCB `u_stat` is Standby (STBY), but off-line CU UCB `u_update` is OFF (not updated) or on-line CU SSR is not in enable update mode (SSR\_UPD bit 19 not asserted).
- 0x3706 — Call to `kconfig fltdrvr` to remove other CU unsuccessful.
- 0x3707 — On-line CU not in enable update mode (SSR\_UPD bit 19 not asserted), but off-line CU UCB `u_update` is ON (updated).
- 0x3708 — Call to ECD `chucb` to change off-line CU UCBs `u_update` to NO unsuccessful.
- 0x3709 — Call to `kconfig fltdrvr` to remove other CU unsuccessful.
- 0x370a — On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR\_ISOUI bit 21 not asserted).
- 0x3901 — Call to ECD `chucb` to change off-line CU UCBs `u_manrqst` to ON unsuccessful.
- 0x3902 — Call to `kconfig chgstate` to change off-line CU UCB `u_stat` to OOS unsuccessful.
- 0x3903 — Call to ECD `chucb` to change off-line CU UCBs `u_manrqst` to OFF unsuccessful.
- 0x3904 — Call to ECD `lla_rdget` to get off-line CU UCB unsuccessful.
- 0x3b01 — Call to PCPAUD `send_pm` function failed. Unable to `pcreate bootdiskchk` process.
- 0x3b02 — Error found in PCPAUD `admseq11` audit of the DFC 0 side Alternate Boot Disk (ABD)
- 0x3b03 — Error found in PCPAUD `admseq11` audit of the DFC 1 side Alternate Boot Disk (ABD)
- 0x3b04 — Call to PCPAUD `send_pm` function failed. Unable to `pcreate bootdiskchk` process.

e The following errors are errors found in calling the PCPAUD process or internal logic errors within the PCPAUD process. They cannot be reported via the audit control library (ACL) and otherwise do not fit any of the other categories.

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0x4000 — Call to ACL aud\_minit unsuccessful.  
0x4001 — Call to ACL aud\_finis unsuccessful.  
0x4003 — Call to ACL aud\_finis unsuccessful.  
0x4004 — Call to ACL aud\_error unsuccessful.  
0x4005 — Call to ACL aud\_finis unsuccessful.  
0x4006 — Call to ACL aud\_finis unsuccessful.  
0x4007 — Call to ACL aud\_finis unsuccessful.  
0x4008 — Call to ACL aud\_finis unsuccessful.  
0x4009 — Call to ACL aud\_finis unsuccessful.  
0x400a — Neither CUSTAT or CUMEM was selected when PCPAUD was called to run an audit.  
0x400b — Call to ECD lla\_rdget unsuccessful.  
0x400c — CUSTAT memory compare starting address is not on a full word boundary (internal error).  
0x400d — Call to PCPAUD memtst did not complete successfully (internal error).  
0x400e — Call to PCPAUD memtst did not complete successfully (internal error).  
0x400f — Call to PCPAUD memtst did not complete successfully (internal error).  
0x4010 — CUMEM starting address is not on a full word boundary (internal error).  
0x4011 — Call to PCPAUD memtst did not complete successfully (internal error).  
0x4012 — PCPAUD has been unsuccessful in executing its event entry at least 8 times, or Call to queuemn unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.  
0x4013 — PCPAUD has been unsuccessful in executing its fault entry at least 5 times.  
0x4014 — Call to queuemn unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.  
0x4015 — Call to queuemn unsuccessful (system error). PCPAUD could not return the PSM message to PSM for false CU power-up.  
0x4016 — Call to ACL aud\_finis unsuccessful.  
0x4017 — PCPAUD received an OST of a type not processed by PCPAUD. Variable a in the output message will contain the OST value.  
0x4018 — Call to lla\_iatt unsuccessful (system error).  
0x4019 — Call to lla\_rdget unsuccessful (system error). Unable to read new ECD org structure.  
0x401a — Call to kgetabdst unsuccessful (system error).  
0x401b — Call to create a process was unsuccessful.  
0x401c — PCPAUD received a message from a non-existent process.  
0x401d — Call to lla\_iatt unsuccessful (system error).  
0x401e — Call to lla\_rdget unsuccessful (system error). Unable to read new ECD org structure.

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- 0x401f — Call to allocmsg unsuccessful (system error). PCPAUD could not allocate space for the message to terminate the bootdiskchk process.
- 0x4020 — Call to queuefn unsuccessful (system error). PCPAUD could not queue the message to terminate the bootdiskchk process.
- 0x4021 — Exceeded the maximum number of create attempts to start the bootdiskchk process.
- 0x4022 — Timed out while waiting for results from the bootdiskchk process.
- 0x4023 — Call to lla\_rdget unsuccessful (system error). Unable to read ECD btparm structure used with REPT ECD report.

#### 4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, manual actions are required to correct the problem. The list contains some actions to specific fault type codes. If the message persists, contact your next level of technical assistance.

- 0x4, 0x2d — Run ECD 1 audit.
- 0x6 — Check maintenance channel cable. Run CU diagnostics on the off-line CU. The problem could also be in the on-line CU maintenance channel. Switch CUs, run CU diagnostics. The problem is serious and should be taken care of as soon as possible.
- 0xe — Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
- 0x10 — Take action on this error only if it occurs repeatedly. Run CU diagnostics.
- 0x12 — Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
- 0x14 — Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
- 0x18 — Run Plant Measurements System (PMS) 1 audit.
- 0x1e — Run CU diagnostics, switch CUs, run CU diagnostics.
- 0x2a — Clear the EAls with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
- 0x2c — Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

#### 5. REFERENCES

OMDB Key  
This message has an OMDB key of 430.

Output Appendix  
APP: FAULT-CODE

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages  
AUD: CUMEM  
AUD: CUSTAT

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ID ..... REPT:PCPMD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT PCPMD FAULT TYPE a UNIT = b ASSERT = c
- [2] REPT PCPMD FAULT TYPE a INACCESSIBLE RID = d ASSERT = c

## 2. REASON FOR OUTPUT

To report an error condition in the processor control Processor Control Process Maintenance Driver (PCPMD).

Format 1 is printed whenever the name of the unit can be determined.

Format 2 is printed whenever the name of the unit cannot be determined.

## 3. VARIABLE FIELD DEFINITIONS

- a Fault type codes:
- BOFL — Maintenance Channel (MCH) buffer overflow.
  - ECDA — Equipment Configuration Database (ECD) access problem.
  - EMCH — Incorrect number of MCH orders executed.
  - EONL — Bad return from on-line diagnostic.
  - ESIM — Could not fault System Integrity Monitor (SIM).
  - IARG — Invalid argument.
  - IDCP — PCPMD internal error.
  - SPRC — Slave processor.
  - WAKE — Supervisor wakeup failed.
- b Unit name.
- c Identification number (ASSERT number) of the fault in PCPMD.
- d Record ID (RID) of the Unit Control Block (UCB) record in the ECD.

## 4. ACTION TO BE TAKEN

Consider bootstrapping for fault type ECDA. For other cases, save a copy of the output message and seek technical assistance.

## 5. REFERENCES

OMDB Keys  
Format 1 has an OMDB key of 432.  
Format 2 has an OMDB key of 431.

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ID ..... REPT:PHASE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT PHASE a IN PROGRESS

## 2. REASON FOR OUTPUT

To report the occurrence of a system phase.

## 3. VARIABLE FIELD DEFINITIONS

a                      Phase level number. See the *System Maintenance Manual*.

## 4. ACTION TO BE TAKEN

None. This message is for information only.

## 5. REFERENCES

### OMDB Keys

There is an OMDB key of 426 for phase 1 and an OMDB key of 166 for phases 2, 3, and 4.

CIC Select Code 303-022 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Program Design Programmer's Manual, Volume 2*

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

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ID ..... REPT:PLDMON  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1] REPT PLDMON ERROR a ERRNO b

[2] REPT PLDMON ERROR a UNIT c d

## 2. REASON FOR OUTPUT

To report errors discovered by PLDMON while attempting to update the 3B20D computer Plant Measurements System (PMS) database.

## 3. VARIABLE FIELD DEFINITIONS

- a One of the following error codes:
- 1 — Cannot initialize PMS database.
  - 2 — Cannot update setid record.
  - 3 — Cannot read maintenance usage records.
  - 4 — Cannot attach to maintenance usage record.
  - 5 — Cannot update maintenance usage record.
  - 6 — Ptimer call failed.
  - 7 — Negative maintenance usage time found for the unit named.
  - 8 — Cannot allocate message buffer for scheduling hourly report.
  - 9 — Cannot get process ID for PMCR port.
  - 10 — Cannot queue message for scheduling hourly report.
  - 11 — Unknown fault message buffer released.
- b Error type returned for technical evaluation. Seek technical assistance for interpretation.
- c Unit name.
- d Unit number.

## 4. ACTION TO BE TAKEN

For error codes 1-5 and 7, check the usability of the PMS database. For error code 6, PLDMON will not run again until a system phase occurs. Seek technical assistance. For error code 7, a negative maintenance usage time is found because of a change in the system clock. PLDMON will not record that time and the start time for that unit in the database will be set to the current time. This message is to warn that a discrepancy might be reflected for that unit in the daily and hourly OP:PMCR report. Error codes 8 - 10 indicate a problem with pldmon sending a message to PMCRMAN to collect data (PMCRCOL), copy incore PMS database to disk (PMDBCOPY) and run hourly scheduled reports. These may be manually invoked. Seek technical assistance.

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Error code 11 indicates that a fault message other than a message and fault was found and removed. Seek technical assistance.

## **5. REFERENCES**

OMDB Keys (UNIX® RTR R1 only)  
There is an OMDB key of 212.

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ID ..... REPT:PLDMON-ERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] REPT PLDMON ERROR a ERRNO b

[2] REPT PLDMON ERROR a UNIT c d

## 2. REASON FOR OUTPUT

To report errors discovered by `pldmon` while attempting to update the Plant Measurements System (PMS) database.

## 3. VARIABLE FIELD DEFINITIONS

- a Error codes:
- 1 — Cannot initialize PMS database.
  - 2 — Cannot update `setid` record.
  - 3 — Cannot read maintenance usage records.
  - 4 — Cannot attach to maintenance usage record.
  - 5 — Cannot update maintenance usage record.
  - 6 — `ptimer` call failed.
  - 7 — Negative maintenance usage time found for the Out Of Service (OOS) unit named, or the plant database record for the OOS unit named was updated more than 15 minutes ago.
  - 8 — Cannot allocate message buffer for scheduling hourly report.
  - 9 — Cannot get process Identification (ID) for Plant Measurements Common Report (PMCR) port.
  - 10 — Cannot queue message for scheduling hourly report.
  - 11 — Unknown fault message buffer released.
- b Error type returned for technical evaluation. Seek technical assistance for interpretation.
- c Unit name.
- d Unit number.

## 4. ACTION TO BE TAKEN

For error codes 1 through 5, check the usability of the PMS database.

For error code 6, PLDMON will not run again until a system phase occurs. Seek technical assistance.

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For error code 7, if the error is printed due to a negative maintenance usage time for an OOS unit, it may be because of a change in the system clock. The start time for that unit in the database will be set to the current time. No action is needed. The error message is printed to warn that a discrepancy might be reflected for that unit in the daily and hourly OP:PMCR report.

This error code may also print due to an OOS unit record in the plant database not being updated for more than 15 minutes. Upon a boot and every quarter hour (4:15, 4:30, 4:45, for example) pldmon audits the database to ensure that records for OOS units have been updated every 15 minutes. When the system boots, a copy of the plant database is copied from the disk into memory. If the database on disk has a timestamp more than 15 minutes older than the system clock at boot time, pldmon assumes that records for OOS units have not been updated for more than 15 minutes and the error will print out. The incore database is copied to disk once an hour on the hour. You should not see this error message again if you do not plan to boot before the top of the hour. If you do plan to boot before the top of the hour and do not want to see this error message, you can copy the incore database to disk by executing /prc/pmdbcopy from the UNIX® shell.

For error codes 8, 9, and 10 a problem exists with pldmon sending a message to pmcrman to collect data (pmcrcol). Copy the incore PMS database to disk via the /prc/pmdbcopy UNIX® shell command and manually run the scheduled hourly reports. If the error persists, seek technical assistance.

For error code 11, an unknown fault message (other than a message buffer audit fault) was found and removed from the buffer. If the error persists, seek technical assistance.

## **5. REFERENCES**

### **OMDB Key**

This message has an OMDB key of 212.

### **Input Message**

OP:PMCR

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ID ..... REPT:PM-CNTL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT PM CONTROL: a

## 2. REASON FOR OUTPUT

To report that the plant measurements (PM) system control process cannot initiate the system, execute the collection process, or execute the report process for the common plant measurements data base.

## 3. VARIABLE FIELD DEFINITIONS

a                      Error code:

- 1 — Cannot execute plant measurement collector process.
- 2 — Cannot execute plant measurement report process.
- 3 — Plant measurement system initialized.

## 4. ACTION TO BE TAKEN

Check the collection process (/prc/coll) and/or the report process (/prc/report) to determine whether they exist and are executable.

## 5. REFERENCES

Input Message  
OP:PLNTSUM

Output Message  
REPT:PM-REPT

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ID ..... REPT:PM-REPT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT PM REPORT:a

## 2. REASON FOR OUTPUT

To report that the plant measurements report cannot be output because the raw counts are unavailable, invalid, or not accessible. The plant measurements data base is determined by comparing raw 3B DMERT processor system counts.

## 3. VARIABLE FIELD DEFINITIONS

a                      Error code:  
  
                        1 — Plant measurement data base not accessible.  
                        2 — Data in plant measurement data base not valid.

## 4. ACTION TO BE TAKEN

None. Plant measurement system is self-correcting.

## 5. REFERENCES

Input Message  
OP:PLNTSUM

Output Message  
REPT:PM-CNTL

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ID ..... REPT:PMDBCOPY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT PMDBCOPY ERROR a [ERRNO = b]
- [2] REPT PMDBCOPY NO COPY
- [3] REPT PMDBCOPY COMPLETED

## 2. REASON FOR OUTPUT

To report the status of the Plant Measurements System (PMS) database copy program.

Format 1 is printed when errors are found.

Format 2 indicates that the PMS database audit program is conducting corrective action on the database and, therefore, the database will not be copied to disk.

Format 3 is printed if "-p" option is specified. As a default, the message is not printed at the end of the report.

## 3. VARIABLE FIELD DEFINITIONS

- a Error type:
- 1 — Failed plib function call.
  - 2 — Could not attach to PMS database.
  - 3 — Could not initialize lla\_audit routines.
  - 4 — Error detected by the lla\_audit function.
  - 5 — Error detected by the lla\_audit function.
  - 6 — Unknown return from lla\_audit function.
  - 7 — Could not get setid record from PMS database.
  - 8 — Could not open secondary disk copy of PMS database.
  - 9 — Could not write incore PMS database to secondary disk database.
  - 10 — Could not release.
  - 11 — Request to audit the PMS database did not complete successfully. The incore database will not be copied.
  - 12 — After the incore database was copied to disk, an audit on the disk database failed. (See additional errors.) The secondary disk database may be bad.
  - 13 — The primary disk database does not exist. Attempt to move the secondary copy to primary failed. Run AUD:PMS 1.

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- 14 — Attempt to switch primary and secondary disk databases failed. The primary may be bad. Run AUD:PMS 1.
- 16 — falloc failed to create a contiguous file for PMS disk database.
- 17 — makeseg failed to create a temporary segment for the incore database.

b                      Number of errors detected by audit. Error types 2, 3, 7, 10 through 14, and 16, do not report an error number.

#### **4. ACTION TO BE TAKEN**

For Format 1, seek technical assistance.

For Formats 2 and 3, no action is needed.

#### **5. REFERENCES**

OMDB Key

This message has an OMDB key of 211.

Output Message

AUD:PMS

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ID ..... REPT:PMGR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT PMGR ERROR 51 {a|NUB START} [b]
- [2] REPT PMGR ERROR 51 INIT [c]
- [3] REPT PMGR ERROR 51 CREATDFILE [d]
- [4] REPT PMGR ERROR 53 {LMAKSEG OPEN|LMAKSEG MAGIC} [e]
- [5] REPT PMGR ERROR 54 {MAKEKP|MAKSUPER} [f]
- [6] REPT PMGR ERROR 55 MAKSEG [g]
- [7] REPT PMGR ERROR 56 h
- [8] REPT PMGR ERROR 56 SEGADD ALOCSEG [i]
- [9] REPT PMGR ERROR 56 {CDUMP ALOCSEG|CDUMP ACTIVSEG} [j]
- [10] REPT PMGR ERROR 56 {MAKPRC ALOCSEG|MAKPRC ACTIVSEG} [k]
- [11] REPT PMGR ERROR 56 {INMEM ALOCSEG|INMEM ACTIVSEG} [l]
- [12] REPT PMGR ERROR 57 MAKPRC [m]
- [13] REPT PMGR ERROR 57 LMAKSEG [n]
- [14] REPT PMGR ERROR 57 INMEM [o]
- [15] REPT PMGR ERROR 57 SEGREAD
- [16] REPT PMGR ERROR 58 p [q]
- [17] REPT PMGR ERROR 59 r [s|t]
- [18] REPT PMGR ERROR 59 {CHKSHARE NOMATCH|CHKSHARE DUP} [u]
- [19] REPT PMGR ERROR 60 MAKPRC [v]
- [20] REPT PMGR ERROR 62 {MAKDUMP KERNEL|MAKDUMP SUPER} [w]
- [21] REPT PMGR ERROR {63|64} x [y]

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- [22] REPT PMGR ERROR 67 z [a1]
- [23] REPT PMGR ERROR 68 b1 [c1] [d1]
- [24] REPT PMGR ERROR 68 MAKPRC BADMAGIC [e1]
- [25] REPT PMGR ERROR 68 {INMEM OPEN|INMEM BADMAGIC} [f1]
- [26] REPT PMGR ERROR 70 CREATDFILE [g1]
- [27] REPT PMGR ERROR 71 {CDUMP|FILCOPY} [h1]
- [28] REPT PMGR ERROR 72 i1 [j1]
- [29] REPT PMGR ERROR 72 CREATDFILE [k1]
- [30] REPT PMGR ERROR 72 INMEM [l1]
- [31] REPT PMGR ERROR 72 INIT
- [32] REPT PMGR ERROR 73 FMCLOSE
- [33] REPT PMGR ERROR 75
- [34] REPT PMGR ERROR 76 START MSTERM [m1]
- [35] REPT PMGR ERROR 77 n1 [o1]
- [36] REPT PMGR ERROR 78 p1 [q1]
- [37] REPT PMGR ERROR 80 OLD MSTERM [r1]
- [38] REPT PMGR ERROR 81 DOKPSEGS [s1]
- [39] REPT PMGR ERROR 82 MAKSUPER [t1]
- [40] REPT PMGR ERROR 83 MAKSUPER [u1]
- [41] REPT PMGR ERROR 84 SEGGADD MODULE [v1]
- [42] REPT PMGR ERROR 85 PCB INDEX [w1]
- [43] REPT PMGR ERROR 86 x1
- [44] REPT PMGR ERROR 87 RCVACK LOST
- [45] REPT PMGR ERROR 88 {DOKPSEGS|NUBDOSPSEGS [y1]

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## 2. REASON FOR OUTPUT

To report Process Manager (PMGR) related software errors. The errors are detected during the creation and termination of a supervisor or a kernel process or during a field update to a shared library.

The message identifies the type of problem encountered. There are two error types:

Failure — Causes the termination of the process under creation.

Warning — Notifies the user of the problem but does not terminate the process under creation.

## 3. VARIABLE FIELD DEFINITIONS

|               |                                                                                                                                  |
|---------------|----------------------------------------------------------------------------------------------------------------------------------|
| ERROR 51      | Message type not recognized.                                                                                                     |
| a             | Process number of the process sending an unknown message fielded by the process manager mainline routine, in decimal notation.   |
| NUB START     | Could not recognize the type of message in START routine. Check the type of message dispatched to the NUB.                       |
| b             | Type of message received by the PMGR.                                                                                            |
| INIT          | Process manager received a second initialization message.                                                                        |
| c             | Process number of message sender.                                                                                                |
| CREATDFILE    | Pathname is not specified to create a dump file. Check the pathname in termhdr.h message.                                        |
| d             | User supplied pathname in the termhdr.h message, or NULL.                                                                        |
| ERROR 53      | Library file does not exist.                                                                                                     |
| LMAKSEG OPEN  | Could not open library file for read. Check the pathname. Could be an Input/Output failure.                                      |
| LMAKSEG MAGIC | Shared library file had incorrect magic number. Check the path name; could be an Input/Output failure.                           |
| e             | Pathname of the library file from pheader file.                                                                                  |
| ERROR 54      |                                                                                                                                  |
| MAKEKP        | Failed to create a DCTE entry during kernel process creation. Check the DCTE table; it could be full. This is a failure message. |
| MAKSUPER      | Failed to create a DCTE entry during creation of supervisor process. Check the DCTE entry table. This is a failure message.      |
| f             | Process pathname; process will not be created.                                                                                   |

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ERROR 55            Failure to load a kernel process because of insufficient memory.

MAKSEG            Failed to lock the requested segment in the memory.

g                   Process pathname; process will not be created.

ERROR 56

h                   Failure messages:

                    FILCOPY OPENADD - Segment ID is invalid or unallocated, or the  
                                         segment index in segment flags of the segment list is out of  
                                         range. Core dump will not be created.

                    SEGREAD SHARE - Sgetmodule() failed on a segment shared via  
                                         "share" ldp option.

                    All Segment Descriptor Entries (SDEs) are allocated or there is no swap  
                                         space left.

CDUMP ACTIVSEG   Cannot find the segment in the segment table. Either the segment  
                                         index is bad, or the segment points to a null segment. Core dump will  
                                         not be created. This is a failure message.

CDUMP ALOCSEG    PMGR requested the memory manager to allocate a segment. Memory  
                                         manager returned failure condition. Either there is no space left on the  
                                         disk to create this segment, or the SDE table is full. Core dump will not  
                                         be created. This is a failure message.

j                   Process number; process is terminated.

INMEM ACTIVSEG   Same as MAKPRC ACTIVSEG, except error occurred during field  
                                         update of shared library. This is a failure message.

INMEM ALOCSEG    Same as MAKPRC ALOCSEG, except error occurred during field update  
                                         of shared library. This is a failure message.

l                   Library pathname, library will not be locked.

MAKPRC ACTIVSEG   Cannot find the segment in the segment table. Segment points to a  
                                         null segment: failed to make the segment nonswap process. Segment  
                                         index out of range. This is a failure message.

NDUP ACTIVSEG    See MAKPRC ACTIVSEG. This is a failure message.

NDUP ADDSEG       See MAKPRC ACTIVSEG. This is a failure message.

SEGREAD ACTIVSEG See MAKPRC ACTIVSEG. This is a failure message.

MAKPRC ALOCSEG   PMGR made an alocseg ost call to the memory manager. Call  
                                         returned with failure condition. Either there is no space left on the  
                                         swap area, or the SDE table is full. Check the SDE table entries and the  
                                         swap space. This is a failure message.

k                   Process pathname; process will not be created.

NDUP ALOCSEG    See MAKPRC ALOCSEG. This is a failure message.

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SEGADD ALOCSEG See MAKPRC ALOCSEG. This is a failure message.

i Segment name.

SEGADD ALOCSEGA See MAKPRC ALOCSEG. This is a failure message.

ERROR 57 Unable to read a pfile or library file.

MAKPRC Failed to read pfile header. This is a failure message.

m Process pathname; process will not be created.

LMAKSEG Failed to read library file from the disk.

n Library pathname; process will not be created.

SEGREAD Failed to read a segment from the disk.

INMEM Failed to read library file header from the disk.

o Library pathname; process will not be locked.

ERROR 58 Segment too big for virtual address space available.

p Failure messages:

DOKPSEGS - The process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511).

NUBDOSPSEGS - The process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511). This error is from the NUB process.

NUBMAKSEG - The process may need more than the number of segments specified in the process' specification file (minimum and default: 50; maximum: 511). Check segment map in the pheader file. This error is from the NUB process.

q Process pathname; process will not be created.

ERROR 59 Cannot add a shared segment to the process.

r Failure messages:

CHKSHARE EMM - extended main memory is enabled, and segment name is requested for wrong physical module.

INIT ECDDATA - Failed to open equipment configuration database data segment.

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|                  |                                                                                                 |
|------------------|-------------------------------------------------------------------------------------------------|
|                  | INIT ECDLPATCH - Failed to open equipment configuration database patch segment.                 |
|                  | INIT ECDLTEXT - Failed to open equipment configuration database text segment.                   |
|                  | INIT KMSG - Failed to open kernel message buffer segment.                                       |
|                  | INIT KSTK - Failed to open kernel stack segment.                                                |
|                  | INIT PAS0 - Failed to open protected application segment.                                       |
|                  | INIT PAS1 - Failed to open protected application segment upper module.                          |
|                  | INIT PLMDATA - Failed to open plant measurement library data segment.                           |
|                  | INIT PLMPATCH - Failed to open plant measurement library patch segment.                         |
|                  | INIT PLMTEXT - Failed to open plant measurement library text segment.                           |
|                  | NUB DOSPSEGS - Segment name does not match in the pcreate message and pheader.                  |
|                  | NUB SHSYSEG OPENSEG - See SHSYSEG OPENSEG. This error is from the NUB process.                  |
|                  | SEGADD FNAME - Failed to get the 32-bit segment name from file manager.                         |
|                  | SEGADD SHARE - Failed to increase the segment user count.                                       |
|                  | SHSYSEG OPENSEG - Segment name does not match in the pcreate message and pheader.               |
| s                | Segment name.                                                                                   |
| t                | Process pathname; process will not be created.                                                  |
| CHKSHARE DUP     | Segment name is duplicated in the pheader file. This is a failure message.                      |
| CHKSHARE NOMATCH | Segment name does not match in the pcreate message and pheader file. This is a failure message. |
| u                | Segment name which does not match or is duplicated.                                             |
| ERROR 60         | Incarnation count too big for a process.                                                        |
| MAKPRC           | User count for this process is greater than allowed count (255). This is a failure message.     |
| v                | Process pathname; process will not be created.                                                  |

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ERROR 62            Cannot acquire a Process Control Block (PCB) of a terminating process.  
MAKDUMP KERNEL    Failed to add kernel process PCB segment to the PMGR address  
                         space.  
MAKDUMP SUPER    Failed to add user process PCB segment to PMGR address space.  
w                    The process number of process being dumped, core dump will not be  
                         created.

ERROR 63            Process Manager (PMGR) faulted, entered fault routine.  
ERROR 64            NUB faulted, entered fault routine.  
x                    Eight digit hexadecimal number. The two high order digits are the  
                         fault code. The remaining six digits, if present, are the program  
                         address at fault. If they are missing, the fault was externally generated.  
y                    Process or library pathname; process will not be created or library will  
                         not be locked.

ERROR 67            Bad acknowledgment resulting from copyseg Operating System Trap  
                         (OST).  
z                    Failure messages:  
                         MAKSUPER PFILE - Failed to copy pfile header to the NUB's address  
                         space.  
                         NDUP COPYSEG - Failed to copy NUB segment into NUB address space.  
                         NDUP FWAIT - Received a failure state after copyseg operation.  
a1                   Process pathname; process will not be created.

ERROR 68            Pfile (LDP output) doesn't exist, or does not have correct magic  
                         number, or wrong supervisor or kernel mode.  
b1                   Process number, in decimal notation. The pfile specified in a pcreate  
                         request by process listed could not be opened.  
c1                   Status returned from file manager.  
d1                   Pathname of the pfile which could not be opened.  
MAKPRC BADMAGIC    Magic number in the pheader file does not match with kmagic or  
                         smagic number. Check the pheader file or reload with proper  
                         specification.  
e1                   Process pathname; process will not be created.  
INMEM BADMAGIC    The magic number in the library header was incorrect.  
INMEM OPEN        Library could not be opened for reading.  
f1                   Library pathname; library will not be locked.

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|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ERROR 70     | Cannot open dump file specified in terminate message.                                                                                                                                                                                                                                                                                                                                                                                               |
| CREATDFILE   | Failed to create a dump file with the given pathname.                                                                                                                                                                                                                                                                                                                                                                                               |
| g1           | Pathname.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ERROR 71     | Unable to write out a segment of a process being dumped.                                                                                                                                                                                                                                                                                                                                                                                            |
| CDUMP        | Failed to write out dump file header. This is a warning message.                                                                                                                                                                                                                                                                                                                                                                                    |
| FILCOPY      | Failed to write a segment to dump file. This is a warning message.                                                                                                                                                                                                                                                                                                                                                                                  |
| h1           | Process number of the terminating process or NULL.                                                                                                                                                                                                                                                                                                                                                                                                  |
| ERROR 72     | Cannot get capability for working directory.                                                                                                                                                                                                                                                                                                                                                                                                        |
| i1           | Process number, in decimal notation. The capability to access the working directory of a pcreate pathname specified by process given could not be acquired.                                                                                                                                                                                                                                                                                         |
| j1           | Working directory pathname of the process which will not be created.                                                                                                                                                                                                                                                                                                                                                                                |
| CREATDFILE   | Failed to create a file for dumping a terminating process. This is a warning message.                                                                                                                                                                                                                                                                                                                                                               |
| k1           | Dump file pathname.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| INMEM        | The capability to access the working directory of library file failed.                                                                                                                                                                                                                                                                                                                                                                              |
| l1           | Library pathname.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| INIT         | The capability to access the root directory failed.                                                                                                                                                                                                                                                                                                                                                                                                 |
| ERROR 73     | Unable to close a file.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| FMCLOSE      | PMGR sent a message to the file manager to close a file. The file manager returned failure.                                                                                                                                                                                                                                                                                                                                                         |
| ERROR 75     | Cannot open or get segment name of device process.                                                                                                                                                                                                                                                                                                                                                                                                  |
| ERROR 76     | Message from unauthorized process.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| START MSTERM | Terminate message is not from scheduler.                                                                                                                                                                                                                                                                                                                                                                                                            |
| m1           | Process number of the process that sent the message.                                                                                                                                                                                                                                                                                                                                                                                                |
| ERROR 77     | Segment index overlay warning.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| n1           | Segment index, in decimal notation. The segment being added to the address space of a kernel process overlaid a segment index already in use. The resultant process will have addressability into the second segment from code referencing both the first request and second request. This will most typically occur with the protected application segment. This message should be viewed seriously as this is a potentially disastrous situation. |

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|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| o1         | Pathname of the kernel process containing the segment index overlay.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ERROR 78   | Unable to lock shared library in memory.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| p1         | Messages:<br>INMEM LIBTABLE - internal shared library table is full.<br>INMEM NOADD - The process manager was unable to add library segment to its address space.<br>INMEM NOHOLE - The process manager has no available entries in its segment list.<br>INMEM NOTABLE - The process manager has no available entries in its internal table that it uses to lock library segments.<br>INMEM OLDAGE - A shared library has been undergoing an update for over a week. Field update has probably forgotten about it.<br>UNINMEM - - The process manager received a message to unlock a shared library but the library was not locked. |
| q1         | Library pathname.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ERROR 80   | Process termination has already been completed by the process administration process termination audit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| OLD MSTERM | The process termination has already occurred due to the process administration process termination audit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| r1         | Process number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ERROR 81   | Pfile requests Protected Application Segment (PAS); no PAS specified on sgen1 form.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| DOKPSEGS   | The pfile requested PAS, however no PAS is in the system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| s1         | Process pathname; process will not be created.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ERROR 82   | Could not duplicate pfile capabilities for the NUB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| MAKSUPER   | Could not duplicate pfile capabilities for the NUB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| t1         | Process pathname; process will not be created.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ERROR 83   | Could not create process because system is in disk independent operation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MAKSUPER   | pstart() failed because system is in disk independent operation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| u1         | Process pathname; process will not be created.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                |                                                                                                 |
|----------------|-------------------------------------------------------------------------------------------------|
| ERROR 84       | Shared segment index specifies different physical module than that specified by segid.          |
| SEGGADD MODULE | Shared segment index does not specify same physical module as that specified by segid.          |
| v1             | Process pathname; process will not be created.                                                  |
| ERROR 85       | Invalid PCB index.                                                                              |
| PCB INDEX      | Invalid pcb index.                                                                              |
| w1             | Process pathname; process will not be created.                                                  |
| ERROR 86       | Pfile does not specify PCB segment.                                                             |
| x1             | Kernel process pathname; process will not be created.                                           |
| ERROR 87       | An expected acknowledgement message was not received within the five-minute wait interval.      |
| RCVACK LOST    | An expected acknowledgement was lost                                                            |
| ERROR 88       | Pfile specifies a segment whose virtual address is beyond the range supported on this hardware. |
| DOKPSEGS       | Error occurred during kernel process creation.                                                  |
| NUBDOSPSEGS    | Error occurred during supervisor process creation. This message is from the BUB process.        |
| y1             | Process pathname; process will not be created.                                                  |

#### 4. ACTION TO BE TAKEN

Use the Error / Action Table to determine which of the actions should be taken.

1. Call application system support.
2. Application system support should call UNIX® RTR system support.
3. Check the displayed pathname for accuracy.
4. Possible System Generation (SYSGEN) specification change required.
5. Possible process specification file error.
6. Enter a `OP:STATUS;PROCESS,ALL` command for further documentation of problem.

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| Error / Action Table |                     |                    |   |   |   |   |   |
|----------------------|---------------------|--------------------|---|---|---|---|---|
| ERROR / MESSAGE      |                     | Action To Be Taken |   |   |   |   |   |
|                      |                     | 1                  | 2 | 3 | 4 | 5 | 6 |
| 51                   | process number      | X                  |   |   |   |   |   |
|                      | NUB START           | X                  | X |   |   |   |   |
|                      | INIT                | X                  | X |   |   |   |   |
|                      | CREATDFILE          | X                  |   |   |   |   |   |
| 53                   | ALL MESSAGES        | X                  |   | X |   |   |   |
| 54                   | ALL MESSAGES        | X                  |   |   | X |   |   |
| 55                   | ALL MESSAGES        | X                  | X |   |   |   |   |
| 56                   | ALL MESSAGES        | X                  | X |   | X |   |   |
| 57                   | ALL MESSAGES        | X                  |   |   |   |   |   |
| 58                   | ALL MESSAGES        | X                  |   |   |   |   |   |
| 59                   | NUB DOSPSEGS        | X                  | X |   |   |   |   |
|                      | CHKSHARE NOMATCH    | X                  |   |   |   | X |   |
|                      | CHKSHARE EMM        | X                  |   |   |   | X |   |
|                      | CHKSHARE DUP        | X                  |   |   |   | X |   |
|                      | SHSYSEG OPENSEG     | X                  |   |   |   | X |   |
|                      | NUB SHSYSEG OPENSEG | X                  |   |   |   | X |   |
|                      | SEGADD SHARE        | X                  | X |   |   |   |   |
|                      | SEGADD FNAME        | X                  | X |   |   |   |   |
|                      | ALL OTHER MESSAGES  | X                  | X |   |   |   |   |
| 60                   | ALL MESSAGES        | X                  |   |   | X | X |   |
| 62                   | ALL MESSAGES        | X                  | X |   |   |   |   |
| 63                   | ALL MESSAGES        | X                  | X |   |   |   |   |
| 64                   | ALL MESSAGES        | X                  | X |   |   |   |   |
| 67                   | ALL MESSAGES        | X                  | X |   |   |   |   |
| 68                   | ALL MESSAGES        | X                  |   | X |   | X |   |
| 70                   | ALL MESSAGES        | X                  |   | X |   |   |   |
| 71                   | ALL MESSAGES        | X                  | X |   |   |   |   |
| 72                   | ALL MESSAGES        | X                  |   | X |   |   |   |
| 73                   | ALL MESSAGES        | X                  |   |   |   |   |   |
| 76                   | ALL MESSAGES        | X                  |   |   |   |   | X |
| 77                   | ALL MESSAGES        | X                  |   |   |   | X |   |

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| Error / Action Table (continued) |                |                    |   |   |   |   |   |
|----------------------------------|----------------|--------------------|---|---|---|---|---|
| ERROR / MESSAGE                  |                | Action To Be Taken |   |   |   |   |   |
|                                  |                | 1                  | 2 | 3 | 4 | 5 | 6 |
| 78                               | INMEM NOHOLE   | X                  | X |   |   |   |   |
|                                  | INMEM NOTABLE  | X                  | X |   |   |   |   |
|                                  | INMEM NOADD    | X                  |   | X | X |   |   |
|                                  | UNINMEM        | X                  |   | X |   |   |   |
|                                  | INMEM LIBTABLE | X                  | X |   |   |   |   |
| 80                               | ALL MESSAGES   | X                  |   |   |   |   |   |
| 81                               | ALL MESSAGES   |                    |   |   | X | X |   |
| 82                               | ALL MESSAGES   | X                  |   |   |   |   |   |
| 83                               | ALL MESSAGES   | X                  |   |   |   |   |   |
| 84                               | ALL MESSAGES   |                    |   |   |   | X |   |
| 85                               | ALL MESSAGES   |                    |   |   |   | X |   |
| 86                               | ALL MESSAGES   | X                  |   |   |   |   |   |
| 87                               | ALL MESSAGES   | X                  |   |   |   |   |   |
| 88                               | ALL MESSAGES   | X                  |   |   |   | X |   |

## 5. REFERENCES

### OMDB Keys

Error 81 has an OMDB key of 351.

Errors 53-55, 57-60, 67-70, 73, 78, 82, 84, 85, and 88 have an OMDB key of 354.

Errors 86 and 87 have an OMDB key of 355.

Errors 63 and 64 have an OMDB key of 356.

Errors 51, 62, 76, and 80 have an OMDB key of 358.

Errors 56 and 71 have an OMDB key of 359.

Errors 72 and 77 have an OMDB key of 360.

Practice 254-341-110 *DMERT Kernel and Basic Services Software Subsystem Description*  
*3B20D/3B21D Processor*

### Input Messages

EXC:E-PROC

EXC:E-UPROC

OP:ST-PROC

### Output Messages

EXC:E-PROC

EXC:E-UPROC

OP:ST-PROC

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ID ..... REPT:PMSLOT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT PMSLOT

## 2. REASON FOR OUTPUT

Precedes the post-mortem dump printout. For a complete description of the fields found in the post-mortem dump, see the Error Analysis section of the *System Maintenance Manual*.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

Refer to the Error Analysis section of the *System Maintenance Manual*.

## 5. REFERENCES

OMDB Keys

This message has OMDB keys of 401 and 402 (3B20D only) and 686 and 687 (3B21D only).

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

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ID ..... REPT:POWER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

- [1] REPT POWER {RESTORED|REMOVED} a b [c d]
- [2] REPT POWER FAULT a b [c d]
- [3] REPT POWER DISTRIBUTION FRAME e f ALARM

### 2. REASON FOR OUTPUT

Format 1 indicates that a unit has been powered up or powered down by a manual request at a unit's power switch. The removal of power from a unit may be the result of a normal power down, a manual override power down, or the occurrence of faults where power is removed, such as a blown fuse.

Format 2 indicates that a power fault has been detected by scanning the unit's power switch (ABB1).

Format 3 indicates the occurrence of a major or minor alarm on the power distribution frame as detected by a scan point on the unit alarm circuit.

### 3. VARIABLE FIELD DEFINITIONS

- a Unit name.
- b Unit number.
- c Subunit name.
- d Subunit number.
- e Identification number (0-99999). This number is arbitrary and is retrieved from the logical group name in the scsdbody form found in the Equipment Configuration Database (ECD). If no number identification is in the group name, no number will be output.
- f Type of alarm:
  - MAJOR— Service is interrupted due to a power problem on another frame which resulted in a feeder fuse being blown on the power distribution frame.
  - MINOR— A local fuse on the power distribution frame has blown, but service is not interrupted.

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#### **4. ACTION TO BE TAKEN**

For Format 1, take no action, unless power removed. Check for blown fuses and take appropriate action to restore power.

For Format 2, establish and repair the cause of the fault. Check the status of alarm LEDs on unit, diagnose, and repair.

For Format 3:

If a MAJOR alarm, determine the cause by looking at the accompanying messages. Fix the problem and replace the necessary output fuses on the power distribution frame.

If MINOR alarm, replace fuses on the power distribution frame charging or filtering circuits.

#### **5. REFERENCES**

OMDB Keys

Format 1 has an OMDB key of 139.

Formats 2 and 3 have OMDB keys of 141 for MINOR alarm and 142 for MAJOR alarm.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and  
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

Practice 254-301-020 *Power Systems Description and Theory of Operation 3B20D/3B21D  
Model 1 Processor*

Practice 254-301-800 *Emergency Action Facilities Description 3B20D/3B21D Model 1 Computer*

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ID ..... REPT:POWER-DF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT POWER DISTRIBUTION FRAME   a   b   ALARM

## 2. REASON FOR OUTPUT

To indicate the occurrence of a major or minor alarm on the power distribution frame as detected by a scan point on the unit alarm circuit.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Identification number (0-99999). This number is arbitrary and is retrieved from the logical group name in the scsdbody form found in the Equipment Configuration Database (ECD). If no number identification is in the group name, no number will be output.
- b                      The event detected on the power switch.
- MAJOR — Service is interrupted due to a power problem on another frame which resulted in a feeder fuse being blown on the power distribution frame.
- MINOR — A local fuse on the power distribution frame has blown but service is not interrupted.

## 4. ACTION TO BE TAKEN

If variable b = MAJOR, determine the cause by looking at accompanying messages. Fix the problem and replace the necessary output fuses on the power distribution frame.

If variable b = MINOR, fuses on the power distribution frame charging or filtering circuits must be replaced.

## 5. REFERENCES

CIC Select Code 303-010 *Recent Change and Verify User's Manual*

Practice 254-301-020 *Power Systems - Description*

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ID ..... REPT:POWERFAULT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT POWERFAULT a b [c d]

## 2. REASON FOR OUTPUT

To indicate that a power fault has been detected by scanning the unit's power switch (ABB1).

## 3. VARIABLE FIELD DEFINITIONS

|   |                 |
|---|-----------------|
| a | Unit name.      |
| b | Unit number.    |
| c | Subunit name.   |
| d | Subunit number. |

## 4. ACTION TO BE TAKEN

Establish and repair the cause of the fault. Check status of alarm LEDs on unit, diagnose and repair.

## 5. REFERENCES

Practice 254-301-020 *Power Systems - Description*

Practice 254-301-800 *Emergency Action Facilities - Description*

### Input Messages

DGN:[unit]  
RMV:[unit]  
RST:[unit]

### Output Messages

DGN:[unit]  
RMV:[unit]  
RST:[unit]

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ID ..... REPT:PREPHASE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**1. FORMAT**

REPT ERRPORT PREPHASE MESSAGE a

**2. REASON FOR OUTPUT**

To report that the error logging process, ERRPORT, has initialized after a phase and has found an output message request made before the phase.

**3. VARIABLE FIELD DEFINITIONS**

a                      The text of the message requested to be output before the last phase.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:PROC-DEATH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT PROC DEATH/CREATE  
PROCESS a DIED.  
CREATION SCHEDULED IN b MINUTES.
- [2] REPT PROC DEATH/CREATE  
PROCESS a DIED.  
CREATION DENIED.
- [3] REPT PROC DEATH/CREATE  
CREATION FOR PROCESS a SUCCEEDED.
- [4] REPT PROC DEATH/CREATE  
CREATION FOR PROCESS a FAILED.  
CREATION SCHEDULED IN b MINUTES.
- [5] REPT PROC DEATH/CREATE  
CREATION FOR PROCESS a FAILED.  
CREATION DENIED.

## 2. REASON FOR OUTPUT

Reports the creation (including recreation), failure to create and death of IMS processes, imsrts.p, msdc.p, npp.p, op\_rtm.p, and tdc.p. These processes provide the following capabilities auxiliary to IMS.

|          |                                                                                               |
|----------|-----------------------------------------------------------------------------------------------|
| imsrts.p | 1105 and 1106 pages and node status reports.                                                  |
| msdc.p   | Measurement data collection.                                                                  |
| npp.p    | Node pumping.                                                                                 |
| op_rtm.p | Realtime usage monitor.                                                                       |
| tdc.p    | Trace, node ERRLOG, and, for IMS 3.2 and later, user output messages from RAPs (Smart Nodes). |

These events are not reported during IMS aborts or when they are probably caused by an IMS boot or FPI initialization. The initial creation of each of these processes due to such initializations is not reported if it is successful on the first try.

The capability is lost temporarily between the Format 1 and Format 3 messages or until an IMS level 3 or 4 initialization for the Format 2 and Format 5 messages.

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Following the Format 1 and Format 4 messages any remaining instances of the processes are terminated, the delay specified in the message is taken, any process then attached to the process' port is terminated, and recreation of the process is requested.

### 3. VARIABLE FIELD DEFINITIONS

- a Path name for process, ending in the process name.
- b The minimum number of minutes before creation of the process will be requested.

### 4. ACTION TO BE TAKEN

Format 1: If the reason for process death is not understood, notify technical support. Recovery will be automatic.

A UNIX® RTR level 1 initialization will sometimes kill imsrts.p, npp.p and / or tdc.p.

Field update of any of these processes could involve manually killing them.

Format 2: This message is expected only in IMS generic 3 or later when Disk Independent Operation is fully operational. The REPT:DIOP[unit] message should also be printed and the disk outage is the real problem.

Otherwise look for REPT:ERROR output message and seek technical assistance. Recovery will require at least an IMS boot.

Format 3: Normal operation of the process has resumed.

Format 4: See REPT:PMGR output message for the same process for specific error codes and seek technical assistance.

Occasional failures could be due to operating system resource shortages.

Repeated failure to create a process could indicate a bad or incompatible process file, a. A process built for the wrong version of shared libraries could corrupt the libraries and might require an IMS boot after the proper file is in place.

File access problems could indicate a bad field update, such as wrong permissions on a file or wrong file name.

The delay b in retrying process creation is intended to allow time for resource problems to abate or for correction of file problems.

Format 5: This message is expected only in IMS generic 3 or later when Disk Independent Operation is fully operational. The REPT:DIOP[unit] message should also be printed and the disk outage is the real problem.

Otherwise look for REPT:ERROR output message and seek technical assistance. Recovery will require at least an IMS boot.

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**5. REFERENCES**

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures -*  
Maintenance Description Section  
Diagnostics User's Guide Section

Output Messages  
REPT:DIOP-A  
REPT:DIOP-B  
REPT:ERROR  
REPT:PMGR

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ID ..... REPT:PSDIO1A  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT PSDIO1A START OF SESSION - USER u, CHANNEL c, PORT p
- [2] REPT PSDIO1A END OF SESSION - USER u, CHANNEL c, PORT p  
BYTES IN g, BYTES OUT g, g SECONDS, CODE f  
NFTS/BXMSGs h, NFTUQ i, OUTQ j, ACK/1AMSG k, WFA l
- [3] REPT PSDIO1A BADLOGIN ATTEMPT - USER u, CHANNEL c, CODE f
- [4] REPT PSDIO1A USER ID u NOT FOUND IN PASSWORD FILE
- [5] REPT PSDIO1A PASSWORD CHECK FAILED FOR u
- [6] REPT PSDIO1A(p) UNKNOWN INDICATION m, CHANNEL c
- [7] REPT PSDIO1A(p) UNKNOWN OUTER INDICATION m, CHANNEL c
- [8] REPT PSDIO1A(p) RCVD UNEXPECTED MTYPE r
- [9] REPT PSDIO1A(p) RCVD UNKNOWN 1A REQUEST TYPE s FROM ID t
- [10] REPT PSDIO1A(p) RCVD UNEXPECTED AP\_TYPE v, AP\_STAT w
- [11] REPT PSDIO1A(p) RCVD ABORT CODE n FROM 1A MACHINE
- [12] REPT PSDIO1A(p) q TIMEOUT

## 2. REASON FOR OUTPUT

Format 1: Announces the start of a session with process psdio1a.

Format 2: Announces the end of a session and lists various statistical data for the session.

Formats 3-5: Indicate various conditions which prevented the successful establishment of a session.

Formats 6&7: Specify any unexpected BX25 indications received during a session.

Formats 8-10: Indicate that unexpected APS messages were received.

Format 11: Specifies that an abort code was received from the 1B machine for the session.

Format 12: Announces timeout conditions during a session.

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### 3. VARIABLE FIELD DEFINITIONS

- c A decimal integer specifying the 1B I/O channel being used.
- f A hexadecimal integer representing 32 flags that may be set during the course of a session to indicate the occurrence of an event. This value is also sent to the external user when a session ends. Flag assignments are:

| Bit | Value   | Meaning                                |
|-----|---------|----------------------------------------|
| 0   | 01      | Session disconnect received            |
| 1   | 02      | User data length wrong                 |
| 2   | 04      | Userid not found in password file      |
| 3   | 0x8     | Password check failed                  |
| 4   | 0x10    | Received inhibit from 1B               |
| 5   | 0x20    | No API client ID available (no port)   |
| 6   | 0x40    | Cannot connect to port                 |
| 7   | 0x80    | Cannot attach to AP driver             |
| 8   | 0x100   | Timeout waiting for 1B to open channel |
| 9   | 0x200   | Failure to open 1B channel             |
| 10  | 0x400   | Sesacc failed                          |
| 11  | 0x800   | Timeout waiting for BX25 FREETOSEND    |
| 12  | 0x1000  | Timeout waiting for BX25 read complete |
| 13  | 0x2000  | Unassigned                             |
| 14  | 0x4000  | Bxsreceive fail                        |
| 15  | 0x8000  | Illegal push of output buffer          |
| 16  | 0x10000 | Bufferfull from bxsreceive             |

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|    |            |                                   |
|----|------------|-----------------------------------|
| 17 | 0x20000    | Bxsquery failed                   |
| 18 | 0x40000    | Session abort received            |
| 19 | 0x80000    | Datalost indication received      |
| 20 | 0x100000   | Unknown indication received       |
| 21 | 0x200000   | Unknown outer indication received |
| 22 | 0x400000   | API failure                       |
| 23 | 0x800000   | Unexpected 1B acknowledgment      |
| 24 | 0x1000000  | Fail bxssend                      |
| 25 | 0x2000000  | Unassigned                        |
| 26 | 0x4000000  | Abort from 1B machine received    |
| 27 | 0x8000000  | MSG_ACK from 1B timeout           |
| 28 | 0x10000000 | WT_ACK from 1B timeout            |
| 29 | 0x20000000 | Fail locseg for DMA message       |
| 30 | 0x40000000 | Fail ioqueuem for DMA message     |
| 31 | 0x80000000 | Unassigned                        |

- g A decimal integer.
- h A hexadecimal integer.\* The left half is the number of times a "not free to send" condition was detected; the right half is the number of BX25 messages that was received during the session.
- i A hexadecimal integer.\* The left half and the right half are the "take" and "load" pointers for the "not free to use" queue of output buffers.
- j A hexadecimal integer.\* The left half and the right half are the "take" and "load" pointers for the output buffer queue.
- k A hexadecimal integer.\* The left half is the number of "acks" sent to the 1B machine; the right half is the number of messages received from the 1B machine.
- NOTE \*:** In these cases, a 32 bit word printed as a hexadecimal number with leading zeroes suppressed.
- l A decimal number indicating the number of times the 1B refused a new input message because it was waiting for an "ack" from a 1B application program.

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m The decimal value of an indication received.

n The decimal abort code received from the 1B machine; possible values are:

| <u>Value</u> | <u>Reason</u>                                                                           |
|--------------|-----------------------------------------------------------------------------------------|
| 4            | Received input from a channel not in an active session.                                 |
| 6            | Received a special handling message for a channel not having a special handling buffer. |
| 13           | Invalid message type field in APS message.                                              |

**NOTE:** The following codes, which may be generated during a session, do not abort the session; instead, a control byte of data is sent to the external user for information--no output is made on the APS machine:

| <u>Value</u> | <u>Reason</u>                                                                                                                                     |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 5            | Input message larger than channel member block or special handling buffer.                                                                        |
| 7            | The 1B refused the message because it was waiting for acknowledgment for the previous message. This condition persisted through message retrials. |
| 10           | The 1B machine failed to recognize special handling verb.                                                                                         |
| 15           | Unable to set up DMA operation on the APS.                                                                                                        |
| 16           | Special handling buffer is busy.                                                                                                                  |
| 17           | The 1B machine received a DMA complete for an I/O channel not waiting for it.                                                                     |
| 18           | The 1B machine timed out waiting for a DMA to complete.                                                                                           |
| 19           | The 1B machine timed out a channel in the output state, possible lost message.                                                                    |

p The port number.

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| q                  | One of the following strings:                                                                                                                                                                                                                                                                                                                                                          |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------|--------------------------------------------------|--------|----------------------------------------------|-------------------|-------------------------------------|--------------------|-------------------------------------|
|                    | <table><tr><th>String</th><th>Meaning.</th></tr><tr><td>MSG_ACK</td><td>Timeout waiting for message ack from 1B machine.</td></tr><tr><td>WT_ACK</td><td>Timeout waiting for DMA ack from 1B machine.</td></tr><tr><td>BX25 FREE-TO-SEND</td><td>Timeout waiting for the indication.</td></tr><tr><td>BX25 READ_COMPLETE</td><td>Timeout waiting for the indication.</td></tr></table> | String | Meaning. | MSG_ACK | Timeout waiting for message ack from 1B machine. | WT_ACK | Timeout waiting for DMA ack from 1B machine. | BX25 FREE-TO-SEND | Timeout waiting for the indication. | BX25 READ_COMPLETE | Timeout waiting for the indication. |
| String             | Meaning.                                                                                                                                                                                                                                                                                                                                                                               |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| MSG_ACK            | Timeout waiting for message ack from 1B machine.                                                                                                                                                                                                                                                                                                                                       |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| WT_ACK             | Timeout waiting for DMA ack from 1B machine.                                                                                                                                                                                                                                                                                                                                           |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| BX25 FREE-TO-SEND  | Timeout waiting for the indication.                                                                                                                                                                                                                                                                                                                                                    |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| BX25 READ_COMPLETE | Timeout waiting for the indication.                                                                                                                                                                                                                                                                                                                                                    |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| r                  | The mtype received--should only receive messages with mtype = AP_MSG.                                                                                                                                                                                                                                                                                                                  |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| s                  | The 1B request type. The type received is unknown.                                                                                                                                                                                                                                                                                                                                     |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| t                  | The APID for the message.                                                                                                                                                                                                                                                                                                                                                              |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| u                  | User ID (found on bxslrmt form and in /etc/passwd) for the external user that initiated the session. Defined users are:<br><br>4BLTST<br>DMACOSS<br>IRAS<br>NMRNMS<br>CNAC<br>TOPAS (4AP7)                                                                                                                                                                                             |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| v                  | The ap_type received.                                                                                                                                                                                                                                                                                                                                                                  |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |
| w                  | The ap_stat field.                                                                                                                                                                                                                                                                                                                                                                     |        |          |         |                                                  |        |                                              |                   |                                     |                    |                                     |

#### 4. ACTION TO BE TAKEN

Seek technical assistance.

#### 5. REFERENCES

None.

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ID ..... REPT:PSDIO3B  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has 13 formats.

- [1] REPT PSDIO3B START OF SESSION - USER u WITH a  
PORT b (p)
- [2] REPT PSDIO3B END OF SESSION - USER u WITH a  
BYTES IN g, BYTES OUT g, g SECONDS, CODE f
- [3] REPT PSDIO3B BADLOGIN ATTEMPT - USER u CODE f
- [4] REPT PSDIO3B UNKNOWN PROCESS CHARACTER m
- [5] REPT PSDIO3B USER ID u NOT FOUND IN PASSWORD FILE
- [6] REPT PSDIO3B PASSWORD CHECK FAILED FOR u
- [7] REPT PSDIO3B CANNOT CREATE PIPE
- [8] REPT PSDIO3B CANNOT FORK
- [9] REPT PSDIO3B ERROR ON OPEN FOR i ON j, ERRNO = k
- [10] REPT PSDIO3B CANNOT EXECUTE l
- [11] REPT PSDIO3B(u) UNKNOWN INDICATION n
- [12] REPT PSDIO3B(u) UNKNOWN OUTER INDICATION n
- [13] REPT PSDIO3B(u) BX25 q TIMEOUT

## 2. REASON FOR OUTPUT

Formats 1&2: Are routine messages announcing the start and end of a session with process psdio3b.

Formats 3-10: Indicate various conditions which prevented the successful establishment of a session.

Formats 11&12: Specify any unexpected BX25 indications received during a session.

Format 13: Announces timeout conditions during a session.

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### 3. VARIABLE FIELD DEFINITIONS

- a String indicating process or function the user will use (the session connect message user data contains a process character that specifies the purpose of the session):
- CFTSHL — The craft shell, default or process character A  
 MONITOR — For DMS system, process character B  
 SH — Bin/sh, process character S  
 TOPAS — Will access TOPAS data, process character T
- b The port name connected to by the process (the 2nd line of the "START OF SESSION" message is omitted if a port is not needed).
- f A hexadecimal integer representing 32 flags that may be set during the course of a session to indicate the occurrence of an event. This value is also sent to the external user when a session ends. Flag assignments are:

| Bit | Value | Meaning                              |
|-----|-------|--------------------------------------|
| 0   | 01    | Session disconnect received          |
| 1   | 02    | Unassigned                           |
| 2   | 04    | Open error on named pipe             |
| 3   | 0x8   | Open named pipe timeout              |
| 4   | 0x10  | Sesacc failed                        |
| 5   | 0x20  | Fork failed                          |
| 6   | 0x40  | Cannot create pipe                   |
| 7   | 0x80  | Timeout waiting for<br>FREETOSEND    |
| 8   | 0x100 | Fstat failed on check<br>of read end |
| 9   | 0x200 | Timeout waiting for<br>FREETOUSE     |
| 10  | 0x400 | Bxssend failed                       |
| 11  | 0x800 | Bxsreceive fail                      |

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|    |            |                                                                      |
|----|------------|----------------------------------------------------------------------|
| 12 | 0x1000     | Timeout waiting for<br>receive to complete                           |
| 13 | 0x2000     | Fstat failed on check<br>of write end                                |
| 14 | 0x4000     | Write to pipe failed                                                 |
| 15 | 0x8000     | Bxsquery failed                                                      |
| 16 | 0x10000    | Received buffer full<br>from BX25                                    |
| 17 | 0x20000    | Password check failed                                                |
| 18 | 0x40000    | Session abort received                                               |
| 19 | 0x80000    | Datalost indication received                                         |
| 20 | 0x100000   | Could not connect to port                                            |
| 21 | 0x200000   | Unknown indication received                                          |
| 22 | 0x400000   | Unknown outer indication received or<br>could not set up environment |
| 23 | 0x800000   | Death of child received                                              |
| 24 | 0x1000000  | No idle named pipe                                                   |
| 25 | 0x2000000  | Userid not found in<br>password file                                 |
| 26 | 0x4000000  | Unknown process request<br>from user                                 |
| 27 | 0x8000000  | Session aborted due to<br>CNI ring trouble                           |
| 28 | 0x10000000 | Session aborted due<br>to resources problems                         |
| 29 | 0x20000000 | Chdir to user directory failed                                       |
| 30 | 0x40000000 | Unassigned                                                           |
| 31 | 0x80000000 | Unassigned                                                           |

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SEE PROPRIETARY NOTICE ON COVER PAGE

|   |                                                                                                                         |
|---|-------------------------------------------------------------------------------------------------------------------------|
| g | A decimal integer.                                                                                                      |
| i | The string READ or WRITE                                                                                                |
| j | The path name for a named pipe.                                                                                         |
| k | The decimal value of errno for the open call.                                                                           |
| l | The path name of a process.                                                                                             |
| m | An illegal process character received in the user data for a session connect message (See variable a).                  |
| n | The decimal value of an indication received.                                                                            |
| p | The port number.                                                                                                        |
| q | The string "FREE-TO-USE", "FREE-TO-SEND" or "READ_COMPLETE".                                                            |
| u | User ID (found on bxslrmt form and in /etc/passwd) for the external user that initiated the session. Defined users are: |

4BLTST  
DMACOSS  
IRAS  
NMRNMS  
CNAC  
TOPAS (4AP7)

#### **4. ACTION TO BE TAKEN**

Seek technical assistance.

#### **5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:PSDO-FLT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT PSDO\_UMS.P FLT  
EFLAGS=a, FLTCODE=b
- [2] REPT PSDO\_UMS.P FLT  
EFLAGS=a, FLTCODE=b, PA=c  
R0=d, R7=e, R8=f

## 2. REASON FOR OUTPUT

The IMS pseudo measurement process (psdo\_ums.p) has encountered a hardware or software fault.

## 3. VARIABLE FIELD DEFINITIONS

- a Hexadecimal number which is the sum of the codes for all UNIX® RTR events outstanding for the IMS measurement process. (These are defined in UNIX® RTR header file evflag.h.)
- b The UNIX® RTR fault code.
- c If this is present, then the IMS pseudo measurement process was in execution at this virtual address when the fault was encountered.
- d Contents of 3B CU register r0.
- e Contents of 3B CU register r7.
- f Contents of 3B CU register r8.

## 4. ACTION TO BE TAKEN

Analyze the fault code (See References).

If the fault is not attributed to a hardware problem, seek technical assistance.

## 5. REFERENCES

evflag.h. header file (UNIX® RTR)  
fault.h header file (UNIX® RTR)

Output Messages

REPT: IODRV-AT  
REPT: IODRV-ERR  
REPT: IODRV-ERROR  
REPT: IODRV-FAULT

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:PSM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT PSM ERROR X'a GRPN b STATE X'c
- [2] REPT PSM ERROR X'a SYSTEM ERROR d GRPN b  
STATE X'c
- [3] REPT PSM ERROR X'a GRPN b

## 2. REASON FOR OUTPUT

Format 1 is to report the Power Switch Monitor (PSM) encountered an error while trying to perform an operation.

Format 2 is to report the PSM encountered an error while attempting to send a message to the Scanner and Signal Distributor Administrator (SCSDA).

Format 3 is to report an unidentified group has been requested to be operated upon.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code:
- 0xe0 — Error in Unit Control Block (UCB) pointer. Check addressing flags in the message.
  - 0xe1 — Error in unit number. Specified unit is not identified by the SCSDA.
  - 0xe2 — Error in logical group name. SCSDA cannot find reference to a group. Logical group unit may have been degrown. Check message. Possible save area corruption. Verify group in database.
  - 0xe3 — Error in duplex identification. Check message. Possible PSM save area corruption. Check database records.
  - 0xe4 — Scanner and Signal Distributor Controller (SCSDC) is possibly Out Of Service (OOS). Check status of SCSDC.
  - 0xe5 — Invalid point number. Check message. Possible PSM save area corruption. Check database record to verify that the point is included in the group.
  - 0xe6 — Address type not specified in message. Check message.
  - 0xe7 — Scanner and Signal Distributor Handler (SCSDH) failed to complete the operation. Check status of SCSDC and SCSDA. Check SCSDH error messages to determine the problem.
  - 0xe8 — Illegal class requested. Class cannot be monitored. Check message. See ecd.h for legal classes.

SEE PROPRIETARY NOTICE ON COVER PAGE

- 0xe9 — SCSDA cannot add client to list. Check for multiple occurrences of processes.
- 0xea — Unknown command type. Check message.
- 0xeb — SCSDA is in incorrect state to perform operations on the SCSDC. Check status of SCSDC.
- 0xec — Point from database record retrieved by SCSDA is illegal. Review database forms.
- 0xed — SCSDA could not update database.
- 0xee — No error.
- 0xef — Illegal operation requested. Check message.
- 0xf0 — Illegal number of operations requested per message. Check ad\_count in message.
- 0xf1 — SCSDA could not find the class requested to be monitored by PSM in any of the database forms. Check database forms and SCSDC equipage.
- 0xf2 — Operation could not be completed by SCSDH. Additional information can be obtained from SCSDH error message.
- 0xf3 — Unknown message type has been received by SCSDA from the SCSDH.
- 0xf4 — SCSDA cannot update database.
- 0x100 — PSM failed to send message to SCSDA. See msgport.
- 0x101 — PSM could not get a timing chain entry.
- 0x102 — PSM could not complete operation.
- 0x103 — Invalid message received by PSM from SCSDA. Check the Record Identification (RID) of unit specified in the database. Check message.
- 0x104 — PSM could not get UCB information for logical group. Possible corrupted RID in message. Review database form.
- 0x105 — PSM has determined group save area is corrupted. Reinitialize PSM.
- 0x106 — PSM could not identify group. Check message. Possible PSM corruption. In addition, check if group was rejected upon initialization.

b Logical group name.

c PSM mode of logical group values:

- 0x10 — Group is unavailable. PSM has encountered multiple internal errors.
- 0x11 — Group is idle.
- 0x12 — PSM is performing a directed scan operation.
- 0x13 — PSM is performing a distribute operation.
- 0x14 — PSM is performing an allow operation.
- 0x15 — PSM is waiting for inhibits to be cleared.

d System error code. See the *System Maintenance Manual*.

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#### 4. ACTION TO BE TAKEN

For Formats 1 and 2, locate the offending code or hardware from the error code. Check the status of the hardware by using the OP:00S input message. Verify that the SCSDC is equipped. Verify that the database forms contain the proper data. If corrupted areas are found in PSM, the processes should be restarted to reinitialize. If PSM is suspected of being corrupted, procedures should be taken to produce a dump of the process and forward information to the service organization.

For Format 3, verify that the database forms contain the proper logical group name. Verify that the correct logical group was input.

#### 5. REFERENCES

OMDB Key

Formats 1,2, and 3 have an OMDB key of 138.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Input Message

OP:00S

Output Messages

RCVRY:SCSDC

REPT:SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:PWRFLTC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**1. FORMAT**

REPT POWER FAULT CLEARED a b [c d]

**2. REASON FOR OUTPUT**

To indicate that a power fault detected by scanning the unit's power switch has been cleared.

**3. VARIABLE FIELD DEFINITIONS**

|   |                 |
|---|-----------------|
| a | Unit name.      |
| b | Unit number.    |
| c | Subunit name.   |
| d | Subunit number. |

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:QCOPY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT QCOPY WRITE ERROR DESTINATION FILESYSTEM MOUNTED
- [2] REPT QCOPY FROM a TO b BLOCKS= c
- [3] REPT QCOPY FILESYS /dev/root BYTES TO COPY d
- [4] REPT QCOPY QCOPY:DISK COPY COMPLETED  
02/08/90 17:15:20 #001755

## 2. REASON FOR OUTPUT

Format 1 indicates that QCOPY attempted to write to a mounted filesystem and aborted the operation.

Format 2 indicates that QCOPY is doing the copy operation to the destination filesystem displaying the block and byte count every 30 seconds for the filesystem being copied.

Format 3 indicates that QCOPY has successfully completed the copy operation for all the filesystems indicated in format [2].

## 3. VARIABLE FIELD DEFINITIONS

- a From filesystem name.
- b To filesystem name.
- c Blocks to copy.
- d Bytes to copy.

## 4. ACTION TO BE TAKEN

The user should analyze the ROP for any unsuccessful termination of QCOPY. Action to be taken depends on the termination status of QCOPY.

## 5. REFERENCES

Input Message  
EXC: QCOPY

SEE PROPRIETARY NOTICE ON COVER PAGE

The following table indicates filesystem names. The name of the destination or originating filesystem is interchangeable as indicated.

| Filesystem                 | Block Size(Found in SG DB) |
|----------------------------|----------------------------|
| /dev/root <---> /dev/broot | 132000                     |
| /dev/db <---> /dev/bdb     | 15000                      |
| /dev/etc <---> /dev/betc   | 12500                      |
| /dev/boot <---> /dev/bboot | 82                         |

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ID ..... REPT:RC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT: RC SYSTEM IDLE

**2. REASON FOR OUTPUT**

Prints in response to the RC:PCP-CHG input message.

**3. VARIABLE FIELD DEFINITIONS**

See Purpose.

**4. ACTION TO BE TAKEN**

None

**5. REFERENCES**

Input Message  
RC:PCP-CHG

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RCAS  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT RCAS PROC (task): msg

### 2. REASON FOR OUTPUT

To report RCAS status and errors.

### 3. VARIABLE FIELD DEFINITIONS

| task      | The RCAS task generating the report:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|------|-----------------------------------------|---------|------------------------------|----------|------------------------------|-------|----------------------------|--------|----------------------------|---------|---------------------------|---------|----------------------------|-----------|--------------------|---------|------------------------|-------|----------------------|--------|---------------------------|
|           | <table><thead><tr><th>task</th><th>function</th></tr></thead><tbody><tr><td>Init</td><td>RCAS application initialization handler</td></tr><tr><td>In_rcas</td><td>Incoming RCAS packet handler</td></tr><tr><td>Out_rcas</td><td>Outgoing RCAS packet handler</td></tr><tr><td>In_1b</td><td>Incoming 1B packet handler</td></tr><tr><td>Out_1b</td><td>Outgoing 1B packet handler</td></tr><tr><td>Rd_disk</td><td>Read disk request handler</td></tr><tr><td>Wt_disk</td><td>Write disk request handler</td></tr><tr><td>Audit_mgr</td><td>RCAS audit handler</td></tr><tr><td>Hb_rcas</td><td>RCAS heartbeat handler</td></tr><tr><td>Hb_1b</td><td>1B heartbeat handler</td></tr><tr><td>Hb_req</td><td>Heartbeat request handler</td></tr></tbody></table> | task | function | Init | RCAS application initialization handler | In_rcas | Incoming RCAS packet handler | Out_rcas | Outgoing RCAS packet handler | In_1b | Incoming 1B packet handler | Out_1b | Outgoing 1B packet handler | Rd_disk | Read disk request handler | Wt_disk | Write disk request handler | Audit_mgr | RCAS audit handler | Hb_rcas | RCAS heartbeat handler | Hb_1b | 1B heartbeat handler | Hb_req | Heartbeat request handler |
| task      | function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Init      | RCAS application initialization handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| In_rcas   | Incoming RCAS packet handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Out_rcas  | Outgoing RCAS packet handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| In_1b     | Incoming 1B packet handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Out_1b    | Outgoing 1B packet handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Rd_disk   | Read disk request handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Wt_disk   | Write disk request handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Audit_mgr | RCAS audit handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Hb_rcas   | RCAS heartbeat handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Hb_1b     | 1B heartbeat handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| Hb_req    | Heartbeat request handler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |
| msg       | Message contents. The RCAS status and error messages are listed.<br><br>DATA LINK (SDL24) CONNECTED<br><br>TIMEOUT WAITING FOR SETUP MSG<br><br>TIMEOUT WAITING FOR SETUP RESP MSG<br><br>RD-DISK KILLED!<br><br>WT-DISK KILLED!<br><br>RCVD ABORT MSG<br><br>UNEXPECTED MSG RCVD IN IDLE STATE<br><br>FAILED TO START HB-1B TASK                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |      |                                         |         |                              |          |                              |       |                            |        |                            |         |                           |         |                            |           |                    |         |                        |       |                      |        |                           |

SEE PROPRIETARY NOTICE ON COVER PAGE

FAILED TO START HB-RCAS TASK  
SESSION STARTED  
UNEXPECTED MSG RCVD IN W\_SETUP\_RESP STATE  
SESSION DISCONNECTED  
UNEXPECTED MSG RCVD IN CONNECTED STATE  
FAILED TO OPEN DATA LINK (SDL24)  
FAILED TO SEND I\_AM\_HERE MSG  
FAILED TO START IN-1B TASK  
FAILED TO START OUT-1B TASK  
FAILED TO START IN-RCAS TASK  
FAILED TO START OUT-RCAS TASK  
FAILED TO START HB-REQ TASK  
FAILED TO START RD-DISK TASK  
FAILED TO START WT-DISK TASK  
FAILED TO START AUDIT TASK  
FAILED TO SND EVENT  
EXIT  
allocmsg(size) FAILED  
queuemn(rcode) FAILED  
TIMEOUT  
RCVD UNEXPECTED EVENT type  
STATE VAR BAD (state)  
UNEXPECTED REQUEST RCVD  
UNEXPECTED RESPONSE RCVD

SEE PROPRIETARY NOTICE ON COVER PAGE

UNEXPECTED MSG RCVD

UNEXPECTED SUPERVISOR MSG RCVD

ERROR: Taskerr() CALLED FROM KERNEL STACK

f\_devid(): UNABLE TO ATTACH TO ECD

f\_devid(): INVALID LOGDEV FOR name

SMSG OWNED BY UNKNOWN TASK name

OLD SMSG msg=msg task=name

LMSG OWNED BY UNKNOWN TASK name

OLD LMSG msg,time

OLD LMSG msg=msg task=name

type LIST: LINKED TO BUSY SMSG

type LIST: LINKED TO BUSY LMSG

type LIST: MSG INDEX NOT FOUND

type MSG QUEUE SIZE MISMATCH

free\_int\_msg(): BAD MSG POINTER (0xmsg)

kfault(): NON-TASK FAULT X'type AT X'addr REG0 X'addr  
REG8 X'addr

FAILED TO START name TASK

FAILED TO SEND EVENT rcode

teardown(): BAD TCB POINTER tcbp

TASK TEARDOWN: task,ERR CODE: errcode

TASK TEARDOWN: task INTER STAT

TEARDOWN TASK task STACK OVFL SP=X'addr

FAILED TO RESTART TASK (task)

RESTARTING TASK (task)

SEE PROPRIETARY NOTICE ON COVER PAGE

FLT\_QMSAUD OLD MSG: TYPE=type  
BAD FAULT TYPE type  
AUDIT ERR CODE X'errcode  
UNEXPECTED EVENT TYPE RCVD type  
FAILED TO START num TASK  
FAILED TO FIND TASK FOR ACK  
FAILED TO ATTACH ACK MSG rcode  
FAILED TO ATTACH AP\_MSG MSG rcode  
SETUP RCVD  
SHUTDOWN  
INACTIVITY TIMEOUT  
HEARTBEAT TIMEOUT  
HEARTBEAT SUCCESS  
DATA LINK WRITE FAILED  
DATA LINK READ FAILED

|         |                                     |
|---------|-------------------------------------|
| size    | Size of the msg.                    |
| rcode   | Return code value.                  |
| state   | State value returned.               |
| name    | Name of record or task.             |
| msg     | Msg in case.                        |
| time    | Timestamp returned.                 |
| type    | Type of list, msg, event or, fault. |
| addr    | Address in hex.                     |
| tcbp    | Tcb pointer value.                  |
| task    | Name of the running task.           |
| errcode | Error code generated by the system. |

SEE PROPRIETARY NOTICE ON COVER PAGE

**4. ACTION TO BE TAKEN**

Seek technical assistance if errors occur.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:RCVRY-CU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY CU a COMPLETED

## 2. REASON FOR OUTPUT

To report that the initialization interval of the active Control Unit (CU) is complete.

## 3. VARIABLE FIELD DEFINITIONS

a                      Member number (0-1).

## 4. ACTION TO BE TAKEN

The cause of the initialization can be determined by accessing the most recent post-mortem dump from PMLOG. (Use the OP:LOG input message and specify the current date.)

## 5. REFERENCES

Input Message  
OP:LOG

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RCVRY-DUI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY DUI a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Direct User Interface (DUI) subdevice recovery attempt. The DUI, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:DUIC  
RMV:DUI  
RST:DUI

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

REPT:DUI

REPT:DUIC

REPT:IOP

REPT:RCVRY-DUIC

REPT:RCVRY-IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-DUIC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY DUIC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Direct User Interface Controller (DUIC) recovery attempt. The DUIC, initially in the active state, transitions to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:DUIC  
RMV:DUIC  
RST:DUIC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
REPT:DUIC  
REPT:IOP  
REPT:RCVRY-IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-HSD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY HSD a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a High-Speed Synchronous Datalink (HSD) recovery attempt. The HSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:HSDC  
RMV:HSD  
RST:HSD

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

DGN:HSDC  
REPT:HSD  
REPT:HSDC  
REPT:IOP  
REPT:RCVRY-HSDC  
REPT:RCVRY-IOP  
RMV:HSD  
RST:HSD

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RCVRY-HSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY HSDC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a High-Speed Synchronous Datalink Controller (HSDC) recovery attempt. The HSDC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:HSDC  
RMV:HSDC  
RST:HSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

DGN:HSDC  
RCVRY:IOP  
REPT:HSDC  
REPT:IOP  
REPT:RCVRY-IOP  
RMV:HSDC  
RST:HSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-IOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY IOP a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of an Input/Output Processor (IOP) recovery attempt. The IOP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-105 *Input/Output Processor Description and Theory of Operation*  
*3B Processor*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:IOP  
RMV:IOP  
RST:IOP

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Output Message  
REPT:RCVRY-IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-MT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY MT a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Magnetic Tape (MT) unit recovery attempt. The MT, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-220 *Magnetic Tape System General Description 3B20D/3B21D Model 1 Processor*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:MTC  
RMV:MT  
RST:MT

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

REPT:RCVRY-IOP  
REPT:RCVRY-MTC  
REPT:IOP  
REPT:MT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-MTC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY MTC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Magnetic Tape Controller (MTC) recovery attempt. The MTC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred; recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-220 *Magnetic Tape System General Description 3B20D/3B21D Model 1 Processor*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:MTC  
RMV:MTC  
RST:MTC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
REPT: IOP  
REPT: RCVRY - IOP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RCVRY-MTTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY MTTY a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Maintenance Teletypewriter (MTTY) recovery attempt. The MTTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP: IOP-F.                                                 |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies*  
*3B20D/3B21D Computer*

Output Appendix  
APP: IOP-F

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

CLR: IODRV  
DGN: MTTYC  
RMV: MTTY  
RST: MTTY

Output Messages

REPT: IOP  
REPT: MTTY  
REPT: MTTYC  
REPT: RCVRY - IOP  
REPT: RCVRY - MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-MTTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY MTTYC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Maintenance Teletypewriter Controller (MTTYC) recovery attempt. The MTTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP: IOP-F.                                                 |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key

This message has an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D/3B21D Computer*

Output Appendix  
APP: IOP-F

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

CLR: IODRV  
DGN: MTTYC  
RMV: MTTYC  
RST: MTTYC

Output Messages

REPT: IOP  
REPT: MTTYC  
REPT: RCVRY - IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-ROP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY ROP a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Receive-Only Printer (ROP) recovery attempt. The ROP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies  
3B20D/3B21D Computer*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:MTTYC  
RMV:ROP  
RST:ROP

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

REPT:IOP

REPT:MTTYC

REPT:RCVRY-IOP

REPT:RCVRY-MTTYC

REPT:ROP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-SCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY SCC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Switching Control Center (SCC) recovery attempt. The SCC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP: IOP-F.                                                 |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: MTTYC  
RMV: SCC  
RST: SCC

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Output Messages

REPT: IOP

REPT: MTTYC

REPT: RCVRY- IOP

REPT: RCVRY- MTTYC

REPT: SCC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RCVRY-SCSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY SCSDC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Scanner and Signal Distributor (SCSD) recovery attempt. The SCSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
RMV:SCSDC  
RST:SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages

REPT: IOP

REPT: RCVRY - IOP

REPT: SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-SDL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY SDL a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Synchronous Datalink (SDL) recovery attempt. The SDL, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:SDLC  
RMV:SDL  
RST:SDL

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Output Messages

REPT: IOP

REPT: RCVRY - IOP

REPT: RCVRY - SDLC

REPT: SDL

REPT: SDLC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-SDLC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY SDLC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Synchronous Datalink Controller (SDLC) recovery attempt. The SDLC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:SDLC  
RMV:SDLC  
RST:SDLC

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Output Messages  
REPT: IOP  
REPT: RCVRY - IOP  
REPT: SDLC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RCVRY-TTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY TTY a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Teletypewriter (TTY) recovery attempt. The TTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP: IOP-F.                                                 |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies  
3B20D/3B21D Computer*

Output Appendix  
APP: IOP-F

Input Messages  
CLR: IODRV  
DGN: TTYC  
RMV: TTY  
RST: TTY

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Output Messages

REPT: IOP

REPT: RCVRY - IOP

REPT: RCVRY - TTYC

REPT: TTY

REPT: TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RCVRY-TTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT RCVRY TTYC a b [c]

## 2. REASON FOR OUTPUT

To report the outcome of a Teletypewriter Controller (TTYC) recovery attempt. The TTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                       |
| b | Termination status:<br><br>ABORTED — An error occurred: recovery failed.<br><br>COMPLETED — Recovery was successful. |
| c | Additional error information. See IOP Output Appendix F, APP:IOP-F.                                                  |

## 4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 196.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation* Lucent Technologies 3B20D/3B21D Model 1 Computer

Output Appendix  
APP:IOP-F

Input Messages  
CLR:IODRV  
DGN:TTYC  
RMV:TTYC  
RST:TTYC

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Output Messages  
REPT: IOP  
REPT: RCVRY - IOP  
REPT: TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RECENT-CHANG  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RECENT CHANGEABLE PARAMETERS  
NO INPUT DATA SPECIFIED
- [2] REPT RECENT CHANGEABLE PARAMETERS  
INVALID NUMBER OF CHARACTERS IN AN INPUT FIELD
- [3] REPT RECENT CHANGEABLE PARAMETERS  
INVALID KEYWORD IN INPUT MESSAGE
- [4] REPT RECENT CHANGEABLE PARAMETERS  
CANNOT SEND MESSAGE TO UPDATE PARAMETERS
- [5] REPT RECENT CHANGEABLE PARAMETERS  
TEMPORARY FILE COULD NOT BE CREATED
- [6] REPT RECENT CHANGEABLE PARAMETERS

|                       |   |
|-----------------------|---|
| EIN IP 0 ADDRESS      | a |
| EIN IP 1 ADDRESS      | a |
| CDRP 0 IP 0 ADDRESS   | a |
| CDRP 0 IP 1 ADDRESS   | a |
| CDRP 0 ID             | b |
| CDRP 0 PASSWORD       | c |
| CDRP 1 IP 0 ADDRESS   | a |
| CDRP 1 IP 1 ADDRESS   | a |
| CDRP 1 ID             | b |
| CDRP 1 PASSWORD       | c |
| SWITCH ID             | b |
| SWITCH PASSWORD       | c |
| B-ROUTER IP 0 ADDRESS | a |
| B-ROUTER IP 1 ADDRESS | a |
| SUBNET MASK           | d |
| COMPRESSION FLAG      | e |

## 2. REASON FOR OUTPUT

Reports errors encountered when executing the input command, SET:AMA;RC. Shows the output from the OP:AMA;RC command.

Format 1 is printed when there was no data specified on the input command line.

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Format 2 is printed when the number of characters specified on the input command line is not correct.

Format 3 is printed when the keyword specified on the input command line is not specified correctly.

Format 4 is printed when a message cannot be sent to the Automatic Message Accounting (AMA) formatter process to update the parameters.

Format 5 is printed when a file cannot be created on the 3B tmp filesystem.

Format 6 is the header plus the output from the `OP:AMA;RC` command.

### **3. VARIABLE FIELD DEFINITIONS**

- |   |                                         |
|---|-----------------------------------------|
| a | Internet Protocol Numeric address.      |
| b | Alpha-Numeric ID of 11 characters.      |
| c | Alpha-Numeric Password of 8 characters. |
| d | ffffff00 or 00ffffff.                   |
| e | ON or OFF.                              |

### **4. ACTION TO BE TAKEN**

The user needs to re-enter the command with the correct information. For the format 4 case, the AMA formatter process may need to be restarted.

### **5. REFERENCES**

Input Messages  
OP:AMA-RC  
SET:AMA-RC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:RETRO  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RETRO ERROR - WRONG NUMBER OF ARGS
- [2] REPT RETRO ERROR - UNABLE TO OPEN a SYSTEM ERROR b
- [3] REPT RETRO ERROR - UNABLE TO CREATE a SYSTEM ERROR b
- [4] REPT RETRO - BUILDING THE ECD CONVERSION SCRIPT
- [5] REPT RETRO - ECD CONVERSION COMPLETE c ERRORS DETECTED

## 2. REASON FOR OUTPUT

To report the status and completion of a retrofit process. The process extracts the office dependent information from the current office ECD and builds a retrofit script to be applied to the new ECD.

## 3. VARIABLE FIELD DEFINITIONS

- a Path name of the file that caused the error to print.
- b Error number returned by the system.
- c Total number of errors detected.

## 4. ACTION TO BE TAKEN

Format 1 results when the wrong number of arguments is entered. Re-execute the command using the correct number of arguments.

Format 2 results when the specified file cannot be opened. Determine if the file exists. If the file does not exist, check for previous retrofit failures. If the file does exist, re-execute the command. If errors persist, contact your support organization.

Format 3 results when the specified file cannot be created. Check if there is enough room in the filesystem.

Format 4 is an information message. No action is required.

Format 5 reports the completion of the retro process. No action is required if there are zero errors. Otherwise, correct previous errors before proceeding.

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**5. REFERENCES**

None.

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ID ..... REPT:RETRY-RPC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT RETRY RPC DMA  
RETRY DMA ON RPCNa 0, RETRY COUNT = b,  
TIME = c

## 2. REASON FOR OUTPUT

The 3B Message Switch (MSW) module detects an Ring Peripheral Controller (RPC) not responding to it for a predetermined number of message switch cycles. The module attempts to recover from that by cleaning up the 3B <-> RPC path and issuing a PIO informing the RPC to retry the last Direct Memory Access (DMA) job.

## 3. VARIABLE FIELD DEFINITIONS

- a A Ring Node (RN) group number (00-32).
- b Number of times the 3B MSW retries the DMA (max. 2).
- c 3B real-time stamp when the retry occurs.

## 4. ACTION TO BE TAKEN

This is an informational message, no action is required.

## 5. REFERENCES

None.

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ID ..... REPT:REX  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT REX UNABLE TO SEND MESSAGE TO  
APPLICATION REX PORT
- [2] REPT REX UNABLE TO REQUEST PORTSWITCH FOR IOP  
DIAGNOSIS
- [3] REPT REX ROP PORTSWITCH REQUEST DENIED
- [4] REPT REX MTTY PORTSWITCH REQUEST DENIED
- [5] REPT REX MAJOR ALARM a
- [6] REPT REX CANNOT OPEN b
- [7] REPT REX TERMINATED-INTERNAL REQUEST
- [8] REPT REX MINOR ALARM a

## 2. REASON FOR OUTPUT

For Format 1, before Routine Exercise (REX) removes the Input/Output Processors (IOPs) for diagnosis, it will send a message to PT\_REX to notify the applications of the removal. The applications can then gracefully stop their datalink transmission. If no process is connected to this port, this message will be printed and execution will continue normally.

For Format 2, before REX removes an IOP for diagnosis, it must make sure the portswitches for the Maintenance Teletypewriter (MTTY) or Receive-Only Printer (ROP) are not active. This message indicates REX had a problem locating the Unit Control Block (UCB) for the ROP or MTTY.

For Format 3, REX sent a request to portswitch the ROP and it was denied or could not be executed.

For Format 4, REX sent a request to portswitch the MTTY and it was denied or could not be executed.

For Format 5, essential unit found to be Out Of Service (OOS).

For Format 6, REX could not open the specified file to output the REX report.

For Format 7, REX received a sigterm signal and is terminating.

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For Format 8, REX found an OOS unit with a controlling unit that is an IOP. This is a condition to signal a minor alarm.

### **3. VARIABLE FIELD DEFINITIONS**

- a Name and number of the essential unit found to be OOS.
- b Name of the output file for REX report.

### **4. ACTION TO BE TAKEN**

For Format 1, this report can be ignored if the application does not wish to receive the message from the UNIX® RTR REX process.

For Format 2, check the status of IOP subunits and portswitches (ROP and MTTY). Verify that a portswitch can be executed.

For Format 3, check to see if a manual portswitch can be requested.

For Format 4, check to see if a manual portswitch can be requested. Also check the states of the IOP subunits.

For Formats 5 and 8, request a restore on the hardware unit or community. No further action is required if the restore is successful. If the hardware unit or community failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

For Format 6, determine if the specified file system is full and remove unneeded files.

For Format 7, no action is required.

### **5. REFERENCES**

#### **OMDB Keys**

- Format 1 has an OMDB key of 28.
- Format 2 has an OMDB key of 29.
- Format 3 has an OMDB key of 30.
- Format 4 has an OMDB key of 31.
- Format 5 has an OMDB key of 32.
- Format 6 has an OMDB key of 33.
- Format 7 has an OMDB key of 27.
- Format 8 has an OMDB key of 473.

#### **Input Messages**

- OP: OOS
- SW: PORTSW

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ID ..... REPT:REX-SUM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT REX SUMMARY {IN PROGRESS | COMPLETED}  
TIME      EQUIPMENT ID      RESULT      RET      STATE  
a          b c [d e]          f          [g]          h

## 2. REASON FOR OUTPUT

To report a summary of Routine Exercise (REX) results for all hardware units that were exercised.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Local time (hours, minutes, and seconds) when the exercise of the unit finished.
- b                      Unit name.
- c                      Unit number.
- d                      Subunit name.
- e                      Subunit number.
- f                      Result of exercising the specified unit:
- ABT      — Diagnostics were aborted.
  - ATP      — All tests passed.
  - CATP     — Conditional ATP.
  - ERR      — Error return code received from Maintenance Input Request Administrator (MIRA).
  - FAULT    — Unit was excessively faulty.
  - INH      — REX was inhibited for this unit.
  - MAN      — Unit was removed manually.
  - NODGN    — No diagnostic phases exist for this unit.
  - NRPY     — No reply received from MIRA.
  - NTR      — No tests were run.
  - OOS      — Unit was Out Of Service (OOS) and could not be exercised.
  - PORTSW   — Could not portswitch.
  - STF      — Some tests failed.
  - TIMEOUT — Timeout occurred.
- g                      Return code:
- 2 — Request inhibited.
  - 3 — MIRA out of buffers.
  - 4 — MIRA cannot spawn Diagnostic Monitor (DIAMON) program.

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- 5 — Duplicate request already in queue.
- 6 — Request aborted by STOP:DMQ request.
- 7 — Internal problem; request aborted.
- 8 — Remove attempt failed.
- 9 — Restore attempt failed.

h

The state of the unit after REX exercised it:

|         |                   |
|---------|-------------------|
| ACT     | — Active.         |
| GROW    | — Grow state.     |
| INIT    | — Initializing.   |
| OFL     | — Off-line.       |
| OOS     | — Out of service. |
| STBY    | — Standby.        |
| UNAV    | — Unavailable.    |
| UNEQUIP | — Unequipped.     |

**NOTE:** This variable field reflects the state of the unit when the exercise of the unit finished, which may not be the current state of the unit. If external events result in the removal of a unit (that is, manually removed, removed from a fault, softswitch, etc.) after REX has exercised it, the new state is not reflected in this variable.

#### 4. ACTION TO BE TAKEN

If any units failed diagnostics or were left out of service, manual action is required to restore them.

#### 5. REFERENCES

OMDB Key

This message has an OMDB key of 26.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual*, Volume 6

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Input Messages

ALW:DMQ-A  
ALW:REX  
INH:DMQ-A  
INH:REX  
OP:DMQ  
OP:REXINH  
STOP:DMQ

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Output Messages

ALW:DMQ  
ALW:REX  
INH:DMQ  
INH:REX  
OP:DMQ  
OP:REXINH  
REPT:DMQ  
STOP:DMQ

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ID ..... REPT:RING-CFR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has thirteen output formats:

- [1] REPT RING CFR  
RING CONFIGURATION ESTABLISHED (h MS)  
NORMAL CONFIGURATION, NO NODES ISOLATED  
f f  
m (n)
- [2] REPT RING CFR  
RING CONFIGURATION ESTABLISHED (h MS)  
BISO NODE = a, EISO NODE = b  
f f  
m (n)
- [3] REPT RING CFR  
RING CONFIGURATION ATTEMPT FAILED j  
COULD NOT ESTABLISH A NORMAL RING CONFIGURATION  
f f f f f f  
f f f f  
m (n)
- [4] REPT RING CFR  
RING CONFIGURATION ATTEMPT FAILED j  
COULD NOT ESTABLISH BISO NODE = a, EISO NODE = b  
f f f f f f  
f f f f  
m (n)
- [5] REPT RING CFR  
LEVEL i RING CONFIGURATION INITIATED BY e  
[ NORMAL CONFIGURATION | ISOLATION FROM a TO b ] REQUESTED  
f f f f f f f f f f f f f f (g)
- [6] REPT RING CFR  
LEVEL i RING CONFIGURATION INITIATED BY e  
[ NORMAL CONFIGURATION | ISOLATION FROM a TO b ] FAILED RSN = c.  
d  
f f f f (g)

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- [7] REPT RING CFR  
LEVEL *i* RING CONFIGURATION INITIATED BY *e*  
*f f f f f f f f f f f f f f* (*g*)
- [8] REPT RING CFR  
EAR COULD NOT IDENTIFY A RING PROBLEM  
(*g*)
- [9] REPT RING CFR  
EAR DETECTED A RING PROBLEM BUT FAILED TO RESOLVE  
ITS EXACT LOCATION  
*f f f f f* (*g*)
- [10] REPT RING CFR  
WARNING: BISO AND/OR EISO NODE OOS  
BISO NODE = *a*, EISO NODE = *b*  
*k*
- [11] REPT RING CFR  
EXCESSIVE ATTEMPTS TO CFR RING ...
- [12] REPT RING CFR  
WARNING: RING CONGESTION MAY OCCUR DUE TO INSUFFICIENT RING CAPACITY  
RING CAPACITY = *p* BYTES, CAPACITY TO AVOID CONGESTION > *q* BYTES
- [13] REPT RING CFR  
RING CAPACITY IS SUFFICIENT TO AVOID RING CONGESTION  
RING CAPACITY = *p* BYTES, CAPACITY TO AVOID CONGESTION > *q* BYTES

## 2. REASON FOR OUTPUT

Format 1: Printed whenever a new ring configuration has been successfully established, either manually or automatically. A normal ring configuration has been established.

Format 2: Printed whenever a new ring configuration has been successfully established, either manually or automatically. One or more ring nodes have been isolated from the active ring forming an isolated ring segment. The indicated BISO (Beginning of isolation) and EISO (End of isolation) nodes bound the isolated ring segment on each side. The convention used is as follows: Ring 0 identifies the ring that propagates messages around the ring, following the ring nodes in ascending order (e.g., LN16 1 to LN16 2 to LN16 3, etc.). Similarly, Ring 1 identifies the ring that propagates messages around the ring, following ring nodes in descending order. As Ring 0 is traversed in the direction of message propagation, the BISO node is the last node encountered in the active ring segment before entering the isolated ring segment. Similarly, the EISO node is the first node encountered in the active ring segment as Ring 0 is traversed out of the isolated ring segment.

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Format 3: Is printed whenever an attempt to establish a new ring configuration was unsuccessful. Ring EAR (Error Analysis and Recovery) is activated and will attempt to establish a working ring configuration. An attempt to establish a normal ring configuration failed.

Format 4: Is printed whenever an attempt to establish a new ring configuration was unsuccessful. Ring EAR (Error Analysis and Recovery) is activated and will attempt to establish a working ring configuration. An attempt to establish an active ring segment with the indicated BISO and EISO nodes failed.

Format 5: This report is issued whenever Ring EAR requests a ring configuration of level 2 or less in an attempt to establish a working ring. The request is made as a result of a fault associated with one or more ring nodes, or a failure of an ongoing configuration. Level 0 represents an attempt to establish the previous ring configuration. Level 1 indicates a configuration based on reported ring errors. Level 2 indicates an escalation from a Level 1 configuration that includes isolating additional nodes.

Format 6: This report is issued whenever Ring EAR makes a ring configuration request that is rejected immediately. The reason for the rejection and the reject code are specified. This report is issued in lieu of Format 5. Escalation to level 3 is immediately made.

Format 7: This report is issued whenever Ring EAR requests level 3 or greater ring configuration. This can occur in response to a failure of a lower level reconfiguration attempt, or in response to non-deterministic failures such as loss of ring token.

Format 8: This report is issued following a Ring EAR level 4 or 5 recovery where the recovery procedure did not identify any faulty nodes beyond those already believed to exist. In other words, there was no trouble found in the level 4 or 5 testing. When a Ring EAR level 4 completes in this manner, the normal 5 second Ring EAR confidence interval is extended to 30 seconds. This is done so that any subsequent ring failure within 30 seconds will cause escalation to a Ring EAR level 5 recovery. Here, the level 5 recovery may identify an intermittent failure missed by the level 4 recovery.

Format 9: This report is issued following either a Ring EAR level 5 recovery or the ring initialization phase of a level 4 IMS initialization where a ring problem was detected, but its exact location could not be resolved. Problems exhibiting an intermittent failure behavior pattern can cause this. When this report is issued, Ring EAR has isolated a range of nodes which is believed to contain the faulty equipment. This range of nodes may at times be quite large.

Format 10: This is printed whenever a BISO or EISO node becomes inactive. After the first message, subsequent messages of this format will be printed periodically until the inactive BISO and/or EISO node or another nearby node is restored.

Format 11: This report is issued when an excessive number of attempts to reconfigure the ring fail to establish a usable ring. The action taken is dependent upon whether IMS is performing a high level initialization. If so, the ring is placed in the down state and the boot sequence continues. If not, a Full Process Initialization of IMS is initiated. The final contents of the message will identify which action is taken.

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Format 12: Ring blockage due to ring congestion may occur when the ring capacity is less than a safe threshold. Ring capacity (in bytes) is determined by summing the capacity of the ring FIFO buffers of every ring node and IFB in the active ring. Output message Format 12 is printed when a ring configuration is established that has a ring capacity less than the safe threshold. After the first message, subsequent messages of this format will be printed at ten-minute intervals until the ring configuration is changed.

Format 13: This output message is printed when a ring configuration is established that has a ring capacity greater than the safe threshold. In addition, this message is only printed if the previous ring configuration caused output message Format 12 to print.

### 3. VARIABLE FIELD DEFINITIONS

- a, b Identifies a ring node name (e.g., RPCN16 0, LN32 5).
- c The rejection code returned by ring.cnfg, Format 6. (See variable d)
- d The reason for rejection, Format 6:

| CODE | REASON                                            |
|------|---------------------------------------------------|
| 2    | IMS RING CONFIGURATION PROGRAM ERROR              |
| 4    | CANDIDATE CONTROLLING RPC NODE NOT AVAILABLE      |
| 5    | CAN'T ISOLATE ACT OR INIT NODE(S)                 |
| 6    | CAN'T ISOLATE ADDITIONAL NODES                    |
| 7    | ACTIVE RING SEGMENT NOT LONG ENOUGH               |
| 9    | ILLEGAL CONFIGURATION REQUEST FROM RING. EAR      |
| 10   | BISO AND/OR EISO NODE OOS, MUST BE RESTORED FIRST |
| 11   | CAN'T ISOLATE ENTIRE RING                         |
| 12   | CAN'T FRAGMENT EXISTING ISOLATED SEGMENT          |
| 13   | CAN'T INCLUDE GROW OR FAULTY NODES                |
| 14   | CANDIDATE BISO AND/OR EISO NODE NOT AVAILABLE     |
| 16   | ILLEGAL REQUEST                                   |
| 17   | REQUESTED RING CONFIGURATION ALREADY EXISTS       |

- e The reason for the requested configuration:
- EAR — RING TRANSPORT ERRS have been received, or an escalation of an ongoing config attempt failed.
  - IUN TEST — During initialization, the IUN test phase caused ring blockage.
  - CNFG RQST — A normal ring configuration failed and escalated to EAR.
  - INTRNL RQST — The previous BISO or EISO was not active.
- f Internal state information primarily intended for AT&T Bell Laboratories use.
- g The Real Time Clock value when the report was formatted. The Real Time Clock has a granularity of 1ms. Used in correlation with other reports.

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- h Approximate ring silence time, primarily intended for AT&T Bell Laboratories use.
- i The level of ring recovery currently being undertaken.
- j The reason code for the config job failure:

| CODE | REASON                                                       |
|------|--------------------------------------------------------------|
| 3    | IMS RING CONFIGURATION PROGRAM ERROR                         |
| 4    | DMA FAILURE AT RPC NODE                                      |
| 5    | PREPARATION FOR RING CONFIGURATION ATTEMPT FAILED            |
| 6    | SYSTEM FAILED TO RESTORE AFTER CONFIGURATION WAS ESTABLISHED |
| 7    | JOB ABORTED, GUARD TIMER FIRED                               |
| 8    | RING ERRORS REPORTED AFTER CONFIGURATION WAS ESTABLISHED     |
| 9    | RPC CONFIG COMPLETION MESSAGE NOT RECEIVED                   |
| 10   | FORCED READ OPERATION FAILED                                 |
| 11   | OPERATION TO QUARANTINE ISOLATED NODE FAILED                 |
| 12   | OPERATION TO QUARANTINE NODE FAILED                          |
| 13   | RING SILENCE OPERATION FAILED                                |
| 14   | OPERATION TO CLEAR ISOLATION FAILED                          |
| 15   | OPERATION TO ESTABLISH ISOLATED SEGMENT FAILED               |
| 16   | OPERATION TO SHRINK/REMOVE ISOLATED SEGMENT FAILED           |
| 17   | RING TEST FAILED                                             |
| 18   | WRITING OF TOKENS FAILED                                     |
| 19   | ISOLATOR INTEGRITY TEST FAILED                               |
| 20   | RING TEST FAILED; HAVE NORM, EXPECTED ISO                    |
| 21   | RING TEST FAILED; HAVE ISO, EXPECTED NORM                    |
| 22   | RING INITIALIZATION FAILED, RING IS DOWN                     |

- k Status of restoral activity on the OOS BISO/EISO node:
- WAITING FOR NODE a TO BE RESTORED  
This does not imply that a restore is in progress on node a, but rather that node a must be restored, either manually or automatically, before the system can return to a stable state.
- ACTIVE RING SEGMENT NOT LONG ENOUGH  
There is insufficient ring capacity to allow the isolated segment to be extended.
- NO BISO/EISO CANDIDATES AVAILABLE  
There are no nodes in a suitable state to serve as a BISO/EISO node.
- m The ring configuration time. Used in correlation with other reports.

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|   |                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------|
| n | The Real Time Clock value when the ring configuration job completed (or aborted). Used in correlation with other reports.                 |
| p | The ring capacity in bytes of the current ring configuration.                                                                             |
| q | The ring capacity "safe" threshold. If the ring capacity is greater than this value, ring blockage due to ring congestion will not occur. |

#### 4. ACTION TO BE TAKEN

Format 1: No action is necessary, a normal ring configuration exists.

Format 2: No action is necessary, an isolated segment exists.

Formats 3 & 4: No action is necessary. Ring EAR is activated and will attempt to establish a working ring. A Format 5 output message should precede this message for every ring configuration attempt requested by Ring EAR, followed by a Format 1, 2, 3, or 4 output message, until a working ring configuration is successfully established, indicated by a Format 1 or Format 2 output message.

Format 5: If this output message precedes either a Format 1, 2, 3, or 4 output message, Ring EAR is in progress and attempting to establish a working ring configuration. No action is necessary.

Format 6: The requested level configuration failed for the reason given. Escalation is made immediately to a level 3 configuration. No action is necessary.

Format 7: A level of configuration equaling 3 or greater has been requested by Ring EAR. These recovery levels involve the use of ring communication tests to determine what portion of the ring is usable. The higher the level, the more exhaustive the communication tests are and, correspondingly, the longer the recovery action will take. A usable ring configuration is determined from the results of these tests. No action is necessary.

Format 8: A level 4 or 5 Ring EAR recovery yielded no trouble found. No action is necessary. However, be aware that there may be an intermittent problem somewhere in the ring. Transient problems that are difficult to locate may sometimes be identified by monitoring ring performance over an extended period of time.

Format 9: This report indicates that Ring EAR procedures for locating a ring problem are insufficient. It is probable that the problem is within the range of isolated nodes. Unfortunately, at times this may involve many nodes. Problems exhibiting an intermittent failure where the time between failures is greater than 5 seconds can cause this. Physical stressing of interframe buffer cable connections, ring node circuit pack seating, etc., may stimulate the problem to occur frequently enough to be detected by ring node diagnostics. Also, past ring maintenance history may give some indication as to a suspect area of the isolated range of nodes. Finally, a last ditch and tedious effort to localize the problem could be done with repeated applications of the following procedure. Given a range of isolated nodes, remove the ring node circuit packs at a subset of this range, conditionally restore the other isolated nodes to service, and monitor the ring performance for instability.

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Format 10: If Critical Node Restoral (CNR) is active, no action is necessary. The inactive BISO/EISO node or a suitable replacement will be automatically restored to service and the ring reconfigured if necessary. If Critical Node Restoral is inhibited (should never be unless all diagnostics are inhibited, e.g., via INH:DMQ (SRC ALL option), manual action must be taken. Use the OP:DMQ command to verify CNR is inhibited. Use the status field in this message or the OP:RING command to determine which node (BISO or EISO) is inactive, and attempt to manually restore the node. If this is unsuccessful, attempt to restore the unisolated node adjacent to the inactive BISO/EISO node. If the restore is successful, the ring will be automatically reconfigured. If the restore fails, continue to manually restore nearby unisolated nodes until a configuration with active BISO and EISO nodes is established.

Format 11: Internal fault recovery strategies have failed. Seek immediate assistance to determine the cause of the ring problems. If this occurs during a high level IMS initialization, the ring will remain in the down state pending manual intervention. Otherwise, the ensuing IMS boot will determine the state of the ring and the application.

Format 12: Operation with the ring capacity below the safe threshold for an extended period of time should be avoided. The most likely situation where this can occur is when an IRN node is grown or retrofitted into a previously all SSI node ring. When this occurs, the safe ring capacity threshold is automatically adjusted upwards. If the proper padded IFB hardware has not been retrofitted into the ring, output message Format 12 may be printed following the growth/retrofit procedure. It is important to provide the proper padded IFBs when IRN nodes are introduced into a previously all SSI node ring. In another situation, the isolation of multiple ring nodes can reduce ring capacity to the point where output message Format 12 will print. Obviously, every effort should be made to restore the ring to a normal configuration.

Format 13: No action is necessary.

## **5. REFERENCES**

Input Message  
CFR:RING  
INH:DMQ-B  
OP:DMQ  
OP:RING

Output Message  
CFR:RING

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ID ..... REPT:RING-GROWTH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RING GROWTH ERR  
a REQ TO CHG b FROM c TO d  
(DRVST=e)  
f
- [2] REPT RING GROWTH ERR  
RPC b MUST BE MEMBER 0
- [3] REPT RING GROWTH ERR  
IUN b MUST NOT BE MEMBER 0
- [4] REPT RING GROWTH ERR  
CANNOT CONVERT b TO PNI
- [5] REPT RING GROWTH ERR  
RPC b DEVICE ID g OUT OF RANGE
- [6] REPT RING GROWTH ERR  
RPC b , h HAVE DUPLICATE DEVICE ID g
- [7] REPT RING GROWTH ERR  
DUPLICATE PNI b
- [8] REPT RING GROWTH ERR  
PSUEDO\_NODE b STATE MUST BE GROW
- [9] REPT RING GROWTH ERR  
PROGRAM FAULT - SEE ERRLOG
- [10] REPT RING GROWTH  
ECD CORRECTION TO b DETECTED
- [11] REPT RING GROWTH  
HV INFO NOT MATCH BETWEEN RPC AND IUN UCBS FOR b
- [12] REPT RING GROWTH  
b ALREADY IN \_RMDLNIFA[]

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- [13] REPT RING GROWTH  
b IS IN THE UNEQIP STATE
- [14] REPT RING GROWTH  
b IS IN THE GROWTH STATE
- [15] REPT RING GROWTH  
DLN.IUN UCB MUST BE DEGROWN FIRST WHEN DEGROWING b
- [16] REPT RING GROWTH  
REMINDER: DO NOT FORGET THE CORRESPONDING DLN.RPC UCB FOR b
- [17] REPT RING GROWTH  
DUPLICATE NODE\_ID i FOUND IN \_RMBUFDSC[]
- [18] REPT RING GROWTH  
WARNING: \_RMBUFDSC[] NOT UPDATED FOR GROWING b
- [19] REPT RING GROWTH  
STILL ENTRY IN \_RMIFAEN[] WITH NODE ID i I.E. b
- [20] REPT RING GROWTH ERR  
INSUFFICIENT MEMORY IN SHARED LIBRARIES IMDB.P AND MSCNTL.P

## 2. REASON FOR OUTPUT

Format 1: Prints when an improper change of major state of a ring node is made via the UNIX® RTR Recent Change and Verify (RC/V).

Formats 2 - 7: Prints when the major state of a ring node has been changed from UNEQIP to GROW via UNIX® RTR RC/V, and the IMS DRIVER PROCESS detects a UCB data entry that prevents the IMS DRIVER PROCESS from honoring the change. The data discrepancy detected for each of these formats is as follows:

Format 2: Here, the UCB containing the entry RPC in the device\_type field has been assigned a member number other than 0 in the unit\_number field. RPC member numbers must be 0.

Format 3: Here, the UCB containing the entry RUN in the device\_type field has been assigned the member number 0 in the unit\_number field. IUN member numbers must be in the range 1 - 15.

Format 4: Here, the last two characters entered in the UCB unit\_name field are not numbers or are out of range (above 63), and/or the member number entered in the unit\_number field is out of range (above 15).

Format 5: Here, the entry in the internal\_device field of an RPC UCB is out of range (above 15).

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Format 6: Here, the entry in the `internal_device` field of an RPC UCB is a duplicate of the entry in an already equipped RPC UCB. All equipped RPC UCBs contain different `internal_device` values.

Format 7: Here, the last two numbers in the UCB `unit_name` field and the number in the `unit_number` field are identical to those of an already equipped ring node UCB.

Format 8: Prints when a pseudo\_node UCB containing the entry RUN in its `device_type` field has been recent changed out of the GROW major state. These pseudo\_nodes must remain in the GROW state.

Format 9: Prints when a program failure has occurred in accessing the ECD.

Format 10: Prints for informational purposes, when the IMS detects a UCB major state change to the UNEQIP state, which IMS determines to be action taken by the user towards correcting an irregularity of Formats 2 through 9.

Format 11: Prints when a mismatch of the UCB HV field between the RPC.DLN UCB and the IUN.DLN UCB has been detected.

Format 12: Prints when the IMS internal DLN information table already contains an entry for the node undergoing growth.

Format 13, 14: Prints when the specified node is in the state specified. This is for information only.

Format 15: Prints when it has been detected that the IUN.DLN UCB was degrown before degrowing the RPC.DLN UCB in a degrowth procedure.

Format 16, 18: Prints as a reminder.

Format 17: Prints when the IMS detects duplicate entries with specified node id in the buffer description table supplied by the IMS applications.

Format 19: Prints when, after degrowth, the IMS internal DLN information table still contains an entry(s) with the same node id.

Format 20: Prints when the size of the imdb.p and mscntl.p libraries is insufficient to allow growth of a node.

### 3. VARIABLE FIELD DEFINITIONS

- a                      How the erroneous change request was handled:
- REJECTED — IMS refused to recognize the request. The state in the ECD is inconsistent with IMS's internal state.
- TOLERATED — The change was accepted.

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- b Identifies the ring node member name (e.g., RPCN00 0). If the node name starts with ???, either there is no ECD record corresponding to this node or the the IMS private record indicates that this node is UNEQIP.
- c Old major state claimed by UNIX® RTR Recent Change and Verify: ACT, STBY, UNAV, OFL, OOS, UNEQIP, INIT, GROW, or BADVAL for an illegal value.
- d New major state requested via UNIX® RTR Recent Change and Verify: ACT, STBY, UNAV, OFL, OOS, UNEQIP, INIT, GROW, or BADVAL for an illegal value.
- e Old major state claimed by IMS subsystem: ACT, STBY, UNAV, OFL, OOS, UNEQIP, INIT, GROW, or BADVAL for an illegal value.
- f If present, this may identify a conflicting situation; otherwise, the state change itself is in error.  
  
DURING IMS INIT OR ABORT—IMS was being initialized or was aborting.  
  
DURING RING CFR—The ring was being reconfigured. This is normally very brief and may be caused by diagnostics, the CFR:RING command or various problems.  
  
WHILE NODE IN ACT RING SEG—Growth and degrowth are not permitted while the node is in the active segment of the ring.  
  
FOR DLN RPC-LIKE RECORD—A DLN node has two UCB records. The state change shown is illegal for the UCB which shows the DLN RPC-like properties. (That record should always be in the GROW or UNEQIP state. The major state of the DLN in craft displays is controlled by the other UCB, which defines the IUN aspects of the DLN.)
- g A decimal value representing the internal\_device entry found in the UCB.
- h Same as for variable b.
- i A decimal value representing the physical node id of the given node.

#### 4. ACTION TO BE TAKEN

Format 1: If a = REJECTED then the node's major state as represented in the ECD is inconsistent with IMS's view of the node's state. The node's state in the ECD must be changed via UNIX® RTR's Recent Change and Verify interface to agree with the value shown in the e variable.

If the change was rejected due to a conflicting situation (see the f variable), then it should be backed out immediately and may be retried later when the situation has changed.

If a = TOLERATED then steps of the growth procedures have been skipped and the user should ensure that the ring cabling actually reflects the new major state shown in the d

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variable. If it does not, it may be necessary to change the state back to its original value via UNIX® RTR's Recent Change and Verify.

Formats 2, 3, 4, and 7: The UCB defined by b in the output message should be immediately changed from the GROW to the UNEQIP major state via UNIX® RTR RC/V, and then deleted from the ECD. The discrepancy in the UCB should be determined and a corrected version inserted back into the ECD.

Formats 5 and 6: The UCB defined by b in the output message should be immediately changed from the GROW to the UNEQIP major state via UNIX® RTR RC/V. The discrepancy in the UCB should be determined and the UCB updated to correct it.

Format 8: The UCB defined by b in the output message should be changed immediately to the GROW major state via UNIX® RTR RC/V.

Format 9: Take action specified for ERRLOG. If ring node growth is currently in progress, and a UNIX® RTR recent change transaction had been executed immediately prior to receipt of the output message, a new recent change transaction should be entered to restore the ECD to its previous state.

Format 10: Verify that the ECD action was in fact a corrective action.

Formats 11 - 19: After an error, the growth/degrowth procedure must be thoroughly undone before progressing further. The basic rule of growing a DLN is to change the major state of the RPC.DLN UCB from UNEQIP to GROW first, then change the major state of the IUN.DLN UCB from UNEQIP to GROW and then from GROW to OOS. The basic rule of degrowing a DLN is to change the IUN.DLN UCB major state from OOS to GROW, then from GROW to UNEQIP, and then change the major state of the RPC.DLN UCB from GROW to UNEQIP.

For messages concerning the IMS application, contact the technical personnel of the appropriate organization.

For messages concerning the IMS internal information table, check the ECD to make sure there is no duplication of node id.

Format 20: For the node growth to take place, either other nodes must be degrown to a free memory slot in the measurement libraries imdb.p and mscntl.p, or imdb.p and mscntl.p must be rebuilt to provide additional slots in memory.

## 5. REFERENCES

CIC Select Code 303-010 *UNIX® RTR Recent Change and Verify Manual*

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ID ..... REPT:RING-INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has nine output formats:

- [1] REPT RING INIT  
RING INITIALIZATION WAS SUCCESSFUL
- [2] REPT RING INIT  
RING INITIALIZATION WAS SUCCESSFUL  
BISO NODE = a, EISO NODE = b
- [3] REPT RING INIT FLT  
RING INITIALIZATION FAILED  
NO STANDBY RPC NODES AVAILABLE
- [4] REPT RING INIT FLT  
RING INITIALIZATION FAILED  
NO RING SEGMENT ACCEPTABLE FOR ACTIVE RING USE
- [5] REPT RING INIT FLT  
RING INITIALIZATION FAILED  
COULD NOT ESTABLISH A NORMAL RING CONFIGURATION
- [6] REPT RING INIT FLT  
RING INITIALIZATION FAILED  
COULD NOT ESTABLISH BISO NODE = a, EISO NODE = b
- [7] REPT RING INIT FLT  
A RING FAULT IS ASSOCIATED WITH THE FOLLOWING NODES  
a, b, c
- [8] REPT RING INIT  
LEVEL 3 INITIALIZATION QUERY COULD NOT DETERMINE RING  
CONFIGURATION
- [9] REPT RING INIT FLT  
AN OPERATIONAL FAILURE WAS ENCOUNTERED WITH THE FOLLOWING  
NODES  
a, b, c

## 2. REASON FOR OUTPUT

Format 1 or 2 is printed at the conclusion of the ring initialization sequence in an IMS initialization when ring communications were successfully established.

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Format 1: Is printed when a normal ring configuration was established.

Format 2: Is printed when one or more ring nodes were isolated from the active ring forming an isolated ring segment. The indicated BISO (Beginning of Isolation) and EISO (End of Isolation) nodes bound the isolated ring segment on each side. The convention used is as follows: Ring 0 identifies the ring that propagates messages around the ring, following the ring nodes in ascending order (e.g., LN16 1 to LN16 2 to LN16 3, etc.). Similarly, Ring 1 identifies the ring that propagates messages around the ring, following ring nodes in descending order. As Ring 0 is traversed in the direction of message propagation, the BISO node is the last node encountered in the active ring segment before entering the isolated ring segment. Similarly, the EISO node is the first node encountered in the active ring segment as Ring 0 is traversed out of the isolated ring segment.

Format 3, 4, 5 or 6 is printed at the conclusion of the ring initialization sequence in an IMS initialization when ring communications were not successfully established.

Format 3: All available STANDBY RPC nodes are used to communicate with the ring during ring initialization. When there are no STANDBY RPC nodes available, there are no communications paths to the ring. This, by definition, results in ring initialization failure.

Format 4: When one or several ring nodes or sections of the ring must be isolated from the active ring, the remaining portions of the ring define one or more ring segments that are candidates for the active ring segment. In order for a candidate ring segment to be acceptable for use as the active ring segment, it must contain:

- a. At least one STANDBY RPC node.
- b. An acceptable combination of ring nodes and interframe buffer circuits such that the ring segment exceeds a specified minimum for IMS message length buffer capacity.

When there is more than one acceptable active ring segment candidate, the number of ring nodes in the segment is used as a selection criteria to choose the best candidate. Output message Format 4 is printed when there is no acceptable ring segment candidate available for the active ring segment.

Format 5: The ring initialization sequence found no ring nodes in the GROW state and no ring faults associated with any ring node. An attempt to establish a normal ring configuration failed for an unknown reason.

Format 6: The ring initialization sequence found that one or more ring nodes must be isolated. For this to occur, either one or more ring nodes are in the GROW state and/or

- a. Level 4 IMS Initialization - A ring fault was found to be associated with one or more ring nodes.
- b. Level 3 IMS Initialization - The ring query operation failed and RPC node to RPC node communications tests failed across one or more RPC node to RPC node ring segments.

An attempt to establish an active ring segment with the indicated BISO and EISO nodes failed for an unknown reason.

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Format 7 is printed when the ring initialization sequence in an IMS level 4 initialization has discovered a ring fault associated with one or more ring nodes. These nodes are identified by this output message.

Format 8 is printed when ring initialization's query of the ring in an IMS level 3 initialization sequence could not determine the ring configuration. Ring initialization has escalated to performing communications tests on the ring in an attempt to find a usable active ring segment.

Format 9 is printed at the conclusion of the ring initialization sequence in an IMS level 4 initialization when one or more Link Nodes have failed a ring communications test. The faulty Link Nodes are identified by this output message. This communications test is performed immediately following the establishment of communications on the ring and before Link Nodes are downloaded. Link Nodes reported by output message Format 7 were found to be faulty while still in quarantine, while Link Nodes reported by this output message were found to be faulty during the communications test with the nodes unquarantined.

### 3. VARIABLE FIELD DEFINITIONS

a, b, c                      Identifies a ring node name (e.g., RPCN16 0, LN32 5).

### 4. ACTION TO BE TAKEN

Format 1: No action is necessary, a normal ring configuration exists.

Format 2: Level 4 IMS initialization: No action is necessary. A ring node will be isolated either because it is in the **GROW** state or because a ring fault is associated with it. If any node was isolated as a result of a fault, a Format 7 output message will accompany this message.

Level 3 IMS Initialization: The ring is queried to determine what the bounds, if any, are on the active ring segment. The results of the query are used to redefine the active ring segment in the 3B processor data. However, if this query finds the ring to be nonoperational or it reports some inconsistency, the query is declared a failure and the following procedure is performed. The ring is partitioned into ring segments where the **STANDBY** RPC nodes define the segment endpoints. RPC node to RPC node communication tests are performed across each of these ring segments. Nodes that are in the **GROW** state or RPC node to RPC node ring segments that do not pass the communications test will be isolated.

No action is necessary if this message is not preceded by a Format 8 output message.

In this situation, the query has discovered the bounds of the existing active ring segment. However, if a Format 8 output message does precede this message, the IMS system will automatically execute diagnostics on the isolated ring segment in an attempt to restore the isolated ring nodes (except in **MIN-MODE**). This will occur following IMS initialization completion. The results of the diagnostics [Ref 1, 2] should provide information on one or more ring faults within the isolated ring segment. These faults must be cleared before a restoral of the isolated nodes can be successful.

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Format 3: Determine why the restore of OUT OF SERVICE RPC nodes was unsuccessful. At least one of these ring nodes must be capable of being restored before ring initialization can be successful.

Format 4: In an IMS level 4 initialization, this message will usually be accompanied by a Format 7 output message. Some, if not all, of these ring faults must be cleared before ring initialization can be successful. In an IMS level 3 or 4 initialization, verify that none of the equipped ring nodes are in the GROW state. Also, improper interframe buffer circuit information in the ECD could be the cause of this output message. It is also possible that RPC to RPC ring segments determined to be faulty in a level 3 initialization have fragmented the ring such that an acceptable active ring segment does not exist. In this situation, an IMS level 4 initialization is required.

Format 5 and Format 6: The IMS system has determined what it thought the bounds on the active ring segment should be. However, an attempt to establish this as the active ring failed. Technical assistance should be sought in this situation.

Format 7 and Format 9: An IMS level 4 initialization has discovered a ring or node processor fault associated with these nodes. These faults must be cleared before these, as well as nodes isolated because of these faults, can be restored.

Format 8: This output message may precede output message Formats 1, 2, 4, 5 or 6 in a level 3 IMS initialization. No action should be taken based on this output message alone. Action should be taken as indicated under output message Format 2 when this message precedes a Format 2 output message.

## **5. REFERENCES**

*CNI System Description* - 234-100-120 (non-AT&T)  
- 234-100-120AC (AT&T only)  
D-Channel and Special Access Data Channel Signaling

Input Message  
INIT:RING

Output Message  
DGN:LN  
DGN:RPCN  
REPT:RING-CFR

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ID ..... REPT:RING-TRST-ER  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RING TRANSPORT ERR  
a DETECTED, b RAC c.  
d d d d  
d d (e)
- [2] REPT RING TRANSPORT ERR  
READ FORMAT ERROR DETECTED, b RAC c.  
MSG SRC: {f|??} MSG TYPE: {g|??}  
d d d d  
d d (e)
- [3] REPT RING TRANSPORT ERR  
a THRESHOLD EXCEEDED b RAC c.
- [4] REPT RING TRANSPORT ERR  
UNEXPLAINED LOSS OF TOKEN REPORTED ON h.  
(e)
- [5] REPT RING TRANSPORT ERR  
RMV i RQSTD; a RPTD [ BY b ]  
d d (e)
- [6] REPT RING TRANSPORT ERR  
NAUD DETECTS [ i PROBLEM OR ] RING MESSAGE LOSS  
(e)
- [7] REPT RING TRANSPORT ERR  
NAUD RING MESSAGE LOSS EXCEEDS THRESHOLD FOR h  
(e)
- [8] REPT RING TRANSPORT ERR  
MESSAGE HEADER VALIDATION ERROR DETECTED, b RAC c  
ERROR TYPE: a  
d d d d  
d (e)
- [9] REPT RING TRANSPORT ERR  
EXCESSIVE MESSAGE HEADER VALIDATION ERRORS REPORTED  
j MESSAGES DISCARDED  
(e)

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## 2. REASON FOR OUTPUT

Format 1 error messages report problems involving ring or ring node communications. The TRANSIENT RAC ERROR and SOURCE MATCH error types will not disrupt ring communications while other error types will. When ring communications are disrupted, Error Analysis and Recovery (EAR) will initiate ring reconfiguration activity to reestablish a working ring. The recovery action taken when a ring failure occurs depends on the recent history of ring stability. EAR operates in one of two modes. In the "stable" mode, EAR will assume that all ring failure events are transient in nature. Consequently, on a ring failure, the first recovery action attempted will be to restore the ring to the configuration that existed prior to the failure (via EAR recovery level 0). If this fails, EAR will escalate to a recovery action that usually isolates the faulty portion of the ring (via EAR recovery level 1 or 3).

EAR will keep track of the number of ring failures that occur. This is done by remembering ring failures over the recent past, typically for one hour. If the failure rate in this timed interval becomes excessive, EAR will switch its mode of operation to the "quasi-unstable" or seemingly-unstable mode. In this mode, EAR will assume that all ring failure events are not transient in nature. The first recovery action attempted here will usually isolate the faulty portion of the ring (via EAR recovery level 1 or 3). It should be noted that there are rare exceptions to this rule where a level 0 recovery attempt will be tried first. For example, if a level 1 recovery attempt would cause the last Ring Peripheral Controller Node (RPCN) to be removed from service, a level 0 will be attempted first. Once in the quasi-unstable mode of operation, EAR will automatically switch back to the stable mode when the ring has remained error free for a timed stability period, again typically one hour.

A READ FORMAT ERROR message is reported when a node receives a message that is shorter than the length indicated in the message's header. The shortened or truncated message must be at least the length of an Interprocess Message Switch (IMS) header (8 bytes), or else a READ TOO SHORT ERROR would be reported. If a READ FORMAT ERROR occurs with a broadcast message, only Ring Peripheral Controllers (RPCs) report the error so that the 3B20D/3B21D is not flooded with READ FORMAT ERROR reports. When a READ FORMAT ERROR occurs, the specific ring locality that triggered the problem is not identified by the error message. Ring communications are not stopped when this error occurs.

A Format 3 error message indicates that a threshold has been exceeded for the types of errors which are thresholded. Ring communications are not stopped when this error occurs.

A Format 4 error message indicates that ring communications have been disrupted and no Format 1 error messages that report ring communications disruption were received in the 3B20D/3B21D. EAR will initiate ring reconfiguration activity to restore a working ring (see Format 1 error message). Note that it is possible to have a two ring configuration (a normal ring) and experience loss of the token message on both rings, yet receive a Format 4 message for only one ring. Since almost all ring traffic occurs on Ring 0, Ring 0 is more likely to be reported than Ring 1 when this occurs. Also, when a single ring configuration exists (an isolated ring), there is only one token message present on the looped-back ring. Yet, it is possible to receive a Format 4 message specifying Ring 0, Ring 1, or Both Rings.

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Format 5 reports a node problem that is either internal (reporting node not given in report) or that is detected by another node. In the case of **RPC ISOLATION**, multiple ring faults elsewhere on the ring have caused this node to become isolated. It is presumed that the node itself is not faulty.

A Format 6 error message indicates that the Node Audit has detected a loss of ring messages. The Audit sends a ring message from the 3B, through a control RPC, around the ring, and back through the same control RPC to the 3B. If this message does not return, the audit checks the ring path through a second control RPC. If this second check also fails, this message is printed. If no second RPC is available, the Node Audit cannot differentiate between an RPC problem and a ring problem, so it assumes a ring problem and includes the ambiguity in the message.

A Format 7 error message indicates that the Node Audit has detected an intermittent loss of ring messages. This message is printed when approximately one-fourth of the audit ring messages are lost over a sample size of at least 12 messages or 36 seconds. This count is implemented with a leaky bucket.

A Format 8 error message indicates that a message has been removed from the ring due to a validation failure on the header portion of the message. This format will be reported only by Integrated Ring Node 2 (IRN2) equipped nodes. The IRN2 hardware provides capabilities for removing from the ring a message that does not pass a message header integrity check that is based on redundant bits within the message header. These capabilities will (1) prevent the writing of a badly formatted message and (2) prevent ring propagation of a message that is mutilated on the ring. In most occurrences of this error, the first two 32-bit hexadecimal words included with the Format [8] error report are the header of the message removed from the ring. Note, however, that the message header recovery process is such that the eighth byte of this data will be incorrect. If the reporting node was unsuccessful in including this message header in the error report, these two words will equal X'ffffff.

This error type will usually not disrupt ring communications other than the removal of the bad message. If the error occurs on a message being written to the ring, the error recovery process may cause other messages within the same block of messages to be lost. There are, however, two situations where ring disruption may accompany this type of error. First, if an IRN2 node detecting this type of error is immediately downstream from an Interframe Buffer, there is a small probability that the error recovery activities will cause ring disruption. If this occurs, EAR will react and provide ring recovery actions, typically through a level 0 recovery which will reestablish the ring configuration that existed before the error occurred. Secondly, faulty IRN2 hardware could trigger false error detection resulting in the removal of valid ring messages. An integrity check made in the 3B20D/3B21D on the removed messages will recognize this and trigger EAR to isolate the reporting node, usually via a level 3 recovery.

A Format 9 error message prints if Format [8] error messages occur at a high rate, error message buffers in the 3B20D/3B21D will be exhausted. When this occurs, Format [8] messages not printed on the Read Only Printer (ROP) are counted and reported as discarded messages in a Format [9] message. The Format [9] message is printed when exhausted error message buffers are once again available for recording Format [8] error messages.

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### 3. VARIABLE FIELD DEFINITIONS

- a                      Type of error that has occurred:
- BLOCKAGE** — A node's blockage timer has timed out while waiting for a ring data byte transfer to the downstream node or Interface Bus (IFB) to occur. The node's blockage recovery action will drain the ring by reading all data from the ring, including the token message, into node processor memory. A **BLOCKAGE** Ring Transport Error Message is then sent to inform the 3B20D/3B21D of a ring problem somewhere downstream.
- BROADCAST-TAKE** — A checksum performed over the first six bytes of the message header indicated something was wrong.
- CONTROL CODE** — An integrity check on the control code portion of the message header failed.
- DEQUEUED TOKEN** — A non-RPC node reports this error if the token message is found in its ring receive buffers. It is intended to detect failures that cause a node to inadvertently read data from the ring.
- EXCESSIVE RING CMD INTERRUPTS** — This error, reported only by Integrated Ring Node (IRN) RPCs, is most likely due to a circulating hardware control message. In order to detect and recover from problems caused by certain types of circulating hardware control messages, ring command interrupts generated by hardware control messages are counted and thresholded. A leaky bucket thresholding technique is used to determine when the number of interrupts is excessive. When the ring command interrupt count reaches a threshold, the RPC takes a recovery action to halt and destroy any circulating hardware control messages. After the recovery action, this error is reported to the 3B20D/3B21D.
- GENERAL RAC ERROR** — A "catch all" error type used to report an unexpected node hardware or software condition. A node reporting this error will not accept ring data from its upstream node, thereby forcing the upstream node to detect blockage.
- HARDWARE COMMAND VIRTUAL DESTINATION ADDRESS** — A check on the destination node address within the message header of a non-broadcast ring interface hardware control message indicated that it was not a physical node address. All non-broadcast ring interface hardware control messages must have a physical destination address.
- HARDWARE COMMAND WRITE** — The writing of a ring interface hardware control message failed because the IRN2 node was not properly conditioned to write this kind of message.

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**INTERFRAME BUFFER PARITY ERROR** — The upstream interframe buffer has detected a ring parity error. The IFB will not accept any more data, thereby forcing blockage in the node upstream from the IFB.

**MULTIPLE ERRORS** — The message was mutilated to the extent that more than one error was detected.

**MSG RELAY FAILURE** — This is very similar to the **RING WRITE FAILURE**. An RPC failed in relaying a message from the 3B20D/3B21D onto one of the rings during ring maintenance activity. This error will cause the RPC to be removed from service.

**NAUD CONTROL RPC FAILURE** — The node audit operation failed to pass ring traffic from the 3B through a given control RPC. A second control RPC did pass ring traffic, so the first RPC will be removed from service.

**NAUD FAILURE** — The node audit operation failed in one of its communication tests with a node. The node will be removed from service.

**NODE CKSUM ERROR** — The node checksum audit over a range of node memory failed. The node will be removed from service.

**NOT IDENTIFIED** — Either the header of the message removed from the ring was not included within the error message or none of the other valid error types were reported by the node in the error message.

**ORPHAN BYTE ERROR** — An "orphan byte" has been offered to the node. An orphan byte condition occurs when the node expects a control byte but the byte offered is not a control byte. The control byte is the first byte of data in an IMS message. A special signal lead on the ring bus is asserted only during the control byte, thereby allowing the receiving node to identify the control byte from all other message bytes.

**PIO FAILURE** — A Programmed IO operation at an RPC from the 3B20D/3B21D failed. This error will cause the RPC to be removed from service and isolated.

**RAC CONTROL FAILURE** — Control from the 3B20D/3B21D of an RPC's Ring Access Circuit (RAC) which is part of the ring interface circuit, failed. This error, which can only occur during ring maintenance activity, will cause the RPC to be removed from service.

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- RAC OUTPUT PARITY ERROR — A node attempted to transmit bad parity to the downstream node or IFB. Since bad parity is not accepted by the downstream node or IFB, the transmitting node eventually detects blockage and reads the data with bad parity into memory as part of the blockage recovery process. Upon recognizing the bad parity, the transmitting node will take the same recovery action as is done with BLOCKAGE, except that this error is reported instead of BLOCKAGE.
- RAC PARITY ERROR — A ring data byte with bad parity has been offered to the node. Node recovery action could not clear the error and the upstream node will eventually detect blockage. The attempted recovery action is simply to resample the ring bus data to see if bad parity is still present. If bad parity is due to a transient error condition, this resampling operation should clear the error.
- RAC PARITY/ORPHAN BYTE ERROR — A node reporting this error will not accept data from its upstream neighbor, thereby forcing the upstream node to detect ring blockage. This message is reported when both a RAC PARITY ERROR and an ORPHAN BYTE ERROR have occurred on the same data byte.
- READ INHIBIT ERROR — Blockage occurred while receiving a message from the ring or while propagating a message and the operation to drain the ring did not complete as expected. The node will take the same recovery action as is done with BLOCKAGE.
- READ TOO SHORT ERROR — A partial message, shorter than an IMS header, has been detected on the ring at the reporting node. The partial message header is discarded.
- RING INTERFACE FAILURE — Ring maintenance activity found an RPC's ring interface to be faulty. This error will cause the RPC to be removed from service and isolated.
- RING READ FAILURE — An RPC failed in reading a message from the ring during ring maintenance activity. This error will cause the RPC to be removed from service.
- RING WRITE FAILURE — An RPC failed in writing a message to the ring during ring maintenance activity. This error will cause the RPC to be removed from service.
- RPC ISOLATION — An RPC was removed from service because it became isolated during ring reconfiguration. The RPC may or may not be an innocent victim.
- RPC PANIC — This is an "I give up" condition in the RPC Node software and will cause the RPC to be removed from service.

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RPC STATE CHANGE FAILURE — The RPC failed to follow a 3B20D/3B21D directive to move into a particular software state during ring maintenance activity. This error will cause the RPC to be removed from service.

SOURCE MATCH — A ring message returned to the sending node because the destination node did not remove the message from the ring. The 3B20D/3B21D will remove the indicated destination node from service.

SRC MATCH — Essentially the same as the SOURCE MATCH error, described under Format 1, except the detection was made by the Node Audit (NAUD) operation.

TRANSIENT RAC ERROR — A ring data byte with bad parity was offered to the node and node recovery action (resampling the ring bus data) cleared the error. Had the error not been cleared, a RAC PARITY ERROR would have been reported. If this error occurs a predetermined number of times over a period of time, the node will be removed from service.

UNAUTHORIZED DETECTION — The reporting node detected and removed a message that the node was not authorized, through software control, to detect. A node must be authorized to detect the CONTROL CODE and BROADCAST-TAKE error types.

UNXPCTD SET QUAR — An RPC was unexpectedly put into quarantine.

VIRTUAL SOURCE ADDRESS — A check on the source node address within the message header indicated that it was not a physical node address. All ring messages must have a physical source address.

WRITE FORMAT ERROR — Some error occurred while a node was attempting to write a message to the ring. For example, the message may have had a source address that does not match that of the writing node, or the message specified an improper message length. A node reporting this error will not accept ring data from its upstream node, thereby forcing the upstream node to detect blockage. A major alarm sounds for this error type.

- b The name of the reporting node.
- c The RAC on which the error occurred (0-1).
- d A 32-bit word of internal information, passed by the reporting node, that is primarily intended for Lucent Technologies Bell Laboratories use.
- e The value of the 3B20D/3B21D Real Time Clock at the time the report is formatted. The Real Time Clock has a granularity of 1 millisecond. This is used to identify when the output message was issued relative to other output messages.

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- f The source of a message involved in a READ FORMAT ERROR. This is extracted from the header of the message read from the ring. The message header is given in the first two 32-bit words of internal information (d d) accompanying the READ FORMAT ERROR message. If the node could not recover the message that was read from the ring, these two words will be set to X'ffffffff and the source of the message, will be printed as ??.
- g The type of message involved in a READ FORMAT ERROR:  
BROADCAST  
NORMAL  
SEL BROADCAST  
TAKE  
If the node could not recover the message that was read from the ring, and ?? will be printed.
- h The ring where token message loss was discovered:  
RING 0 — Loss of the token message was observed on Ring 0.  
RING 1 — Loss of the token message was observed on Ring 1.  
BOTH RINGS — Loss of the token message was observed on both rings.
- i The name of the defective node which, in some cases, is also the reporting node.
- j The number of error reports discarded (not printed on the ROP).

#### 4. ACTION TO BE TAKEN

A minor alarm sounds with all forms of this message.

A major alarm sounds for the WRITE FORMAT ERROR error type.

Format 1:

Except for the TRANSIENT RAC ERROR and SOURCE MATCH errors, ring configuration activity will be initiated to reestablish a working ring. Either the configuration that existed before the error(s) occurred will be reestablished, or one or more nodes will be isolated. Refer to the REPT:RING-CFR output message that will accompany the Format 1 error message(s).

When a node or nodes are isolated, Automatic Ring Recovery (ARR) will schedule diagnostics on the isolated node(s) to verify the presence of a problem. When the diagnostic result is ATP, or the original ring configuration was successfully established following the errors, the Format 1 error messages should be logged for future reference. The failure may have been caused by a transient hardware problem or a software fault. However, hardware causing intermittent ring failures can sometimes be identified by pattern matching Format 1 error messages over multiple failure events. Similarly, the TRANSIENT RAC ERROR, which does not stop ring communications, may identify

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intermittent hardware problems when patterned over multiple failure events. The **SOURCE MATCH ERROR** will cause a node to be removed from service. When diagnostics run on such a node go ATP, it is difficult to determine whether a hardware or software fault caused the problem.

Format 2:

The **READ FORMAT ERROR** report does not implicate the reporting node. It is likely that a ring message was truncated somewhere between the **MSG SRC** node reported in the error message and the node reporting the error. Logging these error reports and pattern matching over multiple failure events can sometimes lead to identifying problem hardware.

Format 3:

The node will be removed from service and **ARR** will schedule diagnostics to be run. If the diagnostic result is ATP, **ARR** will restore the node to service. A ring hardware problem should be suspected on repeated Format 3 failures, even if the diagnostics run ATP.

Format 4:

As with the Format 1 error messages, ring configuration activity will be initiated to reestablish a working ring. Either the ring configuration that existed before the **UNEXPLAINED LOSS OF TOKEN** occurred will be reestablished, or a level 3 **EAR** recovery will perform ring communications tests to find and establish a working ring. Refer to the **REPT:RING-CFR** Output Message that will accompany the **UNEXPLAINED LOSS OF TOKEN** error. Also, the **REPT:TOKEN-TRACK** Output Message, which will accompany the **UNEXPLAINED LOSS OF TOKEN** error, may be useful for identifying the location on the ring where the token message was lost.

Format 5:

The defective or debilitated node is removed from service without reconfiguring the ring. **ARR** will schedule diagnostics on this node to determine the nature of the problem. In cases where the diagnostic goes ATP, it is difficult to determine whether a hardware or software fault caused the problem. As with the Format 1 error reports, logging the report may be useful in future pattern matching to identify weak hardware. In the case of **RPC ISOLATION**, no diagnostics will be run. **ARR** will unconditionally restore the node once the isolation surrounding it is cleared.

Format 6:

A level 3 **EAR** recovery will perform ring communications tests to find and establish a working ring.

Format 7:

A level 3 **EAR** recovery will perform ring communications tests to find and establish a working ring.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 8 and 9:

Most occurrences of this error can be due to either hardware or software failure. The message removed from the ring may have been mutilated by software before it was written to the ring, by node hardware while writing it onto the ring, or by hardware after the message was written onto the ring. The node reporting the error is not necessarily the node that injected the problem, although it could be in the situation where a node removed a badly formatted message that it was attempting to write onto the ring. Thus, it is difficult to provide specific recommendations on actions to be taken when this error occurs. In general, if the error is being reported by multiple nodes, software problems are likely to be the root cause. Otherwise, either hardware or software failure may be at fault.

The UNAUTHORIZED DETECTION failure type will also trigger EAR to fault and isolate the reporting node. Here, it is difficult to say whether hardware or software failure is the root cause of the problem. Finally, software in the 3B20D/3B21D will examine the message header removed from the ring to verify the validity of the hardware detected error. Rare node hardware failure could trigger false error detection that results in removal of good messages from the ring. The verification step will recognize this type of hardware failure and trigger EAR to fault and isolate the node.

## **5. REFERENCES**

Output Messages

REPT:ARR-AUTORST  
REPT:RING-CFR  
REPT:TOKEN-TRACK

SEE PROPRIETARY NOTICE ON COVER PAGE

**WARNING**  
**INAPPROPRIATE USE OF THIS**  
**MESSAGE MAY INTERRUPT OR**  
**DEGRADE SERVICE. READ PURPOSE**  
**CAREFULLY.**

ID ..... REPT:RINGINIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**WARNING**  
**This message should be used with discretion since loss of service may**  
**result. Initialization levels 0 and 1 can escalate to a higher level either**  
**internally or because of requesting another initialization at the same**  
**level, before the first initialization has completed. If the ring is in**  
**QUIET mode, an initialization level 4 is required. MINMODE level**  
**leaves the ring nonfunctional and requires INIT-RING 4 to clear it.**

## 1. FORMAT

This message has seven formats.

- [1] REPT RINGINIT s
- [2] REPT RINGINIT T.O. s
- [3] REPT RINGINIT CHAN PROB s (b)
- [4] REPT RINGINIT STATE c (d) FAILED e TIMES
- [5] REPT RINGINIT QUIET REASON h (i)
- [6] REPT RINGINIT FAULT DATA X'b AT X'c
- [7] REPT RINGINIT ESC STEP k s

## 2. REASON FOR OUTPUT

Format 1 reports a RINGINIT condition.

REPT RINGINIT TOO MANY LVL 1 ESC TO LVL 2  
REPT RINGINIT CNI/IMS PART DONE  
REPT RINGINIT CNI/IMS PROCESSES ALIVE YET UID = X'nnn  
REPT RINGINIT CLEANING UP OLD CNI/IMS  
REPT RINGINIT TOT INITS REQUIRED t SEC  
REPT RINGINIT ESCALATING TO LEVEL 4  
REPT RINGINIT INIT APDRV LVL2  
REPT RINGINIT NO DLNCM  
REPT RINGINIT CNI DYING  
REPT RINGINIT REC CNIABORT  
REPT RINGINIT NOTICED NO CNIINIT  
REPT RINGINIT INIT LEVEL d REQ BY DLNCM  
REPT RINGINIT INIT LEVEL d[MINMODE] COMPLETED  
REPT RINGINIT INIT LEVEL d COMPLETED IN t SECONDS

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```
REPT RINGINIT DENYING DLNCM INIT REQ
REPT RINGINIT INV LEVEL d
REPT RINGINIT DENYING CRAFT REQ LEVEL d
REPT RINGINIT REQ INIT LEVEL d[MINMODE] SRC CRAFT
REPT RINGINIT STARTED INIT LEVEL d[MINMODE] SRC CRAFT
REPT RINGINIT INV TIME FOR TIMER
REPT RINGINIT CANNOT SET TIMER, RTR LVL 2
REPT RINGINIT REC E_INIT
REPT RINGINIT REC 51 (X'x)
REPT RINGINIT RESETTING TIMER
REPT RINGINIT LEAVING QUIET MODE LVL 4
REPT RINGINIT RCVD UNKN CNI MSG l ON IMS CHAN M
REPT RINGINIT LVL 4 AIM T.O.
```

Format 2 reports time-out conditions.

```
REPT RINGINIT T.O. DLNCM CNI_STRT
REPT RINGINIT T.O. KILLING CNI/IMS
REPT RINGINIT T.O. CNI BEGIN
REPT RINGINIT T.O. CNI BEGIN ESC
REPT RINGINIT T.O. CNI COMPLETE
REPT RINGINIT T.O. DLNCM CNI_DONE
REPT RINGINIT T.O. 2 DLNCM CNI_DONE
REPT RINGINIT T.O. CNI COMPLETE LEVEL 1
REPT RINGINIT T.O. CNI COMPLETE LEVEL 1 ESC
REPT RINGINIT T.O. CNI DATAIN
REPT RINGINIT T.O. DLNCM TRAF_STRT
REPT RINGINIT T.O. 2 DLNCM TRAF_STRT
REPT RINGINIT T.O. DLNCM RIREADY
```

Format 3 reports channel conditions with supplementary data; b is optional.

```
REPT RINGINIT CHAN PROB OPEN/CLOSE
REPT RINGINIT CHAN PROB ESC TO LEVEL 3
REPT RINGINIT CHAN PROB CANNOT OPEN (b)
 b - error code returned from chkopen()
REPT RINGINIT CHAN PROB CANNOT SET UP (b)
 b - error code returned from chioctl()
REPT RINGINIT CHAN PROB CANNOT CLOSE (b)
 b - error returned from chclose()
REPT RINGINIT CHAN PROB TRAFFIC (b)
 b - location of error
```

- 12 — Timed out while waiting for cL\_DATAIN message.
- 13 — Exceeded maximum tries to send a message to CNI on the channel.
- 14 — Error encountered while attempting to send a message to CNI on the channel.
- 15 — Cannot read a message due to channel problems.
- 16 — Exceeded maximum returned messages allowed from the channel.
- 17 — Exceeded allowed tries to open channel.
- 18 — Cannot send CI\_BEGIN message.
- 19 — Timed out while waiting for cL\_RPTSDN message.

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Format 4 prints out the values of the error array and RINGINIT's state via a text string and a numerical value.

REPT RINGINIT STATE STARTING (0) FAILED e TIMES  
Initial state.

REPT RINGINIT STATE GETLVL (1) FAILED e TIMES  
Getting latest UNIX® RTR level.

REPT RINGINIT STATE ABT\_CNI0 (2) FAILED e TIMES  
Sending E\_ABORT event to CNIINIT.

REPT RINGINIT STATE ABT\_CNI1 (3) FAILED e TIMES  
Cleaning up CNI/IMS processes.

REPT RINGINIT STATE TELL\_DLNCM (4) FAILED e TIMES  
Sending message to DLNCM about starting CNI initialization.

REPT RINGINIT STATE WT\_DLNCM (5) FAILED e TIMES  
Waiting for response from DLNCM about starting CNI initialization.

REPT RINGINIT STATE CRT CNI (6) FAILED e TIMES  
Creating CNIINIT.

REPT RINGINIT STATE WAIT\_BEGIN (7) FAILED e TIMES  
Waiting for CI\_BEGIN message from CNIINIT.

REPT RINGINIT STATE SEND\_REQUEST (8) FAILED e TIMES  
Sending CNIINIT CI\_REQUEST message.

REPT RINGINIT STATE WAIT\_COMP (9) FAILED e TIMES  
Waiting for CI\_COMPLETE message from CNIINIT.

REPT RINGINIT STATE SEND\_BEGIN (10) FAILED e TIMES  
Sending CNIINIT CI\_BEGIN message.

REPT RINGINIT STATE WAIT\_LVL1 (11) FAILED e TIMES  
Waiting for CI\_COMPLETE on a LVL 1.

REPT RINGINIT STATE OPEN\_CHAN (12) FAILED e TIMES  
Attempting to open channel.

REPT RINGINIT STATE WAIT\_DONE (13) FAILED e TIMES  
Waiting for DLNCM to acknowledge message about end of CNI initialization.

REPT RINGINIT STATE APPLIN (14) FAILED e TIMES  
Sending cL\_APPLIN message.

REPT RINGINIT STATE WAIT\_DATAIN (15) FAILED e TIMES  
Waiting for cL\_DATAIN message.

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REPT RINGINIT STATE STARTCOM (16) FAILED e TIMES  
Sending cL\_STRTCOM message to CNI.

REPT RINGINIT STATE TRAFMANG (17) FAILED e TIMES  
Receiving messages from CNI/IMS.

REPT RINGINIT STATE RDY\_STATE (18) FAILED e TIMES  
Sending RIREADY to DLNCM.

REPT RINGINIT STATE SOCITOME (19) FAILED e TIMES  
Sending cL\_SOCITOME to CNI/IMS.

REPT RINGINIT STATE GO\_TRAF (20) FAILED e TIMES  
Sending RITRAF\_STRT to DLNCM.

REPT RINGINIT STATE WAIT\_TRACK (21) FAILED e TIMES  
Waiting for acknowledgment from DLNCM.

REPT RINGINIT STATE FINISHUP (22) FAILED e TIMES  
Processing the rest of a long CNI/IMS message.

REPT RINGINIT STATE ALLSYSGO (23) FAILED e TIMES  
Once an hour entry.

REPT RINGINIT STATE READMSGs (24) FAILED e TIMES  
Reading messages from CNI/IMS.

REPT RINGINIT STATE QUIET (25) FAILED e TIMES  
In the QUIET mode, no longer attempting automatic recovery.

REPT RINGINIT STATE WAITTOKILL (26) FAILED e TIMES  
Waiting to clean up CNI/IMS processes.

Format 5 indicates that RINGINIT is no longer attempting automatic recovery.

**NOTE:** In cases where the suggested action is to initialize the ring, repeated failures will require other action.

REPT RINGINIT QUIET REASON AIM\_REQUEST (0)  
Check output from AIM to see why AIM requested the QUIET mode.

REPT RINGINIT QUIET REASON PROCESS\_MNG (1)  
Verify if the path name of CNIINIT is correct. If it is, seek technical assistance.

REPT RINGINIT QUIET REASON NEG\_START\_DLNCM (3)  
Check output from DLNCM.

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REPT RINGINIT QUIET REASON NO\_DLNCM (5)  
Create the process DLNCM.

REPT RINGINIT QUIET REASON WT\_START\_DLNCM (6)  
Check output from DLNCM.

REPT RINGINIT QUIET REASON TOO\_MANY\_ABORTS (7)  
Determine why CNIINIT is aborting (which probably requires determining why imsdrv is aborting) then INIT:RING {2|3|4}.

REPT RINGINIT QUIET REASON BAD\_PORT (8)  
Seek technical assistance.

REPT RINGINIT QUIET REASON NO\_COMPLETE (9)  
INIT:RING {3|4}.

REPT RINGINIT QUIET REASON BAD\_RI\_STATE (11)  
INIT:RING {0|1}.

Format 6 indicates that RINGINIT took a fault while running; b is the fault code (See UNIX® RTR header file fault.h).

Format 7 indicates that RINGINIT is stepping through its escalation sequence; k indicates the step, s is a string of information about what is occurring.

```
REPT RINGINIT ESC STEP 1 SW CU
REPT RINGINIT ESC STEP 2 INIT APDRV LVL2
REPT RINGINIT ESC STEP 3 LEVEL 4
REPT RINGINIT ESC STEP 4 SW CU
REPT RINGINIT ESC STEP 5 INIT APDRV LVL2
REPT RINGINIT ESC STEP 6 REQ RTR LVL 1
```

### 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                |
|---|--------------------------------------------------------------------------------|
| s | String for a RINGINIT condition. See expansion under the formats.              |
| b | Supplementary data for channel problem (See Format 3).                         |
| c | String giving RINGINIT's state (See Format 4).                                 |
| d | Numeric value of RINGINIT's state (See Format 4).                              |
| e | Number of times a given RINGINIT state failed.                                 |
| f | Level of initialization that is occurring.                                     |
| h | Cause of RINGINIT entering the QUIET mode (See Format 5).                      |
| i | Numeric value of the cause of RINGINIT entering the QUIET mode (See Format 5). |
| k | Indicates the step (See Format 7).                                             |
| l | Numeric time the ring required for initialization.                             |

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**4. ACTION TO BE TAKEN**

Initialize the ring, or seek technical assistance.

**5. REFERENCES**

Input Message  
INIT:RING

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ID ..... REPT:RMF  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RMF a
- [2] REPT RMF 3 [b]
- [3] REPT RMF {9|10} [c]
- [4] REPT RMF 11 [d]
- [5] REPT RMF 12 [e]

## 2. REASON FOR OUTPUT

To report that the Recovery Message Formatter (RMF) encountered an error condition while attempting to output an error or postmortem recovery message.

Format 2 prints for Error code 3 which is the condition of the plant measurement library could not be opened.

Format 3 prints for Error code 9 or 10 which is the condition of could not open intermediate file to spool message, OR could not spool intermediate file.

Format 4 prints for Error code 11 which is the condition of a spooled orphaned intermediate file.

Format 5 prints for Error code 12 which is the condition of a bad interrupt type read from erslot.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code specifying the error condition detected:
- 1 — Premature End Of File (EOF) detected on /dev/pmem.
  - 2 — File /dev/pmem could not be opened.
  - 3 — Plant measurement library could not be opened.
  - 4 — Could not attach to plant measurement database.
  - 5 — Could not retrieve plant measurement record.
  - 6 — Could not update plant measurement record.
  - 7 — Seek error on file /dev/pmem.
  - 8 — Read error on file /dev/pmem.
  - 9 — Could not open intermediate file to spool message.
  - 10 — Could not spool intermediate file.
  - 11 — Spooled orphaned intermediate file.
  - 12 — Bad interrupt type read from erslot.

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- b Error code returned by `plib` call. Printed only if a premature EOF was detected.
- c Output Message Database (OMDB) key of the postmortem dump or error slot which could not be spooled.
- d Sequence number of the post-mortem dump or error logfile "presumed to have been orphaned" that will be spooled. The contents of the logfile will be appended to one of the system logfiles (ERLOG, MEMLOG, PMLOG) and printed on the Receive-Only Printer (ROP). The information in the logfile may be a duplication of information already spooled and likely not current.
- e Data printed for error may be incorrect.

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

OMDB Key  
There is an OMDB key of 403.

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ID ..... REPT:RMTGETTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RMTGETTY UNABLE TO ACCESS ECD FOR a
- [2] REPT RMTGETTY CANNOT READ GETTY RECORD FOR a
- [3] REPT RMTGETTY UNABLE TO CHANGE DIRECTORY TO b
- [4] REPT RMTGETTY FAILED TO EXECUTE c
- [5] REPT RMTGETTY FAILED TO OPEN d
- [6] REPT RMTGETTY CHANID FOUND IN LOGDEV RECORD
- [7] REPT RMTGETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT
- [8] REPT RMTGETTY UNABLE TO RETRIEVE TERMINAL OPTIONS FROM APH
- [9] REPT RMTGETTY CANNOT READ LOGDEV RECORD FOR d

## 2. REASON FOR OUTPUT

To inform the craftsperson that the RMTGETTY process has encountered an error while trying to process initialization information for a device. This message will appear on the originating device only.

## 3. VARIABLE FIELD DEFINITIONS

- a Teletypewriter (TTY) device against which the RMTGETTY is executing.
- b The directory which the RMTGETTY could not access.
- c Pathname of the process to be executed.
- d Special device file for which the problem occurred.

## 4. ACTION TO BE TAKEN

If Format 1 or 2 is printed, verify that the getty record in the Equipment Configuration Database (ECD) for the indicated TTY device is correct.

If Format 3 is printed, verify that the directory indicated in the getty record exists.

If Format 4 is printed, verify that the process which could not be executed exists and is executable.

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If Format 5, 6, 7, 8, or 9 is printed, or the errors persist after taking actions indicated, seek technical assistance.

## **5. REFERENCES**

OMDB Key

There is an OMDB key of 312.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

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ID ..... REPT:ROP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ROP a {ERROR b [c] [COMPL CODE d] |  
UNIDENTIFIED RESPONSE WD1=e WD2=f}
- [2] REPT ROP a STARTED
- [3] REPT ROP a STOPPED

## 2. REASON FOR OUTPUT

Format 1 reports a Receive-Only Printer (ROP) related software or hardware error.

Format 2 reports that the ROP has changed state from Standby (STBY) to Active (ACT). A ROP will change to ACT state when Data Terminal Ready (DTR) is ON.

Format 3 reports that the ROP has changed state from ACT to STBY. A ROP will change to STBY state when DTR is OFF.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies, in hexadecimal notation, the point within the Input/Output Driver (IODRV) where a software or hardware error was detected. See IOP Output Appendix F, APP: IOP-F.
- c Character string giving more information about the error identified in b. Refer to IOP Output Appendix F, APP: IOP-F for additional explanation.
- d Hardware error type, in hexadecimal notation. See IOP Output Appendix A, APP: IOP-A.
- e First word of an unidentified completion report.
- f Second word of an unidentified completion report.

## 4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Formats 2 and 3 are informational messages and indicate that the ROP has changed states. These messages are output when the currently active ROP changes state to STBY, and the currently standby ROP changes state to ACT. An active ROP will change state to STBY

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when powered off, and a standby ROP will change state to ACT when powered up. No action is necessary.

## **5. REFERENCES**

### OMDB Keys

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 308.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies 3B20D/3B21D Computer*

### Output Appendixes

APP: IOP-A

APP: IOP-F

### Input Messages

CLR: IODRV

DGN: MTTYC

RMV: ROP

RST: ROP

SW: PORTSW

### Output Messages

RCVRY: IOP

RCVRY: MTTYC

RCVRY: ROP

REPT: IOP

REPT: RCVRY-IOP

REPT: RCVRY-MTTYC

REPT: RCVRY-ROP

SW: PORTSW

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ID ..... REPT:RPC-ERINT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

REPT RPC ERINT ERR  
ERROR INTERRUPT FOR RPCNx 0 CODE = a, CH STATUS = b  
DSB ST = c, DEV ST = d, \_RML3RST = e

## 2. REASON FOR OUTPUT

Prints when an error interrupt was received from a ring peripheral controller (RPC).

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                                                                                                                          |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| x | A Ring Node (RN) Group Number (00-63).                                                                                                                                                                                                   |
| a | An error code:<br><br>0 — No error.<br>1 — Program I/O failed.<br>2 — An error in one of the status words b, c, d.<br>3 — NP insane.                                                                                                     |
| b | DSCH channel status. (See Output Appendix APP:IOP-B.)                                                                                                                                                                                    |
| c | D2SBS status. (See Output Appendix APP:IOP-D.)                                                                                                                                                                                           |
| d | 3BI status word in hexadecimal. (See Output APP:APPENDIX-08.)                                                                                                                                                                            |
| e | RPC.MTCE mode indicator (debugging purpose).<br><br>0 — RPC.MTCE is neither in the level 3 restart mode nor in the level 3 restore mode.<br>2 — RPC.MTCE is in the level 3 restart mode.<br>4 — RPC.MTCE is in the level 3 restore mode. |

## 4. ACTION TO BE TAKEN

Run diagnostic to see if there is any problem with the hardware.

## 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Output Appendixes  
APP:APPENDIX-08  
APP:IOP-B  
APP:IOP-D

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Input Messages  
DGN:RPCN  
RST:RPCN

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RPC-INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RPC INIT ERR  
a, RPCNx 0, \_RML3RST = b
- [2] REPT RPC INIT ERR  
CONNECT TO CONFIG LIB FAILED, LV = c

## 2. REASON FOR OUTPUT

Format 1: During the restore or restart of a ring peripheral controller (RPC), various initialization errors can occur. This message indicates what type of error was encountered.

Format 2: The attempt to open the config library failed. This library is provided by the operating system to help keep track of error counts.

## 3. VARIABLE FIELD DEFINITIONS

- x A Ring Node (RN) Group Number (00-63).
- a Error message:
- NP RESET FAILED  
SYSGEN SEND FAILED  
CLEAR D2SBS FAILED  
3BI RESET FAILED  
ATTACH INTERRUPT FAILED  
ENABLE INTERRUPT FAILED  
INIT DMAC FAILED  
READ ADDRESS FAILED  
CHECK SUM AUDIT FAILED
- b RPC.MTCE mode indicator (debugging purpose).
- 0 — RPC.MTCE is neither in the level 3 restart mode nor in the level 3 restore mode.  
2 — RPC.MTCE is in the level 3 restart mode.  
4 — RPC.MTCE is in the level 3 restore mode.
- c IMS initialization level.

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#### **4. ACTION TO BE TAKEN**

Format 1: Run diagnostic to see if there is any problem with the hardware.

Format 2: This will cause IMS init to fail. If problem persists, seek technical assistance.

#### **5. REFERENCES**

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Input Messages

DGN:RPCN

RST:RPCN

Output Messages

REPT:RPC-ERINT

REPT:RSTRT-RPC

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ID ..... REPT:RPC-STAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RPC STAT ALM  
ZERO RPCS! ACCESS TO CCIS NETWORK LOST!  
RECOVERY REQUIRES MANUAL ACTION!
- [2] REPT RPC STAT ALM  
WARNING:ONLY ONE ACTIVE RPC REMAINING

## 2. REASON FOR OUTPUT

The first message is output automatically when all ring peripheral controllers (RPCs) have been removed and, consequently, there is no access to the Common Channel Interface Signaling (CCIS) network.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

Format 1 is a critical message and requires immediate manual action as follows:

- I. Attempt to recover and restore a single RPC.
  - A. If possible, try to determine which RPC would be most easily restored and restore that one first; getting one RPC back to a normal working state is CRITICAL!
- II. Make the following checks on link status and system state.
  - A. For CCIS6 (i.e., 2.4, 4.8 KB) links, conduct the following checks and take steps if necessary:
    - a. Take corrective action to insure restoral of any down mate-links.
    - b. If an emergency restart exists, follow necessary procedures to facilitate recovery.
  - B. For CCS7 (i.e., - 56 KB) links, make the following checks and take steps if necessary:
    - a. Take corrective action to insure restoral of any down mate-links.
    - b. If a link-set failure exists, follow necessary procedures to facilitate recovery.
    - c. If a combined-link-set failure exists, follow necessary procedures to facilitate recovery.

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- III. Once steps (I) and (II) have been followed, proceed as in (I) and restore the remaining RPCs by attempting to recover first those RPCs that appear to be most easily recoverable (i.e., almost normal state).

Format 2 message is output when the system has only (1) remaining RPC. It is essential that this condition be cleared as soon as possible. Loss of the last RPC will result in a CCS signaling outage.

## **5. REFERENCES**

None.

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ID ..... REPT:RPCN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

REPT RPCNa b IS c

## 2. REASON FOR OUTPUT

To report the new state of a Ring Peripheral Controller Node (RPCN). The new state change may only be entered through a manual request from UNIX® RTR Recent Change and Verify (RC/V).

## 3. VARIABLE FIELD DEFINITIONS

- a A Ring Node (RN) group number (00-63).
- b The ring node member number (1-15).
- c New State:
  - IN THE GROWTH STATE
  - OFFLINE
  - OUT OF SERVICE
  - UNAVAILABLE
  - UNEQUIPPED

## 4. ACTION TO BE TAKEN

Verify that this state transition occurred because of a UNIX® RTR RC/V action.

## 5. REFERENCES

CIC Select Code 303-010 *Recent Change and Verify User's Guide*

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ID ..... REPT:RST-RPC-ERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has two formats:

- [1] REPT RST RPC ERR  
TIME OUT IN RST RPCNx 0, ISTATE = a, jobst = b, \_RML3RST = c
- [2] REPT RST RPC ERR  
PUMPER NOT AVAILABLE WHEN RESTORING RPCNx 0

## 2. REASON FOR OUTPUT

Format 1: An RPC restore job has been aborted by the driver. The RPC restore job may be part of a boot or a manual restore initiated by the user.

Format 2: Pumper is not available during a single RPC restore.

## 3. VARIABLE FIELD DEFINITIONS

- x A Ring Node (RN) group number (00-63).
- a Internal state when the job was aborted.
- 0 — Unknown state.
  - 1 — DMAC has been initialized, 3BI and D2SBS have been reset, interrupt has been attached (but not enabled yet). The node processor of an RPC is being reset.
  - 2 — Node processor reset is done.
  - 3 — The maintenance channel between RPC and 3B is ready while the Node processor is in the ROM mode.
  - 4 — Program downloaded.
  - 5 — Download started.
- b The job state.
- 0 — No job.
  - 3 — Waiting for 3BI interrupt.
  - 6 — Waiting for NP execute response.
  - 8 — Waiting for pumper to acknowledge.
  - 12 — Waiting for node processor to interrupt.
- c RPC.MTCE mode indicator (debugging purpose).
- 0 — RPC.MTCE is neither in the level 3 restart mode nor in the level 3 restore mode.
  - 2 — RPC.MTCE is in the level 3 restart mode.
  - 4 — RPC.MTCE is in the level 3 restore mode.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### **4. ACTION TO BE TAKEN**

Format 1: Run diagnostics to see if there is any problem with the hardware. Check to see whether the RPC ROM code is good. Check to see that the RPC RAM load is good.

Format 2: If the restore was a manual request, wait a little while before retrying the job. Pumper may be recreated.

#### **5. REFERENCES**

Input Message  
RST:RPCN

Output Message  
RST:RPCN

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RSTRT-RPC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

- [1] REPT RSTRT RPC ERR  
PIO CMD a IN RSTRT RPC FAILED, RPCNx 0
- [2] REPT RSTRT RPC ERR  
CHANNEL INIT FAILED WHEN RESTART RPCNx 0

## 2. REASON FOR OUTPUT

Format 1: In restarting a ring peripheral controller (RPC), a program I/O is sent to the Node processor of an RPC after the channel is properly reinitialized. The RPC restart is part of RPC fault recovery action.

Format 2: The initialization of the DMA channel failed during the restart of an RPC. Usually a message of the format REPT:RPC-INIT will accompany this message to pinpoint the reason.

## 3. VARIABLE FIELD DEFINITIONS

- x A Ring Node (RN) Group Number (00-63).
- a The program I/O command, (in hex format):
  - 2e — Restart an RPC by reinitializing RTX.
  - 26 — Command an RPC to retry a 3B DMA.
  - 36 — Command an RPC to clear a 3B DMA.

## 4. ACTION TO BE TAKEN

Run diagnostic to see if there is any problem with the hardware.

## 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Output Message  
REPT:RPC-INIT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RTM-STATUS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT RTM STATUS

REAL-TIME MONITOR DATA: <Current date and time>

| UIDNAME | UID/PID | INC | L | IPRI | CPRI | AGE | STms | ST% | OST% | LTms | LT% | 16minSCAN |
|---------|---------|-----|---|------|------|-----|------|-----|------|------|-----|-----------|
| aaaa    | bbb     | cc  | d | ee   | fff  | g   | hh   | ii  | jj   | kk   | ll  | mmm       |

## 2. REASON FOR OUTPUT

This output message is printed as a result of OP:CFT or OP:RTM user command.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                             |
|---|-----------------------------------------------------------------------------|
| a | Process name.                                                               |
| b | Processes UID.                                                              |
| c | Process incarnation count.                                                  |
| d | Process level: U=User K=kernel.                                             |
| e | Process initial priority.                                                   |
| f | Process current priority.                                                   |
| g | Time in 1/2 second units that the process has been waiting to be scheduled. |
| h | Process short term process time.                                            |
| i | Process short term percentage.                                              |
| j | Process OST time.                                                           |
| k | Process long term process time.                                             |
| l | Process long term percentage.                                               |
| m | Process time since last usage.                                              |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Messages  
OP:CFT  
OP:RTM

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RTS  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT RTS PORT CONNECT FAILURE
- [2] REPT RTS CANNOT ATTACH TO ECD
- [3] REPT RTS FAILED TO GET UCB
- [4] REPT RTS UNABLE TO GET UCB

## 2. REASON FOR OUTPUT

To report conditions that occurred during the execution of the Real Time Status (RTS) report process.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

If Format 1 is printed, check the status of port 17 using the OP:ST-PORTS input message.

If Format 2 is printed, check the permission of the /dev/ecd file.

If Format 3 is printed, there is a software coding error, and/or a wrong record Identification (ID). Submit an operational trouble report accompanied by a printout and any additional information.

If Format 4 is printed, check for the unit by displaying page 102. Unit missing status indicates the unit for which RTS was unable to get the Unit Control Block (UCB).

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 307.

Output Appendix  
APP:SYSERR

Input Message  
OP:ST-PORTS

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message  
OP:ST-PORTS

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ID ..... REPT:RUSDG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT RUSDG :a

## 2. REASON FOR OUTPUT

To report a system error in the interprocess communication of the rusdg process. The rusdg process interfaces with the performance measurement processes at kernel level.

## 3. VARIABLE FIELD DEFINITIONS

a                      Error message:

                        pcreat failure - Cannot execute performance measurement kernel process.

                        sendw failure - Cannot send message to performance measurement kernel process.

                        interval defaulted to 1 sec - Minimal interval is one second.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Messages  
  OP:PERFMEAS  
  OP:PERFRPT

Output Message  
  REPT:RUSDKERN

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:RUSDKERN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT RUSDKERN: a

## 2. REASON FOR OUTPUT

To report the status of the 3B DMERT processor handling of RUSDKERN, a kernel process that collects the performance measurements when the input message OP:PERFMEAS is entered.

## 3. VARIABLE FIELD DEFINITIONS

a                      Status of RUSDKERN process:

- Performance measurements started.
- Performance measurements completed.
- Message returned from termination request.
- Unexpected message received.
- Return message from unexpected source.
- Error in the creation or option message not received.
- QueueM failed in close attempt.
- QueueM of writeseg failed.
- QueueM of aps message failed.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Messages  
OP:PERFMEAS  
OP:PERFRPT

Output Message  
REPT:RUSDG

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:RUTIL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has 15 formats.

- [1] REPT RUTIL PRTCHAR BYTE COUNT ERROR a
- [2] REPT RUTIL CAN'T ATTACH TO PORT b, PID = c
- [3] REPT RUTIL RGP\_KER CIALIVE FAILED d
- [4] REPT RUTIL RGP\_KER CISTART FAILED e
- [5] REPT RUTIL RGP\_KER CISTOP FAILED f
- [6] REPT RUTIL RGP\_KER  
FAULT REENTERED DYING: CODE:g PA:h PSW:i ENT:j
- [7] REPT RUTIL RGP\_KER DYING FCODE=g PA=h STATE=m
- [8] REPT RUTIL RGP\_KER </PRC/CDP> FAULT  
EFLAGS=n, FCODE=g, PA=h  
R0=q, R7=q R8=q STATE=m
- [9] REPT RUTIL LNuu v MSG RETURNED w
- [10] REPT RUTIL RGP\_PRT BADPORT
- [11] REPT RUTIL RGP\_PRT PORT NOT CONNECTED
- [12] REPT RUTIL MSG BLK MULTIPLE ERROR
- [13] REPT RUTIL NO ROOM FOR MORE MESSAGES
- [14] REPT RUTIL CAN'T WAKEUP RGP\_PRT
- [15] REPT RUTIL LNuu v NO RESPONSE w

## 2. REASON FOR OUTPUT

All formats report an error condition encountered by the RGRASP RGP\_KER process.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format [1] indicates a byte count error in a request to print an output message.

Format [2] indicates that the kernel failed to attach to a port.

Formats [3], [4], and [5] indicate error return codes from the calls to clalive(), clstart(), and clstop(), respectively.

Formats [6] and [7] indicate that the RGRASP RGP\_KER process is terminating.

Format [8] indicates that the RGRASP RGP\_KER has been faulted by the operating system.

Format [9] indicates a message was returned to the RGP\_KER from the node.

Format [10] indicates that the RGP\_PRT port is invalid.

Format [11] indicates that the RGP\_PRT port is not connected.

Format [12] indicates a node response block error.

Format [13] indicates that no space is left to store node response messages.

Format [14] indicates the RGP\_KER process could not wake up the RGP\_PRT process.

Format [15] indicates that no response was received from the node.

### 3. VARIABLE FIELD DEFINITIONS

|    |                                           |
|----|-------------------------------------------|
| a  | Byte count.                               |
| b  | Port number.                              |
| c  | Process id.                               |
| d  | Return code from clalive() function call. |
| e  | Return code from clstart() function call. |
| f  | Return code from clstop() function call.  |
| g  | Fault code.                               |
| h  | Program address.                          |
| i  | Processor status word.                    |
| j  | Process entry code.                       |
| m  | Previous process state.                   |
| n  | Event flags.                              |
| q  | Register values.                          |
| uu | Link node group number.                   |
| v  | Link node member number.                  |

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|   |                                 |                     |
|---|---------------------------------|---------------------|
| w | Value of RGRASP command opcode. |                     |
|   | opcode                          | RGRASP command type |
|   | 1                               | DUMP:RUTIL          |
|   | 2                               | LOAD:RUTIL          |
|   | 3                               | WHEN:RUTIL          |
|   | 5                               | ALW:RUTILFLAG       |
|   | 6                               | ALW:RUTIL           |
|   | 8                               | INH:RUTILFLAG       |
|   | 9                               | INH:RUTIL           |
|   | 11                              | CLR:RUTILFLAG       |
|   | 12                              | CLR:RUTIL           |
|   | 14                              | OP:RUTILFLAG        |
|   | 15                              | OP:RUTIL            |
|   | 18                              | DUMP:ADDR           |
|   | 19                              | DUMP:REG            |
|   | 22                              | LOAD:WORD           |
|   | 23                              | LOAD:REG            |
|   | 28                              | LOAD:BYTE           |
|   | 29                              | LOAD:SHORT          |

#### 4. ACTION TO BE TAKEN

Seek technical assistance for all formats of this message.

#### 5. REFERENCES

None.

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## 4ESS™/APS Input/Output Message Error Reporting Form

Use this form to report errors and make suggestions for improving the contents of the manual or quarterly release. If an error relates to a specific message, please write your comments on a TTY output or a photocopy of the message documentation and attach it to this form.

Manual:      Input ☐      Output ☐

Generic: \_\_\_\_\_ Issue: \_\_\_\_\_

Quarterly Release (If applicable) : \_\_\_\_\_

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Comments: \_\_\_\_\_

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## 4ESS™/APS Input/Output Message Manual Comment Form

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# **4ESS<sup>TM</sup>/APS Switch**

## **Output Messages**

### **Volume 4**

#### **REPT(S) - WHEN**

OM-4A001-01  
Issue 9.4  
July 2002

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| RST DUI      | RST:DUI    | 4AP12         | 9.0   |
| RST DUIC     | RST:DUIC   | 4AP12         | 9.0   |
| RST EAI      | RST:EAI    | 4AP12         | 9.0   |
| RST HSD      | RST:HSD    | 4AP12         | 9.0   |
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| RST IOP      | RST:IOP    | 4AP12         | 9.0   |
| RST LN       | RST:LN     | 4AP12         | 9.0   |
| RST MHD      | RST:MHD    | 4AP12         | 9.0   |
| RST MT       | RST:MT     | 4AP12         | 9.0   |
| RST MTC      | RST:MTC    | 4AP12         | 9.0   |
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| RST RPCN           | RST:RPCN         | 4AP12         | 9.0   |
| RST SBUS           | RST:SBUS         | 4AP12         | 9.0   |
| RST SCC            | RST:SCC          | 4AP12         | 9.0   |
| RST SCSDC          | RST:SCSDC        | 4AP12         | 9.0   |
| RST SDL            | RST:SDL          | 4AP12         | 9.0   |
| RST SDLC           | RST:SDLC         | 4AP12         | 9.0   |
| RST TTY            | RST:TTY          | 4AP12         | 9.0   |
| RST TTYC           | RST:TTYC         | 4AP12         | 9.0   |
| RUTIL BREAKPOINT   | RUTIL:BREAKPOINT | 4AP12         | 9.0   |
| SET CLK            | SET:CLK          | 4AP12         | 9.0   |
| SET IODRV          | SET:IODRV        | 4AP12         | 9.0   |
| SET LFS            | SET:LFS          | 4AP12         | 9.0   |
| SET T1M            | SET:T1M          | 4AP15         | 9.0   |
| SET TRACE          | SET:TRACE        | 4AP12         | 9.0   |
| SET TRAP           | SET:TRAP         | 4AP12         | 9.0   |
| SET TSC            | SET:TSC          | 4AP12         | 9.0   |
| START ADB          | START:ADB        | 4AP12         | 9.0   |
| START CRCUPD       | START:CRCUPD     | 4AP13         | 9.0   |
| START DADC         | START:DADC       | 4AP12         | 9.0   |
| START DCC          | START:DCC        | 4AP12         | 9.0   |
| START DLNCM STREAM | START:DLNCM      | 4AP12         | 9.0   |
| START FTA          | START:FTA        | 4AP12         | 9.0   |
| START RCBUFGET     | START:RCBUFGET   | 4AP13         | 9.0   |
| START RCBUFPUT     | START:RCBUFPUT   | 4AP13         | 9.0   |
| STOP ADB           | STOP:ADB         | 4AP12         | 9.0   |
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| STOP DLNCM STREAM  | STOP:DLNCM       | 4AP12         | 9.0   |
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| STOP GEN            | STOP:GEN         | 4AP12         | 9.0   |
| STOP LFS            | STOP:LFS         | 4AP12         | 9.0   |
| STOP OFLBOOT        | STOP:OFLBOOT     | 4AP12         | 9.0   |
| STOP RCBUFGET       | STOP:RCBUFGET    | 4AP13         | 9.0   |
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| SW DLN STREAM       | SW:DLN           | 4AP12         | 9.0   |
| SW OFLBOOT          | SW:OFLBOOT       | 4AP12         | 9.1   |
| SW PORTSW           | SW:PORTSW        | 4AP12         | 9.0   |
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| UPD APPLY FILER     | UPD:APPLY-FILER  | 4AP12         | 9.0   |
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| UPD AUTOCHK REPORT  | UPD:AUTOCHK      | 4AP13         | 9.0   |
| UPD AUTOMATION      | UPD:AUTOMATION   | 4AP13         | 9.0   |
| UPD BKOUT           | UPD:BKOUT        | 4AP12         | 9.0   |
| UPD BLDBOOT         | UPD:BLDBOOT      | 4AP12         | 9.0   |
| UPD:BWMNIO          | UPD:BWMNIO       | 4AP12         | 9.0   |
| UPD CLR             | UPD:CLR          | 4AP12         | 9.0   |
| UPD COMMAND         | UPD:COMMAND      | 4AP13         | 9.0   |
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| UPD REPT         | UPD:REPT         | 4AP13         | 9.0   |
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| UPD RESET        | UPD:RESET        | 4AP12         | 9.0   |
| UPD SCP          | UPD:SCP          | 4AP12         | 9.0   |
| UPD SYSERR       | UPD:SYSERR       | 4AP12         | 9.1   |
| UPD UPNM         | UPD:UPNM         | 4AP12         | 9.0   |
| UPD VERSION      | UPD:VERSION      | 4AP13         | 9.0   |
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| VER APPFILE      | VER:APPFILE      | 4AP12         | 9.0   |
| VER:APPTAPE      | VER:APPTAPE      | 4AP12         | 9.0   |
| VER ATP ATV      | VER:ATP-ATV      | 4AP13R4       | 9.2   |
| VER ATP FEATURE  | VER:ATP-FEATURE  | 4AP13         | 9.0   |
| VER ATP RESTRICT | VER:ATP-RESTRICT | 4AP16         | 9.1   |
| VER ATP STOP     | VER:ATP-STOP     | 4AP13         | 9.0   |
| VER ATP TRIGGER  | VER:ATP-TRIGGER  | 4AP13         | 9.0   |
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| VFY PAUTH                  | VFY:PAUTH       | 4AP12         | 9.0   |
| VFY PCGRP                  | VFY:PCGRP       | 4AP12         | 9.0   |
| VFY PROFL                  | VFY:PROFL       | 4AP12         | 9.0   |
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| VFY TAUTH                  | VFY:TAUTH       | 4AP12         | 9.0   |
| VFY TCGRP                  | VFY:TCGRP       | 4AP12         | 9.0   |
| WHEN COND                  | WHEN:COND       | 4AP12         | 9.0   |
| WHEN PID                   | WHEN:PID        | 4AP12         | 9.0   |
| WHEN RUTIL                 | WHEN:RUTIL      | 4AP12         | 9.0   |
| WHEN UID                   | WHEN:UID        | 4AP12         | 9.0   |
| APPENDIX ACKNOWLEDGMENT    |                 |               |       |
| DATABASE                   | APP:ACK-DB      | 4AP12         | 9.0   |
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| APPENDIX 9                 | APP:APPENDIX-09 | 4AP12         | 9.0   |
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| APPENDIX DCI E    | APP:DCI-E    | 4AP12         | 9.0   |
| APPENDIX DCI F    | APP:DCI-F    | 4AP12         | 9.0   |
| APPENDIX DCI G    | APP:DCI-G    | 4AP12         | 9.0   |
| APPENDIX DCI H    | APP:DCI-H    | 4AP12         | 9.0   |
| APPENDIX DFC A    | APP:DFC-A    | 4AP18         | 9.2   |
| APPENDIX DFC B    | APP:DFC-B    | 4AP12         | 9.0   |
| APPENDIX DFC C    | APP:DFC-C    | 4AP12         | 9.0   |
| APPENDIX DFC D    | APP:DFC-D    | 4AP12         | 9.0   |
| APPENDIX DFC E    | APP:DFC-E    | 4AP12         | 9.0   |
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| APPENDIX DFC N    | APP:DFC-N    | 4AP12         | 9.1   |
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| DLNCM APPENDIX 20                    | APP:DLNCM-20     | 4AP12         | 9.0   |
| DLNCM APPENDIX 21                    | APP:DLNCM-21     | 4AP12         | 9.0   |
| DLNCM APPENDIX 22                    | APP:DLNCM-22     | 4AP12         | 9.0   |
| DLNCM APPENDIX 23                    | APP:DLNCM-23     | 4AP12         | 9.0   |
| APPENDIX FAULT CODE                  | APP:FAULT-CODE   | 4AP12         | 9.0   |
| APPENDIX FIELD MAINT<br>CODES        | APP:FMC          | 4AP12         | 9.0   |
| APPENDIX FIELD UPDATE<br>ERROR CODES | APP:FUEC         | 4AP12         | 9.0   |
| APPENDIX IOP A                       | APP:IOP-A        | 4AP12         | 9.0   |
| APPENDIX IOP B                       | APP:IOP-B        | 4AP12         | 9.0   |
| APPENDIX IOP C                       | APP:IOP-C        | 4AP12         | 9.0   |
| APPENDIX IOP D                       | APP:IOP-D        | 4AP12         | 9.0   |
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| APPENDIX IOP I                       | APP:IOP-I        | 4AP12         | 9.0   |
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| APPENDIX OP FNAME                    | APP:OP-FNAME     | 4AP12         | 9.0   |
| APPENDIX OST                         | APP:OST          | 4AP12         | 9.0   |
| PRM APPENDIX                         | APP:PRM          | 4AP12         | 9.0   |
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| APPENDIX SYSTEM<br>ERROR CODES       | APP:SYSERR       | 4AP12         | 9.0   |
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| APPENDIX UTILITY ID                  | APP:UTIL-ID      | 4AP12         | 9.0   |

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ID ..... REPT:SCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SCC a {ERROR b [COMPLETED CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}
- [2] REPT SCC a STARTED
- [3] REPT SCC a STOPPED
- [4] REPT SCC a WARNING LAST LINK IN DUPLEX LINK GROUP  
BEING REMOVED

## 2. REASON FOR OUTPUT

Format 1 reports a Switching Control Center (SCC) related software or hardware error.

Format 2 reports that the SCC has changed state from Standby (STBY) to Active (ACT). An SCC will change to ACT state when the level 2 connection is established, the data link is in information transfer state, and the other SCC is not in the ACT state.

Format 3 reports that the SCC has changed state from ACT to STBY. An SCC will change to STBY state when the level 2 connection is terminated, and the level 1 connection remains established.

Format 4 reports that the last available link in a duplex link group is being removed from service.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies, in hexadecimal, the point within the Input/Output Driver (IODRV) where a software or hardware error was detected. See Input/Output Processor (IOP) Output Appendix F, APP:IOP-F.
- c Hardware error type, in hexadecimal. See IOP Output Appendix A, APP:IOP-A.
- d First word of an unidentified completion report.
- e Second word of an unidentified completion report.

## 4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

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Formats 2 and 3 are informational messages and indicate that the SCC has changed states. These messages are output if a problem is sensed on the active SCC. The AM will then initiate recovery on the SCC with a problem, and start the mate SCC by changing its state from STBY to ACT.

Format 4 indicates that no data transmission can take place over the link facility due to the removal of the last available link in a duplex link group. One of the links in the group should be repaired and then restored to service.

## **5. REFERENCES**

### OMDB Keys

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 308.

Format 4 has an OMDB key of 590.

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System*  
*Lucent Technologies 3B20D/3B21D Computer*

### Output Appendixes

APP:IOP-A

APP:IOP-F

### Input Messages

CLR:IODRV

DGN:MTTYC

RMV:SCC

RST:SCC

### Output Messages

RCVRY:IOP

RCVRY:MTTYC

RCVRY:TTY

REPT:IOP

REPT:MTTYC

REPT:RCVRY-IOP

REPT:RCVRY-MTTYC

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ID ..... REPT:SCMG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

The following messages will be printed when an MTP user that is sending periodic User Part Check-In (UPCKIN) messages to SCCP has stopped sending them. Note that a critical alarm is associated with the first two messages.

[1] [ SCCP detects user has stopped sending UPCKIN messages ]

REPT SCMG

WARNING: SETTING USER PART a OUT OF SERVICE

[2] [ User has not yet responded with UPCKIN messages ]

REPT SCMG

WARNING: a IS OUT OF SERVICE

[3] [ User has resumed sending UPCKIN messages ]

REPT SCMG

a NOW BEING MARKED IN SERVICE

## 2. REASON FOR OUTPUT

Format 1: SCCP has stopped receiving UPCKIN messages from the MTP user and has marked the subsystem number (SSN) corresponding with this user out-of-service.

Format 2: The MTP user has not resumed sending the UPCKIN messages in the last 5 minutes and the SSN is still marked out-of-service.

Format 3: MTP user has resumed sending periodic UPCKIN messages to SCCP.

## 3. VARIABLE FIELD DEFINITIONS

a MTP user  
(ISDN-UP or TUP or service indicator of MTP user (from SIO field))

## 4. ACTION TO BE TAKEN

Determine why MTP user is failing to send UPCKIN messages.

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**5. REFERENCES**

SUMupckin description in the CNI Transaction Pages

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ID ..... REPT:SCS-SU  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 4 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SCS-SU UPDATE COMMAND IS NOT INSTALLED CORRECTLY
- [2] REPT SCS-SU MEM NUMBER REQUIRED
- [3] REPT SCS-SU STEP NUMBER REQUIRED
- [4] REPT SCS-SU MEMBER NUMBER MUST BE EVEN AND BETWEEN 0 AND 7
- [5] REPT SCS-SU a FILE HAS BEEN CORRUPTED
- [6] REPT SCS-SU UPDATE PROCESS ALREADY RUNNING
- [7] REPT SCS-SU ERROR GETTING PORT
- [8] REPT SCS-SU CANNOT OPEN CHANNEL TO 1B PROCESSOR
- [9] REPT SCS-SU CANNOT CONNECT TO 1B PROCESSOR
- [10] REPT SCS-SU ERROR - INCOMPATIBLE WITH 1B GENERIC
- [11] REPT SCS-SU ERROR SENDING MESSAGE TO THE 1B
- [12] REPT SCS-SU STEP FAILED BEFORE COMPLETING
- [13] REPT SCS-SU ENCOUNTERED 1B A-LEVEL INTERRUPT
- [14] REPT SCS-SU ENCOUNTERED 1B B-LEVEL INTERRUPT
- [15] REPT SCS-SU ENCOUNTERED 1B C-LEVEL INTERRUPT
- [16] REPT SCS-SU ENCOUNTERED 1B D-LEVEL INTERRUPT
- [17] REPT SCS-SU ENCOUNTERED 1B E-LEVEL INTERRUPT
- [18] REPT SCS-SU ENCOUNTERED 1B F-LEVEL INTERRUPT
- [19] REPT SCS-SU LAST STEP COMPLETED b
- [20] REPT SCS-SU BAD CREATE ON RESPONSE FILE FOR MESSAGE: c
- [21] REPT SCS-SU CANNOT SEND MESSAGE: c

SEE PROPRIETARY NOTICE ON COVER PAGE

- [22] REPT SCS-SU BAD 1B CONNECTION ON MESSAGE: c
- [23] REPT SCS-SU 1B RESPONSE TIMEOUT ON MESSAGE: c
- [24] REPT SCS-SU BAD 1B RESPONSE ON MESSAGE: c
- [25] REPT SCS-SU ERROR - 1B NOT IN UPDATE MODE ON MSG: c
- [26] REPT SCS-SU MEMBER NUMBER d CONTAINS OUT OF SERVICE EQUIP.
- [27] REPT SCS-SU INVALID MEMBER NUMBER d ENTERED
- [28] REPT SCS-SU ECHO 1B OUTPUT MESSAGE
- [29] REPT SCS-SU RETRIED MESSAGE: BUT FAILED ON: c
- [30] REPT SCS-SU ERROR OPENING e FILE
- [31] REPT SCS-SU ERROR f READING e FILE
- [32] REPT SCS-SU ERROR READING e FILE, INVALID STEP
- [33] REPT SCS-SU ERROR CREATING e FILE
- [34] REPT SCS-SU ERROR - PREVIOUS STEPS MUST BE EXECUTED FIRST
- [35] REPT SCS-SU ERROR - STEP ALREADY STARTED, g IS NEXT STEP TO EXECUTE
- [36] REPT SCS-SU ERROR - PREVIOUS STEP NOT COMPLETE, SEE USERS GUIDE
- [37] REPT SCS-SU OPENED h AS NORMAL AND h AS UPDATE
- [38] REPT SCS-SU: i ERROR IN j ERRNO: k
- [39] REPT SCS-SU: ILLEGAL CSFS CONVERSION ATTEMPT
- [40] REPT SCS-SU: CSFS ARGS: GEN = l Addr = m

## **2. REASON FOR OUTPUT**

Prints in response to a menu driven display page. (MCC Display Page #1200, SCS SOFTWARE UPDATE)

Formats 19 and 37 are normal operational output messages.

The remaining formats indicate that an error has occurred and an explanation of the error.

SEE PROPRIETARY NOTICE ON COVER PAGE

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                    |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------|
| a | The /etc/log/1bperfsu/Ustep.data or /etc/log/1bperfsu/Cstep.data file.                                                                             |
| b | The number of the last step to be completed. A list of steps and a short description can be found in the <i>SCS Software Update User's Guide</i> . |
| c | The first 15 characters of the message to be sent to the 1B.                                                                                       |
| d | The member number of the Service Circuit System (SCS) frame to use the tool on.                                                                    |
| e | The name of the file on which an error occurred either on opening, reading or creating.                                                            |
| f | Error number. In the source code, search for ERROR g (i.e. ERROR 01) to find the exact location of this error.                                     |
| g | The number of the step that is to be executed next, but only if all previous steps have completed successfully.                                    |
| h | The number of the 1A file.                                                                                                                         |
| i | The type of error which occurred.                                                                                                                  |
| j | The name of the file which caused the error.                                                                                                       |
| k | The number of the error.                                                                                                                           |
| l | Number of the generic.                                                                                                                             |
| m | Address in octal.                                                                                                                                  |

### 4. ACTION TO BE TAKEN

For formats 2-4, 6, 12, 23, 27, 32, 34-36, and 38, fix the error and reenter the command.

For all other formats except 19, 28, 37, and 40, seek technical assistance.

### 5. REFERENCES

MCC Display Page  
1200 (SCS SOFTWARE UPDATE)

Practice 234-100-211, *SCS Software Update User's Guide*

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:SCSD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT SCSD a {ERROR b [COMPL CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}

## 2. REASON FOR OUTPUT

To report a Scanner and Signal Distributor (SCSD) related software or hardware error.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                          |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                                                                                           |
| b | Identifies point within Input / Output Driver (IODRV) where a software or hardware error was detected, in hexadecimal. See Input / Output Processor (IOP) Output Appendix F, APP: IOP-F. |
| c | Hardware error type, in hexadecimal. See IOP Output Appendix A, APP: IOP-A.                                                                                                              |
| d | First word of an unidentifiable completion report.                                                                                                                                       |
| e | Second word of an unidentifiable completion report.                                                                                                                                      |

## 4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

## 5. REFERENCES

### OMDB Key

There is an OMDB key of 208.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

### Output Appendixes

APP: IOP-A

APP: IOP-F

### Input Messages

DGN: SCSDC

OP: SCSD

RMV: SCSDC

RST: SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
DGN: SCSDC  
OP: SCSD  
RMV: SCSDC  
RST: SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:SCSDA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SCSDA FAULT CODE a [VIRTUAL ADDRESS b]
- [2] REPT SCSDA ERROR CODE c [UNIT d] [PID e [UID f]] [RID g] [FAULT CODE a]
- [3] REPT SCSDA UNIDENTIFIED MESSAGE FROM e TYPE h

## 2. REASON FOR OUTPUT

To report the occurrence of either a Scanner and Signal Distributor (SCSD) Administrator (SCSDA) related software error, or of an abnormal event.

Format 1 reports the receipt of an SCSDA fault code. (A message with supplemental data may accompany this report.)

Format 2 reports an SCSDA error.

Format 3 reports the receipt of an unrecognized message sent to the SCSDA.

## 3. VARIABLE FIELD DEFINITIONS

- a Fault code. See Disk File Controller (DFC) Output Appendix I, APP:DFC-I.
- b Virtual address, in hexadecimal, where the fault occurred within the SCSDA.
- c SCSDA error code, in hexadecimal:
  - 50 — SCSDA cannot process request. Unit is unknown.
  - 51 — Unrecognized fault code.
  - 52 — Received notification that client process has terminated. Reason for termination is unknown.
  - 53 — Message overload condition exists for an SCSDA client process.
  - 54 — Cannot initialize an unit.
  - 55 — SCSDA is in an improper state to process the request.
- d Unit number of SCSDC, in decimal.
- e Process number of SCSDA client, in decimal.
- f Utility Identification (ID) number of SCSDA client, in hexadecimal.
- g Record Identification (RID) of SCSDC, in hexadecimal.
- h Unrecognized message type, in hexadecimal.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### 4. ACTION TO BE TAKEN

If Format 1 is output or the SCSDA error is 51, collect Receive-Only Printer (ROP) and forward to the service support organization for all fault types.

Error type 50 is caused by either corruption of the SCSDA unit save area or the maximum number of SCSDC units that can be monitored by the SCSDA has been exceeded. Enter into the Equipment Configuration Database (ECD) to verify that the unit is equipped and the RID was not corrupted in the memory of the SCSDA. If the RID is not corrupted and the maximum number of SCSDC units by the SCSDA has not been exceeded, regrow the SCSDC unit. In either case, report that an error has occurred to the service support organization.

For error 52, restart the terminated client process if its Utility Identification (UID) is reported and if it was not automatically restarted. If the UID is not reported, then the process with Process Identification (PID) is not known to the SCSDA. The process no longer exists. If this error persists, contact the service support organization.

Error 53 indicates that an SCSDA client is no longer processing messages, or has received too many messages at one time before it can dequeue them. This error indicates that the client has exceeded the maximum number of allowable messages on its queue and returned the message to the SCSDA. In either case, the conditions result with incomplete information because these messages have been returned to the SCSDA and are not re-sent. If this error persists, take corrective action, such as restarting the client process, and contact the service support organization.

Error 54 verifies that the unit is in-service. Correct as required.

Error 55 will be corrected by the SCSDA and additional action is not required. The SCSDA will re-initialize the unit.

#### 5. REFERENCES

OMDB Key

This message has an OMDB key of 165.

CIC Select Code 303-010 *UNIX® RTR Operating System Recent Change and  
Verify User's Guide Lucent Technologies 3B20D/3B21D Computer*

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers  
UNIX® RTR Operating System System Maintenance Manual*

Output Appendix

APP:DFC-I

Input Messages

DGN:SCSDC

OP:OOS

OP:SCSD

RST:SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message  
REPT:SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:SCSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] REPT SCSDC a {ERROR b [COMPLETED CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2] REPT SCSDC a FLASH RAM VERSION X'f

## 2. REASON FOR OUTPUT

Format 1 reports a Scanner and Signal Distributor Controller (SCSDC) related software or hardware error.

Format 2 is requested by diagnostics and output prior to the update of flash Random Access Memory (RAM) on the unit.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                               |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Member number.                                                                                                                                                                                |
| b | Identifies the point, in hexadecimal, within the Input/Output Driver (IODRV) where a software or hardware error was detected. See Input/Output Processor (IOP) Output Appendix F, APP: IOP-F. |
| c | Hardware error type, in hexadecimal. See IOP Output Appendix A, APP: IOP-A.                                                                                                                   |
| d | First word of an unidentifiable completion report.                                                                                                                                            |
| e | Second word of an unidentifiable completion report.                                                                                                                                           |
| f | Peripheral controller flash RAM version number.                                                                                                                                               |

## 4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Format 2, no action is necessary unless the controller is not acting normal, or cannot be restored. Contact service organization with the flash RAM version number that was used.

## 5. REFERENCES

OMDB Key(s)

Format 1 has an OMDB key of 208.

Format 2 has an OMDB key of 226.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation* Lucent Technologies 3B20D/3B21D Model 1 Computer

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Output Appendixes

APP: IOP-A  
APP: IOP-F

Input Messages

DGN: SCSDC  
RMV: SCSDC  
RST: SCSDC

Output Messages

RCVRY: IOP  
RCVRY: SCSDC  
REPT: IOP  
REPT: RCVRY-IOP  
REPT: RCVRY-SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:SDL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SDL a { [ERROR] {b|c} [d] [COMPL CODE e] |  
UNIDENTIFIED RESPONSE WD1=f WD2=g }
- [2] REPT SDL a WARNING LAST LINK IN DUPLEX LINK GROUP  
BEING REMOVED
- [3] REPT SDL a STARTED
- [4] REPT SDL a STOPPED

## 2. REASON FOR OUTPUT

Format 1 reports a Synchronous Datalink (SDL) related software or hardware error or an unauthorized attempt to use a secure dial-up data link.

Format 2 reports that the last available link in a duplex link group is being removed from service.

Format 3 reports that the SDL has changed state from Standby (STBY) to Active (ACT). An SDL will change to ACT state when the level 2 connection is established, and the data link is in information transfer state.

Format 4 reports that the SDL has changed state from ACT to STBY. An SDL will change to STBY state when the level 2 connection is terminated, and the level 1 connection remains established.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies the point, in hexadecimal, within the Input/Output Driver (IODRV) where a software or hardware error was detected. See Input/Output Processor (IOP) Output Appendix F, APP:IOP-F.
- c Identifies which security check failed in an attempt to use a secure dial-up link:
  - INCORRECT PASSWORD
  - INCORRECT PASSWORD DESTINATION ADDRESS LENGTH
  - INCORRECT PASSWORD DESTINATION IDENTIFICATION
  - INCORRECT PASSWORD LINK IDENTIFICATION

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- INCORRECT PASSWORD MODIFIER
  - INCORRECT PASSWORD ORIGINATION ADDRESS LENGTH
  - INCORRECT PASSWORD ORIGINATION IDENTIFICATION
  - INSUFFICIENT PASSWORD INFORMATION
  - PASSWORD NOT REQUIRED INHIBITED
  - PASSWORD PACKET NOT RECEIVED
  - PASSWORD REQUIRED
  - PASSWORD TEST BIT ON
  - PASSWORD VALID INHIBITED
  - UNKNOWN PASSWORD MODIFIER 2
  - UNKNOWN PASSWORD MODIFIER 7
  - UNKNOWN PASSWORD MODIFIER 10
  - UNKNOWN PASSWORD MODIFIER 11
  - UNKNOWN PASSWORD MODIFIER 15
- d Character string giving more information about the error, in hexadecimal. Refer to IOP Output Appendix F, APP:IOP-F for additional explanation.
- e Hardware error type, in hexadecimal. See IOP Output Appendix A, APP:IOP-A.
- f First word of an unidentified completion report.
- g Second word of an unidentified completion report.

#### 4. ACTION TO BE TAKEN

For format 1, the software or hardware error messages indicate error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Or format 1 indicates the unauthorized attempt to use a secure dial-up link message by someone who is not authorized access to the computer system through a synchronous data link. Notify the person in charge of security for the computer system.

For format 2, removal of the last available link in a duplex link group indicates that no data transmission can take place over the link facility. One of the links in the group should be repaired and then restored to service.

Formats 3 and 4 are informational messages and indicate that the SDL has changed states. No action is necessary.

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## 5. REFERENCES

### OMDB Key(s)

Format 1 has OMDB keys of 143 and 208.  
Format 2 has an OMDB key of 590.  
Formats 3 and 4 have an OMDB key of 308.

CIC Select Code 304-045 *Lucent Technologies 3B21D Computer Hardware Reference Manual*

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

Practice 254-302-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 2 and Model 3 Computers*

Practice 254-302-832 *Lucent Technologies 3B20D/3B21D Model 2 Computer Common Systems, Trouble Clearing*

### Output Appendixes

APP: IOP-A  
APP: IOP-F

### Input Messages

CLR: IODRV  
DGN: SDLC  
RMV: SDL  
RST: SDL

### Output Messages

RCVRY: IOP  
RCVRY: SDL  
RCVRY: SDLC  
REPT: IOP  
REPT: SDLC  
REPT: RCVRY-IOP  
REPT: RCVRY-SDL  
REPT: RCVRY-SDLC

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ID ..... REPT:SDL24MON  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SDL24MON DATA LINK IN USE BY PID=c
- [2] REPT SDL24MON FAILED TO CONNECT TO PORT, ERRNO=e
- [3] REPT SDL24MON OPEN FAILED, ERRNO=e
- [4] REPT SDL24MON READ FAILED, ERRNO=e
- [5] REPT SDL24MON RCAS NOT IMPLEMENTED YET
- [6] REPT SDL24MON KEY WORD NOT RECEIVED
- [7] REPT SDL24MON FAILED TO START PROCESS: p

## 2. REASON FOR OUTPUT

These messages are output when the sdl24mon process receives an error condition while trying to access the SDL 24 data link and then trying to start the sodad process (slave odad).

Format 1 indicates that the SDL 24 datalink is already in use by the process given by the pid.

Format 2 is output if there is a failure when sdl24mon tried to connect to port PT\_ODAD (149).

Format 3 indicates that sdl24mon failed to open /dev/odad.

Format 4 indicates that sdl24mon failed to read from the device /dev/odad.

Format 5 is output when RCAS keyword is received on the device which is not implemented at this point.

Format 6 is output when the keyword to identify application (ODAD or RCAS) is not received on the device.

Format 7 indicates that sdl24mon failed to start the application process denoted by the name p (ODAD or RCAS).

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                          |
|---|--------------------------------------------------------------------------|
| c | Indicates the pid of the process.                                        |
| e | Indicates the standard system error number returned. See APP:APPENDIX-2. |

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p Indicates the full path name of the process.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Output Appendix  
APP:APPENDIX-2

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:SDLC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

- [1] REPT SDLC a {ERROR b [COMPL CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}
- [2] REPT SDLC a CODE VERSION X'f
- [3] REPT SDLC a FLASH RAM VERSION X'g

### 2. REASON FOR OUTPUT

Format 1 reports a Synchronous Data Link Controller (SDLC) related software or hardware error.

Format 2 is output during the restoration of the unit.

Format 3 is requested by diagnostics and output prior to the update of flash Random Access Memory (RAM) on the unit.

### 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies the point, in hexadecimal, within the Input/Output Driver (IODRV) where a software or hardware error was detected. See Input/Output Processor (IOP) Output Appendix F, APP:IOP-F.
- c Hardware error type, in hexadecimal. See IOP Output Appendix A, APP:IOP-A.
- d First word of an unidentifiable completion report.
- e Second word of an unidentifiable completion report.
- f Peripheral controller pump code version number.
- g Peripheral controller flash RAM version number.

### 4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Formats 2 and 3, no action is necessary unless the controller and/or its subdevices are not acting normal, or cannot be restored. Contact the service organization with the code version number and/or flash RAM version number that was used.

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## **5. REFERENCES**

### OMDB Key(s)

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 226.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory  
of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

### Output Appendixes

APP: IOP-A

APP: IOP-F

### Input Messages

CLR: IODRV

DGN: SDLC

RMV: SDLC

RST: SDLC

### Output Messages

RCVRY: IOP

RCVRY: SDLC

REPT: IOP

REPT: RCVRY-IOP

REPT: RCVRY-SDLC

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ID ..... REPT:SDLRTC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SDLRTC a
- [2] REPT SDLRTC RESTORE MESSAGE FOR b c SENT TO MIRA
- [3] REPT SDLRTC COMPLETED RESTORE OF SDLS
- [4] REPT SDLRTC UNABLE TO GET ECD SEGMENTS, ERRNO d

## 2. REASON FOR OUTPUT

Format 1 reports an Equipment Configuration Database (ECD) connection or retrieval failure.

Format 2 reports that a message was sent to Maintenance Input Request Administrator (MIRA) to restore a synchronous data link unit or a synchronous data link controller.

Format 3 reports the completion of sequencing through the ECD for restoring synchronous data link units/controllers.

Format 4 reports a failure in obtaining a database segment for the Synchronous Data Link Restore Tool Communications (SDLRTC) protocol handler process.

## 3. VARIABLE FIELD DEFINITIONS

- a Identifies which type of database failure was encountered:
  - INVALID UCBRID
  - UNABLE TO ATTACH TO ECD
  - UNABLE TO GET CPOPT RECORD
  - UNABLE TO GET ECDORG RECORD
  - UNABLE TO GET IOP RECORD
  - UNABLE TO GET SDL RECORD
  - UNABLE TO OPEN SEQUENCE
- b Unit name.
- c Unit number.
- d Error code. See System Error Codes Output Appendix, APP:SYSERR.

SEE PROPRIETARY NOTICE ON COVER PAGE

**4. ACTION TO BE TAKEN**

For Format 1, obtain technical assistance.

For Formats 2 and 3, no action is required.

For Format 4, check error code to determine action.

**5. REFERENCES**

OMDB Key

There is an OMDB key of 586.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Output Appendix

APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:SDLRTN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SDLRTN a
- [2] REPT SDLRTN RESTORE MESSAGE FOR b c SENT TO MIRA
- [3] REPT SDLRTN COMPLETED RESTORE OF SDLS
- [4] REPT SDLRTN UNABLE TO GET ECD SEGMENTS, ERRNO d

## 2. REASON FOR OUTPUT

Format 1 reports an Equipment Configuration Database (ECD) connection or retrieval failure.

Format 2 reports that a message was sent to Maintenance Input Request Administrator (MIRA) to restore a synchronous data link unit or a synchronous data link controller.

Format 3 reports the completion of sequencing through the ECD for restoring synchronous data link units or controllers.

Format 4 reports a failure in obtaining a database segment for the Synchronous Data Link Restore Tool Network (SDLRTN) protocol handler process.

## 3. VARIABLE FIELD DEFINITIONS

- a Identifies which type of database failure was encountered:
  - INVALID UCBRID
  - UNABLE TO ATTACH TO ECD
  - UNABLE TO GET ECDORG RECORD
  - UNABLE TO GET IOP RECORD
  - UNABLE TO GET NPHOPT RECORD
  - UNABLE TO GET SDL RECORD
  - UNABLE TO OPEN SEQUENCE
- b Unit name.
- c Unit number.
- d Error code. See System Error Codes Output Appendix, APP:SYSERR.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### **4. ACTION TO BE TAKEN**

For Format 1, seek technical assistance.

For Formats 2 and 3, no action is required.

For Format 4, check the error code to determine what action is needed.

#### **5. REFERENCES**

OMDB Key

Formats 1 through 4 have an OMDB key of 586.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Output Appendix

APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:SHLGETTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SHLGETTY UNABLE TO ACCESS ECD FOR a
- [2] REPT SHLGETTY CANNOT READ GETTY RECORD FOR a
- [3] REPT SHLGETTY CANNOT READ TTBPT RECORD FOR a
- [4] REPT SHLGETTY CANNOT SET TERMINAL OPTIONS FOR a  
ERRNO b
- [5] REPT SHLGETTY UNABLE TO CHANGE DIRECTORY TO c
- [6] REPT SHLGETTY FAILED TO EXECUTE d
- [7] REPT SHLGETTY FAILED TO OPEN e
- [8] REPT SHLGETTY UNABLE TO RETRIEVE LCHAN FROM  
ENVIRONMENT

## 2. REASON FOR OUTPUT

To report a failure that occurred during shlgetty process execution.

## 3. VARIABLE FIELD DEFINITIONS

- a Teletypewriter (TTY) device which shlgetty is executing against.
- b UNIX® RTR error code. See System Error Codes Output Appendix, APP:SYSERR.
- c The idir file suffix entry CFTSHL executing directory.
- d Pathname of the process which could not be executed.
- e Special device file which could not be opened.

## 4. ACTION TO BE TAKEN

If Format 1, 2, 3, or 4 is printed, verify that the getty and ttopt records in the Equipment Configuration Database (ECD) for the indicated TTY device are correct.

If Format 5 is printed, check that the directory indicated in the getty record exists.

If Format 6 is printed, verify that the process which could not be created exists and is executable.

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If Format 7 or 8 is printed, or the error persists after taking action indicated, seek technical assistance.

## **5. REFERENCES**

OMDB Key

Formats 1 - 8 have an OMDB key of 312.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

Output Appendix

APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:SIM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT SIM UTILITY IDS OF PROCESSES KILLED DURING CFT INIT  
a a a a a a a a a

## 2. REASON FOR OUTPUT

To report the utility Identifications (IDs) of processes killed during a level 2 or level 3 craft initialization.

## 3. VARIABLE FIELD DEFINITIONS

a Utility ID in hexadecimal of a killed process.

## 4. ACTION TO BE TAKEN

This message lists the utility IDs of processes killed during a craft initialization. To identify the process associated with a utility ID, execute the `IOP:STATUS;PROCESS,ALL` input command after the recovery of the craft interface. If some processes were not restarted after a craft initialization, refer to Table 4-7 in the *UNIX® RTR Operating System Software Troubleshooting Guide* for the utility IDs to specific processes.

## 5. REFERENCES

CIC Select Code 303-072 *UNIX® RTR Operating System Software Troubleshooting Guide*

Input Message  
OP:ST-PROC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:SIMCHK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT SIMCHK a [b]

## 2. REASON FOR OUTPUT

To report error conditions that occurred while executing the System Integrity Monitor (SIM).

## 3. VARIABLE FIELD DEFINITIONS

- a System integrity error code. Code numbers labeled with an "\*" indicate conditions that may result in a system initialization phase unless software checks are inhibited.
- \*1 System initialization failure.
  - 2 System initialization status message received with unknown process number.
  - \*12 Unexpected fault received by SIM.
  - 101 Audit control subsystem initialization failure.
  - 102 Audit record initialization error.
  - 103 The System Integrity Output Formatter (SIOF) program is not running. Some output messages were lost.
  - 104 Routine audit scheduling was not allowed.
  - 121 Failure to get an audit record from the Equipment Configuration Database (ECD) using its Record ID (RID).
  - 122 Failure to update an audit record in the ECD.
  - 123 Failure to open a keyed sequence of audit records in the ECD.
  - 124 Failure to get a record in a sequence of audit records.
  - 125 Failure to get an audit record using the audit name and member number.
  - 126 Failure to read the SIM control record.
  - 127 Failure to update the SIM control record.
  - 128 Failure to open a sequence of audit instance records in the ECD.
  - 129 Failure to get a record in a sequence of audit instance records.
  - 130 Failure to get an audit instance record using its RID.
  - 131 Failure to update an audit instance record in the ECD.
  - 132 Failure to get an audit instance record using its instance name and the RID of the associated audit record.
  - 141 Audit marked active in its ECD record when it is not running.
  - 142 Invalid message received from the process manager or the utility manager regarding an audit process.

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- 143 Audit reply received from an inactive audit.
- 144 Timeout occurred for an inactive audit.
- 145 Invalid reply received from an active audit.
- 146 System Integrity Output Formatter (SIOF) output buffer overflow; some audit output messages were lost.
- 147 Failure to find one and only one audit process for the specified utility ID.
- 148 Audit error report received from an inactive audit.
- 149 Invalid request to inform an audit process when the audit's ECD record is modified.
- 150 Invalid request to run or stop an audit.
- 151 Audit blocking condition cleared because it was invalid.
- 152 Failure to create a transient audit process.
- 153 Unable to take recovery action for an audit failure.
- 154 Audit inhibited by SIM because it could not be run, timed out, died or was faulted while correcting errors.
- 155 Routine audit scheduling malfunctioned and is being reinitialized. All routine audits are temporarily inhibited.
- 156 Failure to reinitialize routine audit scheduling after it had malfunctioned.
- 157 Routine audit scheduling has been temporarily inhibited because SIOF is not running.
- 158 Failure to reinitialize routine audit scheduling after SIOF stopped running.
- 159 Unknown error category in an error report from an audit process.
- 161 Audit system reinitializing due to error found in kernel level audit scheduling.
- 162 Audit system reinitializing due to error found for a kernel level audit timeout.
- 163 Audit system reinitializing due to error found for a routine supv-level audit timeout.
- 164 Audit system reinitializing due to error found for a requested supv-level audit timeout.
- 165 Audit system reinitializing because SIM received a reply from an inactive audit.
- 166 Audit system reinitializing because SIM received a timeout for a non-running audit.
- 167 Audit system reinitializing because SIM received a raw data report from an inactive audit.
- 168 Audit system reinitializing because SIM received an unexpected fault.
- 169 Audit system reinitializing because SIM found eligible audits not dispatched.
- 181 Failure to access an audit record in the plant measurements database.
- 182 Failure to create an audit record in the plant measurements database.
- 183 Failure to open the plan measurements database.
- 190 Audit has taken too much time to execute.

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- \*200 Failure of the Application Integrity Monitor (AIM) process to reset the application sanity timer within the timeout interval.
- 201 Failure to activate or de-activate the application sanity timer.
- 202 AIM was not connected to port PT\_AIM when a PHASE 0 was requested.
- 203 Failure to change craft initialization inhibit status.
- 206 AIM not connected to port PT\_AIM for reception of overload faults.
- 207 AIM not connected to port PT\_AIM for soft-switch request.
- 208 AIM not connected to port PT\_AIM for notification of CU switch completion.
- 209 Faulty AIM port during craft initialization.
- 210 Faulty IOP port during craft initialization.
- 211 AIM not connected to port PT\_AIM for notification of completion of diverge request.
- 212 AIM not connected to port PT\_AIM for converge request.
- 213 AIM not connected to port PT\_AIM for notification of completion of converge request.
- 300 Unrecognized acknowledgement message received by SIM.
- 301 Unrecognized USRACK message received by SIM.
- 306 Message with invalid type received by SIM.
- 307 Unrecognized MSFAULT message received by SIM.
- 310 Unrecognized Operating System Trap (OST) entry received by SIM.
- 401 Failure to respond to a request from another process for information about the most recent system initialization.
- 602 Overload status change.
- 605 Kernel-level overload monitor process failed to initialize.
- 606 Supervisor-level overload monitor process failed to initialize.

b Up to three words of optional hexadecimal data, associated with specific error conditions.

\*1 Boot progress indicators, from left to right in hexadecimal:

- 0 — File manager.
- 1 — Disk driver.
- 2 — Process manager.
- 3 — Error interrupt handler.
- 4 — Capability manager.
- 5 — Scheduler.
- 6 — Utility manager.
- 7 — Memory manager.

If a boot process indicator message is received from a kernel process, the appropriate hexadecimal digit is set to 1; otherwise, the hexadecimal digit remains at 0.

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- 2 Process number of process sending the message (ms\_from).
- \*12 Fault code, followed by the virtual address within SIM at which the fault occurred.
- 102 ECD RID of the audit record that was not initialized.
- 121 RID used in attempt to get an audit record from the ECD.
- 122 RID used in attempt to update an audit record in the ECD.
- 126 RID of the SIM control record (as specified in the ECDORG record).
- 127 RID of the SIM control record (as specified in the ECDORG record).
- 128 If not zero, the RID of the audit record for which a sequence of instance records could not be opened.
- 130 RID used in attempt to get an audit instance record from the ECD.
- 131 RID used in attempt to update an audit instance record in the ECD.
- 132 RID of the audit record for which an associated instance record could not be gotten from the ECD.
- 141 RID of the audit record in error.
- 142 RID returned in the message (ms\_ident).
- 143 RID of the audit record, as specified in the reply.
- 144 RID of the audit record, as specified in the timeout identification.
- 145 RID of the audit record, as specified in the reply.
- 147 Utility ID (pcode) of the process, as specified in the audit record.
- 148 RID of the audit record, as specified in the error report.
- 149 RID of the audit record, as specified in the request, followed by the process number from which the request was received.
- 150 RID of the audit record, as specified in the request.
- 151 RID of the audit instance record process number of the blocking process, and the elapsed time in milliseconds since the audit instance was blocked.
- 152 RID of the audit record for which the audit process was not created.
- 153 RID of the recovery audit that could not be run.
- 154 RID of the audit that was inhibited.

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- 159 RID of the audit whose error was reported.
- 300 Message identity (ms\_ident).
- 306 Message type (ms\_type).
- 307 The fault code specified in the message.
- 310 The invalid Operating System Trap (OST) number, followed by the process number of the calling process.
- 602 Overload fault code:
  - A9 — Kernel process memory overflow. Swappable main memory is at minimum size.
  - AC — Message buffer overload cleared.
  - AD — Message buffer 70% full.
  - AE — Message buffer 90% full.
  - 81 — Spooler output process overload cleared.
  - 82 — Spooler output process overload.
  - 85 — Data link input buffer overload cleared.
  - 86 — Data link input buffer overload.
  - 87 — Data link output buffer overload
  - 88 — Data link output buffer
  - 8B — IOP overload cleared.
  - 8C — IOP command queue overloaded.
  - 8D — An IOP was bootstrapped due to overload.
  - 8F — Overload cleared on one Disk File Controller (DFC).
  - 90 — A DFC is overloaded.
  - 91 — File manager overload cleared.
  - 92 — File manager overloaded.
  - 95 — Supervisor/user level lockout cleared.
  - 96 — Supervisor/user level process lockout.
  - 97 — Timed entry overload cleared.
  - 98 — Kernel process timed entries slow.
  - 99 — Kernel level lockout cleared.
  - 9A — Kernel level process lockout.
  - 9C — Module 1 memory allocation reduced to 60%.
  - 9D — Module 1 memory at 80% allocated (only for generics with EMM feature).

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- 9E — Insufficient memory available to grant a memory allocation (module 1) (only for generics with EMM feature).
- 9F — DCT table overload cleared.
- A0 — DCT table is 85% full.
- A1 — Dispatcher control table overflow.
- A2 — SDE table overload cleared.
- A3 — SDE table nearly full.
- A4 — Segment descriptor table overflow.
- A5 — Disk swap space overload cleared.
- A6 — Disk swap space 80% full.
- A7 — Memory overload cleared.
- A8 — Kernel process memory has grown to within 1/4 megabyte of its maximum size. This has reduced the size of swappable memory to within 1/4 megabyte of its minimum size.
- A9 — Kernel process memory overflow. Swappable main memory is at minimum size.
- AC — Message buffer overload cleared.
- AD — Message buffer 70% full.
- AE — Message buffer 90% full.

#### 4. ACTION TO BE TAKEN

For audit system initialization failures (error codes 101, 103, 104, 126, 127, 156, 158 and 183), seek technical assistance.

If the data printed with the output message includes an audit or instance RID, the audit name, member number and instance name associated with the RID may be found by using the OP:AUD input message with the ALL option. If the specified RID is not listed in the OP-AUD output message, the RID is invalid. If the error message is associated with a valid record, then an AUD output message may have been printed for the audit. If the audit aborted, the abort code printed in the output message will help in analyzing the failure.

For error code 141, use the STOP:AUD input message to clear the audit record.

For error code 146, use the OP:ST-PROCESS input message to determine whether or not the SIOF program is running. The file name of SIOF is /etc/siof. If it is running, no further action is required. If it is not running, seek technical assistance to determine the cause of the problem and what additional action needs to be taken.

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For failures that involve an audit process (error codes 147, 152, and 154), verify that a valid process file exists for that audit. For transient audits, the process file should be stored in directory /audprc and its file name should be listed in the audit's ECD record. Use the RCV:MENU;RCV3B input message to read the record. For quasi-killable audits, the process may be identified from its utility ID number (which is listed in the audit's ECD record), using Practice 254-301-815.

For error code 154, use the STOP:EXC-ANY input command to terminate the audit process (if it is still running and is quasi-killable or transient). Then attempt to run the audit manually by using the AUD input command. If the problem does not recur, then use ALW:AUD to allow the audit.

For error code 159, use OP:AUD to identify the audit causing the problem. This error is due to a missing auderr form.

For error code 190, use OP:AUD to identify the audit causing the problem. There are two reasons for the audit taking too much time to execute: the audit may be incorrectly reporting actual time instead of CPU time or the audit may need to be broken down into several audits. Unless corrected, supervisor audit scheduling could be adversely affected resulting in the irregular scheduling of lower frequency level supervisor audits. A maximum of nine of these output messages will be printed in one 24-hour period of time.

A history of audit activity may be found in the most recent plant measurements report (REPT-OP, PMCR output message).

Additional information about the audit control subsystem may be found in the *System Maintenance Manual*.

If an overload monitor process failed to initialize (error codes 605 and 606), it may be executed manually with the EXC:ENVIR;PROC input command. The file names of these processes are /prc/klmon (kernel-level monitor) and /prc/supvprc (supervisor-level monitor).

## 5. REFERENCES

### OMDB Keys

This message has OMDB keys of 446, 447, and 448.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System*

*Lucent Technologies 3B20D/3B21D Computer*

Practice 254-341-235 *Audit Facilities Description UNIX® RTR Operating System*

### Input Messages

ALW:AUD

AUD:CUMEM

AUD:CUSTAT

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AUD:ECD  
AUD:FMGR  
AUD:FSBLK  
AUD:FSCMPT  
AUD:FSLINK  
AUD:MMGR  
AUD:MSGBUF  
AUD:PMS  
AUD:PROAD-1  
EXC:E-PROC  
INH:AUD  
INIT:ULARP  
OP:AUD  
OP:ST-PROC  
RCV:M-RCVECD  
STOP:AUD  
STOP:E-ANY

Output Messages

AUD:CUMEM  
AUD:CUSTAT  
AUD:ECD  
AUD:ECDOWN  
AUD:FMGR1  
AUD:FMGR2  
AUD:FMGR3  
AUD:FMGR4  
AUD:FMGR5  
AUD:FMGR6  
AUD:FMGR7  
AUD:FMGR8  
AUD:FMGR9  
AUD:FSBLK  
AUD:FSCMPT  
AUD:FSLINK  
AUD:MMGR  
AUD:MSGBUF  
AUD:PMS  
AUD:PROAD  
OP:AUD  
OP:ST-PROC  
REPT:OP-PMCR

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ID ..... REPT:SIN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 through 4AP14 Rel. 1  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

```
REPT SIN LNa b ERR X'c SEQ d
FILE e LINE f ACTION 0 g AUX DATA WDS (X')
 hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
 .
 .
 .
 hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
```

## 2. REASON FOR OUTPUT

To report error conditions encountered by the application process running on the Small Computer System Interface (SCSI) Interface Node (SIN) Common Network Interface (CNI) ring node.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                    |
|---|--------------------|
| a | SIN group number.  |
| b | SIN member number. |
| c | SIN error code.    |
- 01 — 3B Direct Memory Access (DMA) job queue audit failure.
- 02 — 3B/SIN status table audit failure.
- 03 — 3B has not made state change requested by SIN.
- 04 — Invalid Small Computer System Interface (SCSI) link transition state.
- 05 — Invalid SCSI link transition.
- 06 — Invalid message block state.
- 08 — Could not build Interprocess Message Switch (IMS) header for a message.
- 09 — Could not write IMS message.
- 10 — Unknown IMS message type received.
- 11 — Could not read IMS message.
- 12 — Could not open channel.
- 13 — Could not `ioctl` channel.
- 14 — Could not start a timer.

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|   |                                                                                                                        |
|---|------------------------------------------------------------------------------------------------------------------------|
|   | 15 — Unknown SCSI message type received.                                                                               |
|   | 16 — Could not read SCSI message.                                                                                      |
|   | 17 — Could not queue SCSI read.                                                                                        |
|   | 18 — Received invalid message for current link state.                                                                  |
|   | 19 — Received negative or invalid acknowledgement.                                                                     |
|   | 20 — Could not queue SCSI write.                                                                                       |
|   | 21 — Tried to send SCSI message with invalid type.                                                                     |
|   | 22 — Tried to send IMS message with invalid type.                                                                      |
|   | 23 — Invalid SCSI link state.                                                                                          |
|   | 24 — Call Detail Recording Platform (CDRP) polling timer timeout.                                                      |
|   | 25 — Sent a SCSI message with an invalid type.                                                                         |
|   | 26 — Could not write SCSI message.                                                                                     |
|   | 27 — Job is already in job queue.                                                                                      |
|   | 28 — Could not queue DMA job.                                                                                          |
|   | 29 — Invalid message block number.                                                                                     |
|   | 30 — Invalid message address.                                                                                          |
| d | Number of errors detected by SIN since the SIN was last restored.                                                      |
| e | SIN source file name where the error was detected.                                                                     |
| f | SIN source file line number where the error was detected.                                                              |
| g | Number of words of additional data printed.                                                                            |
| h | Additional data that can be used to debug the problem.                                                                 |
|   | For error codes X'01, X'07, and X'27, this is the SIN's 3B DMA job queue.                                              |
|   | For error code X'02, this is the SIN/3B status table.                                                                  |
|   | For error code X'03, the first 16 bits are the SIN's transition state and the next 16 bits are the current link state. |
|   | For error code X'04, this is the SIN's transition state.                                                               |
|   | For error code X'05, the first 16 bits are the previous link state and the next 16 bits are the new link state.        |
|   | For error codes X'06 and X'24, this is the SIN's message block states.                                                 |

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For error codes X'08, X'09, X'11, X'12, X'13, X'14, X'17, X'20, and X'28, this is the return code from a SIN system function call.

For error codes X'10, X'15, X'19, and X'25, this is the IMS or SCSI message sent or received.

For error codes X'16 and X'26, this is the I/O control structure.

For error codes X'18 and X'23, this is the current link state.

For error codes X'21 and X'22, this is the invalid IMS or SCSI message type.

For error code X'29, this is the invalid message block number.

For error code X'30, this is the invalid message address.

#### **4. ACTION TO BE TAKEN**

For error code X'24, the CDRP is not polling the SIN. In this case, maintenance actions should be performed on the CDRP.

The other error codes indicate software problems with the SIN node; if they occur repeatedly, seek technical assistance.

#### **5. REFERENCES**

None.

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ID ..... REPT:SIOF-ERROR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SIOF ERROR - CANNOT OPEN INPUT FILE a
- [2] REPT SIOF ERROR - CANNOT OPEN OUTPUT FILE a
- [3] REPT SIOF ERROR - SIZEOF (b) NOT FACTOR OF PASSED SIZE
- [4] REPT SIOF ERROR - CANNOT ADD SEGNUM X'c CODE d
- [5] REPT SIOF ERROR - CANNOT SET VIRTUAL ADDRESS SEGNUM X'c  
CODE d
- [6] REPT SIOF ERROR - UNABLE TO ADD SEGMENT ID X'c CODE d
- [7] REPT SIOF ERROR - INVALID SEG ID STAMP X'f  
SEGID X'c PID X'g
- [8] REPT SIOF ERROR - UNABLE TO FREE SEGMENT X'h
- [9] REPT SIOF ERROR - UNABLE TO FIND AVAILABLE SEGMENT INDEX
- [10] REPT SIOF ERROR - INVALID FORMAT TYPE X'i
- [11] REPT SIOF ERROR - INVALID OUTPUT FORMAT TYPE X'j
- [12] REPT SIOF ERROR - TOO MANY BLOCKS (k) RETURNED BY SIM
- [13] REPT SIOF ERROR - INVALID ALARM LEVEL X'l SUBSTITUTING ' '
- [14] REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA  
SEG\_SIZE X'm OFFSET X'n  
SSIZE X'o SFLAGS X'p
- [15] REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA FORMAT X'q
- [16] REPT SIOF ERROR - CANNOT READ FILE a
- [17] REPT SIOF ERROR - CANNOT WRITE FILE a

## 2. REASON FOR OUTPUT

Format 1 indicates System Integrity Output Formatter (SIOF) cannot open input file.

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Format 2 indicates SIOF cannot open output file.

Format 3 indicates size of supplementary data block passed to SIOF is not an integral multiple of the structure to be formatted.

Format 4 indicates SIOF cannot add the segment containing the supplementary data to its address space.

Format 5 indicates SIOF cannot set the access permission modes on the segment virtual address.

Format 6 indicates SIOF cannot add segment ID to the process segment list.

Format 7 indicates the segment identity stamp does not match the audit supplementary data segment identity stamp.

Format 8 indicates SIOF cannot free the supplementary data segment.

Format 9 indicates SIOF cannot get a segment index in the segment list.

Format 10 indicates that SIOF does not recognize the supplementary data type.

Format 11 indicates that SIOF does not recognize the format type of the output message.

Format 12 indicates that the maximum number of the message which can be passed at one time from System Integrity Monitor (SIM) to SIOF has been exceeded.

Format 13 indicates that an invalid alarm level has been specified for the audit report, and hence a space will be substituted.

Format 14 indicates that the supplementary data segment sent to SIOF is invalid.

Format 15 indicates that SIOF does not recognize the supplementary data format type.

Format 16 indicates that SIOF is unable to read the Output Message Database (OMDB) key from file.

Format 17 indicates that SIOF is unable to write first line of audit error report.

### **3. VARIABLE FIELD DEFINITIONS**

- |   |                                           |
|---|-------------------------------------------|
| a | Pathname of the file.                     |
| b | Name of the structure to be formatted.    |
| c | Value of the segment Identification (ID). |
| d | Function return code.                     |
| e | Memory module identifier.                 |
| f | Segment name identifier.                  |

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|   |                                                                                              |
|---|----------------------------------------------------------------------------------------------|
| g | Process ID.                                                                                  |
| h | Segment index.                                                                               |
| i | Invalid supplementary data format type passed to SIOF in a suptype field from audit process. |
| j | Invalid output format type passed to SIOF by SIM.                                            |
| k | Number of blocks.                                                                            |
| l | Alarm level.                                                                                 |
| m | Size of supplementary data segment.                                                          |
| n | Starting point in supplementary data segment of data.                                        |
| o | Amount of supplementary data to be processed.                                                |
| p | Location of status switch in supplementary data format.                                      |
| r | Invalid supplementary data format passed to SIOF in a format field from audit process.       |

#### 4. ACTION TO BE TAKEN

For all formats, send a copy of the message, including the previous page and the subsequent page, to the field support center. No corrective action by the user is possible.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has an OMDB key of 102.  
Format 3 has an OMDB key of 100.  
Format 4 has an OMDB key of 88.  
Format 5 has an OMDB key of 87.  
Format 6 has an OMDB key of 85.  
Format 7 has an OMDB key of 97.  
Format 8 has an OMDB key of 94.  
Format 9 has an OMDB key of 83.  
Format 10 has an OMDB key of 82.  
Format 11 has an OMDB key of 80.  
Format 12 has an OMDB key of 79.  
Format 13 has an OMDB key of 81.  
Format 14 has an OMDB key of 89.  
Format 15 has an OMDB key of 98.  
Formats 16 and 17 have an OMDB key of 101.

Practice 254-341-120 *Interface and Integrity Facility DMERT/UNIX® RTR Operating System*  
*Lucent Technologies 3B20D/3B21D Computer*

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ID ..... REPT:SLK-INHALM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

[1] REPT SLK INHALM  
\*\*\*\*\* SLK INHIBIT ALARM STATUS REPORT \*\*\*\*\*

| SLK NO. | CLLI | STATUS |
|---------|------|--------|
| a b     | c    | ON     |
| .       | .    | .      |
| .       | .    | .      |
| .       | .    | .      |
| .       | .    | .      |
| .       | .    | .      |
| .       | .    | .      |
| a b     | c    | ON     |

\*\*\*\*\* END SLK INHIBIT ALARM REPORT \*\*\*\*\*

[2] REPT SLK INHALM  
\*\*\*\*\* SLK INHIBIT ALARM STATUS REPORT \*\*\*\*\*

| SLK NO. | CLLI | STATUS |
|---------|------|--------|
|---------|------|--------|

ALL LINKS: ALARM INHIBIT = OFF

\*\*\*\*\* END SLK INHIBIT ALARM REPORT \*\*\*\*\*

## 2. REASON FOR OUTPUT

In response to a request for a status report of all Signaling Link (SLK) Inhibit Alarm flags set (ON) or the hourly Signaling Link Inhibit Alarm status report.

## 3. VARIABLE FIELD DEFINITIONS

a Group number (0-63).  
b Member number (1-15).  
c Far end CLLI®.

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**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

*CNI Operations Manual* - 234-100-121 (non-AT&T)  
- 234-100-121AC (AT&T only)  
Analog Signaling Link Operating Procedures Section  
Digital Signaling Link Operating Procedures Section

Input Messages

INH:SLK

REPT:SLK-INHALM

Output Message

INH:SLK

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ID ..... REPT:SLM-DUMP-MSG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has three formats.

- [1] REPT SLM DUMP MSG  
a  
b
- [2] REPT SLM DUMP MSG  
a (continued)  
b
- [3] REPT SLM DUMP MSG  
THE MESSAGE:  
"b"  
OCCURRED c TIMES IN THE PAST d MINUTES

## 2. REASON FOR OUTPUT

To report that an unexpected message has been received.

Format 1 is used for short messages. It will accommodate messages up to 14 words (4 octets per word, 7 words per line). If a message is longer than 14 words, it will be continued with another message of Format 2.

Format 2 prints continuations of messages printed as Format 1. It will also accommodate continuations of up to 14 words and will be repeated as many times as necessary to dump the complete message.

Format 3 is used to limit the number of messages being printed on the ROP, a limit has been placed on the total number of messages that will be printed within a particular time period. This limit has been set to 5 messages per 5-minute period. If the total number of requests for a particular description of an error exceeds this limit, the message will not be printed and a message of Format 3 will be printed at the end of the period.

## 3. VARIABLE FIELD DEFINITIONS

- a Description of error.
- b The message dumped in hexadecimal.
- c The number of times the message should have been printed during the last time period.
- d The time period over which the message should have been printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### **4. ACTION TO BE TAKEN**

The contents of this output message are not intended to be analyzed by the on-site work force. Rather it is an indication that the SLMK process has received a message which it cannot decipher or an extremely rare or unexpected event has occurred. The contents of this message can greatly enhance the analysis of certain service-affecting events and as such, the message may be of great benefit to field support organizations.

Infrequent occurrences of this message may most likely be ignored, however, as the frequency of occurrence increases, site personnel should be particularly cognizant of abnormal operation as reported by other sources of information. The message is throttled such that the ROP will not be over-burdened by such messages.

Here is an example of what might cause this message. From time to time the CCS7 protocol may be changed to support new features. This is normally done in such a way that changes need not be implemented in a simultaneous fashion in all network sites. As sites are updated, they may begin to emit new messages which are unrecognizable by network sites that are yet to be updated. In such cases the site printing the REPT SLM DUMP MSG is displaying the fact that it cannot recognize the message and is discarding it. This is a normally accepted reaction. In cases where the frequency of occurrence increases, it may be an indication that an unexpected and troublesome situation is occurring. There should always be other indications of trouble in these cases and this message may help resolve such problems but higher level support is likely required.

#### **5. REFERENCES**

None.

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ID ..... REPT:SLM-NDERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SLM NDERR  
      NODE a-b ACTION = c FUNCAREA = d OTHERDATA = e
- [2] REPT SLM NDERR  
  
      f CLNODERR() ACTIONS NOT PRINTED

## 2. REASON FOR OUTPUT

Format 1 reports events that indicate trouble in the link node. Signaling Link Management (SLM) uses this message for some of these events; SLM will remove the node from service.

Format 2 is used when the number of Format 1 reports becomes excessive. The number of dropped messages is given in this report.

## 3. VARIABLE FIELD DEFINITIONS

- a Node's group number (0 - 63).
- b Node's member number (1 - 15).
- c The action taken by the system on the node:
- NDRMVD — No system action, node currently removed.
  - NOACT — No system action initiated, error report only.
  - RAD — Remove and diagnose the node.
  - RAPD — Remove and partial diagnose the node.
  - RAR — Remove and restore the node.
  - RST — Restart the node.
- d The subsystem reporting the node trouble:
- APPL — The CNI user software.
  - SCCP — Signaling connection control part.
  - MH — Message handling.
  - DBASE — Database.
  - NM — Network management.
  - TOOLS — Tools.
  - SYS — System control/interface.
  - LNC — Link and node control.
  - MTCE — Maintenance.
  - MEAS — Measurements.
  - LI — Link interface.
  - LISNTY — Link interface sanity.

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e Other data, this code is unique to each subsystem reporting the error and identifies the error.

APPL: — None.

SCCP: — 1 — DCHN TSC (D-Channel temporary signaling connection) Input/Response array buffer resource unavailable.  
2 — DCHN TSC Release of array buffer resource failure.  
3 — DCHN TSC Control structure for ring write unavailable.  
4 — DCHN TSC Signal connection control point oriented control (SCOC) database (DB) segment count audit error.  
5 — DCHN TSC SCOC DB equipment count audit error.  
6 — DCHN TSC Local reference number (LRN) audit error.  
7 — DCHN TSC Network connection identifier (NCID) audit error.

MH: — 600 — CCS6 Invalid real-time executive (RTX) device message received.  
601 — CCS6 Invalid RTX message type received.  
602 — CCS6 Ring write failure.  
603 — CCS6 LI receive mailbox read failure.  
604 — CCS6 Cannot open channels to the LI.  
605 — CCS6 Cannot set controls for LI channels.  
606 — CCS6 Data retrieval failure.

DBASE: — None.

NM: — 20 — CCS7 Link congestion failed to abate.

TOOLS: — None.

SYS: — None.

LNC: — 20 — CCS7 Continuous link congestion.  
21 — CCS7 LKBDST audit error.  
22 — CCS7 bad node load data.  
23 — CCS7 declared link failure.  
24 — CCS7 node changing from unavailable (UNA) to available (AVL) state.  
25 — CCS7 IMS conditional node removal request.  
26 — CCS7 REMACS failed single node pump.  
27 — CCS7 REMACS failed all node pump request.  
28 — CCS7 node initialization problem, likely an equipment configuration database (ECD) problem, check field 62, the Pack Code, of the unit control block (UCB) for this node.

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- 40 — CCS6 continuous congestion/ far-end processor signaling congestion (PSC) or link node (ln) sanity error.
- 41 — CCS6 bad node load data.
- 42 — CCS6 declared link failure.
- 43 — CCS6 node changing from UNA to AVL state.
- 44 — CCS6 IMS conditional node removal request.
- 45 — CCS6 REMACS failed single node pump.
- 46 — CCS6 REMACS failed all node pump request.
- 47 — CCS6 node initialization problem, likely an ECD problem, check field 62, the Pack Code, of the UCB for this node.
  
- 60 — PBX Node data error found by LKBDST audit.
- 61 — PBX Links failed to achieve a valid state.
- 62 — PBX LI insanity indication.
- 63 — PBX Missing acknowledgement from node, link state unknown.
- 64 — PBX REMACS init. OOS.
- 65 — PBX REMACS init. unknown.
- 66 — PBX REMACS failed single node pump.
- 67 — PBX REMACS failed all node pump request.
- 68 — PBX Nodetype of data pumped to the node did not match the type of node receiving the data, i.e. the nodetype of the node.
- 69 — PBX node initialization problem, likely an ECD problem, check field 62, the Pack Code, of the UCB for this node.
- 70 — PBX After the node initialized and indicated to the 3B that it was ready for a data pump, the 3B's attempt to pump data to the node failed.
- 71 — PBX Node failed to initialize and execute to the point where it was ready for a data pump. After timeout, when the 3B attempted to pump data to the node, the data pump failed.
  
- 80 — DLN Complaint on a direct link node (DLN) that is active and 1 way out.
- 81 — DLN Not in the active state.
- 82 — DLN Complaint on a DLN that is the active home DLN.
- 83 — DLN REMACS failed single node pump.
- 84 — DLN REMACS failed all nodes pump request.
  
- MTCE: — 1 — Failure to open link interface (LI) Maintenance channel.
- 2 — Failure to set controls on LI Maintenance channel.
- 3 — MTCE process received an invalid RTX message.

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4 — MTCE process has failed.

MEAS: — None.

LI: — 1 — Operating system in the LI failed to start.  
2 — Node processor-link interface (NP-LI) failed periodic exercise.  
3 — NP has received a FATAL message from the LI.  
4 — NP has read an undefined transaction from the LI.  
5 — NP could not write exercise acknowledge message to LI.  
6 — LI has requested an undefined exercise to be run.  
7 — Mismatch of Lndata encryption type and actual LI type.  
8 — NP received invalid RTX message.  
9 — Maintenance flag contained invalid value.  
10 — Unknown link interface DS0-A (LID0) boot monitor status.  
11 — Link node data LI type does not agree with the actual node LI type.  
12 — Local loop-back test failure.  
13 — Digital signal zero A (DS0-A) composite clock failure.  
14 — Invalid init parameter passed from NP to LI.  
15 — Invalid command parameter passed from NP to LI.  
16 — LI reports critical receive buffer congestion.  
17 — LI reports excessive receive buffer congestion.  
18 — NP had to force a hard reset to link interface DS0-A (LID0) when initializing the node. Reported for information use only.  
19 — LID0 flash memory contents are out of date. Diagnostic phase 51 must be run to update it.

LISNTY: — 0 — LI sanity timer has timed out.  
-107 — LI unassigned interrupt occurred.  
-200 — LI has been declared dead.  
-201 — Interrupt request has not been enabled.  
-202 — Illegal address has been specified.  
-203 — Illegal data transfer has been requested.  
-204 — Illegal maintenance command has been given.  
-205 — Illegal address range has been specified.  
-206 — Illegal diagnostic phase has been requested.  
-207 — Illegal exercise has been requested.  
-208 — A fatal parity failure has occurred.  
-209 — Illegal maintenance transaction has occurred.  
-210 — Maintenance mail box failure.

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- 211 — LI exercise failure.
- 212 — LI parity detection check failure.
- 213 — LI sum check failure.
- 214 — LI-NP interface monitor has timed out.
- 215 — LI 8086 test failure.
- 251 — LID0 SCC DMA parity error.
- 253 — LID0 SHARED RAM parity error.
- 255 — LID0 LOCAL RAM parity error.
- 301 — Flash memory checksum failure.
- 302 — Read only memory (ROM) checksum failure
- 303 — Central processing unit (CPU) test failure.
- 304 — Address test failure.
- 305 — Local random access memory (RAM) test failure.
- 306 — Local RAM parity generator failure, low byte.
- 307 — Local RAM parity generator failure, high byte.
- 308 — Local RAM stuck-at test failure, low byte.
- 309 — Local RAM stuck-at test failure, high byte.
- 310 — Local RAM false parity test failure, low byte.
- 311 — Local RAM false parity test failure, high byte.
- 312 — Shared RAM test failure.
- 313 — Shared RAM parity generator failure, low byte.
- 314 — Shared RAM parity generator failure, high byte.
- 315 — Shared RAM stuck-at test failure, low byte.
- 316 — Shared RAM stuck-at test failure, high byte.
- 317 — Shared RAM false parity test failure, low byte.
- 318 — Shared RAM false parity test failure, high byte.

**NOTE:** Fail codes in the range of -300 through -399 are reserved for and associated only with LID0 boot monitor sanity test failures.

f                      # of missed messages printed to the receive only printer (ROP) in past 5 min.

#### 4. ACTION TO BE TAKEN

Dependent upon the description of the error. As a general step, the LKBDST audit can be requested to verify the condition of the node and links. See AUD:LKBDST. If the audit indicates errors, retry the audit. If the errors do not clear, RMV and diagnose the node.

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Some errors may be cleared by using the CHG:SLK input command to change the minor state of the link. For example, an out-of-service (OOS) link can be changed first to manual out-of-service (MOOS), and then back to in-service (IS) or OOS (see CHG:SLK).

Further error messages indicate that the node should be removed and diagnosed. The LKC:SLK input command with the Internal option may also be used to test the node and link condition.

## **5. REFERENCES**

Input Messages

AUD:LKBDST-1

CHG:SLK

LKC:SLK

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:SLMK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SLMK INIT  
GOING FROM INIT STATE a TO b
- [2] REPT SLMK AUTO INH  
LINK REMOVAL INHIBIT c
- [3] REPT SLMK CES  
d CRITICAL EVENTS DROPPED IN THE LAST HOUR
- [4] REPT SLMK PSLT  
PERIODIC SLT INHIBIT ON, FIRST  
NODE e-f

## 2. REASON FOR OUTPUT

Format 1 is a progress report for initialization and abort sequences of SLMK in the CNI subsystem.

Format 2 reports the status of the automatic link removal inhibit. This inhibit is separate and distinct from the manual inhibit for link removals. See INH:RMV input message.

Format 3 reports the number of critical events messages missed within the last hour due to incomplete processing within the SLMK process. The incomplete processing can be caused by two situations. One is initializations, SLMK does not fully process critical events during initializations. Thus, one of these reports can be expected one hour after SLMK reaches its steady operating state, currently state 14. Secondly, when critical event throttling is selected, this report indicates the number of critical events not processed when the throttle threshold is exceeded for the last hour. When all critical events are fully processed by the SLMK process, i.e., a count of zero, no report is generated.

Format 4 reports reports Periodic Signaling Link Test (PSLT) is inhibited for some links in the office. The report gives the group and member numbers of the first link found in the data base with the PSLT inhibited. A complete list of the links inhibited can be obtained by using the INH:PSLT command.

## 3. VARIABLE FIELD DEFINITIONS

- a See Output APP:APPENDIX-14.
- b See Output APP:APPENDIX-14.

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- c                    The inhibit state.  
                    ON — Inhibit on.  
                    OFF — Inhibit off.
- d                    Number of critical events dropped.
- e                    Group number.
- f                    Member number.

#### 4. ACTION TO BE TAKEN

None.

#### 5. REFERENCES

*CNI Operations Manual* - 234-100-121 (non-AT&T)  
                    Analog Signaling Link Operating Procedures Section  
                    Digital Signaling Link Operating Procedures Section

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*  
                    Analog Signaling Link Maintenance Procedures Section  
                    Digital Signaling Link Maintenance Procedures Section

Output Appendix  
APP:APPENDIX-14

Input Messages  
INH:RMV  
INH:PSLT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:SLMSHR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT SLMSHR  
CNI GENERIC RELEASE a

## 2. REASON FOR OUTPUT

The REPT:SLMSHR message originates from the SLMSHR process. This message is output to provide status information; it identifies the current CNI generic point release.

**NOTE:** Information output by SLMSHR may not be useful to the user. This information is intended for use by development/support personnel when diagnosing CNI errors or faults.

## 3. VARIABLE FIELD DEFINITIONS

a Present CNI Generic Release.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* - Link Operating  
Procedures Section

Output Message  
REPT:SLMSHR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:SLT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SLT  
SLK a b RECEIVED SLTM IN ERROR  
RCV\_DPC: c RCV\_OPC: d RCV\_SLC: e  
EXP\_DPC: f EXP\_OPC: g EXP\_SLC: h
  
- [2] REPT SLT  
SLK a b RECEIVED SLTA IN ERROR  
RCV\_DPC: c RCV\_OPC: d RCV\_SLC: e RCV\_LI: i  
EXP\_DPC: f EXP\_OPC: g EXP\_SLC: h EXP\_LI: j
  
- [3] REPT SLT  
SLK a b EXPECTED TEST PATTERN IN SLTA WAS NOT RECEIVED
  
- [4] REPT SLT  
SLK a b RECEIVED SLTM DISCARDED, NOT IN AVAILABLE STATE
  
- [5] REPT SLT  
SLK a b SLTA WARNING: 'SLTCHK OFF' AND LINK APPEARS SELF LOOPED
  
- [6] REPT SLT  
SLK a b SLTA WARNING: 'SLTCHK OFF' YET LINK IS NOT SELF LOOPED"

## 2. REASON FOR OUTPUT

An SLT fails or a self-loop is detected by an SLT.

When a Signaling Link Test (SLT) fails or a self-loop is detected by an SLT, one of the following formats will be output. The report can be generated for both CCS7 and CCITT7 links. Because a persistent SLT failure can result in large amounts of output, the reports are limited to five (5) in any given fifteen (15) minute interval. In that interval the first five reported will be output.

## 3. VARIABLE FIELD DEFINITIONS

- a Group Number (0-63).
- b Member Number (1-15).
- c Destination Point Code (DPC) in the received SLTM or SLTA.
- d Origination Point Code (OPC) in the received SLTM or SLTA.
- e Signaling Link Code (SLC) in the received SLTM or SLTA.

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|   |                                             |
|---|---------------------------------------------|
| f | Expected DPC for the received SLTM or SLTA. |
| g | Expected OPC for the received SLTM or SLTA. |
| h | Expected SLC for the received SLTM or SLTA. |
| i | Length Indicator (LI) in the received SLTA. |
| j | Expected LI for the received SLTA.          |

#### 4. ACTION TO BE TAKEN

Format 1: In cases where the following three conditions are all satisfied: the RCV\_DPC field contains the same value as the EXP\_OPC, the EXP\_DPC field contains the same value as the RCV\_OPC and the RCV\_SLC and the EXP\_SLC fields contain the same value; it is likely that a self-loop exists somewhere in the facility.

If there is no loop found in the facility, or the data in the OPC, DCP and SLC fields is not as described, refer this problem to the office data administration personnel. This problem can either be in the data at the local office, or it can be a data problem at the far end.

Format 2: Same action taken for Format 1. In addition, if the problem is in the Length Indicator, (LI), seek technical assistance. The LI is software generated.

Format 3: Seek technical assistance, the test pattern is software generated. Either the local end is interpreting the received test pattern incorrectly, or the far end is sending an incorrect test pattern.

Format 4: If the intent for this link is to be carrying traffic, recent change the major state to Available (AVL), else ignore this report.

Format 5: This warning message indicates that SLTM/SLTA exchange is successfully done under the self-loop condition. The self-loop intention is indicated by sltchk off command, and the link is self-looped. If self-looping is desired, ignore this report. If self-looping is not desired, execute the sltchk on command, and clear the self-loop on the facility.

Format 6: This warning message indicates that SLTM/SLTA exchange is successfully done under the end-to-end condition. Although a self-loop intention is indicated by sltchk off, the link is NOT self-looped. If self-looping is not desired, execute sltchk on. If self-looping is desired, establish a loop on the link.

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**5. REFERENCES**

- Practice 234-100-121 *CNI Operations Manual* (non-AT&T) -  
Practice 234-100-121AC *CNI Operations Manual* (AT&T only) -  
    Digital Signaling Link Operating Procedures Section  
    International Link Node Signaling Link Operating  
    Procedures Section
- Practice 234-151-120 *Trouble Clearing and Maintenance Procedures* -  
    Digital Signaling Link Maintenance Procedures Section  
    International Link Node Signaling Link Maintenance  
    Procedures Section
- Output Message  
    REPT : SLT

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ID ..... REPT:SMR  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

[1] REPT SMR A30MPR30 STARTED  
SIGNALING LINK 30 MINUTE MARGINAL PERFORMANCE REPORT

REPORTING OFFICE: a REPORT INTERVAL: b  
CURRENT GENERIC: c AUTOMATIC REPORT  
DATE: d, TIME: e  
REPORT PERIOD(ss): f, g THRU h, i  
DATA COVERAGE: j

CCS7 LINKS:  
FAR END OOS TIM CRCER BY RX AUTO  
CLLI CODE-LAYER T GR-MEM MIN SEC CHG OVER  
-----  
k - l m n-o q w x u  
.  
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PAGE \* OF \*\*

REPT SMR A30MPR30 IN PROG

CCS7 LINKS:  
FAR END ERSEC UNVL  
CLLI CODE-LAYER T GR-MEM  
-----  
k - l m n-o z aa  
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PAGE \* OF \*\*

REPT SMR A30MPR30 IN PROG

CCITT7 LINKS:  
FAR END OOS TIM CRCER FRCD AUTO  
CLLI CODE-LAYER T GR-MEM MIN SEC RXMT CHG OVER  
-----  
k - l m n-o q w rr u  
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SEE PROPRIETARY NOTICE ON COVER PAGE

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REPT SMR A30MPR30 IN PROG

CCITT7 LINKS:

|                          |       |       |
|--------------------------|-------|-------|
| FAR END                  | ERSEC | UNVL  |
| CLLI CODE-LAYER T GR-MEM |       |       |
| -----                    | ----- | ----- |
| k - l m n-o              | z     | aa    |

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PAGE \* OF \*\*

REPT SMR A30MPR30 IN PROG

CCS7 CLUSTERS:

|         |       |                                |       |
|---------|-------|--------------------------------|-------|
| CLUSTER | TYPE  | ROUTE SET UNAVAILABLE<br>COUNT | SEC   |
| -----   | ----- | -----                          | ----- |
| bb      | cc    | dd                             | ee    |

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PAGE \* OF \*\*

REPT SMR A30MPR30 IN PROG

PBX LINKS:

|      |             |                   |       |       |
|------|-------------|-------------------|-------|-------|
| TYPE | GR-MN-C-P   | OOS TIM<br>(MINS) | ERSEC | CRCER |
| ---- | -----       | -----             | ----- | ----- |
| ff   | gg-hh-ii-jj | kk                | ll    | mm    |

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PAGE \* OF \*\*

REPT SMR A30MPR30 IN PROG

PBX LINKS:

|      |             |       |          |                      |                     |
|------|-------------|-------|----------|----------------------|---------------------|
| TYPE | GR-MN-C-P   | BY RX | MSG RXMT | INVLD MSG<br>FMT ERR | PROTOCOL<br>EX RCVD |
| ---- | -----       | ----- | -----    | -----                | -----               |
| ff   | gg-hh-ii-jj | nn    | oo       | pp                   | qq                  |

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REPT SMR A30MPR30 IN PROG

REPT SMR A30MPR30 COMPL

[2] REPT SMR AMPR[#] STARTED  
MACHINE PERFORMANCE REPORT

REPORTING OFFICE: a REPORT INTERVAL: b  
CURRENT GENERIC: c AUTOMATIC REPORT  
DATE: d TIME: e  
REPORT PERIOD(ppp): f , g THRU h , i  
DATA COVERAGE: j

SYSTEM INITIALIZATIONS

|     | LEVEL_0 |     | LEVEL_1 |     | LEVEL_1A |     | LEVEL_1B |     |
|-----|---------|-----|---------|-----|----------|-----|----------|-----|
|     | COUNT   | SEC | COUNT   | SEC | COUNT    | SEC | COUNT    | SEC |
|     | -----   |     | -----   |     | -----    |     | -----    |     |
| CNI | o       | ddd | p       | eee | N/A      |     | N/A      |     |
| IMS | s       | hhh | N/A     |     | t        | iii | u        | jjj |

SYSTEM INITIALIZATIONS

|     | LEVEL_2 |     | LEVEL_3 |     | LEVEL_4 |     |
|-----|---------|-----|---------|-----|---------|-----|
|     | COUNT   | SEC | COUNT   | SEC | COUNT   | SEC |
|     | -----   |     | -----   |     | -----   |     |
| CNI | p       | eee | q       | fff | r       | ggg |
| IMS | N/A     |     | v       | kkk | w       | lll |

NO MESSAGE SIGNAL UNIT PROCESSING

| COUNT | SEC   |
|-------|-------|
| ----- | ----- |
| x     | y     |

RPC NODE PERFORMANCE - RPC COUNT: ss

| ERRORS | OOS_AUTO |       | OOS_MAN |       | OOS_CNFG |       |
|--------|----------|-------|---------|-------|----------|-------|
| COUNT  | COUNT    | SEC   | COUNT   | SEC   | COUNT    | SEC   |
| -----  | -----    | ----- | -----   | ----- | -----    | ----- |
| z      | aa       | bb    | cc      | dd    | ee       | ff    |

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DLN NODE PERFORMANCE - DLN COUNT: ss

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| DPXLFAIL  | OOS_AUTO  | OOS_MAN   | OOS_CNFG  |
| COUNT SEC | COUNT SEC | COUNT SEC | COUNT SEC |
| -----     | -----     | -----     | -----     |
| qqq rrr   | sss ttt   | uuu vvv   | www xxx   |

SIN NODE PERFORMANCE - SIN COUNT: ss

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| DPXLFAIL  | OOS_AUTO  | OOS_MAN   | OOS_CNFG  |
| COUNT SEC | COUNT SEC | COUNT SEC | COUNT SEC |
| -----     | -----     | -----     | -----     |
| qqq rrr   | sss ttt   | uuu vvv   | www xxx   |

LN NODE PERFORMANCE - LN COUNT: tt

|        |           |           |           |
|--------|-----------|-----------|-----------|
| ERRORS | OOS_AUTO  | OOS_MAN   | OOS_CNFG  |
| COUNT  | COUNT SEC | COUNT SEC | COUNT SEC |
| -----  | -----     | -----     | -----     |
| gg     | hh ii     | jj kk     | ll mm     |

RING PERFORMANCE

|             |             |           |                 |
|-------------|-------------|-----------|-----------------|
| SNGL ISOLAT | MULT ISOLAT | RING DOWN | MAN NODE ISOLAT |
| COUNT SEC   | COUNT SEC   | COUNT SEC | COUNT SEC       |
| -----       | -----       | -----     | -----           |
| nn oo       | pp qq       | mmm rr    | nnn ooo         |

INTERNAL CONGESTION

|                         |          |          |          |
|-------------------------|----------|----------|----------|
|                         | OVERFLOW | OVERFLOW | OVERFLOW |
|                         | LEVEL_1  | LEVEL_2  | LEVEL_3  |
|                         | -----    | -----    | -----    |
| RPC RING RECEIVE BUFFER | uu       | vv       | ww       |
| LN RING RECEIVE BUFFER  | N/A      | xx       | yy       |
| DLN RING RECEIVE BUFFER | N/A      | vv       | ww       |
| SIN RING RECEIVE BUFFER | N/A      | vv       | ww       |

REPT SMR AMPR[#] COMPL

[2a] REPT SMR AMPR[#] ABT  
CLOSING MEASUREMENT FILE BEING READ

SEE PROPRIETARY NOTICE ON COVER PAGE

[3] REPT SMR ASEPR[#] STARTED  
SIGNALING EQUIPMENT PERFORMANCE REPORT

REPORTING OFFICE: a REPORT INTERVAL: b  
CURRENT GENERIC: c AUTOMATIC REPORT  
DATE: d, TIME: e  
REPORT PERIOD(t): f, g THRU h, i  
DATA COVERAGE: j

CCS7 LN PERFORMANCE

| GRP<br>NUM | MEM<br>NUM | ERROR<br>COUNT | OOS-AUTO<br>COUNT SEC | OOS-MAN<br>COUNT SEC | OOS-CNFG<br>COUNT SEC |
|------------|------------|----------------|-----------------------|----------------------|-----------------------|
| ---        | ---        | -----          | -----                 | -----                | -----                 |
| k          | l          | m              | n o                   | p q                  | r s                   |

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PAGE \* OF \*\*

REPT SMR ASEPR[#] IN PROG

CCITT7 LN PERFORMANCE

| GRP<br>NUM | MEM<br>NUM | ERROR<br>COUNT | OOS-AUTO<br>COUNT SEC | OOS-MAN<br>COUNT SEC | OOS-CNFG<br>COUNT SEC |
|------------|------------|----------------|-----------------------|----------------------|-----------------------|
| ---        | ---        | -----          | -----                 | -----                | -----                 |
| k          | l          | m              | n o                   | p q                  | r s                   |

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REPT SMR ASEPR[#] IN PROG

RPC NODE PERFORMANCE

| GRP<br>NUM | MEM<br>NUM | ERROR<br>COUNT | OOS-AUTO<br>COUNT SEC | OOS-MAN<br>COUNT SEC | OOS-CNFG<br>COUNT SEC |
|------------|------------|----------------|-----------------------|----------------------|-----------------------|
| ---        | ---        | -----          | -----                 | -----                | -----                 |
| k          | l          | m              | n o                   | p q                  | r s                   |

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SEE PROPRIETARY NOTICE ON COVER PAGE

PAGE \* OF \*\*

REPT SMR ASEPR[#] IN PROG

| SADC NODE PERFORMANCE |     |       |          |     |         |     |          |     |
|-----------------------|-----|-------|----------|-----|---------|-----|----------|-----|
| GRP                   | MEM | ERROR | OOS-AUTO |     | OOS-MAN |     | OOS-CNFG |     |
| NUM                   | NUM | COUNT | COUNT    | SEC | COUNT   | SEC | COUNT    | SEC |
| ---                   | --- | ----- | -----    | --- | -----   | --- | -----    | --- |
| k                     | l   | m     | n        | o   | p       | q   | r        | s   |

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PAGE \* OF \*\*

REPT SMR ASEPR[#] IN PROG

| DLN NODE PERFORMANCE |     |       |          |     |         |     |          |     |
|----------------------|-----|-------|----------|-----|---------|-----|----------|-----|
| GRP                  | MEM | ERROR | OOS-AUTO |     | OOS-MAN |     | OOS-CNFG |     |
| NUM                  | NUM | COUNT | COUNT    | SEC | COUNT   | SEC | COUNT    | SEC |
| ---                  | --- | ----- | -----    | --- | -----   | --- | -----    | --- |
| k                    | l   | m     | n        | o   | p       | q   | r        | s   |

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PAGE \* OF \*\*

REPT SMR ASEPR[#] IN PROG

| SIN NODE PERFORMANCE |     |       |          |     |         |     |          |     |
|----------------------|-----|-------|----------|-----|---------|-----|----------|-----|
| GRP                  | MEM | ERROR | OOS-AUTO |     | OOS-MAN |     | OOS-CNFG |     |
| NUM                  | NUM | COUNT | COUNT    | SEC | COUNT   | SEC | COUNT    | SEC |
| ---                  | --- | ----- | -----    | --- | -----   | --- | -----    | --- |
| k                    | l   | m     | n        | o   | p       | q   | r        | s   |

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PAGE \* OF \*\*

REPT SMR ASEPR[#] IN PROG

REPT SMR ASEPR[#] COMPL

[3a] REPT SMR ASEPR[#] ABT  
CLOSING MEASUREMENT FILE BEING READ

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[4] REPT SMR ASNPR1[#] STARTED  
SIGNALING NETWORK PERFORMANCE REPORT - PART I

REPORTING OFFICE: a REPORT INTERVAL: b  
CURRENT GENERIC: c AUTOMATIC REPORT  
DATE: d TIME: e  
REPORT PERIOD(ggggg): f , g THRU h , i  
DATA COVERAGE: j

|                           |          |              |                |
|---------------------------|----------|--------------|----------------|
| SIGNALING LOAD ---        | RECEIVED | TRANSMITTED  |                |
| SIGNALING PERFORMANCE --- |          | PEG<br>COUNT | TIME<br>(SEC.) |

|                      |          |             |
|----------------------|----------|-------------|
| SIGNALING LOAD ---   | RECEIVED | TRANSMITTED |
| CCS7 MSU BYTES:      | q        | r           |
| CCS7 ROUTED MSGS:    | s        | t           |
| TOTAL GTR MSGS REC'D | nnnn     |             |

|                           |              |                |
|---------------------------|--------------|----------------|
| SIGNALING PERFORMANCE --- | PEG<br>COUNT | TIME<br>(SEC.) |
|---------------------------|--------------|----------------|

|                                             |       |       |
|---------------------------------------------|-------|-------|
| CCS7 PERFORMANCE ---                        | ----- | ----- |
| SIG LINK CONGESTION ONSET (LEVEL 1)         | ss    | tt    |
| DECLARED LINK FAILURES                      | yy    | zz    |
| AUTOMATIC CHANGEOVERS                       | aaa   |       |
| RECEIVE BUFFER OVERFLOW                     | ffff  |       |
| RECEIVE BUFFER OVERLOAD                     | gggg  | hhhh  |
| TRANSMIT BUFFER DISCARD LEVEL 1             | iiii  |       |
| EXCEPTION REPORTS (THRESHOLDS EXCEEDED) --- |       |       |
| ERRORED SECONDS                             | ccc   |       |
| DETECTED ERRORS                             | ddd   |       |
| BYTES RETRANSMITTED                         | eee   |       |
| AUTOMATIC CHANGEOVERS                       | fff   |       |
| MESSAGE TRANSFER FAILURES ---               |       |       |
| MSGS REFUSED - BLOCKED                      | eeee  |       |
| MSGS REFUSED - NO TRANSLATION               | ffff  |       |
| ECIS6 MSGS DROPPED - RPC CONGESTION         | dddd  |       |
| LOOPING CCS7 MSGS                           | jjjj  |       |
| ROUTING AUDIT FAILURES                      | kkkk  |       |
| GTT REFUSED - BLOCKED                       | llll  |       |
| GTT REFUSED - NO TRANSLATION                | mmmm  |       |
| SIG LINK MESSAGES DISCARDED                 | rr    |       |
| MSGS DROPPED - RPC CONGESTION               | vvvv  |       |
| SCCP MSGS - UNKNOWN ADDRESS (LN7)           | www   |       |
| SCCP MSGS - UNKNOWN ADDRESS TYPE (LN7)      | xxxx  |       |
| SCCP MSGS - UNEQUIPPED SUBSYSTEM (LN7)      | yyyy  |       |
| SCCP MSGS - PROHIBITED SUBSYSTEM (LN7)      | hhhh  |       |
| SCCP MSGS - UNKNOWN ADDRESS (OFC)           | zzzz  |       |
| SCCP MSGS - UNKNOWN ADDRESS TYPE (OFC)      | aaaa  |       |

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|                                  |       |        |
|----------------------------------|-------|--------|
| SCCP MSGS - UNEQUIPPED SUBSYSTEM | (OFC) | bbbbb  |
| SCCP MSGS - PROHIBITED SUBSYSTEM | (OFC) | cccccc |

PAGE \* OF \*\*

REPT SMR ASNPR1[#] IN PROG

|                      |          |             |
|----------------------|----------|-------------|
| SIGNALING LOAD ---   | RECEIVED | TRANSMITTED |
| CCITT7 MSU BYTES:    | q        | r           |
| CCITT7 ROUTED MSGS:  | s        | t           |
| TOTAL GTR MSGS REC'D | nnnn     |             |

|                                             |              |                |
|---------------------------------------------|--------------|----------------|
| SIGNALING PERFORMANCE ---                   | PEG<br>COUNT | TIME<br>(SEC.) |
| CCITT7 PERFORMANCE ---                      | -----        | -----          |
| SIG LINK CONGESTION ONSET                   | ss           | tt             |
| DECLARED LINK FAILURES                      | yy           | zz             |
| AUTOMATIC CHANGEOVERS                       | aaa          |                |
| RECEIVE BUFFER OVERFLOW                     | ffff         |                |
| RECEIVE BUFFER OVERLOAD                     | gggg         | hhhh           |
| TRANSMIT BUFFER DISCARD                     | iiii         |                |
| EXCEPTION REPORTS (THRESHOLDS EXCEEDED) --- |              |                |
| ERRORED SECONDS                             | ccc          |                |
| DETECTED ERRORS                             | ddd          |                |
| BYTES FORCED RETRANSMITTED                  | eee          |                |
| AUTOMATIC CHANGEOVERS                       | fff          |                |
| MESSAGE TRANSFER FAILURES ---               |              |                |
| LOOPING CCITT7 MSGS                         | jjjj         |                |
| ROUTING AUDIT FAILURES                      | kkkk         |                |
| SIG LINK MESSAGES DISCARDED                 | rr           |                |
| MSGS DROPPED - RPC CONGESTION               | vvvv         |                |

PAGE \* OF \*\*

REPT SMR ASNPR1[#] IN PROG

|                                     |              |                |
|-------------------------------------|--------------|----------------|
| SIGNALING PERFORMANCE ---           | PEG<br>COUNT | TIME<br>(SEC.) |
| CCS7 & CCITT7 PERFORMANCE ---       | -----        | -----          |
| SIGNALING POINT ISOLATION           | nn           | oo             |
| LINK SET FAILURE                    | pp           | qq             |
| MESSAGE TRANSFER FAILURES ---       |              |                |
| MSUS DISCARDED - ROUTING DATA ERROR | kkk          |                |

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PAGE \* OF \*\*

REPT SMR ASNPR1[#] IN PROG

| SIGNALING LOAD --- | RECEIVED | TRANSMITTED |
|--------------------|----------|-------------|
| PBX BYTES:         | lll      | mmm         |
| PBX MESSAGES:      | nnn      | ooo         |
| PBX Q.931 MSGS:    | ppp      | qqq         |

| SIGNALING PERFORMANCE ---          | PEG<br>COUNT | TIME<br>(SEC.) |
|------------------------------------|--------------|----------------|
| PBX PERFORMANCE ---                | -----        | -----          |
| SIGNALING PATH FAILURE             | oooo         | pppp           |
| DECLARED LINK FAILURES             | rrr          | sss            |
| TEMPORARY LINK FAILURES            | ttt          | uuu            |
| RECEIVE BUFFER OVERLOAD            | vvv          | www            |
| TRANSMIT BUFFER FULL EVENTS        | xxx          | yyy            |
| NUMBER OF LINK RESTARTS            | zzz          |                |
| SIGNALING SWITCHOVERS SUCCESSFUL   | qqqq         |                |
| SIGNALING SWITCHOVER FAILURES      | rrrr         |                |
| MESSAGE TRANSFER FAILURES ---      |              |                |
| MSGs RECEIVED FOR UNAVAILABLE LINK | aaaa         |                |
| MSGs RECEIVED WITH INVALID ADDRESS | bbbb         |                |

PAGE \* OF \*\*

REPT SMR ASNPR1[#] IN PROG

REPT SMR ASNPR1[#] COMPL

[5] REPT SMR ASNPR2[#] STARTED  
SIGNALING NETWORK PERFORMANCE REPORT - PART II

|                                   |                    |
|-----------------------------------|--------------------|
| REPORTING OFFICE: a               | REPORT INTERVAL: b |
| CURRENT GENERIC: c                | AUTOMATIC REPORT   |
| DATE: d, TIME: e                  |                    |
| REPORT PERIOD(aj): f, g THRU h, i |                    |
| DATA COVERAGE: j                  |                    |

|                               | CCIS6 | CCS7 | CCITT7 | PBX |
|-------------------------------|-------|------|--------|-----|
| TOTAL NO. OF EQUIPPED LINKS:  | l     | m    | m      | ss  |
| TOTAL LINK OOS TIME (SECS):   | n     | o    | o      | tt  |
| DURATION OF PROCESSOR OUTAGE: | mmm   | nnn  | nnn    |     |
| TOTAL NO. OF POOLS/LINK SETS: | ooo   | ppp  | ppp    |     |

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LOSS OF SIGNALING CAPABILITY ---

|            |              |     |              |     |
|------------|--------------|-----|--------------|-----|
|            | --CCS7 SPI-- |     | --CCS7 LSF-- |     |
|            | PC           | SEC | PC           | SEC |
| A/E LINKS: | r            | s   | t            | u   |
| B LINKS:   | r            | s   | t            | u   |
| C LINKS:   | r            | s   | t            | u   |

LOSS OF SIGNALING CAPABILITY ---

|          |                |     |                |     |
|----------|----------------|-----|----------------|-----|
|          | --CCITT7 SPI-- |     | --CCITT7 LSF-- |     |
|          | PC             | SEC | PC             | SEC |
| G LINKS: | r              | s   | t              | u   |
| W LINKS: | r              | s   | t              | u   |

CCS7 SIGNALING LINK PERFORMANCE

|         |            |       |        |           |       |           |       |           |       |           |       |
|---------|------------|-------|--------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| FAR END |            |       |        | ---ACO--- |       | --ERSEC-- |       | --CRCER-- |       | -BYT-RXMT |       |
| CLLI    | CODE-LAYER | T     | GR-MEM | PC        | TE    | PC        | TE    | PC        | TE    | PC        | TE    |
| -----   | -----      | ----- | -----  | -----     | ----- | -----     | ----- | -----     | ----- | -----     | ----- |
| v       | -          | w     | x y-z  | ee        | ff    | ttt       | mm    | uuu       | nn    | vvv       | oo    |
|         |            |       |        |           |       |           |       |           |       |           |       |
|         |            |       |        |           |       |           |       |           |       |           |       |
|         |            |       |        |           |       |           |       |           |       |           |       |

PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

CCS7 SIGNALING LINK PERFORMANCE

|         |            |       |        |          |       |       |             |       |            |       |
|---------|------------|-------|--------|----------|-------|-------|-------------|-------|------------|-------|
| FAR END |            |       |        | OOS-TIME |       |       | ----LSF---- |       | --DCL-FLR- |       |
| CLLI    | CODE-LAYER | T     | GR-MEM | HH       | MM    | SS    | PC          | SEC   | PC         | SEC   |
| -----   | -----      | ----- | -----  | -----    | ----- | ----- | -----       | ----- | -----      | ----- |
| v       | -          | w     | x y-z  | bb       |       |       | t           | u     | hh         | ii    |
|         |            |       |        |          |       |       |             |       |            |       |
|         |            |       |        |          |       |       |             |       |            |       |
|         |            |       |        |          |       |       |             |       |            |       |

PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

CCS7 SIGNALING LINK PERFORMANCE

|         |            |       |        |                     |           |       |          |       |          |       |  |
|---------|------------|-------|--------|---------------------|-----------|-------|----------|-------|----------|-------|--|
| FAR END |            |       |        | ----XMIT BUFFER---- |           |       |          |       |          |       |  |
| CLLI    | CODE-LAYER | T     | GR-MEM | MSURMV              | CONG-LEV1 |       | PRO-XMTD |       | PRO-RCVD |       |  |
|         |            |       |        | PC                  | PC        | SEC   | PC       | SEC   | PC       | SEC   |  |
| -----   | -----      | ----- | -----  | -----               | -----     | ----- | -----    | ----- | -----    | ----- |  |
| v       | -          | w     | x y-z  | pp                  | qq        | rr    | af       | ag    | ah       | ai    |  |
|         |            |       |        |                     |           |       |          |       |          |       |  |
|         |            |       |        |                     |           |       |          |       |          |       |  |
|         |            |       |        |                     |           |       |          |       |          |       |  |

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PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

CCS7 SIGNALING LINK PERFORMANCE

| FAR END |            |   |        | ---SPI--- |     | --SPI-P0- |     |
|---------|------------|---|--------|-----------|-----|-----------|-----|
| CLLI    | CODE-LAYER | T | GR-MEM | PC        | SEC | PC        | SEC |
| v       | -          | w | x y-z  | r         | s   | ad        | ae  |

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PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

CCITT7 SIGNALING LINK PERFORMANCE

| FAR END |            |   |        | ---ACO--- |    | --ERSEC-- |    | --CRCER-- |    | -BYT-FORRX- |  |
|---------|------------|---|--------|-----------|----|-----------|----|-----------|----|-------------|--|
| CLLI    | CODE-LAYER | T | GR-MEM | PC        | TE | PC        | TE | PC        | TE | PC          |  |
| v       | -          | w | x y-z  | ee        | ff | ttt       | mm | uuu       | nn | aaaa        |  |

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PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

CCITT7 SIGNALING LINK PERFORMANCE

| FAR END |            |   |        | OOS-TIME |    |    | ----LSF--- |     | --DCL-FLR- |     |
|---------|------------|---|--------|----------|----|----|------------|-----|------------|-----|
| CLLI    | CODE-LAYER | T | GR-MEM | HH       | MM | SS | PC         | SEC | PC         | SEC |
| v       | -          | w | x y-z  | bb       |    |    | t          | u   | hh         | ii  |

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PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

CCITT7 SIGNALING LINK PERFORMANCE

| FAR END |            |   |        | ----XMIT BUFFER--- |  |           |     |          |     |          |     |
|---------|------------|---|--------|--------------------|--|-----------|-----|----------|-----|----------|-----|
|         |            |   |        | MSURMV             |  | CONG-LEV1 |     | PRO-XMTD |     | PRO-RCVD |     |
| CLLI    | CODE-LAYER | T | GR-MEM | PC                 |  | PC        | SEC | PC       | SEC | PC       | SEC |
| v       | -          | w | x y-z  | pp                 |  | qq        | rr  | af       | ag  | ah       | ai  |

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PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

CCITT7 SIGNALING LINK PERFORMANCE

| FAR END |            |   |        | ---SPI--- |     | --SPI-P0- |     |
|---------|------------|---|--------|-----------|-----|-----------|-----|
| CLLI    | CODE-LAYER | T | GR-MEM | PC        | SEC | PC        | SEC |
| -----   |            |   |        | -----     |     | -----     |     |
| v       | -          | w | x y-z  | r         | s   | ad        | ae  |

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PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

PBX SIGNALING LINK PERFORMANCE

| TYPE | GR-MN-C-P     | OOS<br>HR | TIM<br>MIN | OOS-AUTO<br>(SEC) | OOS-MAN<br>(SEC) | SIG<br>PC | FLR<br>SEC |
|------|---------------|-----------|------------|-------------------|------------------|-----------|------------|
| ---- | -----         | -----     | -----      | -----             | -----            | -----     | -----      |
| uu   | vv-ww-www-xxx | xx        | yy         | zz                | ggg              | bbbb      | cccc       |

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PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

PBX SIGNALING LINK PERFORMANCE

| TYPE | GR-MN-C-P     | DCL<br>PC | FLR<br>SEC | TMP<br>PC | LK<br>SEC | FLR<br>SEC | LINK<br>RESTARTS | MSGS RCVD<br>UNAVL |
|------|---------------|-----------|------------|-----------|-----------|------------|------------------|--------------------|
| ---- | -----         | -----     | -----      | -----     | -----     | -----      | -----            | -----              |
| uu   | vv-ww-www-xxx | aaa       | bbb        | ccc       | ddd       | eee        | fff              |                    |

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PAGE \* OF \*\*

REPT SMR ASNPR2[#] IN PROG

PBX SIGNALING LINK PERFORMANCE

| TYPE | GR-MN-C-P     | MSGS<br>INVL | RCV<br>ADDR | XMT<br>PC | BUF<br>SEC | FULL<br>SEC | RCV<br>PC | BUF<br>SEC | OVLD<br>SEC | SWITCHOVR<br>SUC | FLD   |
|------|---------------|--------------|-------------|-----------|------------|-------------|-----------|------------|-------------|------------------|-------|
| ---- | -----         | -----        | -----       | -----     | -----      | -----       | -----     | -----      | -----       | -----            | ----- |
| uu   | vv-ww-www-xxx | hhh          | iii         | jjj       | kkk        | lll         | ddd       | eee        | fff         | ggg              | hhh   |

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REPT SMR ASNPR2[#] IN PROG

REPT SMR ASNPR2[#] COMPL

[6] REPT SMR RINGEXLPM STARTED  
RPC OVERFLOW REPORT

REPORTING OFFICE: a

CURRENT GENERIC: b

DATE: c, TIME: d

REPORT PERIOD(u): e, f THRU g, h

DATA COVERAGE: i

REPORT INTERVAL: FIVE MINUTES

AUTOMATIC REPORT

| GRP MEM | OVFLW LVL 0 | OVFLW LVL 1 | OVFLW LVL 2 | OVFLW LVL 3 |
|---------|-------------|-------------|-------------|-------------|
| NUM NUM | PC          | PC TIME     | PC TIME     | PC TIME     |
| ---     | -----       | -----       | -----       | -----       |
| l m     | n           | o p         | q r         | s t         |
|         |             | .           |             |             |
|         |             | .           |             |             |
|         |             | .           |             |             |

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REPT SMR RINGEXLPM IN PROG

REPT SMR RINGEXLPM COMPL

[7] REPT SMR COMPL

r=a

day=b

p=c

(per office section)

n=d

e

e

e

..

f

f

f

..

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(per link section)

n6=g

e

e

e

..

n7=h

e

e

e

..

id=i-j

sys=k

f

f

f

..

(per node section)

nr=l

e

e

e

..

ni=m

e

e

e

..

rpc=i-j

f

f

f

..

iun=i-j

f

f

f

..

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```
 (per channel section)
chn=n
e
e
e
..
channel=o
f
f
f
..

 (per link set section)
ls=p
e
e
e
linkset=q
f
f
f

 (per cluster section)
clu=r
e
e
e
cluster=s
f
f
f
```

## 2. REASON FOR OUTPUT

The format of the output message is dependent upon the report type assigned to the report name. There are ten report generator functions available as shown in the following tables.

These output messages are produced by the automatic measurement reports which are output periodically according to the Schedule (SCHD) table . The OP:SCHD command displays the contents of the Schedule Table.

Message Formats 2a and 3a are output when a report generator process receives a termination signal from CMMSDP, its parent process. CMMSDP will send this termination before it aborts, if the report generator is reading a file CMMSDP needs to update, or if the number of current report generators running exceeds 20.

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| REPORT<br>GENERATOR<br>TYPE | REPORT<br>NAME | MEANING                                               |
|-----------------------------|----------------|-------------------------------------------------------|
| Fixed Format Reports        |                |                                                       |
| AM30MPR                     | A30MPR30       | Signaling link 30 minute marginal performance report. |
| AMMPR                       | AMPR[#]        | Machine performance report.                           |
| AMSEPR                      | ASEPR[#]       | Signaling equipment performance report.               |
| AMSNPR1                     | ASNPR1[#]      | Signaling network performance report - Part 1.        |
| AMSNPR2                     | ASNPR2[#]      | Signaling network performance report - Part 2.        |
| CMRINGEX                    | RINGEXLPM      | RPC overflow report.                                  |

| REPORT<br>GENERATOR<br>TYPE | REPORT<br>NAME | MEANING                          |
|-----------------------------|----------------|----------------------------------|
| Flexible Format Reports     |                |                                  |
| CMNFDISK                    | NFDISK         | Non-fixed disk report.           |
| CMNFDISKEX                  | NFDISKEX       | Non-fixed disk exception report. |

### 3. VARIABLE FIELD DEFINITIONS

These reports are paginated. The page and report period variables are the same for all formats and are:

- \* Page number of report.
- \*\* Total number of pages in the report.
- # Report period:
  - 15 — 15 minutes
  - 30 — 30 minutes
  - HR — 1 hour
  - CDAY — Current day
  - LDAY — Last (previous) day

Format 1 variables.

- a Reporting office CLLI® code.
- b The accumulation period: DAILY, HOURLY, HALF HOURLY, FIFTEEN MINUTES

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|   |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| c | The current generic.                                                                                                                                                                                                                                                                                                                                                                                               |
| d | Local time zone date. (Ex: month / day / year).                                                                                                                                                                                                                                                                                                                                                                    |
| e | Local time zone time. (Ex: hour:minute:second).                                                                                                                                                                                                                                                                                                                                                                    |
| f | Network Date at beginning of accumulation period.<br>(Ex: month / day / year).                                                                                                                                                                                                                                                                                                                                     |
| g | Network time at beginning of accumulation period.<br>(Ex: hour:minute:second).                                                                                                                                                                                                                                                                                                                                     |
| h | Network Date at end of accumulation period. (Ex: month / day / year).                                                                                                                                                                                                                                                                                                                                              |
| i | Network time at end of accumulation period.<br>(Ex: hour:minute:second).                                                                                                                                                                                                                                                                                                                                           |
| j | The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:<br><br>$001 \leq aaa \leq 288$ (288 periods equals one day - 24 hours)<br><br>$001 \leq ccc \leq 288$<br>$aaa \leq ccc$ . |
| k | CLLI® code plus set member number.                                                                                                                                                                                                                                                                                                                                                                                 |
| l | Link-layer.                                                                                                                                                                                                                                                                                                                                                                                                        |
| m | Link type: A, B, C, D, E.                                                                                                                                                                                                                                                                                                                                                                                          |
| n | Group number of link in frame: 00-63.                                                                                                                                                                                                                                                                                                                                                                              |
| o | Member number of link in frame: 01-15.                                                                                                                                                                                                                                                                                                                                                                             |
| q | Out-of-service time in minutes and seconds.                                                                                                                                                                                                                                                                                                                                                                        |

**NOTE:** Any of the following measurements may appear on the report followed by an asterisk (\*) indicating that the threshold for that measurement has been exceeded. Only links that have at least one measurement whose threshold is exceeded are printed; therefore, if no data should appear on this report, then no thresholds were exceeded for the report period.

|   |                                                    |
|---|----------------------------------------------------|
| u | The number of automatically initiated changeovers. |
| w | Cyclic Redundancy Check (CRC) errors.              |
| x | Bytes retransmitted.                               |

**NOTE:** If link has Basic Error Correction (BEC), then x is bytes retransmitted. If link has Preventative Cyclic Redundancy (PCR) error correction, then x is forced bytes retransmitted.

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|    |                                                                                                                               |
|----|-------------------------------------------------------------------------------------------------------------------------------|
| y  | The clock half hour signaling quality calculation.                                                                            |
| z  | The current day errored seconds count of the clock half hour.                                                                 |
| aa | Unavailability.                                                                                                               |
| bb | Cluster number (000-255).                                                                                                     |
| cc | Cluster type: LOC POP, LOC UNPOP, REM POP, REM UNPOP                                                                          |
| dd | Route set unavailable count.                                                                                                  |
| ee | Duration of route set unavailable.                                                                                            |
| ff | Link type: SADC or DCHN.                                                                                                      |
| gg | Group number of link in frame: 00-63.                                                                                         |
| hh | Member number of link in frame: 01-15.                                                                                        |
| ii | Circuit pack number of link (0 - 1).                                                                                          |
| jj | Port number of link (0 - 3).                                                                                                  |
| kk | Total out-of-service time in minutes.                                                                                         |
| ll | The current day errored seconds count of the clock half hour.                                                                 |
| mm | Cyclic redundancy check errors.                                                                                               |
| nn | Retransmission octets.                                                                                                        |
| oo | Messages retransmitted.                                                                                                       |
| pp | Invalid messages - format errors.                                                                                             |
| qq | Protocol exceptions received.                                                                                                 |
| rr | Number of times went into forced retransmission.                                                                              |
| ss | User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S. |

Format 2 variables.

|   |                                                                             |
|---|-----------------------------------------------------------------------------|
| a | Reporting office CLLI® code.                                                |
| b | The accumulation period: DAILY, HOURLY, HALF HOURLY, FIFTEEN MINUTES        |
| c | The current generic.                                                        |
| d | Local time zone date. (Ex: month / day / year).                             |
| e | Local time zone time. (Ex: hour:minute:second).                             |
| f | Network date at beginning of accumulation period. (Ex: month / day / year). |

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|    |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| g  | Network time at beginning of accumulation period.<br>(Ex: hour:minute:second).                                                                                                                                                                                                                                                                                                                                     |
| h  | Network date at end of accumulation period.<br>(Ex: month / day / year).                                                                                                                                                                                                                                                                                                                                           |
| i  | Network time at end of accumulation period.<br>(Ex: hour:minute:second).                                                                                                                                                                                                                                                                                                                                           |
| j  | The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:<br><br>$001 \leq aaa \leq 288$ (288 periods equals one day - 24 hours)<br><br>$001 \leq ccc \leq 288$<br>$aaa \leq ccc$ . |
| o  | The number of CNI Level 0 Initializations.                                                                                                                                                                                                                                                                                                                                                                         |
| p  | The number of CNI Level 1 Initializations.                                                                                                                                                                                                                                                                                                                                                                         |
| q  | The number of CNI Level 3 Initializations.                                                                                                                                                                                                                                                                                                                                                                         |
| r  | The number of CNI Level 4 Initializations.                                                                                                                                                                                                                                                                                                                                                                         |
| s  | The number of IMS Level 0 Initializations.                                                                                                                                                                                                                                                                                                                                                                         |
| t  | The number of IMS Level 1A Initializations.                                                                                                                                                                                                                                                                                                                                                                        |
| u  | The number of IMS Level 1B Initializations.                                                                                                                                                                                                                                                                                                                                                                        |
| v  | The number of IMS Level 3 Initializations.                                                                                                                                                                                                                                                                                                                                                                         |
| w  | The number of IMS Level 4 Initializations.                                                                                                                                                                                                                                                                                                                                                                         |
| x  | A peg count showing the number of occurrences when no signal unit processing was occurring.                                                                                                                                                                                                                                                                                                                        |
| y  | The interval (in seconds) of the peg counts referenced in x.                                                                                                                                                                                                                                                                                                                                                       |
| z  | The peg count of RPC Node Errors.                                                                                                                                                                                                                                                                                                                                                                                  |
| aa | The peg count of RPC Out-Of-Service Auto for RPC Node.                                                                                                                                                                                                                                                                                                                                                             |
| bb | The time (in seconds) of aa.                                                                                                                                                                                                                                                                                                                                                                                       |
| cc | The peg count of RPC Out-Of-Service Manual for RPC Node.                                                                                                                                                                                                                                                                                                                                                           |
| dd | The time (in seconds) of cc.                                                                                                                                                                                                                                                                                                                                                                                       |
| ee | The peg count of RPC Out-Of-Service Configuration for RPC Node.                                                                                                                                                                                                                                                                                                                                                    |
| ff | The time (in seconds) of ee.                                                                                                                                                                                                                                                                                                                                                                                       |
| gg | The peg count of LN Node errors.                                                                                                                                                                                                                                                                                                                                                                                   |

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|     |                                                                             |
|-----|-----------------------------------------------------------------------------|
| hh  | The peg count of LN Out-Of-Service Auto for LN Node.                        |
| ii  | The time (in seconds) of hh.                                                |
| jj  | The peg count of LN Out-Of-Service Manual for LN Node.                      |
| kk  | The time (in seconds) of jj.                                                |
| ll  | The peg count of LN Out-Of-Service Configuration for LN Node.               |
| mm  | The time (in seconds) of ll.                                                |
| nn  | The peg count of Single Fault Ring Errors.                                  |
| oo  | The time (in seconds) of nn.                                                |
| pp  | The peg count of Multiple Fault Ring Errors.                                |
| qq  | The time (in seconds) of pp.                                                |
| rr  | The time (in seconds) the ring was down.                                    |
| ss  | The number of RPCs, DLNs, or SINS for which this output data was collected. |
| tt  | The number of LNs for which this output data was collected.                 |
| uu  | The peg count of Ring Receive Buffer Overflows (Level 1).                   |
| vv  | The peg count of Ring Receive Buffer Overflows (Level 2).                   |
| ww  | The peg count of Ring Receive Buffer Overflows (Level 3).                   |
| xx  | The peg count of LN Receive Buffer Overflows (Level 2).                     |
| yy  | The peg count of LN Receive Buffer Overflows (Level 3).                     |
| ddd | Duration timer for the number of CNI Level 0 Initializations (in seconds).  |
| eee | Duration timer for the number of CNI Level 1 Initializations (in seconds).  |
| fff | Duration timer for the number of CNI Level 3 Initializations (in seconds).  |
| ggg | Duration timer for the number of CNI Level 4 Initializations (in seconds).  |
| hhh | Duration timer for the number of IMS Level 0 Initializations (in seconds).  |
| iii | Duration timer for the number of IMS Level 1A Initializations (in seconds). |
| jjj | Duration timer for the number of IMS Level 1B Initializations (in seconds). |
| kkk | Duration timer for the number of IMS Level 3 Initializations (in seconds).  |

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|     |                                                                                                                               |
|-----|-------------------------------------------------------------------------------------------------------------------------------|
| lll | Duration timer for the number of IMS Level 4 Initializations (in seconds).                                                    |
| mmm | Peg count for the number of times the entire ring went down.                                                                  |
| nnn | Peg count for the number of nodes isolated manually.                                                                          |
| ooo | Duration timer for the number of nodes isolated manually (in seconds).                                                        |
| ppp | User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S. |
| qqq | Duplex failure count for DLN or SIN nodes.                                                                                    |
| rrr | Duplex failure duration for DLN or SIN nodes (in seconds).                                                                    |
| sss | The peg count of Out-Of-Service Auto for the DLN or SIN Nodes.                                                                |
| ttt | The time (in seconds) of aa.                                                                                                  |
| uuu | The peg count Out-Of-Service Manual for DLN or SIN Nodes.                                                                     |
| vvv | The time (in seconds) of cc.                                                                                                  |
| www | The peg count of Out-Of-Service Configuration for DLN or SIN Nodes.                                                           |
| xxx | The time (in seconds) of ee.                                                                                                  |

Format 3 variables.

|   |                                                                             |
|---|-----------------------------------------------------------------------------|
| a | Reporting office CLLI® code.                                                |
| b | The accumulation period: DAILY, HOURLY, HALF HOURLY, FIFTEEN MINUTES        |
| c | The current generic.                                                        |
| d | Local time zone date. (Ex: month / day / year).                             |
| e | Local time zone time. (Ex: hour:minute:second).                             |
| f | Network date at beginning of accumulation period. (Ex: month / day / year). |
| g | Network time at beginning of accumulation period. (Ex: hour:minute:second). |
| h | Network date at end of accumulation period. (Ex: month / day / year).       |
| i | Network time at end of accumulation period. (Ex: hour:minute:second).       |

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- j The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:
- $001 \leq aaa \leq 288$  (288 periods equals one day - 24 hours)
- $001 \leq ccc \leq 288$   
 $aaa \leq ccc$ .
- k Group number of link in frame: 00-63.
- l Member number of link in frame: 00-15.
- m Peg count of transient errors, errors which do not result in a node being removed from service.
- n Peg count of out-of-service time due to faults; this includes all time that a node is automatically removed from service.
- o Duration of time in seconds that a node is out-of-service due to faults.
- p Peg count for manually initiated out-of-service time.
- q Duration of time in seconds that a node is manually out-of-service.
- r Peg count for out-of-service time due to ring reconfiguration that isolates this node.
- s Duration of time in seconds that a node is out-of-service due to a ring reconfiguration.
- t User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S.

Format 4 variables.

- a Reporting office CLLI® code.
- b The accumulation period: DAILY, HOURLY, HALF HOURLY, FIFTEEN MINUTES
- c The current generic.
- d Local time zone date. (Ex: month / day / year).
- e Local time zone time. (Ex: hour:minute:second).
- f Network date at beginning of accumulation period. (Ex: month / day / year).
- g Network time at beginning of accumulation period. (Ex: hour:minute:second).

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|     |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| h   | Network date at end of accumulation period.<br>(Ex: month / day / year).                                                                                                                                                                                                                                                                                                                                           |
| i   | Network time at end of accumulation period.<br>(Ex: hour:minute:second).                                                                                                                                                                                                                                                                                                                                           |
| j   | The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:<br><br>$001 \leq aaa \leq 288$ (288 periods equals one day - 24 hours)<br><br>$001 \leq ccc \leq 288$<br>$aaa \leq ccc$ . |
| q   | CCS7 Bytes received.                                                                                                                                                                                                                                                                                                                                                                                               |
| r   | CCS7 Bytes transmitted.                                                                                                                                                                                                                                                                                                                                                                                            |
| s   | CCS7 Routed Messages received.                                                                                                                                                                                                                                                                                                                                                                                     |
| t   | CCS7 Routed Messages transmitted.                                                                                                                                                                                                                                                                                                                                                                                  |
| nn  | SP node isolations.                                                                                                                                                                                                                                                                                                                                                                                                |
| oo  | Duration of SP node isolations (in seconds).                                                                                                                                                                                                                                                                                                                                                                       |
| pp  | SP Link set failures.                                                                                                                                                                                                                                                                                                                                                                                              |
| qq  | Duration of SP link set failures (in seconds).                                                                                                                                                                                                                                                                                                                                                                     |
| rr  | Messages removed / discarded due to link congestion.                                                                                                                                                                                                                                                                                                                                                               |
| ss  | Level 1 transmit buffer congestion onset.                                                                                                                                                                                                                                                                                                                                                                          |
| tt  | Duration of Level 1 transmit buffer overloads (in seconds).                                                                                                                                                                                                                                                                                                                                                        |
| yy  | Declared failures.                                                                                                                                                                                                                                                                                                                                                                                                 |
| zz  | Duration of declared link failures.                                                                                                                                                                                                                                                                                                                                                                                |
| aaa | Automatic changeovers.                                                                                                                                                                                                                                                                                                                                                                                             |
| ccc | Half hours with errored second threshold exceeded.                                                                                                                                                                                                                                                                                                                                                                 |
| ddd | Half hours with detected error threshold exceeded.                                                                                                                                                                                                                                                                                                                                                                 |
| eee | Bytes retransmitted.                                                                                                                                                                                                                                                                                                                                                                                               |
| fff | Half hours with automatic changeover threshold exceeded.                                                                                                                                                                                                                                                                                                                                                           |
| kkk | MSUs discarded due to routing data error count.                                                                                                                                                                                                                                                                                                                                                                    |
| lll | PBX bytes received.                                                                                                                                                                                                                                                                                                                                                                                                |
| mmm | PBX bytes transmitted.                                                                                                                                                                                                                                                                                                                                                                                             |

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|      |                                                         |
|------|---------------------------------------------------------|
| nnn  | PBX messages received.                                  |
| ooo  | PBX messages transmitted.                               |
| ppp  | PBX Q.931 messages received.                            |
| qqq  | PBX Q.931 messages transmitted.                         |
| rrr  | Declared link failure.                                  |
| sss  | Duration of declared link failure (in seconds).         |
| ttt  | Temporary link failure.                                 |
| uuu  | Duration of temporary link failure (in seconds).        |
| vvv  | Number of receive buffer overloads.                     |
| www  | Duration of receive buffer overload (in seconds).       |
| xxx  | Transmit buffer full events.                            |
| yyy  | Duration of transmit buffer full (in seconds).          |
| zzz  | Number of link establishment attempts (Restarts).       |
| aaaa | Messages received for an unavailable link.              |
| bbbb | Messages received with invalid address.                 |
| cccc | Receive buffer overflow.                                |
| dddd | Receive buffer overload.                                |
| eeee | Duration of receive buffer overload (in seconds).       |
| ffff | Receive buffer overflow.                                |
| gggg | Receive buffer overload.                                |
| hhhh | Duration of receive buffer overload (in seconds).       |
| iiii | Transmit buffer discard Level 1.                        |
| jjjj | Looping CCS7 messages.                                  |
| kkkk | Routing audit failures.                                 |
| llll | Global title translation refused - blocked.             |
| mmmm | Global title translation refused - no translation.      |
| nnnn | Total number of global title routing messages received. |
| oooo | Signaling path failures.                                |
| pppp | Duration of signaling path failures (in seconds).       |
| qqqq | Successful Signaling Switchovers.                       |
| rrrr | Signaling Switchover Failures.                          |
| tttt | Looped direct signaling messages.                       |

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|       |                                                                                                                               |
|-------|-------------------------------------------------------------------------------------------------------------------------------|
| uuuu  | Direct signaling and 511 banded messages dropped due to RPC congestion.                                                       |
| vvvv  | Number of priority level 1/2/3 messages dropped due to RPC congestion.                                                        |
| www   | Number of SCCP messages destined for an unknown address (or global title) (LN7).                                              |
| xxxx  | Number of SCCP messages destined for an unknown address (or global title) type (LN7).                                         |
| yyyy  | Number of SCCP messages destined for an unequipped subsystem (LN7).                                                           |
| zzzz  | Number of SCCP messages destined for an unknown address (or global title) (OFC).                                              |
| aaaaa | Number of SCCP messages destined for an unknown address (or global title) type (OFC).                                         |
| bbbbb | Number of SCCP messages destined for an unequipped subsystem (OFC).                                                           |
| ccccc | Number of SCCP messages destined for a prohibited subsystem (OFC).                                                            |
| dddd  | Number of priority level 1/2/3 ECIS6 messages dropped due to RPC congestion.                                                  |
| eeee  | Direct Signaling messages rejected by Central Processor due to congestion.                                                    |
| fffff | Direct Signaling messages rejected due to no translation data.                                                                |
| ggggg | User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S. |
| hhhhh | Number of SCCP messages destined for a prohibited subsystem (LN7).                                                            |

Format 5 variables.

|   |                                                                             |
|---|-----------------------------------------------------------------------------|
| a | Reporting office CLLI® code.                                                |
| b | The accumulation period: DAILY, HOURLY, HALF HOURLY, FIFTEEN MINUTES        |
| c | The current generic.                                                        |
| d | Local time zone date. (Ex: month / day / year).                             |
| e | Local time zone time. (Ex: hour:minute:second).                             |
| f | Network date at beginning of accumulation period. (Ex: month / day / year). |

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|     |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| g   | Network time at beginning of accumulation period.<br>(Ex: hour:minute:second).                                                                                                                                                                                                                                                                                                                                     |
| h   | Network date at end of accumulation period.<br>(Ex: month / day / year).                                                                                                                                                                                                                                                                                                                                           |
| i   | Network time at end of accumulation period.<br>(Ex: hour:minute:second).                                                                                                                                                                                                                                                                                                                                           |
| j   | The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:<br><br>$001 \leq aaa \leq 288$ (288 periods equals one day - 24 hours)<br><br>$001 \leq ccc \leq 288$<br>$aaa \leq ccc$ . |
| m   | The number of CCS7 equipped links; this number is not necessarily equal to the number of CCS7 links whose data is printed on this report since links with data measurements of zero(0) are not printed.                                                                                                                                                                                                            |
| o   | The total active time in seconds of all CCS7 links, including those not printed since measurement data was zero.                                                                                                                                                                                                                                                                                                   |
| p   | Emergency restart peg count.                                                                                                                                                                                                                                                                                                                                                                                       |
| q   | Duration in seconds of emergency restart.                                                                                                                                                                                                                                                                                                                                                                          |
| r   | Node isolation peg count.                                                                                                                                                                                                                                                                                                                                                                                          |
| s   | Duration in seconds of node isolation.                                                                                                                                                                                                                                                                                                                                                                             |
| t   | Combined link-set failure peg count.                                                                                                                                                                                                                                                                                                                                                                               |
| u   | Duration in seconds of link-set failure.                                                                                                                                                                                                                                                                                                                                                                           |
| v   | Far-end CLLI® code.                                                                                                                                                                                                                                                                                                                                                                                                |
| w   | Link-layer.                                                                                                                                                                                                                                                                                                                                                                                                        |
| x   | Link type: A, B, C, D, E.                                                                                                                                                                                                                                                                                                                                                                                          |
| y-z | Group-member of link in frame.<br>group(y): 00-63<br>member(z): 01-15                                                                                                                                                                                                                                                                                                                                              |
| bb  | Amount of time link is active.                                                                                                                                                                                                                                                                                                                                                                                     |
| ee  | Peg count for automatic changeover.                                                                                                                                                                                                                                                                                                                                                                                |
| ff  | Number of times threshold exceeded for automatic change-over.                                                                                                                                                                                                                                                                                                                                                      |
| hh  | Peg count for declared link failures.                                                                                                                                                                                                                                                                                                                                                                              |
| ii  | Duration in seconds of declared link failures.                                                                                                                                                                                                                                                                                                                                                                     |

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|     |                                                                                                                                                                                                       |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| mm  | Number of times threshold exceeded for data link in error time.                                                                                                                                       |
| nn  | Number of times threshold exceeded for CRC check errors.                                                                                                                                              |
| oo  | Number of times threshold exceeded for byte retransmissions.                                                                                                                                          |
| pp  | MSUs removed due to link congestions.                                                                                                                                                                 |
| qq  | Peg count for transmit buffer overload - Level 1.                                                                                                                                                     |
| rr  | Duration in seconds of transmit buffer overload - Level 1.                                                                                                                                            |
| ss  | The number of PBX equipped links; this number is not necessarily equal to the number of PBX links whose data is printed on this report since links with data measurements of zero(0) are not printed. |
| tt  | The total failed time in seconds of all PBX links, including those not printed since measurement data was zero.                                                                                       |
| uu  | Link type: SADC or DCHN.                                                                                                                                                                              |
| vv  | Group number of links in frame: 00-63.                                                                                                                                                                |
| ww  | Member number of links in frame: 01-15.                                                                                                                                                               |
| xx  | Amount of time link is active (in hours).                                                                                                                                                             |
| yy  | Amount of time link is active (in minutes).                                                                                                                                                           |
| zz  | Peg count of out-of-service time due to faults; this includes all time that a node is automatically removed from service.                                                                             |
| aaa | Peg count for declared link failures.                                                                                                                                                                 |
| bbb | Duration in seconds of declared link failures.                                                                                                                                                        |
| ccc | Peg count for temporary link failures.                                                                                                                                                                |
| ddd | Duration in seconds of temporary link failures.                                                                                                                                                       |
| eee | Number of link establishment attempts.                                                                                                                                                                |
| fff | Messages received for an unavailable link.                                                                                                                                                            |
| ggg | Peg count for manually initiated out-of-service time.                                                                                                                                                 |
| hhh | Messages received with invalid address.                                                                                                                                                               |
| iii | Transmit buffer full events.                                                                                                                                                                          |
| jjj | Duration in seconds of transmit buffer full.                                                                                                                                                          |
| kkk | Number of receive buffer overloads.                                                                                                                                                                   |
| lll | Duration in seconds of received buffer overload.                                                                                                                                                      |
| mmm | Duration of CCIS6 far end processor outage events observed.                                                                                                                                           |
| nnn | Duration of CCS7 far end processor outage events observed.                                                                                                                                            |
| ooo | Total number of pools.                                                                                                                                                                                |
| ppp | Total number of link sets.                                                                                                                                                                            |

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|                                                                                                                                                                                                    |                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| qqq                                                                                                                                                                                                | Peg count for signaling units in error.                                                                                       |
| rrr                                                                                                                                                                                                | Peg count for signaling units retransmitted.                                                                                  |
| sss                                                                                                                                                                                                | Peg count for repeated and skipped acknowledgement signaling units.                                                           |
| ttt                                                                                                                                                                                                | Peg count for data link in error time.                                                                                        |
| uuu                                                                                                                                                                                                | Peg count for cyclic redundancy check errors.                                                                                 |
| vvv                                                                                                                                                                                                | Peg count for bytes retransmitted.                                                                                            |
| <b>NOTE:</b> If link has Basic Error Correction (BEC), then vvv is bytes retransmitted. If link has Preventative Cyclic Redundancy (PCR) error correction, then vvv is forced bytes retransmitted. |                                                                                                                               |
| www                                                                                                                                                                                                | Circuit pack number of link: 0 - 1.                                                                                           |
| xxx                                                                                                                                                                                                | Port number of link: 0 - 3.                                                                                                   |
| aaaa                                                                                                                                                                                               | Number of times went into forced retransmission.                                                                              |
| bbbb                                                                                                                                                                                               | Signaling path failures.                                                                                                      |
| cccc                                                                                                                                                                                               | Duration of signaling path failures. (in seconds).                                                                            |
| dddd                                                                                                                                                                                               | Successful Signaling Switchovers.                                                                                             |
| eeee                                                                                                                                                                                               | Signaling Switchover Failures.                                                                                                |
| ab                                                                                                                                                                                                 | Emergency restart due to far end processor outage.                                                                            |
| ac                                                                                                                                                                                                 | Duration of emergency restart due to far end processor outage.                                                                |
| ad                                                                                                                                                                                                 | Adjacent signaling point isolation due to far end processor outage.                                                           |
| ae                                                                                                                                                                                                 | Duration of adjacent signaling point isolation due to far end processor outage.                                               |
| af                                                                                                                                                                                                 | Link Interface in processor send mode                                                                                         |
| ag                                                                                                                                                                                                 | Duration of processor outage.                                                                                                 |
| ah                                                                                                                                                                                                 | Far end processor outage occurred.                                                                                            |
| ai                                                                                                                                                                                                 | Duration of far end processor outage.                                                                                         |
| aj                                                                                                                                                                                                 | User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S. |

Format 6 variables.

|   |                                                 |
|---|-------------------------------------------------|
| a | Reporting office CLLI® code.                    |
| b | The current generic.                            |
| c | Local time zone date. (Ex: month / day / year). |
| d | Local time zone time. (Ex: hour:minute:second). |

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- e Network date at beginning of accumulation period.  
(Ex: month / day / year).
- f Network time at beginning of accumulation period.  
(Ex: hour:minute:second).
- g Network date at end of accumulation period.  
(Ex: month / day / year).
- h Network time at end of accumulation period.  
(Ex: hour:minute:second).
- i The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is aaa/ccc where aaa is the number of periods of accumulated data for this report and ccc is the maximum number of periods that can be covered where:
- $001 \leq aaa \leq 288$  (288 periods equals one day - 24 hours)
- $001 \leq ccc \leq 288$   
 $aaa \leq ccc$ .
- l Group number of RPC in frame: 00-63.
- m Member number of RPC in frame: 00-15.
- n Overflow peg count for level 0 (zero); this is the abatement level and indicates how many times this normal operational level was reached from a higher overflow level.
- o Overflow peg count for Level 1.
- p Overflow time duration in seconds for Level 1 (time of o preceding).
- q Overflow peg count for Level 2.
- r Overflow time duration in seconds for Level 2 (time of q preceding).
- s Overflow peg count for Level 3.
- t Overflow time duration in seconds for Level 3 (time of s preceding).
- u User defined string (by way of the ECD). This is the time zone indicator and has a default of NWT within the Continental U.S.

Format 7 variables.

- a Report name from the Schedule (SCHD) Table.
- b Julian date: 1 - 366
- c Starting data collection period: 1 - 288
- d The number of office measurements from the User View Descriptor Table (UVDT).

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|   |                                                 |
|---|-------------------------------------------------|
| e | The name of the measurement in the UVDT.        |
| f | A measurement value.                            |
| g | The number of LN6 measurements in the UVDT.     |
| h | The number of LN7 measurements in the UVDT.     |
| i | The link frame number.                          |
| j | The link member number.                         |
| k | Link protocol: 6 or 7.                          |
| l | The number of RPC measurements in the UVDT.     |
| m | The number of IUN measurements in the UVDT.     |
| n | The number of channel measurements in the UVDT. |
| o | The channel number.                             |
| p | Number of link set measurements in the UVDT.    |
| q | Link set number.                                |
| r | Number of cluster measurements in the UVDT.     |
| s | Cluster number.                                 |

#### 4. ACTION TO BE TAKEN

If either Format 2a or 3a appears, demand the report for the interval in question since the history file is complete and will produce a valid report. Use input message OP:SMR.

The remainder of the messages require no action.

#### 5. REFERENCES

Practice 234-100-121 *CNI Operations Manual* (non-AT&T) -  
Practice 234-100-121AC *CNI Operations Manual* (AT&T only)-  
Measurements, Reports, and Critical Events Section

Input Message  
OP: SCHED  
OP: SMR

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ID ..... REPT:SMR-A15MPR15  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

RING REPT SMR A15MPR15 STARTED  
MACHINE RESOURCE PERFORMANCE REPORT

REPORTING OFFICE: a REPORT INTERVAL: FIFTEEN MINUTES  
CURRENT GENERIC: X INRT b AUTOMATIC REPORT  
DATE: c TIME: d  
REPORT PERIOD(e): f, g THRU h, i  
DATA COVERAGE: j/k

| IDLE<br>TIME<br>l    | KERN<br>TIME<br>m         | KPROC<br>TIME<br>n       | USER<br>TIME<br>o | PAGES<br>SWAPIN<br>p | PAGES<br>SWAPOUT<br>q     | APS<br>DKRATE<br>r           | PROC<br>CRTD<br>s           | PROC<br>TERM<br>t         |
|----------------------|---------------------------|--------------------------|-------------------|----------------------|---------------------------|------------------------------|-----------------------------|---------------------------|
| CCS7<br>NODES<br>u-v | BYTES<br>IN/OUT<br>w<br>x | MSUS<br>IN/OUT<br>y<br>z | FLD<br>CNT<br>a1  | DLN<br>NODES<br>u-v  | BASE/<br>TBSY<br>b1<br>c1 | BLOCKS<br>IN/OUT<br>d1<br>e1 | MESGS<br>IN/OUT<br>f1<br>g1 | ERR<br>IN/OUT<br>h1<br>i1 |

RING REPT SMR A15MPR15 COMPLETED

## 2. REASON FOR OUTPUT

Automatically output every fifteen minutes.

## 3. VARIABLE FIELD DEFINITIONS

a CLII of reporting office.  
b Generic.  
c Date of report.  
f Date of start of reporting interval.  
h Date of end of reporting interval.  
d Time of report.  
g Time of start of reporting interval.  
i Time of end of reporting interval.  
e Time zone.  
j Number of periods (5 minutes) of actual measurement.

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|    |                                                                           |
|----|---------------------------------------------------------------------------|
| k  | Number of possible periods (5 minutes) of measurement.                    |
| l  | Percentage of idle time during reporting interval.                        |
| m  | Percentage of time used by kernel during reporting interval.              |
| n  | Percentage of time used by kernel processes during reporting interval.    |
| o  | Percentage of time used by user processes during reporting interval.      |
| p  | Number of pages swapped in during reporting interval.                     |
| q  | Number of pages swapped out during reporting interval.                    |
| r  | Number of APS disk jobs per second.                                       |
| s  | Number of processes created during reporting interval.                    |
| t  | Number of processes terminated during reporting interval.                 |
| u  | Group number.                                                             |
| v  | Member number.                                                            |
| w  | Number of incoming bytes (to 1B).                                         |
| x  | Number of outgoing bytes (to network).                                    |
| y  | Number of message signal units in to 1B.                                  |
| z  | Number of message signal units out to network.                            |
| a1 | Failure count of messages.                                                |
| b1 | Number of base level cycles in DLN.                                       |
| c1 | Number of base levels whose duration is longer than 10 ms.                |
| d1 | Number of incoming blocks (to 1B).                                        |
| e1 | Number of outgoing blocks (to network).                                   |
| f1 | Number of incoming messages (to 1B).                                      |
| g1 | Number of outgoing messages (to network).                                 |
| h1 | Number of incoming errors, including reformatting and translation errors. |
| i1 | Number of outgoing errors, including reformatting and translation errors. |

#### 4. ACTION TO BE TAKEN

None - Information only.

#### 5. REFERENCES

None.

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ID ..... REPT:SNAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT SNAT a  
NWT b c d e:f:g:h i

## 2. REASON FOR OUTPUT

Upon receiving a synchronization message from the network Master clock node, the local slave node echoes the current network administration time (SNAT) as it recognizes it.

## 3. VARIABLE FIELD DEFINITIONS

|   |                           |
|---|---------------------------|
| a | Message termination code. |
| b | Day of the week.          |
| c | Month.                    |
| d | Day of the month.         |
| e | Hour.                     |
| f | Minute.                   |
| g | Seconds.                  |
| h | Milliseconds.             |
| i | Year.                     |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
OP: SNAT

Output Message  
OP: SNAT

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ID ..... REPT:SNM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

[1] REPT SNM

WARNING: a NM/SCMG MSGS DROPPED IN LAST b MIN -- NL  
MEM TBL  
OVRFL

[2] REPT SNM

WARNING: a NM/SCMG MSGS DROPPED IN LAST b MIN -- NL  
PA TBL  
OVRFL

[3] REPT SNM

WARNING: a SCMG MSGS DROPPED IN LAST b MIN -- NL  
SSNBITS TBL  
OVRFL

## 2. REASON FOR OUTPUT

REPT SNM messages originate in the SLMK process. These messages warn that MTP signaling network management (NM) or SCCP management (SCMG) messages have been discarded due to lack of space in the nonlocal network routing tables in the last time interval.

The three tables that are monitored are:

1. Nonlocal Network Member table (cNnl\_mem).
2. Nonlocal Network Page Access table (cNpage\_access).
3. SCCP Subsystem Bits table (cSsnbits).

Format 1 warns that NM/SCMG messages have been dropped due to lack of space in the Nonlocal Network Member table in the last b minutes.

Format 2 warns that NM/SCMG messages have been dropped due to lack of space in the Nonlocal Network Page Access table in the last b minutes.

Format 3 warns that SCMG messages have been dropped due to lack of space in the nonlocal network ssnbits table in the last b minutes.

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### **3. VARIABLE FIELD DEFINITIONS**

- a                      Number of messages dropped.
- b                      Interval over which NM/SCMG messages were dropped (in minutes).

### **4. ACTION TO BE TAKEN**

Formats 1, 2, and 3:    Run the NM Audit. If there is an error in the tables which is causing the problem, the audit should be able to detect the error and to recover more space in the tables which will eliminate the problem. However, if the situation persists after the audit is run, the size of the tables is inadequate for the number of network events that are occurring at the present time. There is no further immediate action that can be taken. ROP and REPTLOG output should be collected and CNI customer support should be notified of the problem.

### **5. REFERENCES**

None.

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ID ..... REPT:SOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SOP a OUTPUT MESSAGES DISCARDED FOR b
- [2] REPT SOP DELETING OLDER HALF OF c
- [3] REPT SOP INVALID OUTPUT REQUEST [OMDB KEY d]  
    Uid: e                      Logfile: c  
    Logflimit: f                Request size: g
- [4] REPT SOP CANNOT OPEN SCC CHANNEL

## 2. REASON FOR OUTPUT

To report a Spooler Output Process (SOP) related error or warning.

Format 1 indicates message loss because of spooler queue overflow for a particular device.

Format 2 indicates the log file became full and the older half of the log file has been deleted to allow for the storage of newly generated messages.

Format 3 indicates that an output report to be written to the named log file is larger than the maximum size of the log file.

Format 4 indicates a failure to open the output device that is associated with the Switching Control Center (SCC).

## 3. VARIABLE FIELD DEFINITIONS

- a                      Number of output messages discarded due to spooler queue overflow.
- b                      Name of device.
- c                      Name of log file.
- d                      Output Message Database (OMDB) key number of the output report.
- e                      Utility Identification (UID) of the process requesting the output report.
- f                      Maximum size of the log file.
- g                      Size of the requested output report.

## 4. ACTION TO BE TAKEN

For Format 1, if spooler queue overflow occurs repeatedly for the same device during normal operations, seek technical assistance. Otherwise, it may be necessary to increase

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the queue size for that device. Use the Recent Change and Verify (RC/V) system to modify the maxq field of the device record for the device.

For Format 2, take no action.

For Format 3, use RC/V to increase the logflimit field in the device form for the named log file.

For Format 4, use RC/V to examine the Equipment Configuration Database (ECD) logdev record for the device and verify that the channel ID is specified correctly.

## **5. REFERENCES**

### **OMDB Keys**

- Format 2 has an OMDB key of 12.
- Format 3 has an OMDB key of 715.
- Format 4 has an OMDB key of 517.

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ID ..... REPT:SPGT-INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 3 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

[1] REPT SPGT INIT DUMP DLN AP a.

### SPGT ADMINTOC INFO

|           |           |          |        |              |
|-----------|-----------|----------|--------|--------------|
| MAGIC     | TRANS_CNT | U_FLAG   | C_HITS | REPLACEMENTS |
| bbbbbbbbb | cccccccc  | dddddddd | eeeeee | ffffffff     |

LAST CREATE TIME: g

### SPGT ADMINTOC TABLE INFO

| TABLE | START_ADR | ENTRIES_USED |
|-------|-----------|--------------|
|-------|-----------|--------------|

|      |        |          |
|------|--------|----------|
| hhhh | kkkkkk | mmmmmmmm |
| hhhh | kkkkkk | mmmmmmmm |
| .    |        |          |
| .    |        |          |
| .    |        |          |

### SPGT WORKLIST INFO

| NAME | COUNT  | PUT_MARK | TAKE_MARK |
|------|--------|----------|-----------|
| n    | pppppp | qqqqqq   | rrrrrr    |
| .    |        |          |           |
| .    |        |          |           |

### SPGT FAULT BUCKET ERROR COUNTS

|          |          |          |          |         |          |       |
|----------|----------|----------|----------|---------|----------|-------|
| DELANIRG | MOVCUSTR | ADDRECRD | SPHOUR24 | CPQUERY | DELCUSTR | OTHER |
| SSSSS    | SSSSS    | SSSSS    | SSSSS    | SSSSS   | SSSSS    | SSSS  |

### SPGT FAULT BUCKET INFO

| IDX | TIME     | ERRNO | TRAN     | TYP  | DATA      |
|-----|----------|-------|----------|------|-----------|
| tt  | uuuuuuuu | vvvv  | ADDRECRD | CUST | www ANI x |
| tt  | uuuuuuuu | vvvv  | DELANIRG |      | ANI x     |
| tt  | uuuuuuuu | vvvv  | SPHOUR24 |      | ANI x     |
| tt  | uuuuuuuu | vvvv  | MOVCUSTR | CUST | www       |
| tt  | uuuuuuuu | vvvv  | DELCUSTR | CUST | www       |
| tt  | uuuuuuuu | vvvv  | yyyyyyyy |      |           |

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## 2. REASON FOR OUTPUT

This output message occurs after an initialization of the SPGT database on the DLN.

## 3. VARIABLE FIELD DEFINITIONS

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a        | Form of LNxx yy where xx is the group and yy is the member of a Direct link node (DLN) where the SPGT INIT occurred.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| bbbbbbbb | Magic number of the SPGTT database.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| cccccccc | The number of transactions since the previous initialization of the SPGTT database.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| dddddddd | Use flag. If set to zero then database not running.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| eeeeee   | The number of records found since the previous initialization of the SPGTT database.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| fffffff  | The number of records replaced since the previous initialization of the SPGTT database.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| g        | Time since last initialize in the form of x HRS, x MINS, x SECS AGO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| hhhh     | The name of the customer unit table that the data on this output line applies to. Each customer unit is broken into a number of data tables. The following is a list of the possible data tables that a customer unit can have. Not all customer units have the same number or combination of tables.<br><br>ANI — Signifies the ANI data table.<br>CUSTID — Signifies the customer ID data table.<br>EPOCH — Signifies the Epoch data table.<br>HEAD — Signifies the Head data table.<br>NCP — Signifies the NCP routine data table.<br>NPA NXX — Signifies the NPANXX "compression" table.<br>PM AREA — Signifies the data table that holds the additional postmortem data.<br><br>A line of data per customer unit table is output. |
| kkkkkk   | Is the starting address of this data table in absolute memory address on the DLN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| mmmmmmmm | Is the total number of record "slots" used by this table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| n        | Worklist type: blank (Worklist), "P" priority, "I" immediate.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| pppppp   | Number or items outstanding on that worklist.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| qqqqqq   | Load pointer of worklist.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|          |                                                                                                                           |
|----------|---------------------------------------------------------------------------------------------------------------------------|
| rrrrrr   | Unload pointer of worklist.                                                                                               |
| sssss    | Number of errors since last initialization for each type of transaction.                                                  |
| tt       | Index into the leaky bucket for fault escalation.                                                                         |
| uuuuuuuu | Time that the error took place, in milliseconds past DLN bring up.                                                        |
| vvvv     | Error number for this index into the bucket                                                                               |
| www      | The customer id for the transaction at this index in the bucket                                                           |
| x        | Number associated with the transaction at this index in the bucket in the form NPT NPA NXX LLLL-HHHH.                     |
| yyyyyyyy | Transaction type being performed when the error took place DATA is different depending on what transaction was performed. |

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

None.

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ID ..... REPT:SPGTT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 3 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT SPGTT d APspggtt() BAD MESSAGE LENGTH = a
- [2] REPT SPGTT d APspggtt() DLN CAN'T SEND MESSAGE TO OB DLN
- [3] REPT SPGTT d APspggtt() DLN SPGTT CAN'T SEND MESSAGE TO 3B
- [4] REPT SPGTT d APspggtt() DLN SPGTT CAN'T SEND MESSAGE TO SPG3B
- [5] REPT SPGTT d APspggtt() FEATURE NOT ACTIVE BUT RECEIVED m MSGS
- [6] REPT SPGTT d APspggtt() WLFAIL RETURNED index = b
- [7] REPT SPGTT d APspggtt() Worklist[] IS FULL
- [8] REPT SPGTT d CPerr()  
ERROR NOT DSOBINIT WHILE DATABASE IS INITIALIZING  
error en; fn; line ln
- [9] REPT SPGTT d CPerr()  
INITIALIZE DATABASE DUE TO FLAG MISMATCH  
error en; fn; line ln
- [10] REPT SPGTT d CPerr()  
FLAG MISMATCH, Initflag was p, reset to DSNONINIT  
error en; fn; line ln
- [11] REPT SPGTT d CPerr() SEV 3  
error en; fn; line ln  
TRAN [tr];
- [12] REPT SPGTT d CPerr() SEV 5  
error en; fn; line ln  
TRAN [tr];
- [13] REPT SPGTT d NFpspgtt() DLN SPGTT BAD RC. rrc = c rna = d
- [14] REPT SPGTT d NFpspgtt() DLN SPGTT CAN'T SEND MESSAGE TO SPG3B
- [15] REPT SPGTT d NFpspgtt() DLN SPGTT WRONG CHAN. chan = e
- [16] REPT SPGTT d NFpspgtt() IWLFULL RETURNED

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- [17] REPT SPGTT d NFpspgtt() PWLFULL RETURNED
- [18] REPT SPGTT d NFpspgtt() LENGTH TO LONG
- [19] REPT SPGTT d NFpspgtt() RCVED UNKNOWN MSG TYPE = f
- [20] REPT SPGTT d NFpspgtt() WAKEUP FAIL ERR: g
- [21] REPT SPGTT d NFpspgtt() WLFAIL RETURNED
- [22] REPT SPGTT d NFpspgtt() WLFULL RETURNED
- [23] REPT SPGTT d NFpspgtt() DLN SPGTT BAD RC. rrc = c rna = d
- [24] REPT SPGTT d NFpspgtt() DLN SPGTT CAN'T SEND MESSAGE TO SPG3B
- [25] REPT SPGTT d NFpspgtt() DLN SPGTT FEATURE NOT ACTIVE.
- [26] REPT SPGTT d NFpspgtt() DLN SPGTT WRONG CHAN. chan = e
- [27] REPT SPGTT d NFpspgtt() LENGTH TO LONG
- [28] REPT SPGTT d NFpspgtt() WAKEUP FAIL ERR: g
- [29] REPT SPGTT d NFpspgtt() WLFAIL RETURNED
- [30] REPT SPGTT d NFpspgtt() WLFULL RETURNED
- [31] REPT SPGTT d NFuspgtt() BAD ENTRIES SIZE = h
- [32] REPT SPGTT d NFuspgtt() DLN SPGTT BAD RC. rrc = c rna = d
- [33] REPT SPGTT d NFuspgtt() DLN SPGTT FEATURE NOT ACTIVE
- [34] REPT SPGTT d NFuspgtt() DLN SPGTT ON OB CALLED
- [35] REPT SPGTT d NFuspgtt() DLN SPGTT WRONG CHAN. chan = e
- [36] REPT SPGTT d NFuspgtt() IWLFAIL RETURNED
- [37] REPT SPGTT d NFuspgtt() IWLFULL RETURNED
- [38] REPT SPGTT d NFuspgtt() LENGTH TO LONG
- [39] REPT SPGTT d NFuspgtt() RCVED UNKNOWN MSG TYPE = f
- [40] REPT SPGTT d NFuspgtt() WAKEUP FAIL ERR: g
- [41] REPT SPGTT d NFuspgtt() WLFAIL RETURNED

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- [42] REPT SPGTT d NFuspgtt() WLFULL RETURNED
- [43] REPT SPGTT d NFvspgtt() BAD CHANNEL (e)
- [44] REPT SPGTT d SPdel() BAD ENTRIES SIZE = h
- [45] REPT SPGTT d SPdel() FAILED RC = c
- [46] REPT SPGTT d sp\_enqueue\_bckt() INVALID DISTANCE BETWEEN POINTERS, ...  
...INIT BUCKET
- [47] REPT SPGTT d sp\_enqueue\_bckt() ARRAY ELEMENT NOT CLEARED, INIT BUCKET
- [48] REPT SPGTT d SPerr() SEV 1  
error en; fn; line ln  
TRAN [tr];
- [49] REPT SPGTT d SPerr() SEV 3; DIST dd; DELTA ttttttt; esc  
error en; fn; line ln  
TRAN [tr];
- [50] REPT SPGTT d SPerr() SEV 5  
error en; fn; line ln  
TRAN [tr];
- [51] REPT SPGTT d SPerr() SEV 5  
DATABASE INIT FAILED DURING SPFLUSH  
code = en; dsinit = q
- [52] REPT SPGTT d SPerr() SEV 5  
DATABASE INIT FAILED DURING SPINIT  
code = en; dsinit = q
- [53] REPT SPGTT d SPerr();CID MISMATCH DETECTED  
ANI npt npanxx llll-hhhh
- [54] REPT SPGTT d SPerr() SEV 5; SYSTEM ERROR
- [55] REPT SPGTT d SPerr() SUPL INFO s
- [56] REPT SPGTT d SPerr() SPGINIT TIMER FAILED, ret code = g
- [57] REPT SPGTT d - SPflush() CAN'T SEND MSG TO 3B. RC = c
- [58] REPT SPGTT d sp\_init\_bckt()  
SP\_ERRORS\_BCKT VALUE WAS TOO LOW, SPerrbckt is set to r
- [59] REPT SPGTT d sp\_init\_bckt()  
SP\_ERRORS\_BCKT VALUE WAS TOO HIGH, SPerrbckt is set to r

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[60] REPT SPGTT d SPmain() AUDIT TIMER FAILED. rc = i  
[61] REPT SPGTT d SPmain() BAD j QUEUE CNT = k  
[62] REPT SPGTT d SPmain() CAN'T SEND MSG TO 3B. RC = c  
[63] REPT SPGTT d SPmain() DID DS\_flush. rc = en  
[64] REPT SPGTT d SPmain() DLN CAN'T SEND INITs TO DLNS  
[65] REPT SPGTT d SPmain() HAS A BAD PWORKLIST TYPE = l  
[66] REPT SPGTT d SPmain() j MSG WAS PREVIOUSLY PROCESSED. ABrna = d  
[67] REPT SPGTT d SPmain() WAKEUP FAIL ERR: g  
[68] REPT SPGTT d SPrelease() BAD j QUEUE CNT = k  
[69] REPT SPGTT d SPrelease() FAILED 3B SEND RC = c  
[70] REPT SPGTT d SPpostmortem() FAILED 3B SEND RC = c  
[71] REPT SPGTT d SPs\_run() FAILED RC = en  
[72] REPT SPGTT d SPs\_upd() DLN CAN'T SEND MESSAGE TO OB DLN  
[73] REPT SPGTT d SPGMON t

## 2. REASON FOR OUTPUT

Prints errors in connection with the SPGTT Feature.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                          |
|---|--------------------------------------------------------------------------|
| a | Out of range length of internal SPGTT message.                           |
| b | Index of worklist entry in error.                                        |
| c | Return code of IMS transport mechanism.                                  |
| d | Ring Node Address (RNA) of Direct Link Node (DLN) originating the error. |
| e | IMS Channel unexpected message received on.                              |
| f | Value of unexpected message type.                                        |
| g | OSDS failure code.                                                       |
| h | Out of range value of number of entries.                                 |
| i | Error value of OS audit return.                                          |

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|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| j        | Worklist type:<br>IWORKLIST<br>PWORKLIST<br>WORKLIST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| k        | Value of invalid queue count.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| l        | Value of unexpected queue entry type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| m        | Number of messages received for the inactive feature since last reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| p        | Value of the initflag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| q        | Value of dsinit global variable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| r        | Value of SPerrbckt global variable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| s        | Additional information for trouble location.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| t        | Failure indication of the spg.mon process:<br>CHILD COULD NOT OPEN FILE Line no. ln<br>COULD NOT CLOSE FILE Line no. ln<br>COULD NOT CONNECT TO PORT Line no. ln<br>COULD NOT CREATE FILE Line no. ln<br>COULD NOT FIND OB RNA Line no. ln<br>COULD NOT FORK A CHILD Line no. ln<br>COULD NOT OPEN FILE Line no. ln<br>COULD NOT PROCESS ID OF DLNCM Line no. ln<br>COULD NOT SET FILE POINTER Line no. ln<br>COULD NOT TALK TO DLNCM Line no. ln<br>COULD NOT WRITE DATA Line no. ln<br>DLNCM DOES NOT EXIST Line no. ln<br>ERROR LEAVING CORE Line no. ln<br>FAILED TO OPEN IMS CHANNEL Line no. ln<br>RECEIVED UNKNOWN PROCESS REQUEST Line no. ln<br>SUCCESSFULLY STARTED Line no. ln<br>UNABLE TO SEND CNI MESSAGE Line no. ln |
| dd       | Distance between the load and unload pointers in the leaky bucket, the delta will be checked when the distance is at the error limit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| tttttttt | Time between the load and unload pointers (distance) in the leaky bucket in milliseconds. NONE is printed when no time check is made.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| esc | ESC is printed when escalation will occur.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| fn  | File name where error was detected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| ln  | Line number where error was detected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| en  | Error number: <ul style="list-style-type: none"><li>102 — SPGTT Database undergoing initialization.</li><li>105 — Item to be modified was not located.</li><li>111 — Cannot add number, 10-digit compaction table full.</li><li>114 — Cannot add number, customer ID table full.</li><li>116 — Cannot add point code sub-system information, NCP table full.</li><li>124 — Specified NPA-NXX combination was not found.</li><li>127 — Associated point code sub-system information does not exist.</li><li>154 — Database inconsistencies have been detected.</li><li>156 — The ADMINTOC or DBTOC magic number is invalid.</li><li>178 — Invalid address.</li><li>179 — Invalid parameters.</li><li>180 — Specified entry not found.</li><li>181 — Binary search of AVL tree exceeds expected maximum length.</li><li>182 — Unexpected AVL head entry.</li><li>183 — Unexpected low range value found.</li><li>185 — Entry to add does not match low range of stored entry.</li><li>186 — Entry to delete does not match any stored entries.</li><li>187 — Invalid pointer to AVL record from customer ID entry.</li><li>190 — The application database value is invalid.</li><li>194 — The compaction table search chain exceeded maximum length.</li><li>197 — Invalid table specified.</li></ul> |
| tr  | Transaction type being performed when error was detected.<br><br>This field can be null or may contain one of the following:<br>ADDRECRD; CUST xxxx; ANI npt npanxx; RANGE llll-hhhh<br>CPQUERY; ANI npt npanxx; RANGE llll-hhhh<br>DELANIRNG; ANI npt npanxx; RANGE llll-hhhh<br>DELCUSTR; CUST xxxx<br>MOVCUSTMR; CUST xxxx<br>SPHOUR24; ANI npt npanxx; RANGE llll-hhhh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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Where the preceding variables are defined as:

npt — Numbering plan type.

npanxx — First six digits of the number.

llll — The low line number of the range.

hhhh — The high line number of the range.

xxxx — The last four digits of the customer ID.

#### 4. ACTION TO BE TAKEN

For errors:

```
[11] REPT SPGTT d CPerr() SEV 3
 error en; fn; line ln
 TRAN [tr];
```

```
[49] REPT SPGTT d SPerr() SEV 3; DIST dd; DELTA ttttttt; esc
 error en; fn; line ln
 TRAN [tr];
```

```
[53] REPT SPGTT d SPerr());CID MISMATCH DETECTED ANI npt npanxx llll-
 hhhh
```

With a value of [tr] being either DELANIRNG or ADDRECRD determine the npt and npanxx from [tr] or directly from the message for [53]. For all other values of [tr] seek technical assistance.

Perform a verify on that number using the input command VER:GTT with the following options:

- RNA as specified in d of the REPT:SPGTT message
- Translation type: 252
- Numbering plan type: npt from [tr].
- ABC: npa from [tr]
- DEF: nxx from [tr]
- GHIJ: llll from [tr]

Remove that npt/npanxx using the input command RC:GTT with the following options:

- Translation type: 252
- Database Operation: D
- Digit number: npanxx from [tr]. Only six digits are to be entered.
- Numbering plan type: npt from [tr].

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For error:

```
[48] REPT SPGTT d SPerr() SEV 1
 error en; fn; line ln
 TRAN [tr];
```

notify the National Electronic Switching Assistance Center (NESAC) to inform the CDID workcenter of a table resource exhaust.

If repeated errors indicate problems, seek technical assistance.

## **5. REFERENCES**

None.

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ID ..... REPT:SPL-SYN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT SPL SYNTAX ERROR a b

## 2. REASON FOR OUTPUT

To report that an incorrectly formatted message was passed to the spoolf() function in the craft library.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code specifying the error condition detected:
- 0 — First \$ in user control string missing.
  - 1 — Teletypewriter (TTY) field too big (greater than eight characters).
  - 2 — TTY size is maximum and first byte is not '-' (minus), or the contents of the string is a minus sign only.
  - 3 — NULL TTY is specified with no spooler options.
  - 4 — Class not decimal.
  - 6 — Class field too big (greater than 255).
  - 7 — Missing both TTY field and class field.
  - 8 — Paction field was not 0 or two characters long.
  - 9 — Timestamp type field too big (greater than one character).
  - 10 — Timestamp type field invalid. The timestamp type must be f (full time stamp), b (basic time stamp), or n (no time stamp).
  - 11 — Priority field not decimal.
  - 12 — Priority field too big (greater than one character).
  - 13 — Priority value greater than seven (highest priority).
  - 14 — IDENT field too big (greater than four characters).
  - 15 — IDENT field not decimal.
  - 16 — Type field too big (greater than four characters).
  - 17 — Type field not decimal.
  - 19 — User file does not exist or cannot be read.
  - 20 — User Process Identification (PID) too big (greater than eight characters).
  - 21 — User PID not decimal.
  - 22 — Last \$ in user control string missing.
  - 23 — Invalid paction.
  - 24 — Process number does not correspond to existing process.
  - 25 — Send message to Coordinator Of Spooler Output Processes (CSOP) failed.
  - 26 — Message is truncated by sendpw.
  - 27 — User file does not have full pathname.

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b Control string and text of message containing error.

#### **4. ACTION TO BE TAKEN**

Submit an operational trouble report with a printout of the REPT:SPL-SYN message.

#### **5. REFERENCES**

CIC Select Code 303-024 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System  
System Libraries Programmer's Manual*, Volume 4, Section 2

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:SSTBLCREAT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

**1. FORMAT**

REPT SSTBLCREAT  
SUBSYSTEM TABLE INITIALIZATION COMPLETE

**2. REASON FOR OUTPUT**

This message indicates that new disk files for subsystem distribution table and local subsystem information table were created with default values. These disk files are read into the 3B computer Protected Application Segment (PAS) during initialization.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:START-EVENT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1] REPT START EVENTSESS CANNOT SEND MESSAGE TO THE 3B

[2] REPT START EVENTSESS CANNOT SEND MESSAGE TO THE 1A

## 2. REASON FOR OUTPUT

Format 1. Event filter and print session start request cannot be sent to the 3B AMA formatter.

Format 2. Event filter and print session start request cannot be sent to the 1A.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Practice 234-151-002 *Maintenance Operations Center*

Input Message  
START:EVENTSESS

Output Message  
REPT:START-EVENT

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:START-PING  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT START PING ERROR  
INVALID NODE VALUE ENTERED FOR EIN PARAMETER
- [2] REPT START PING ERROR  
MISSING NODE NUMBER FOR EIN PARAMETER
- [3] REPT START PING ERROR  
MISSING EIN PARAMETER
- [4] REPT START PING ERROR  
INVALID IP ADDRESS FORMAT
- [5] REPT START PING ERROR  
MISSING IP ADDRESS PARAMETER
- [6] REPT START PING ERROR  
MISSING IP PARAMETER
- [7] REPT START PING - CANNOT SEND MESSAGE TO THE AMA FORMATTER

## 2. REASON FOR OUTPUT

To report an error from processing the START:PING input command.

Format 1 is printed when Ethernet® Interface Node (EIN) node value is incorrect (0-1).

Format 2 is printed when the EIN node value is not specified on the input command line.

Format 3 is printed when the EIN keyword is missing.

Format 4 is printed when the Internet Protocol (IP) address is incorrect. The correct format is xxx.xxx.xxx.xxx where each xxx must be a numeric value between 0 and 255 and the IP address must be enclosed inside double quotes.

Format 5 is printed when the IP address is not specified on the input command line.

Format 6 is printed when the IP keyword is missing.

Format 7 is printed when the request cannot be sent to the Automatic Message Accounting (AMA) formatter process.

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### **3. VARIABLE FIELD DEFINITIONS**

See Reason for Output.

### **4. ACTION TO BE TAKEN**

The user needs to re-enter the input with the corrected information. For format 7 the AMA formatter process may need to be restarted.

### **5. REFERENCES**

Input Message  
SET : AMA-RC

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ID ..... REPT:STOP-EVENT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1] REPT STOP EVENTSESS CANNOT SEND MESSAGE TO THE 3B

[2] REPT STOP EVENTSESS CANNOT SEND MESSAGE TO THE 1A

## 2. REASON FOR OUTPUT

Format 1. Event filter and print session stop request cannot be sent to the 3B AMA formatter.

Format 2. Event filter and print session stop request cannot be sent to the 1A.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Practice 234-151-002 *Maintenance Operations Center*

Input Message  
STOP:EVENTSESS

Output Message  
REPT:STOP-EVENT

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ID ..... REPT:SUA-STATUS  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT SUA STATUS CHECK ERROR: RCODE=r ERRNO=e

## 2. REASON FOR OUTPUT

This message is output when SUautomgr process receives an error condition while trying to get the Software Update Automation feature status from the 1B.

## 3. VARIABLE FIELD DEFINITIONS

r Indicates the return code. See the following table for details.  
e Indicates the standard system error number returned.

| RCODE | Meaning                                                |
|-------|--------------------------------------------------------|
| -1    | Open 1Bfile for read failed                            |
| -2    | Unable to get TRAF3BDT address from 1B vector TRAF3BSS |
| -3    | Out of range TRAF3BDT pident address or ERRORSTOP      |
| -4    | Unable to position (lseek) to the TRAF3BDT pident      |
| -5    | TRAF3BDT pident MAGIC mismatch                         |
| -6    | Failure to read SETHDR                                 |
| -7    | Failure to find TRAF3BDT SET7                          |
| -8    | Failure to read SET7 body                              |
| -9    | Failure to read SET7 data                              |

## 4. ACTION TO BE TAKEN

If there are problems with 3B stability or 1Bfile access, resolving those conditions may solve this error condition automatically. Only the Automation capability of the SU will be blocked by this error. Seek Field Update assistance if needed.

## 5. REFERENCES

None.

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ID ..... REPT:SYS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

### 1. FORMAT

REPT SYS a TBL  
b ( c, d ): CANNOT e  
f

### 2. REASON FOR OUTPUT

Report the failure of an internal operating system call.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                          |
|---|------------------------------------------------------------------------------------------|
| a | Error code which indicates why the system call failed. See Table 1.                      |
| b | Name of the process which experienced the failure.                                       |
| c | Name of source code file where failure occurred.                                         |
| d | Source code line number where failure occurred.                                          |
| e | Action attempted by system call and system call arguments (if any).                      |
| f | Short statement describing the failure or conditions existing when the failure occurred. |

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TABLE 1  
Error Codes

| Error Code | Explanation of Error Code                                                                                                                                                                                                                                    |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| **         | This message was generated by a kernel process. The error code is not available.                                                                                                                                                                             |
| 01         | Typically this error indicates an attempt to modify a file in some way forbidden except to its owner or super-user. It is also returned for attempts by ordinary users to do things allowed only to the super-user.                                          |
| 02         | A file name is specified and the file should exist but does not, or one of the directories in a path name does not exist.                                                                                                                                    |
| 03         | The process corresponding to that specified by pid in a system call does not exist or is already dead.                                                                                                                                                       |
| 04         | An asynchronous signal (such as interrupt or quit), which the user has elected to catch, occurred during a system call. If execution is resumed after processing the signal, it will appear as if the interrupted system call returned this error condition. |
| 05         | A physical I/O error occurred during read or write.                                                                                                                                                                                                          |
| 06         | I/O on a special file refers to a subdevice which does not exist, or is beyond the limits of the device. It may also occur when, for example, a tape drive is not on-line or no disk pack is loaded on a drive.                                              |
| 07         | An argument list longer than 5120 bytes was used in a call trying to execute a process.                                                                                                                                                                      |
| 08         | A request was made to execute a file which, although it has the appropriate permissions, does not start with a valid magic number. This could be as a result of a faulty field update attempt. A roll back might clear the problem.                          |
| 09         | Either a file descriptor refers to no open file, or a read (or write) request is made to a file which is open only for writing (or reading).                                                                                                                 |

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TABLE 1 (cont'd)

| Error Code | Explanation of Error Code                                                                                                                                                                                                                                                                                                             |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10         | A wait was executed by a process that had no existing or unwaited-for child processes.                                                                                                                                                                                                                                                |
| 11         | A fork failed because the system's process table is full or the user is not allowed to create any more processes. This may occur under system overload.                                                                                                                                                                               |
| 12         | During an exec or break, a program asks for more space than the system is able to supply. This is not a temporary condition, the maximum space size is a system parameter. The error may also occur if the arrangement of text, data, and stack segments requires too many segments, or if there is not enough swap space for a fork. |
| 13         | An attempt was made to access a file in a way forbidden by the protection system.                                                                                                                                                                                                                                                     |
| 14         | The system encountered a hardware fault in attempting to use an argument of a system call.                                                                                                                                                                                                                                            |
| 15         | A non-block file was mentioned where a block device was required, for example, in mount.                                                                                                                                                                                                                                              |
| 16         | An attempt was made to mount a device that was already mounted or to dismount a device on which there is an active file (open file, current directory, mounted-on file, active text segment).                                                                                                                                         |
| 17         | An existing file was mentioned in an inappropriate context, for example, link.                                                                                                                                                                                                                                                        |
| 18         | A link to a file on another device was attempted.                                                                                                                                                                                                                                                                                     |
| 19         | An attempt was made to apply an inappropriate system call to a device, for example, read a write-only device.                                                                                                                                                                                                                         |
| 20         | A non-directory was specified where a directory is required, for example, in a path prefix or as an argument to chdir.                                                                                                                                                                                                                |

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TABLE 1 (cont'd)

| Error Code | Explanation of Error Code                                                                                                                                                                                    |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21         | An attempt was made to write on a directory.                                                                                                                                                                 |
| 22         | An invalid argument (for example, dismounting a non-mounted device, mentioning an undefined signal in signal, or kill, reading or writing a file for which lseek has generated a negative pointer) was used. |
| 23         | The system's table of open files is full, and temporarily no more opens can be accepted.                                                                                                                     |
| 24         | No process may have more than 20 file descriptors open at a time. An attempt to open the 21st was made.                                                                                                      |
| 25         | The file given to a stty or gtty does not correspond to a device, for example a terminal, to which those calls apply.                                                                                        |
| 26         | An attempt to execute a pure-procedure program which is currently open for writing (or reading). Also an attempt to open for writing a pure-procedure program that is being executed.                        |
| 27         | The size of a file exceeded the maximum file size (1,082,201,088 bytes).                                                                                                                                     |
| 28         | During a write to an ordinary file, there was no free space left on the device.                                                                                                                              |
| 29         | An lseek was issued to a pipe or to a device not supporting seeks.                                                                                                                                           |
| 30         | An attempt to modify a file or directory was made on a device mounted read-only.                                                                                                                             |
| 31         | An attempt was made to make more than the maximum number of links to a file.                                                                                                                                 |
| 32         | A write on a pipe for which there is no process to read the data. This condition normally generates a signal, the error is returned if the signal is ignored.                                                |

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TABLE 1 (cont'd)

| Error Code | Explanation of Error Code                                                                                                            |
|------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 35         | A message of the requested type is not on the message queue.                                                                         |
| 36         | An attempt was made either to use a facility that must first be allocated or to allocate a facility in a way other than as intended. |
| 39         | A block was accessed that has never been written or initialized.                                                                     |
| 40         | A contiguous file cannot be moved.                                                                                                   |
| 41         | A contiguous file has exhausted the maximum number of extents and cannot grow anymore.                                               |
| 42         | There are too many characters in an absolute pathname.                                                                               |
| 43         | One of the system tables necessary to complete the request is temporarily full.                                                      |
| 44         | A request was made to a driver for a service which the driver does not support.                                                      |

#### 4. ACTION TO BE TAKEN

If action to take is not obvious from description of trouble cause, seek technical assistance. Specific actions to be taken are not given for each code. It is expected that the trouble will be internal to the programs and that technical assistance will be required. However, there are some instances where the trouble can be corrected by manual action, for example, putting a tape unit on-line, installing a write ring on a tape, or powering up a disk unit.

#### 5. REFERENCES

Practice 234-151-120 - *Trouble Clearing and Maintenance Procedures*

Output Message  
REPT:COM100

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ID ..... REPT:SYSTEM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT SYSTEM IS IN MINIMUM CONFIGURATION MODE

## 2. REASON FOR OUTPUT

To remind the operator that the system is running in the minimum configuration mode.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

Minimum configuration mode should only be used in extreme cases where the system will not stay up with the application running. It should only be used to diagnose or troubleshoot a system which will not recover by any other means, such as forcing configuration, inhibit options, or bootstrap options. Application software will not be started in the minimum configuration mode.

To return to full configuration mode, clear the MIN-CONFIG request on the Emergency Action Interface (EAI) page of the maintenance terminal with an EAI command 33, then bootstrap the system with an EAI command 54.

## 5. REFERENCES

OMDB Key

There is an OMDB key of 603.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

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ID ..... REPT:TDAS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT TDAS a[ b] CODE c
- [2] REPT TDAS a[ b] CODE c ERRNO d
- [3] REPT TDAS e OF f SESSION - IOP g
- [4] REPT TDAS DNHRMEAS TTS h
  - ATTEMPTS 00-05 i
  - ATTEMPTS 05-10 i
  - ATTEMPTS 10-15 i
  - ATTEMPTS 15-20 i
  - ATTEMPTS 20-25 i
  - ATTEMPTS 25-30 i
  - ATTEMPTS 30-35 i
  - ATTEMPTS 35-40 i
  - ATTEMPTS 40-45 i
  - ATTEMPTS 45-50 i
  - ATTEMPTS 50-55 i
  - ATTEMPTS 55-60 i
  - ATTEMPTS HOUR i
  - USAGE j
  - ENGN OVFL k
  - REAL TIME OVFL l
  - NM RR SUCCESS m
  - NM RR ATTEMPTS n
  - CRANKBACKS o
  - CANCEL p
- [5] REPT TDAS q NOT MOUNTED
- [6] REPT TDAS SLEEP FOR 5 MINUTE

## 2. REASON FOR OUTPUT

To report any errors during the formation of the Traffic Data Administration System (TDAS) data base. TDAS data is sent from the 1B processor once every 5 minutes for Dynamic Non-Hierarchical Routing (DNHR) data and once an hour for all other data. This data must be formatted for the TDAS data base and inserted into the data base.

The other use of this message is to report the start and end of all TDAS data link sessions. A summary of data link transactions is given at the end of a TDAS data link session.

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Format [4] is used to output the Dynamic Non-Hierarchical Routing (DNHR) node-to-node measurement report for between 1 to 10 Toll Terminating Switches (TTSs). The output prints out for each TTS requested in the OP:DNHRMEAS input message.

Format [5] prints when the TDAS partition (dev/tdas) is not available and Format [6] prints while waiting for it to become available.

All TDAS related messages are recorded in the log file TDASLOG and may be accessed using the OP:LOG;TDASLOG input command.

### 3. VARIABLE FIELD DEFINITIONS

- a                      The process that caused the message to be printed:
- 3BREC                — 3B TDAS records process.
  - 4EVRTDAS           — 4E TDAS record process.
  - ASYN                — Synchronous data link protocol process.
  - BX25                 — Synchronous data link protocol process.
  - DNHRMEAS          — DNHR measurement process.
  - FTSG                — Formats fixed trunk subgroup data every hour.
  - MCT                 — Multiple carrier treatments process.
  - TDASMC0            — Formatter for DNHR data (MC 0) that converts twelve 5 minute files into an hour file.
  - TDASMC1            — Formatter for DNHR translation data (MC 1) that runs at 08:00 every day.
  - VTSG                — Formats variable trunk subgroup data every hour.
- b                      Measurement class that 3BREC was working on. If ?, then the measurement class was unknown.
- c                      Error code or indication of completion:
- 0 — Successful termination of process.
- 100 Series — 3BREC error codes:
- 102 — Unable to open newhour file.
  - 103 — Bad read of newhour data.
  - 104 — Bad year in TDAS MC header.
  - 105 — Bad month in TDAS MC header.
  - 106 — Bad day in TDAS MC header.
  - 107 — Bad hour in TDAS MC header
  - 108 — Bad MC number in TDAS MC header.
  - 110 — Unable to execute TDAS audit.
  - 111 — Unable to update offname file.
  - 120 — Bad ustat call in cksyntax.
  - 121 — Bad ustat call location 2 in cksyntax.
  - 122 — Bad stat call in cksyntax.
  - 130 — Bad ustat call in rmextra.
  - 131 — Not enough room to insert more data.

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200 Series — TDASMC0 error codes:

- 201 — Unable to create /tdas/adm/mc0.
- 202 — Unable to malloc for MC 0.
- 203 — Unable to open 5 minute files.
- 204 — Unable to read 5 minute counts.
- 205 — Unable to write MC 0 header.
- 206 — Unable to write MC 0 data.
- 207 — TDASMC0 called with wrong number of arguments.
- 208 — Bad year in TDAS MC header.
- 209 — Bad month in TDAS MC header.
- 210 — Bad day in TDAS MC header.
- 211 — Bad hour in TDAS MC header.
- 212 — Bad MC number in TDAS MC header.
- 213 — MC 0 five minute counts not all in same hour.
- 214 — TDAS MC header not 18 bytes long.
- 215 — First character of MC header not Y.
- 216 — Unable to write DNHR counts.
- 217 — Unable to execute 3BREC process.
- 218 — Seek technical assistance.

300 Series — TDASMC1 errors:

- 301 — Process called with wrong number of arguments.
- 302 — TDAS MC header not 18 bytes long.
- 303 — MC header does not start with Y1.
- 304 — MC header first record not 000.
- 305 — MC header office name not 11 characters long.
- 306 — Unable to open 1Bstat file.
- 307 — Unable to read 1Bstat file.
- 308 — Unable to open 1Bfile.
- 309 — Lseek argument not 8 bytes long.
- 310 — Unable to read ht4ttsname from 1Bfile.
- 311 — Unable to create /tdas/adm/mc1.
- 312 — Unable to write /tdas/adm/mc1.
- 313 — Unable to execute 3BREC process.

400 Series — BX25 errors:

- 401 — Unable to mount /tdas partition.
- 402 — Unable to open temp file for protocol use.
- 403 — Unable to output session statistics.
- 404 — Unable to write out session statistics to output file.
- 405 — Unable to archive session statistics.
- 406 — Cannot read archive header.
- 407 — Cannot write archive file.
- 408 — Cannot write archive file header.

500 Series — ASYNC errors:

- 501 — Unable to change directory to /tdas.
- 502 — Unable to mount /tdas.
- 503 — Unable to change directory to /tdas.

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- 504 — Unable to open temp file for protocol use.
- 505 — Unable to create report file for session summary.
- 506 — Unable to write report file for session summary.
- 507 — Unable to open stat file.
- 508 — Unable to read stat file header.
- 509 — Unable to write stat file.
- 510 — Unable to write stat file header.

600 Series — FTSG errors:

- 600 — 629 - part of ftsgmain (trafladr 604-611).
- 630 — 649 - part of ftsgltsg.
- 650 — 674 - part of loc\_tsg.
- 675 — 677 - part of get\_tb.
- 678 — 680 - part of tsg\_out.
  
- 600 — Unable to open /dev/1astat.
- 601 — Unable to read /dev/1astat.
- 602 — Unable to open /dev/1afile\_0 or /dev/1afile\_1.
- 603 — Unable to read generic ID.
- 604 — Cannot enable message reception.
- 605 — Unable to send message to APDRV.
- 606 — Alarmed fired while waiting for message from APDRV.
- 607 — Received wrong message from APDRV.
- 608 — Unable to send message to 1B pident TRAFCLCT.
- 609 — Alarmed fired while waiting for message from TRAFCLCT.
- 610 — APS message transmission failed.
- 611 — AP\_IDENT does not contain the address of pident traf3bdt.
- 614 — Unable to read traf3bdt pident header.
- 615 — Invalid magic number.
- 616 — Cs2fs size different than in cs2fs.h.
- 617 — Unable to read dk1cs2fs.
- 618 — Unable to read traf3bdt set1 header.
- 619 — Invalid traf3bdt set number.
- 620 — Invalid traf3bdt set1 size.
- 621 — Unable to read traf3bdt set1.
- 622 — Wrong version of traf3bdt set1.
- 623 — Trunk block translator size different than in ftsgmem.c.
- 624 — Unable to read trunk block translator.
- 625 — Traf3bdt set1 couplet overlay problem (system error number equals invalid couplet).
- 626 — Unable to write ftsg output to /tdas/adm/ftsg.
- 627 — Unable to send /tdas/adm/ftsg to /prc/tdas/3brec.
- 630 — Disk trunk subgroup translator size different than in ftsgmem.c.
- 631 — Unable to read disk trunk subgroup translator.
- 632 — Disk trunk subgroup subtranslator size different than in ftsgmem.c.
- 633 — Unable to read disk trunk subgroup subtranslator.

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- 634 — No assigned tsgr subtranslator in disk trunk translator.
- 650 — Unable to read disk trunk subgroup subtranslator.
- 675 — Trunk block size different than in ftsgmem.c.
- 676 — Trunk block not backed up disk.
- 677 — Unable to read trunk block.
- 678 — Invalid source translator identification.

700 Series — VTSG errors:

- 799 — Cannot get the 1A generic.

800 Series — Additional error codes:

- 800 — The fork failed, skip doing Multiple Carrier Treatments (MCT) this hour.
- 801 — Failed to create Real Time Network Routing (RTNR) scratch file.
- 803 — Open failed.
- 804 — Status of tdas/adm/rxxx bombed.
- 805 — All 5 minute files must be from last hour.
- 806 — Size wrong. Not Node-To-Node Registers (NNR) multiple with 256 bytes left over.
- 807 — Size wrong.
- 808 — Read failed.
- 809 — Write failed.
- 810 — Combined fork/execute failed.
- 860 — No argument.
- 861 — Non digit ASCII byte found.
- 862 — Size is out of range.
- 863 — Open failed.
- 864 — Create failed.
- 865 — Write failed.
- 866 — Didn't copy all bytes or the file was too small.
- 867 — Open failed.
- 868 — Create failed.
- 869 — Write failed.
- 890 — Execute failed.
- 880 — MCT does not exist on this size 0.
- 881 — File /tdas/adm/mct\_ wrong size.
- 882 — File /tdas/adm/mct\_ wrong hour.
- 884 — Can't link /tdas/adm/mct\_ to /tdas/adm/mct\_\_.
- 885 — Failed to open /tdas/adm/mct\_\_.
- 886 — Read on /tdas/adm/mct\_\_ failed.
- 887 — Open failed on /tdas/adm/mct.
- 888 — Write of /tdas/adm/mct failed.
- 889 — prc/tdas3brec execute failed.

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|   |                                                                                                           |
|---|-----------------------------------------------------------------------------------------------------------|
| d | System error code - see supplemental information for list of system error codes.                          |
| e | Status of a data link protocol session:<br>END<br>START                                                   |
| f | Type of protocol used:<br>ASYNC — Low speed asynchronous.<br>BX25 — Synchronous BX.25.                    |
| g | Input/Output Processor (IOP) number.                                                                      |
| h | Number of the node in the DNHR network (0-255).                                                           |
| i | Peg count of call attempts for this TTS number, given in five minute breakdowns and a total for the hour. |
| j | TTS usage in terms of Hundred Call Seconds (CCS).                                                         |
| k | Peg count of engineered overflows on this TTS.                                                            |
| l | Peg count of realtime overflows on this TTS.                                                              |
| m | Peg count of network management re-route successes.                                                       |
| n | Peg count of network management re-route attempts.                                                        |
| o | Peg count of crankbacks on this TTS.                                                                      |
| p | Peg count of cancels on this TTS.                                                                         |
| q | TDAS partition name: /dev/tdas.                                                                           |

#### 4. ACTION TO BE TAKEN

The TDAS system is a self auditing system and if errors occur, the system will attempt to correct the erroneous condition. Should errors continue, seek technical assistance.

#### 5. REFERENCES

Input Messages  
OP: DNHRMEAS  
OP: LOG

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ID ..... REPT:TDTP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

- [1] REPT TDTP </PRC/CDZ> FLT  
EFLAGS=a, FLTCODE=b
- [2] REPT TDTP </PRC/CDZ> FLT  
EFLAGS=a, FLTCODE=b, PA=c  
R0=d, R7=e, R8=f

## 2. REASON FOR OUTPUT

The IMS TRACE process, tdt, (actually loaded as process /prc/cdz) has encountered a hardware or software fault.

## 3. VARIABLE FIELD DEFINITIONS

- a Hexadecimal number which is the sum of the codes for all UNIX® RTR events outstanding for the IMS TRACE process. (These are defined in UNIX® RTR header file evflag.h.)
- b The UNIX® RTR fault code.
- c If this is present, then the IMS TRACE process was in execution at this virtual address when the fault was encountered.
- d Contents of 3B CU register r0.
- e Contents of 3B CU register r7.
- f Contents of 3B CU register r8.

## 4. ACTION TO BE TAKEN

Analyze the fault code (see References).

If the fault is not attributed to a hardware problem, seek technical assistance.

## 5. REFERENCES

evflag.h. header file (UNIX® RTR)

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Output Appendix  
APP: FAULT-CODE

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Output Messages

REPT: IODRV-AT  
REPT: IODRV-ERR  
REPT: IODRV-ERROR  
REPT: IODRV-FAULT

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ID ..... REPT:TIME  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT TIME aa/bb/cc dd/ee/ff

## 2. REASON FOR OUTPUT

To report the system time. This is performed by the Real Time Status (RTS) report process every hour on the hour.

## 3. VARIABLE FIELD DEFINITIONS

|   |                 |
|---|-----------------|
| a | Month (01-12).  |
| b | Day (01-31).    |
| c | Year (00-99).   |
| d | Hour (00-23).   |
| e | Minute (00-59). |
| f | Second (00-59). |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 309.

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ID ..... REPT:TLP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

REPT TLP ERROR a [PACK = b] [ERRNO = c]

## 2. REASON FOR OUTPUT

To report an error condition in the Trouble Locating Procedure (TLP) user process.

## 3. VARIABLE FIELD DEFINITIONS

- a                      Error condition:
- 1 — open Equipment Configuration Database (ECD) failure
  - 2 — close ECD failure
  - 3 — ugucbn failure
  - 4 — Moving Head Disk (MHD) drive type not specified
  - 5 — bad entry in pack location file
  - 6 — pack location function failed
- b                      Circuit pack number obtained from trouble location database.
- c                      Error code returned by the failing functional call. See System Error Codes Output Appendix, APP:SYSERR.

## 4. ACTION TO BE TAKEN

If a = 1-4 an operating system function call is failing, seek technical assistance to clear the trouble.

If a = 5, verify circuit pack number exists in unit's pack location file and verify that the index in the pack location file for the circuit pack number is valid. There is one pack location file for each unit in the directory /diag/datatbl/tlp/misc. The files are named:

p.cu.0\_10  
p.dfc.21\_22  
p.duic.28\_30  
p.iop.20\_21  
p.mhd.22\_23  
p.mtc.24\_25  
p.mttyc.27\_28  
p.scsdc.25\_26  
p.sdlc.28\_29  
p.ttyc.23\_24

If the entry is correct, seek technical assistance.

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If a = 6, verify that the model, mv, hv, and equipage values in the unit(s) Unit Control Block (UCB) are correct, using Recent Change and Verify (RC/V). If UCB(s) are correct, seek technical assistance.

## **5. REFERENCES**

### OMDB Key

This message has an OMDB key of 19.

CIC Select Code 303-026 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Diagnostics Programmer's Manual, Volume 6*

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

### Output Appendix

APP:SYSERR

### Input Messages

DGN:CU  
DGN:DFC  
DGN:DUIC  
DGN:HSDC  
DGN:MHD  
DGN:MTC  
DGN:MTTYC  
DGN:SCSDC  
DGN:SDLC  
DGN:TTYC  
EX:CU  
EX:DFC  
EX:DUIC  
EX:HSDC  
EX:IOP  
EX:LDPARM  
EX:LOOP  
EX:MHD  
EX:MTC  
EX:MTTYC  
EX:PAUSE  
EX:SCSDC  
EX:SDLC  
EX:STEP  
EX:STOP  
EX:TTYC  
RST:CU  
RST:DFC  
RST:DUI  
RST:DUIC  
RST:HSD

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RST:HSDC  
RST:IOP  
RST:MHD  
RST:MT  
RST:MTC  
RST:MTTY  
RST:MTTYC  
RST:ROP  
RST:SBUS  
RST:SCC  
RST:SCSDC  
RST:SDL  
RST:SDLC  
RST:TTY  
RST:TTYC

Output Message  
ANALY:TLPFILE-B

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ID ..... REPT:TMCHK-LTACK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TIMECHECK NSC a RCVD LATE ACK - SKIPPING TIMECHECK

**2. REASON FOR OUTPUT**

The timecheck process sent an input status message to an NSC frame but did not receive the frame acknowledgment within the expected time allowed. The time of day check is bypassed for the frame.

**3. VARIABLE FIELD DEFINITIONS**

a                      Frame name.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:TMCHK-MISACK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TIMECHECK NSC a MISSING ACK

**2. REASON FOR OUTPUT**

The timecheck process sent an NSC frame an input status message but never received any return acknowledgment.

**3. VARIABLE FIELD DEFINITIONS**

a                      Frame name.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:TMCHK-NSCACK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT TIMECHECK RECV NSC a ACK b|c

## 2. REASON FOR OUTPUT

A status input message was sent to an NSC frame. A non-PF acknowledgment response was returned either from the COAMS input director (INDIR) or from the actual NSC frame.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                             |
|---|---------------------------------------------------------------------------------------------------------------------------------------------|
| a | Frame number                                                                                                                                |
| b | COAMS acknowledgment response.                                                                                                              |
|   | Return acknowledgments from INDIR contain the COAMS identifier in the acknowledgment message string, (i.e., ?T COAMS TIMEOUT).              |
| c | NSC frame acknowledgment response.                                                                                                          |
|   | Frame return acknowledgments have the following phrase appended to the acknowledgment message, "FROM NSC FRAME", (i.e., ?T FROM NSC FRAME). |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:TMCHK-NSCCLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] REPT TIMECHECK NSC a CLOCK IS RUNNING SLOW
- [2] REPT TIMECHECK NSC a CLOCK IS RUNNING FAST

## 2. REASON FOR OUTPUT

Format 1: This minor alarmed message prints whenever the time set in an NSC frame is slower than APS time.

Format 2: This minor alarmed message prints whenever the time set in an NSC frame is faster than APS time.

## 3. VARIABLE FIELD DEFINITIONS

a                      Frame number.

## 4. ACTION TO BE TAKEN

To reset the frame's time, enter a set clock input command on the MCRT. Bring up the NSC overview page by entering a 113 poke. Enter another poke to bring up a specific NSC detail page, 1xxx (ie., where xxx = frame number -> 1007).

## 5. REFERENCES

None.

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ID ..... REPT:TMCHK-NSCFL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT TIMECHECK NSC a MSG SEND FAILED- b

## 2. REASON FOR OUTPUT

Starting at 21 minutes past every hour, TIMECHECK sends a status input message for each possible equipped NSC frame to repaint each active NSC frame's overview and detail display pages with its current hardware status. The time for each active NSC frame is also compared to APS time. The input status command message failed on the RTR sendp() call for one of two reasons. The first being the indir process is not in core, or its message port is currently full.

## 3. VARIABLE FIELD DEFINITIONS

a                      Frame number.  
b                      RTR sendp() system error return explanation.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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ID ..... REPT:TMCHK-NSCOUT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TIMECHECK NSC a ACK BUT NO OUTPUT

**2. REASON FOR OUTPUT**

The timecheck process received a PF acknowledgment from an NSC frame in response to the status input message sent by the timecheck process, but never received the status output message from the frame.

**3. VARIABLE FIELD DEFINITIONS**

a                      Frame name.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:TOKEN-TRACK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

- [1] REPT TOKEN TRACK  
TOKEN WAS LOST BETWEEN a AND a b  
C C C C
- [2] REPT TOKEN TRACK  
SEARCH FOR TOKEN WAS UNSUCCESSFUL d: REASON e  
C C C C C  
C C C C C

## 2. REASON FOR OUTPUT

Format 1: This message indicates the vicinity of the lost token. The token could have been lost anywhere between these nodes (inclusive). This message also specifies the ring on which the token was lost but in some cases it could not determine the ring.

Format 2: This message indicates the token-track software could not search for the lost token.

## 3. VARIABLE FIELD DEFINITIONS

- a The nodes that are associated with the last token flip-flop transition.
- b The Ring ID (ON Ring 0 or ON Ring 1) or RING NOT DETERMINED.
- c A 32-bit word of internal information, passed by the token-track software, that is primarily intended for BTL use.
- d The Ring ID (ON Ring 0 or ON Ring 1) or ON BOTH RINGS.
- e Reason why token search was unsuccessful (1 - 7).
- 1 — The message used to send token track flip-flop equipped information from the 3B to all RPCs was unsuccessful.
  - 2 — The attempt to select a control RPC to collect token track information from the ring was unsuccessful.
  - 3 — Forced read operation to remove messages from one of the rings was unsuccessful.
  - 4 — Operation to place ring nodes in the user silence state was unsuccessful.

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- 5 — Ring fault exists on the ring (i.e., a fault that prevents any data from propagating on the ring)
- 6 — The ring nodes reported unreliable information to the Token-Track software.
- 7 — The ring contains less than the minimum number of token track flip-flop equipped nodes.

#### **4. ACTION TO BE TAKEN**

At present, no software action is taken when these token-track messages are printed. However, the information contained in these messages is useful in identifying faults on the ring. Of particular interest is Format 1, which pinpoints the area of the ring where the token disappeared. In the event of Format 2 the token track was not able to perform its task of finding the lost token because of one of the reasons previously stated. After this message the ring error analysis and recovery software should automatically restore ring operation.

#### **5. REFERENCES**

None.

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ID ..... REPT:TOS-LKMN-CDL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TOSS [lnkmon] CURRENT DATA LINK TO OSM DOWN,  
RE-ESTABLISHING

**2. REASON FOR OUTPUT**

Prints a message to inform maintenance that a TOSS data link is trying to be re-established.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:TOS-LKMN-DLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TOSS [lnkmon] a DATA LINK TO OSM OPERATIONAL

**2. REASON FOR OUTPUT**

Prints a message to inform maintenance that a TOSS data link (the OSM reader) is up for service.

**3. VARIABLE FIELD DEFINITIONS**

a                    PRIMARY (SDL 33).  
                     SECONDARY (SDL 34).

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:TOS-LKMN-FPN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

a REPT TOSS [lnkmon] FAILED TO OPEN b OSM LINK c

## 2. REASON FOR OUTPUT

Prints a major alarmed error message with diagnostics requested when a TOSS data link failure condition occurs. If the failure condition continues, a minor alarmed error message is printed with diagnostics for each 15-minute interval up to the first hour. If the failure condition still persists, another major alarmed error message is printed without diagnostics for every hour the data link is down. Minor alarmed error messages are printed without diagnostics at 15-minute intervals between each hour.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                       |
|---|-----------------------------------------------------------------------|
| a | ** — For a major alarmed message.<br>* — For a minor alarmed message. |
| b | PRIMARY (SDL 33).<br>SECONDARY (SDL 34).                              |
| c | DIAGS REQ.<br>NO DIAGS.                                               |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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ID ..... REPT:TOS-LKMN-FSD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

a REPT TOSS [lnkmon] FAILED TO SEND b c RST MSG TO MIRA  
ERRNO=d:e

## 2. REASON FOR OUTPUT

The input message to remove, diagnose, and restore the TOSS data link failed because MIRA (the receiving process) may have an excessive number of messages outstanding in its queue, or the system message buffers are temporarily full.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                    |
|---|------------------------------------------------------------------------------------|
| a | ** — For a major alarmed message.<br>* — For a minor alarmed message.              |
| b | SDLC.                                                                              |
| c | 16 — For PRIMARY data link controller.<br>17 — For SECONDARY data link controller. |
| d | System error return code.                                                          |
| e | System error explanation.                                                          |

## 4. ACTION TO BE TAKEN

A manual RTR restore input message can be entered at the MCRT.

## 5. REFERENCES

Input Message  
RST:SDLC

Output Message  
RST:SDLC

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ID ..... REPT:TOS-LKMN-MSG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TOSS [lnkmon] MSG SIZE RECEIVED FROM OSM TOO LARGE a

**2. REASON FOR OUTPUT**

The input message from the OSM is more than 80 characters.

**3. VARIABLE FIELD DEFINITIONS**

a                      TOSS input message size.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:TOS-LKMN-RFL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TOSS [lnkmon] READ OF DATA LINK TO OSM FAILED, READER  
STOPPED

**2. REASON FOR OUTPUT**

An input message from the OSM could not be read from a TOSS data link. The data link  
has been taken down and will try to be re-established.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:TOS-NSC-DTLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT TOSS [nsc\_to\_osm] a DATA LINK TO OSM OPERATIONAL

### 2. REASON FOR OUTPUT

Prints a message to inform maintenance that a TOSS data link (the OSM writer) is up for service.

### 3. VARIABLE FIELD DEFINITIONS

a                    PRIMARY (SDL 33)  
                     SECONDARY (SDL 34)

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... REPT:TOS-NSC-FLRC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TOSS [nsc\_to\_osm] FAILED TO RECEIVE MSG

**2. REASON FOR OUTPUT**

The lnkmon process software message port, PT\_OSM, received an error return code because it expected to receive a message, and there was not a message of the requested type in the message queue.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:TOS-NSC-FPN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT TOSS [nsc\_to\_osm] FAILED TO OPEN a OSM LINK

## 2. REASON FOR OUTPUT

A minor alarmed error message is printed when a TOSS data link failure condition has been encountered. If the failure condition persists, a non-alarmed error message will print at 15-minute intervals, and every hour after the failure condition occurred, another minor alarmed error message will print.

## 3. VARIABLE FIELD DEFINITIONS

a                      PRIMARY (33).  
                            SECONDARY (34).

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... REPT:TOS-NSC-IVMT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

REPT TOSS [nsc\_to\_osm] INVALID MTYPE a FROM COAMS

### 2. REASON FOR OUTPUT

The only valid message type is a COAMS output message. All other message types are invalid. This message prints the invalid message type if one is received.

### 3. VARIABLE FIELD DEFINITIONS

a Invalid message type.

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

None.

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ID ..... REPT:TOS-NSC-IVVB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TOSS [nsc\_to\_osm] INVALID VERB a RCVD

**2. REASON FOR OUTPUT**

There are only two valid input message verbs accepted. They are OP and REPT. All other verbs are invalid. This message prints the invalid verb if one is received.

**3. VARIABLE FIELD DEFINITIONS**

a                      Input message verb.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:TOS-NSC-WRFL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT TOSS [nsc\_to\_osm] WRITE FAILED  
ERRNO: a: b

## 2. REASON FOR OUTPUT

A TOSS input message could not be sent to the OSM because the write instruction to the TOSS data link failed. This message prints the system error return code and error code explanation.

## 3. VARIABLE FIELD DEFINITIONS

a                    System error return code.  
b                    System error explanation.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

None.

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ID ..... REPT:TOS-NSC-WRMO  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

REPT TOSS [nsc\_to\_osm] WRITE TIMEOUT - OSM NOT READING

**2. REASON FOR OUTPUT**

An error has been encountered because 11 seconds has elapsed since a TOSS output message was written on a TOSS data link to the OSM. This usually occurs when the OSM reader is no longer in service.

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

None.

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ID ..... REPT:TRACE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

- [1] REPT TRACE #a (b)  
c (d e f) g  
h
- [2] REPT TRACE i #a (b)  
h

## 2. REASON FOR OUTPUT

This message is printed to report TRACEPOINTS:

Format 1 reports a TRACEPOINT from a 3B process.

Format 2 reports a TRACEPOINT from a Node Processor.

## 3. VARIABLE FIELD DEFINITIONS

- a Decimal TRACEPOINT sequence number.
- b Real time clock.
- c Trace subsystem — assigned by an initialization macro at the beginning of the process. Subsystem names are defined in file 'ims/head/tr\_stcb.h'.
- d Process name — assigned by an initialization macro at the beginning of the process.
- e Source file name.
- f Source file line number.
- g Source file SCCS version number.
- h User message as ASCII text.
- i Node processor identity.

## 4. ACTION TO BE TAKEN

None.

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**5. REFERENCES**

Input Messages

ALW: TRACE

INH: TRACE

OP: TRACE

SET: TRACE

Output Messages

ALW: TRACE

INH: TRACE

OP: TRACE

SET: TRACE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... REPT:TTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT TTY a {ERROR b [c] [COMPLETED CODE d]|  
UNIDENTIFIED RESPONSE WD1=e WD2=f}
- [2] REPT TTY a STARTED
- [3] REPT TTY a STOPPED

## 2. REASON FOR OUTPUT

Format 1 reports a Teletypewriter (TTY) related software or hardware error.

Format 2 reports that the TTY has changed state from Standby (STBY) to Active (ACT). A TTY will change to ACT state when Data Terminal Ready (DTR) is ON.

Format 3 reports that the TTY has changed state from ACT to STBY. A TTY will change to STBY state when DTR is OFF.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies, in hexadecimal, the point within the Input/Output Driver (IODRV) where a software or hardware error was detected. See Input/Output Processor (IOP) Output Appendix F, APP:IOP-F.
- c Character string giving more information about the error identified in b. Refer to IOP Output Appendix F, APP:IOP-F for additional explanation.
- d Hardware error type, in hexadecimal. See IOP Output Appendix A, APP:IOP-A.
- e First word of an unidentified completion report.
- f Second word of an unidentified completion report.

## 4. ACTION TO BE TAKEN

Format 1 indicates error conditions that could cause the removal of a unit. Any removed unit should be repaired and then restored to service.

Formats 2 and 3 are informational messages and indicate that the TTY has changed states. An active TTY will change state to STBY when powered off, and a standby TTY will change state to ACT when powered up. No action is necessary.

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## **5. REFERENCES**

### OMDB Keys

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 308.

Practice 254-301-115 *Teletypewriter/Printer System Description Lucent Technologies*  
*3B20D/3B21D Computer*

### Output Appendixes

APP: IOP-A

APP: IOP-F

### Input Messages

CLR: IODRV

DGN: TTYC

RMV: TTY

RST: TTY

### Output Messages

RCVRY: IOP

RCVRY: TTYC

REPT: IOP

REPT: TTYC

REPT: RCVRY-IOP

REPT: RCVRY-TTYC

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ID ..... REPT:TTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT TTYC a {ERROR b [COMPLETED CODE c] |  
UNIDENTIFIED RESPONSE WD1=d WD2=e}
- [2] REPT TTYC a CODE VERSION X'f
- [3] REPT TTYC a FLASH RAM VERSION X'g

## 2. REASON FOR OUTPUT

Format 1 reports a Teletypewriter Controller (TTYC) related software or hardware error.

Format 2 is output during the restoration of the unit.

Format 3 is requested by diagnostics and output prior to the update of flash Random Access Memory (RAM) on the unit.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Identifies the point, in hexadecimal, within the Input/Output Driver (IODRV) where a software or hardware error was detected. See Input/Output Processor (IOP) Output Appendix F, APP:IOP-F.
- c Hardware error type, in hexadecimal. See IOP Output Appendix A, APP:IOP-A.
- d First word of an unidentifiable completion report.
- e Second word of an unidentifiable completion report.
- f Peripheral controller pump code version number.
- g Peripheral controller flash RAM version number.

## 4. ACTION TO BE TAKEN

Format 1 is an error message that indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Formats 2 and 3, no action is necessary unless the controller and/or its subdevices are not acting normal, or cannot be restored. Contact the service organization with the code version number and/or flash RAM version number that was used.

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## **5. REFERENCES**

### OMDB Key(s)

Format 1 has an OMDB key of 208.

Formats 2 and 3 have an OMDB key of 226.

Practice 254-301-110 *Input-Output Processor Peripheral Controllers Description and Theory of Operation Lucent Technologies 3B20D/3B21D Model 1 Computer*

### Output Appendixes

APP: IOP-A

APP: IOP-F

### Input Messages

CLR: IODRV

DGN: TTYC

RMV: TTYC

RST: TTYC

### Output Messages

RCVRY: IOP

RCVRY: TTYC

REPT: IOP

REPT: RCVRY-IOP

REPT: RCVRY-TTYC

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ID ..... REPT:UDPC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

REPT:UDPC  
MESSAGE FROM OPC a CONTAINS UNKNOWN DPC b

## 2. REASON FOR OUTPUT

Prints when a CCS7 message is received to be routed (i.e., transferred) to an Unknown Destination Point Code (UDPC).

This output will occur only at a 2STP when that 2STP does not have routing data to the destination point code of the received message. The message can be any CCS7 signaling message for which there is no MTP routing data.

The output will be directed to the standard output and the maintenance output class. If they are the same device, only one printout will occur.

## 3. VARIABLE FIELD DEFINITIONS

- a                      The Origination Point Code (OPC) of the message.
- b                      The Destination Point Code (DPC) of the message.

## 4. ACTION TO BE TAKEN

Refer to the Operations Technical Plan.

## 5. REFERENCES

Practice 256-090-122 *CNI Maintenance Manual*

Input Message  
EXC:MRVT

Output Message  
EXC:MRVT

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ID ..... REPT:ULARP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT ULARP ECD ACCESS FAILED
- [2] REPT ULARP OPEN SEQUENCE FAILED
- [3] REPT ULARP FORK FAILED TEN TIMES a
- [4] REPT ULARP FORK FAILED THEN SUCCEEDED a
- [5] REPT ULARP CHILD TERMINATED EXECFAIL a b
- [6] REPT ULARP CHILD TERMINATED UFATAL a b
- [7] REPT ULARP TOO MANY ARGUMENTS a
- [8] REPT ULARP NO CHILD PROCESSES EXIST
- [9] REPT ULARP RUN COMMAND FAILED a
- [10] REPT ULARP PROCESS RESTARTED TOO MANY TIMES a b
- [11] REPT ULARP ATTEMPTING TO RESTART a b
- [12] REPT ULARP ATTEMPTING CRAFT INIT
- [13] REPT ULARP ATTEMPTING TO RE-EXECUTE
- [14] REPT ULARP CRAFT INIT COMPLETED
- [15] REPT ULARP UPDATE FAILED a
- [16] REPT ULARP ADOPT FAILED a b
- [17] REPT ULARP CHILD TERMINATED STATFAIL a b
- [18] REPT ULARP CHILD FOUND DEAD WITHOUT ACCOMPANYING SIGNAL a b
- [19] REPT ULARP CHILD EXEC ABORTED DUE TO DIOP a

## 2. REASON FOR OUTPUT

To report error information or actions as the result of UNIX® Level Automatic Restart Process (ULARP) child process or run command execution.

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### 3. VARIABLE FIELD DEFINITIONS

- a Record name.
- b Terminated process Identification (ID).

### 4. ACTION TO BE TAKEN

If Formats 4 or 11 through 14 are printed, no action is required.

If Formats 1, 2, or 15 are printed, database access problems are indicated. Contact your technical assistance organization.

If Format 9 is printed, use the `OP:LOG` input message to read the logfile ULARP and find the error report with the same record ID number. Using the record name from the `OP:LOG` output message, get the Equipment Configuration Database (ECD) record with Recent Change and Verify (RC/V). First make sure the record contains correct information. Then check that a file exists with the pathname that is in the record, and that it is executable. If the file does not exist, copy in a correct version.

If a large number of Processor Recovery Messages (PRMs) with this step number and function code are printed, then the UNIX® shell may not be working. Check for the existence of the file `/bin/sh`. If it exists, it should have 755 permissions. If the file does not exist, copy in a correct version. If the reason for the command failure is not apparent, contact your technical assistance center.

Once the cause of the problem has been solved, enter the `INIT:ULARP` input message. This will cause ULARP to re-execute the run command(s) that failed.

If Format 3 is printed, enter an `INIT:ULARP` input message. If the error is repeated, contact your technical assistance center.

If Formats 5, 16, or 17 are printed, use the `OP:LOG` input message to read the logfile ULARP and find the error report with the same utility ID number. Using the record name from the `OP:LOG` output message, get the ECD record with RC/V. First make sure the record contains correct information. Then check that a file exists with the pathname that is in the record, and that it is executable. If the file does not exist, copy in a correct version. Once the cause of the problem has been solved, enter the `INIT:ULARP` input message. This will cause ULARP to re-execute the process(es) that failed.

If Formats 6 or 10 are printed, use the `OP:LOG` input message to read the logfile ULARPLLOG and find the error report with the same utility ID. Using the record name from the `OP:LOG` output message, get the ECD record with RC/V. Make sure the record contains correct information, because there could be something wrong with the parameters passed to the process. If the reason for the process failure is not apparent, contact your technical assistance center. After the problem has been resolved, enter the `INIT:ULARP` input message to re-execute the process.

If Format 7 is printed, use the `OP:LOG` input message to read the logfile ULARPLLOG and find the error report with the same record ID number. Using the record name from the `OP:LOG` output message, get the ECD record with RC/V. First make sure that the record

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contains the correct information. Then check that a file exists with the pathname that is in the record, and that it is executable. If the file does not exist, copy in a correct version. After the information in the database record has been corrected, the process may be started by entering the INIT:ULARP input message.

If Format 8 is printed, use RC/V to examine the ULARP records in the full configuration ECD. For each ULARP child process, check that a file exists, and that it is executable. After replacing the erroneous files or repairing the ECD records, reboot in full configuration. If that procedure is not successful, bootstrap on backup root, and follow normal procedures for restoring the primary root file system.

If Format 18 is printed, no action is required. ULARP has discovered a child that has died but it failed to receive the death of child signal. Ularp is now restarting the process.

If Format 19 is printed, no action is required. A child of ULARP died while the system was in disk-independent operation and no execution was attempted for the child.

## **5. REFERENCES**

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Input Messages  
DEL:LOG  
INIT:ULARP  
OP:LOG

Output Message  
OP:LOG

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ID ..... REPT:UNIX-INIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT UNIX INIT ERRNO a CHANID b [c]
- [2] REPT UNIX INIT CANNOT MOUNT d ERRNO e
- [3] REPT UNIX INIT CANNOT MOUNT d READ ONLY  
MOUNTING f ERRNO e

## 2. REASON FOR OUTPUT

To report a UNIX® `init` process-related error.

Format 1 indicates the process is failing to bring up a terminal. The device name will not be present if the process is failing before it has learned the name from the Equipment Configuration Database (ECD).

Format 2 indicates the process is failing to mount a file system.

Format 3 indicates the process is failing to mount a file system in a read-only mode, and is now attempting to mount the primary/backup file system.

## 3. VARIABLE FIELD DEFINITIONS

- a Errors associated with the UNIX® `init` process:
- 0x11 — INIT could not add the ECD segments to its address space.
  - 0x12 — INIT could not attach to the ECD.
  - 0x13 — INIT could not read the ECD `org` record.
  - 0x21 — INIT could not read the Unit Control Block (UCB) record for the Maintenance Teletypewriter (MTTY).
  - 0x22 — INIT could not read the `ciopt` record for the Emergency Action Interface (EAI).
  - 0x23 — INIT could not read the `eaopt` record for the EAI.
  - 0x31 — INIT could not set up a cursor to step through the records in the ECD.
  - 0x32 — INIT could not get a database record.
  - 0x33 — INIT was passed a bad channel Identification (ID).
  - 0x41 — INIT could not read the `mdct` record for the device.
  - 0x42 — INIT could not read the `getty` record for the device.
  - 0x43 — INIT could not read the UCB record for the device.
  - 0x44 — INIT could not read the `ciopt` record for the device.
  - 0x45 — INIT could not read the `ttopt` record for the device.
  - 0x46 — The device type in the `mdct` record for the device is bad.

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- 0x47 — The transmission speed in the ttopt record for the device is bad.
- 0x51 — INIT could not start ULARP.
- 0x52 — INIT could not start the appropriate getty.
- 0x53 — INIT could not open the device file.
- b The channel ID sent to the INIT process.
- c The name of the device. INIT will print this only if it has found a logdev record for the channel ID.
- d The name of the file system.
- e System error number. See System Error Codes Output Appendix, APP:SYSERR.
- f The name of the primary/backup file system.

#### 4. ACTION TO BE TAKEN

For Format 1:

If error code 0x11, 0x12, 0x31, or 0x32 is printed, seek technical assistance.

If error code x13, 0x21, 0x22-0x33, or 0x41-0x47 is printed, check the appropriate record(s) in the ECD.

If error code 0x51 or 0x52 is printed, check the appropriate process to make sure that it exists and is executable.

If error code 0x53 is printed, create the appropriate device file.

For Format 2, seek technical assistance.

#### 5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 245.

Formats 2 and 3 have an OMDB key of 596.

Practice 254-341-100 *File System Software Subsystem Description 3B20D/3B21D Computer*

Output Appendix

APP:SYSERR

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ID ..... REPT:UPD-DCHN  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] REPT UPD DCHN  
THERE ARE NO D-CHANNEL NODES
  
- [2] REPT UPD DCHN  
LNa b IS NOT A D-CHANNEL NODE
  
- [3] REPT UPD DCHN  
UPDATE OF LNa b SUCCEEDED  
c c
  
- [4] REPT UPD DCHN  
UPDATE OF LNa b WAS ABORTED  
c c c c  
c c c c
  
- [5] REPT UPD DCHN  
UPDATE OF LNa b FAILED  
c c c c  
c c c c
  
- [6] REPT UPD DCHN  
UPD DCHN COMPLETED  
c (d)
  
- [7] REPT UPD DCHN  
UPD DCHN STOPPED  
c (d)
  
- [8] REPT UPD DCHN  
UPD DCHN ABORTED  
c (d)

## 2. REASON FOR OUTPUT

Format 1 prints in response to a UPD:DCHN input message. Prints when ALL is specified and there are no D-channel nodes equipped.

Format 2 prints when LNa b is specified and LNa b is a non D-channel node.

Format 3 prints when D-channel node LNa b was successfully updated.

Format 4 prints when an update attempt on D-channel node LNa b was aborted. This will

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occur if the node is not an active D-channel node. If the node is active, it will continue to operate on the original node software. That is, a transfer to newly pumped software did not occur. Other than not being an active node, some of the reasons a node update abort can occur are:

- A stop update request was received for this node.
- The pumper process reported an error in pumping new software to this node.
- A checksum made over newly pumped node software failed or was not reported to the 3B20D/3B21D.
- A failure occurred in reading the node's generic specification file identification.
- The node moved out of the active state during its update.
- Communication with the Signaling Link Monitor Kernel (SLMK) process failed.
- An update software error (ERRLOG condition) occurred.

Format 5 prints when an update attempt on D-channel node LNa b failed. Here, an attempt to transfer node operation to newly pumped node software failed, or something caused the node to be removed from service immediately after a successful transfer to the new software. This also triggered removing the node from service.

Format 6 prints when the D-channel node update job initiated by a UPD:DCHN input message has completed. Here, the term update job refers to the aggregate update attempt on every D-channel node for which an update was requested. An update attempt has been made on either all D-channel nodes or a single D-channel node as specified in the UPD:DCHN input message. Note that COMPLETED does not imply that all, or even any, of the D-channel node update attempts were successful. It simply means that an update attempt on every D-channel node requested has completed.

Format 7 prints when the D-channel node update job initiated by a UPD:DCHN input message is stopped via the STOP:UPD input message. Note that a STOP:UPD will not undo a node update that has already been completed. As with the UPD DCHN COMPLETED output message, the term update job refers to the aggregate update attempt on every D-channel node for which an update was requested. Both the UPD:DCHN and STOP:UPD input messages have an option to request action on either all D-channel nodes or a single specified D-channel node. This message will not be printed when ALL was specified on the UPD:DCHN input message, and then a single node update is stopped via the STOP:UPD input message. Here, the update on the single node is stopped, if it has not already been completed, but the overall update job is not stopped. (The one exception to this is when there is only one D-channel node equipped. Here, an update request and a stop request specifying ALL, or identifying the D-channel node itself, are one and the same.)

Format 8 prints when the D-channel node update job initiated by a UPD:DCHN input message is aborted by some undesirable event. As with the UPD DCHN COMPLETED output message, the term update job refers to the aggregate update attempt on every D-channel node for which an update was requested. Some of the undesirable events that can cause a D-channel update job to be aborted are:

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- Excessive (two) D-channel node update failures.
- Excessive number of ring failures/recoveries during the update job.
- Node pumper process creation failures or excessive pumper process deaths/recreations during the update job.
- Excessive D-channel node pump time.
- Communication failures with the SLMK process.
- Update software error (ERRLOG condition).

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------|
| a | Link node group number (00-63).                                                                                                         |
| b | Link node group member number (1-15).                                                                                                   |
| c | A 32-bit hexadecimal word containing internal update job information primarily intended for Lucent Technologies, Bell Laboratories use. |
| d | The 3B20D/3B21D real-time millisecond clock value when the update job completion/stopped/aborted output message was produced.           |

### 4. ACTION TO BE TAKEN

Format 1, no action is necessary, there are no equipped D-channel nodes.

Format 2, check the node identification used in the UPD:DCHN input message since it is not recognized as being a D-channel node.

Format 3, no action is necessary, the update on this D-channel node was successful.

Format 4, use the OP:UPD input message to determine why the update on this D-channel node was aborted.

Format 5, use the OP:UPD input message to determine why the update on this D-channel node failed.

Format 6, this message is printed when the D-channel node update job has completed. To determine whether any additional action is needed, review the results of each D-channel node update attempt. Either review the individual UPD:DCHN output messages for each D-channel node update attempt or use the OP:UPD input message to obtain a summary of the update attempt on all D-channel nodes.

Format 7, no action is necessary. This message is printed to confirm that the update job has been stopped in response to the STOP:UPD input message.

Format 8, some undesirable event has caused an abort of the D-channel node update job. This must be evaluated and understood before any further updates are initiated.

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**5. REFERENCES**

Input Messages  
OP:UPD  
STOP:UPD  
UPD:DCHN

Output Message  
UPD:DCHN

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ID ..... REPT:UPDATE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

REPT UPDATE: RESTORE MHD a BEFORE MHD b

## 2. REASON FOR OUTPUT

To indicate that a disk restore is being aborted to avoid losing AMA data and to indicate that the disk's mate should be restored first.

## 3. VARIABLE FIELD DEFINITIONS

- a                      The mate disk that has the most up-to-date AMA data.
- b                      The disk that is being restored.

## 4. ACTION TO BE TAKEN

Restore disk a before disk b. After disk a is ACTIVE, disk b can be safely restored.

## 5. REFERENCES

None.

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ID ..... REPT:XTSI-SU  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] REPT XTSI-SU USAGE: UPD:XTSI, MEM a, STEP b
- [2] REPT XTSI-SU UPDATE COMMAND IS NOT INSTALLED CORRECTLY
- [3] REPT XTSI-SU UNK ARG - USAGE: UPD:XTSI, MEM a, STEP b
- [4] REPT XTSI-SU MEM NUMBER REQUIRED
- [5] REPT XTSI-SU STEP NUMBER REQUIRED
- [6] REPT XTSI-SU MEMBER NUMBER MUST BE EVEN AND BETWEEN 2 AND 62
- [7] REPT XTSI-SU c FILE HAS BEEN CORRUPTED
- [8] REPT XTSI-SU UPDATE PROCESS ALREADY RUNNING
- [9] REPT XTSI-SU ERROR GETTING PORT
- [10] REPT XTSI-SU CANNOT OPEN CHANNEL TO 1B PROCESSOR
- [11] REPT XTSI-SU CANNOT CONNECT TO 1B PROCESSOR
- [12] REPT XTSI-SU ERROR - INCOMPATIBLE WITH 1B GENERIC
- [13] REPT XTSI-SU ERROR SENDING MESSAGE TO THE 1B
- [14] REPT XTSI-SU STEP FAILED BEFORE COMPLETING
- [15] REPT XTSI-SU ENCOUNTERED 1B A-LEVEL INTERRUPT
- [16] REPT XTSI-SU ENCOUNTERED 1B B-LEVEL INTERRUPT
- [17] REPT XTSI-SU ENCOUNTERED 1B C-LEVEL INTERRUPT
- [18] REPT XTSI-SU ENCOUNTERED 1B D-LEVEL INTERRUPT
- [19] REPT XTSI-SU ENCOUNTERED 1B E-LEVEL INTERRUPT
- [20] REPT XTSI-SU ENCOUNTERED 1B F-LEVEL INTERRUPT
- [21] REPT XTSI-SU LAST STEP COMPLETED d

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- [22] REPT XTSI-SU BAD CREATE ON RESPONSE FILE FOR MESSAGE: e
- [23] REPT XTSI-SU CANNOT SEND MESSAGE: e
- [24] REPT XTSI-SU BAD 1B CONNECTION ON MESSAGE: e
- [25] REPT XTSI-SU 1B RESPONSE TIMEOUT ON MESSAGE: e
- [26] REPT XTSI-SU BAD 1B RESPONSE ON MESSAGE: e
- [27] REPT XTSI-SU ERROR - 1B NOT IN UPDATE MODE ON MSG: e
- [28] REPT XTSI-SU MEMBER NUMBER a CONTAINS OUT OF SERVICE EQUIP.
- [29] REPT XTSI-SU INVALID MEMBER NUMBER a ENTERED
- [30] REPT XTSI-SU ECHO 1B OUTPUT MESSAGE
- [31] REPT XTSI-SU RETRIED MESSAGE: BUT FAILED ON: e
- [32] REPT XTSI-SU ERROR OPENING f FILE
- [33] REPT XTSI-SU ERROR g READING f FILE
- [34] REPT XTSI-SU ERROR READING f FILE, INVALID STEP
- [35] REPT XTSI-SU ERROR CREATING f FILE
- [36] REPT XTSI-SU ERROR - PREVIOUS STEPS MUST BE EXECUTED FIRST
- [37] REPT XTSI-SU ERROR - STEP ALREADY STARTED, h IS NEXT STEP TO EXECUTE
- [38] REPT XTSI-SU ERROR - PREVIOUS STEP NOT COMPLETE, SEE USERS GUIDE
- [39] REPT XTSI-SU OPENED i AS NORMAL AND i AS UPDATE
- [40] REPT XTSI-SU: j ERROR IN k ERRNO: l
- [41] REPT XTSI-SU: ILLEGAL CSFS CONVERSION ATTEMPT
- [42] REPT XTSI-SU: CSFS ARGS: GEN = m Addr = n

## **2. REASON FOR OUTPUT**

To report the results of executing a UPD:XTSI input message.

Formats 21 and 39 are normal operational output messages.

The remaining formats indicate that an error has occurred and an explanation of the error.

SEE PROPRIETARY NOTICE ON COVER PAGE

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                     |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| a | The member number of the Expanded Time Slot Interchange (XTSI) frame to use the tool on.                                                            |
| b | The number of the step to be executed. A list of steps and a short description can be found in the <i>XTSI Software Update User's Guide</i> .       |
| c | The /etc/log/1bperfsu/step.data file.                                                                                                               |
| d | The number of the last step to be completed. A list of steps and a short description can be found in the <i>XTSI Software Update User's Guide</i> . |
| e | The first 15 characters of the message to be sent to the 1B.                                                                                        |
| f | The name of the file on which an error occurred either on opening, reading or creating.                                                             |
| g | Error number. In the source code, search for ERROR g (ie. ERROR 01) to find the exact location of this error.                                       |
| h | The number of the step that is to be executed next, but only if all previous steps have completed successfully.                                     |
| i | The number of the 1A file.                                                                                                                          |
| j | The type of error which occurred.                                                                                                                   |
| k | The name of the file which caused the error.                                                                                                        |
| l | The number of the error.                                                                                                                            |
| m | Number of the generic.                                                                                                                              |
| n | Address in octal.                                                                                                                                   |

### 4. ACTION TO BE TAKEN

For formats 1,3-6,8,14,25,29,34,36-38, and 40, fix the error and reenter the command.

For all other formats except 21, 30, 39, and 42, seek technical assistance.

### 5. REFERENCES

Practice 234-160-202AC, *XTSI Software Update User's Guide*

Input Message  
UPD:XTSI

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RFT:FDUMP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

a  
RFT FDUMP COMPLETED

## 2. REASON FOR OUTPUT

To report the completion of executing a RFT:FDUMP input message to dump the contents of a file.

## 3. VARIABLE FIELD DEFINITIONS

a                      Contents of the file output only to the devices in message class maintenance.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
RFT:FDUMP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RGP:PRT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has eight formats.

- [1] RGP\_PRT RGRASP KERNEL DEAD  
RGP\_PRT TERMINATING
- [2] RGP\_PRT PRTCHAR ARG CNT FAILURE  
RGP\_PRT TERMINATING
- [3] RGP\_PRT KERNEL BUFFER FAILURE  
RGP\_PRT TERMINATING
- [4] RGP\_PRT RGRASP BAD PRTCHAR OST RETURN  
RGP\_PRT TERMINATING, RETURN CODE = a
- [5] RGP\_PRT RUTIL BAD MSG HDR TYPE = b
- [6] RGP\_PRT LOST NODE RGRASP MSGS  
LOST MSG CNT: c
- [7] RGP\_PRT PORT CONNECTION FAILURE  
RGP\_PRT TERMINATING, PT\_RGPU PID = d, RGP\_PRT PID =  
e
- [8] RGP\_PRT CIALIVE FAILURE  
RGP\_PRT TERMINATING, PARENT PID = f, RETURN CODE = g

## 2. REASON FOR OUTPUT

This output message indicates anomalies with the print process of the RGRASP tool.

Format 1: The RGRASP kernel has gone away.

Format 2: The print process has provided the RGRASP kernel with an invalid number of arguments.

Format 3: The print process has provided the RGRASP kernel with invalid argument values, or that the kernel buffer management has detected an illegal buffer pointer condition.

Format 4: The RGRASP kernel has returned an unrecognized error return code from the print process' operating system trap function call.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 5: A non-RGRASP message has been encountered by the RGRASP tool.

Format 6: A number of RGRASP messages were lost.

Format 7: The RGP\_PRT process failed to connect to a port.

Format 8: The RGP\_PRT process' call to cIalive() failed.

### **3. VARIABLE FIELD DEFINITIONS**

- |   |                                                   |
|---|---------------------------------------------------|
| a | The OST return code.                              |
| b | The non-RGRASP message type.                      |
| c | The number of RGRASP messages lost.               |
| d | The PT_RGPU process id.                           |
| e | The RGP_PRT process id.                           |
| f | The parent process id of RGP_PRT.                 |
| g | The return code from the cIalive() function call. |

### **4. ACTION TO BE TAKEN**

For formats 1 through 8, seek technical assistance.

Format 6 indicates that, due to some overflow condition, some messages from the node were discarded. Messages that were not discarded will still be printed.

### **5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RMV:CU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RMV CU a [b][c]

## 2. REASON FOR OUTPUT

To report the result of executing a RMV:CU input message to remove a Control Unit (CU) from service.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Termination status:
- ABORTED — Remove abnormally terminated due to a system error or a fault in the remove process.
  - COMPLETED — CU removed. If the CU was removed already, COMPLETED will still print because the remove process was run to initialize the CU.
  - STOPPED — Removal denied by the system or stopped manually.
- c Reason the remove was stopped:
- 1 — Invalid unit name. Only the CU can be removed.
  - 5 — Removal denied by system.
  - 6 — Remove manually stopped.

## 4. ACTION TO BE TAKEN

If the remove was denied by the system, try switching CUs. If the result is ABORTED, determine what is wrong with the system. Interpret the REPT:CURSTRMV output message if one occurred.

## 5. REFERENCES

### OMDB Key

This message has an OMDB key of 308.

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### Input Messages

DGN:CU

RMV:CU

RST:CU

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
DGN:CU  
REPT:CURSTRMV  
RST:CU

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:DCI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV DCI a COMPLETED
- [2] RMV DCI a ABORTED [b] [c]
- [3] RMV DCI a STOPPED d
- [4] RMV DCI a TASK e MSG STARTED
- [5] RMV DCI a STOPPED MESSAGE IN PROGRESS
- [6] RMV DCI a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

These messages report the disposition of a request to remove a Dual Serial Channel/ Computer Interconnect (DCI) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output DCI Appendix F, APP:DCI-F. For driver error (X'2), see output DCI Appendix A, APP:DCI-A.
- d Error code. See output DCI Appendix G, APP:DCI-G.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:DCI-A

APP:DCI-F

APP:DCI-G

##### Input Message

RMV:DCI

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:DFC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV DFC a ABORTED [b][c]
- [2] RMV DFC a COMPLETED
- [3] RMV DFC a STOPPED [d]

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Disk File Controller (DFC) from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual DFC removal attempt can fail (ABORTED or STOPPED) or be successful (COMPLETED). An automatic removal is always successful.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- ABORTED Remove aborted.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or CONFIG.
- c Error code. For remove process error, see output DFC Appendix G, APP:DFC-G. For driver error, see output DFC Appendix A, APP:DFC-A.
- COMPLETED Unit removed.
- STOPPED Remove stopped.
- d Error code. See output DFC Appendix H, APP:DFC-H.

## 4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

SEE PROPRIETARY NOTICE ON COVER PAGE

## **5. REFERENCES**

### OMDB Keys

This message has OMDB keys of 308 and 601.

### Display / Menu Page Name

COMMON PROCESSOR DISPLAY  
DISK FILE SYSTEM ACCESS

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### Output Appendixes

APP:DFC-A  
APP:DFC-G  
APP:DFC-H

### Input Messages

DGN:DFC  
RMV:DFC  
RMV:SBUS  
RST:DFC  
RST:SBUS

### Output Messages

DGN:DFC  
RMV:MHD  
RMV:SBUS  
RST:DFC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:DUI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV DUI a COMPLETED
- [2] RMV DUI a ABORTED [b] [c]
- [3] RMV DUI a STOPPED d
- [4] RMV DUI a TASK e MSG STARTED
- [5] RMV DUI a STOPPED MESSAGE IN PROGRESS
- [6] RMV DUI a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Direct User Interface (DUI) subdevice from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was stopped or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:DUI

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RMV:DUIC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV DUIC a COMPLETED
- [2] RMV DUIC a ABORTED [b] [c]
- [3] RMV DUIC a STOPPED d
- [4] RMV DUIC a TASK e MSG STARTED
- [5] RMV DUIC a STOPPED MESSAGE IN PROGRESS
- [6] RMV DUIC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Direct User Interface Controller (DUIC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was stopped or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:DUIC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:EAI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RMV EAI a b [c][d]

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove an emergency action interface subdevice (EAI) from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual EAI removal attempt can fail (ABORTED or STOPPED) or be successful (COMPLETED). An automatic removal is always successful.

## 3. VARIABLE FIELD DEFINITIONS

a Member number.

b Termination status:

COMPLETED — Unit removed.  
ABORTED — Remove aborted.  
STOPPED — Remove stopped.

If b = ABORTED,

c Type of error:

1 — Remove process error.  
2 — Driver error.  
[NULL] — Remove denied by driver or CONFIG.

d Error code:

Remove process, see Output Appendix APP: IOP-H.  
Driver, see Output Appendix APP: IOP-G.

If b = STOPPED,

c Error code, see Output Appendix APP: IOP-I.

## 4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

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## **5. REFERENCES**

OMDB Keys (UNIX® RTR R1 only)  
This Format has an OMDB key of 196.

Output Appendixes

APP: IOP-G

APP: IOP-H

APP: IOP-I

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:HSD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV HSD a COMPLETED
- [2] RMV HSD a ABORTED [b] [c]
- [3] RMV HSD a STOPPED d
- [4] RMV HSD a TASK e MSG STARTED
- [5] RMV HSD a STOPPED MESSAGE IN PROGRESS
- [6] RMV HSD a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a High-Speed Synchronous Datalink (HSD) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:HSD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:HSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV HSDC a COMPLETED
- [2] RMV HSDC a ABORTED [b] [c]
- [3] RMV HSDC a STOPPED d
- [4] RMV HSDC a TASK e MSG STARTED
- [5] RMV HSDC a STOPPED MESSAGE IN PROGRESS
- [6] RMV HSDC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a High-Speed Synchronous Datalink Controller (HSDC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:HSDC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RMV:IOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV IOP a COMPLETED
- [2] RMV IOP a ABORTED [b] [c]
- [3] RMV IOP a STOPPED d
- [4] RMV IOP a TASK e MSG STARTED
- [5] RMV IOP a STOPPED MESSAGE IN PROGRESS
- [6] RMV IOP a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove an Input/Output Processor (IOP) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:LN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

RMV LNx y b [c] [d]

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Link Node (LN) from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual LN removal attempt via the RMV:LN input command is conditional upon having the signaling link not in service and can fail (ABORTED or STOPPED) or be successful (COMPLETED). An LN removal can also be reported in response to other commands listed in the Reference Section. An automatic removal is unconditional and can only be successful (COMPLETED).

## 3. VARIABLE FIELD DEFINITIONS

x A ring node (RN) group number (00-63).

y The ring node member number (1-15).

b Termination status:  
  
COMPLETED — Unit removed.  
ABORTED — Remove aborted.  
STOPPED — Remove stopped.

If b = ABORTED,

c Type of error:  
  
1 — Remove process error  
2 — Driver error

d Error code:  
  
1 — See Output APP:APPENDIX-3.  
2 — See Output APP:APPENDIX-4.

If b = STOPPED,

c Error code - See Output APP:APPENDIX-5.

## 4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

SEE PROPRIETARY NOTICE ON COVER PAGE

## **5. REFERENCES**

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Output Appendixes

APP:APPENDIX-3

APP:APPENDIX-4

APP:APPENDIX-5

Input Messages

FRMV:LN

INIT:LN

RMV:LN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:MHD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV MHD a COMPLETED
- [2] RMV MHD a ABORTED [b] [c]
- [3] RMV MHD a STOPPED d
- [4] RMV MHD a TASK e MSG STARTED
- [5] RMV MHD a STOPPED MESSAGE IN PROGRESS
- [6] RMV MHD a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

These messages report the disposition of a request to remove a Moving Head Disk (MHD) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped, and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see DFC Output Appendix G, APP:DFC-G. For driver error (X'2), see DFC Output Appendix A, APP:DFC-A.
- d Error code. See DFC Output Appendix H, APP:DFC-H.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:DFC-A

APP:DFC-G

APP:DFC-H

##### Input Messages

RMV:MHD

RMV:SBUS

##### Output Messages

DGN:MHD

RST:MHD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:MT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV MT a ABORTED [b][c]
- [2] RMV MT a COMPLETED
- [3] RMV MT a STOPPED [d]

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Magnetic Tape (MT) from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual MT removal attempt can fail (ABORTED or STOPPED), or be successful (COMPLETED). An automatic removal is always successful.

## 3. VARIABLE FIELD DEFINITIONS

- a MT member number.
- ABORTED Remove aborted.
- b Type of error:
  - X'1 — Diagnostic remove process error.
  - X'2 — Disk File Controller (DFC) or Input/Output Processor (IOP) driver error.
  - [NULL] — Remove denied by driver or CONFIG.
- c Error code. If the MT is controlled by an IOP: For a diagnostic restore process error (X'1). See IOP Output Appendix H, APP:IOP-H. For an IOP driver error (X'2). See IOP Output Appendix G, APP:IOP-G.  
  
If the MT is controlled by a DFC: For a diagnostic restore process error (X'1). See DFC Output Appendix G, APP:DFC-G. For a DFC driver error (X'2). See DFC Output Appendix A, APP:DFC-A.
- COMPLETED Unit removed.
- STOPPED Remove stopped.
- d Error code. If the MT is controlled by an IOP, see IOP Output Appendix I, APP:IOP-I. If the MT is controlled by a DFC, see DFC Output Appendix H, APP:DFC-H.

## 4. ACTION TO BE TAKEN

If the remove was denied or aborted, clear the source of trouble and attempt the remove again.

SEE PROPRIETARY NOTICE ON COVER PAGE

## **5. REFERENCES**

### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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### Output Appendixes

APP:DFC-A

APP:DFC-G

APP:DFC-H

APP:IOP-G

APP:IOP-H

APP:IOP-I

### Input Message

RMV:MT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RMV:MTC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV MTC a COMPLETED
- [2] RMV MTC a ABORTED [b] [c]
- [3] RMV MTC a STOPPED d
- [4] RMV MTC a TASK e MSG STARTED
- [5] RMV MTC a STOPPED MESSAGE IN PROGRESS
- [6] RMV MTC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Magnetic Tape Controller (MTC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:MTC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:MTTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV MTTY a COMPLETED
- [2] RMV MTTY a ABORTED [b] [c]
- [3] RMV MTTY a STOPPED d
- [4] RMV MTTY a TASK e MSG STARTED
- [5] RMV MTTY a STOPPED MESSAGE IN PROGRESS
- [6] RMV MTTY a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Maintenance Teletypewriter (MTTY) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), See output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:MTTY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:MTTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV MTTYC a COMPLETED
- [2] RMV MTTYC a ABORTED [b] [c]
- [3] RMV MTTYC a STOPPED d
- [4] RMV MTTYC a TASK e MSG STARTED
- [5] RMV MTTYC a STOPPED MESSAGE IN PROGRESS
- [6] RMV MTTYC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Maintenance Teletypewriter Controller (MTTYC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:ROP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV ROP a COMPLETED
- [2] RMV ROP a ABORTED [b] [c]
- [3] RMV ROP a STOPPED d
- [4] RMV ROP a TASK e MSG STARTED
- [5] RMV ROP a STOPPED MESSAGE IN PROGRESS
- [6] RMV ROP a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Receive-Only Printer (ROP) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:ROP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RMV:RPCN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

RMV RPCNx 0 b [c] [d]

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Ring Peripheral Controller Node (RPCN) from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual RPCN removal attempt is conditional upon having adequate traffic handling capacity and can fail (ABORTED or STOPPED) or be successful (COMPLETED). An automatic removal is unconditional and can only be successful (COMPLETED).

## 3. VARIABLE FIELD DEFINITIONS

x                      A Ring Node (RN) group number (00-63).

b                      Termination status:  
  
                        COMPLETED — Unit removed.  
                        ABORTED     — Remove aborted.  
                        STOPPED     — Remove stopped.

If b = ABORTED

c                      Type of error:  
  
                        1 — Remove process error.  
                        2 — Driver error.

d                      Error code:  
  
                        1 — See Output APP:APPENDIX-3.  
                        2 — See Output APP:APPENDIX-4.

If b = STOPPED

c                      Error code - See Output APP:APPENDIX-5.

## 4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

## 5. REFERENCES

Practice 234-151-120, *Trouble Clearing and Maintenance Procedures*

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes  
APP:APPENDIX-3  
APP:APPENDIX-4  
APP:APPENDIX-5

Input Message  
RMV:RPCN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:SBUS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV SBUS a b
- [2] RMV SBUS a {ABORTED|ERROR|NOT STARTED|STOPPED} [c][d]
- [3] RMV SBUS a ABORTED [e][f]
- [4] RMV SBUS a STOPPED [g]

## 2. REASON FOR OUTPUT

To report the status of a request to remove a Small Computer System Interface (SCSI) Bus (SBUS) and all the associated Moving Head Disks (MHDs) from service.

If the remove process was invoked via the RMV SBUS poke on the DFSA display page during Disk Independent Operation (DIOP) mode, a REPT:DKDIP message will precede the output message line.

Format 2 is for Command is started via the RMV SBUS poke on the DFSA display page.

Format 3 is for if ABORTED is done manually or diagnostics fail.

Format 4 is for if STOPPED is done manually or if diagnostics fail.

## 3. VARIABLE FIELD DEFINITIONS

- a SBUS member number.
- b Status of request:
  - ABORTED — The remove is aborted.
  - COMPLETED — The unit is removed.
  - ERROR — An error is encountered; the remove is aborted.
  - NOT STARTED — The remove is not started.
  - STARTED — The remove is started by DKDIP.
  - STOPPED — The remove is stopped.
- c DKDIP error codes:
  - f09 — Failed to get the UCB of the unit by name.
  - f1b — Unit is not Active (ACT).
  - f1e — Failed to open the device.
  - f20 — See DKDRV error report on the ROP.
  - f57 — Message to driver port failed.
  - f60 — Message reception failure.

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- f63 — Process timed out waiting for message.  
f67 — Failed to close special device file.  
ffe — Aborted due to phase 1.
- d            Error code. See the System Error Codes Appendix, APP:SYSERR.
- e            Type of error:  
             X'1 — Diagnostic remove process error.  
             X'2 — Driver/Disk remove process error.  
             [NULL] — Remove denied by driver or CONFIG.
- f            Error code. Diagnostic remove process. See DFC Appendix G, APP:DFC-G. Driver/Disk remove process. See DFC Appendix A, APP:DFC-A.
- g            Error code. See DFC Appendix H, APP:DFC-H.

#### 4. ACTION TO BE TAKEN

If the remove did not complete successfully, correct the source of trouble and attempt the remove again. If the error condition persists, contact the next level of technical assistance.

#### 5. REFERENCES

##### OMDB Keys

This message has OMDB keys of 308 and 601.

##### Display/Menu Page Name

DISK FILE SYSTEM ACCESS

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##### Output Appendixes

APP:DFC-A  
APP:DFC-G  
APP:DFC-H  
APP:SYSERR

##### Input Message

RMV:SBUS

##### Output Message

REPT:DKDIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:SCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV SCC a COMPLETED
- [2] RMV SCC a ABORTED [b] [c]
- [3] RMV SCC a STOPPED d
- [4] RMV SCC a TASK e MSG STARTED
- [5] RMV SCC a STOPPED MESSAGE IN PROGRESS
- [6] RMV SCC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Switching Control Center (SCC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see the output IOP Appendix H, APP:IOP-H. For driver error (X'2), see the output IOP Appendix G, APP:IOP-G.
- d Error code. See the output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:SCC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:SCSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV SCSDC a COMPLETED
- [2] RMV SCSDC a ABORTED [b] [c]
- [3] RMV SCSDC a STOPPED d
- [4] RMV SCSDC a TASK e MSG STARTED
- [5] RMV SCSDC a STOPPED MESSAGE IN PROGRESS
- [6] RMV SCSDC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Scanner And Signal Distributor Controller (SCSDC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see the output IOP Appendix H, APP:IOP-H. For driver error (X'2), see the output IOP Appendix G, APP:IOP-G.
- d Error code. See the output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal is denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RMV:SDL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV SDL a COMPLETED
- [2] RMV SDL a ABORTED [b] [c]
- [3] RMV SDL a STOPPED d
- [4] RMV SDL a TASK e MSG STARTED
- [5] RMV SDL a STOPPED MESSAGE IN PROGRESS
- [6] RMV SDL a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Synchronous Datalink (SDL) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:SDL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:SDLC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV SDLC a COMPLETED
- [2] RMV SDLC a ABORTED [b] [c]
- [3] RMV SDLC a STOPPED d
- [4] RMV SDLC a TASK e MSG STARTED
- [5] RMV SDLC a STOPPED MESSAGE IN PROGRESS
- [6] RMV SDLC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Synchronous Datalink Controller (SDLC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

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- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:SDLC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:TTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV TTY a COMPLETED
- [2] RMV TTY a ABORTED [b] [c]
- [3] RMV TTY a STOPPED d
- [4] RMV TTY a TASK e MSG STARTED
- [5] RMV TTY a STOPPED MESSAGE IN PROGRESS
- [6] RMV TTY a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Teletypewriter (TTY) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:TTY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RMV:TTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RMV TTYC a COMPLETED
- [2] RMV TTYC a ABORTED [b] [c]
- [3] RMV TTYC a STOPPED d
- [4] RMV TTYC a TASK e MSG STARTED
- [5] RMV TTYC a STOPPED MESSAGE IN PROGRESS
- [6] RMV TTYC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Teletypewriter Controller (TTYC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Remove process error.
  - X'2 — Driver error.
  - [NULL] — Remove denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For remove process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RMV:TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RST:CU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RST CU a b [c]

## 2. REASON FOR OUTPUT

To report the status of executing a request to restore a Control Unit (CU) to standby status.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Request status:
- ABORTED — Restore abnormally terminated due to a system error or a fault in the restore process.
  - COMPLETED — Restore successfully completed.
  - IN PROGRESS — Restore is in progress.
  - STOPPED — Restore denied by the system or stopped manually.
- c Reason the restore was stopped:
- 1 — Invalid unit name. Only the CU can be restored.
  - 2 — CU is not Out Of Service (OOS).
  - 3 — The mate CU must be ACTIVE or INIT.
  - 4 — Diagnostic test failures for the CU.
  - 5 — Expanded Main Memory (EMM) straps do not match on both CUs.
  - 6 — The restore was terminated because of a system request (manual or automatic).

## 4. ACTION TO BE TAKEN

If the reason the restore was stopped is 2, remove the CU. If the request status is ABORTED, determine what is wrong with the system. Interpret the REPT:CURSTRMV output message if one occurred.

If the reason the restore was stopped is 4, fix the CU, or restore it unconditionally.

If the reason the restore was stopped is 5, fix the EMM straps.

## 5. REFERENCES

OMDB Key(s)  
This message has an OMDB key of 424.

SEE PROPRIETARY NOTICE ON COVER PAGE

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Input Message  
RST:CU

Output Message  
REPT:CURSTRMV

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:DCI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST DCI a COMPLETED
- [2] RST DCI a ABORTED [b] [c]
- [3] RST DCI a STOPPED d
- [4] RST DCI a TASK e MSG STARTED
- [5] RST DCI a STOPPED MESSAGE IN PROGRESS
- [6] RST DCI a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a Dual Serial Channel/ Computer Interconnect (DCI) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output DCI Appendix F, APP:DCI-F. For driver error (X'2), see output DCI Appendix A, APP:DCI-A.
- d Error code. See output DCI Appendix G, APP:DCI-G.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Keys

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:DCI-A

APP:DCI-F

APP:DCI-G

##### Input Message

RST:DCI

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:DFC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

- [1] RST DFC a b
- [2] RST DFC a {ABORTED|ERROR|NOT STARTED|STOPPED} [c] [d]
- [3] RST DFC a ABORTED [e] [f]
- [4] RST DFC a STOPPED [g]

### 2. REASON FOR OUTPUT

To report the status of a request to restore a Disk File Controller (DFC) to service.

If the restore process was invoked via the RST DFC poke on the DFC status page during Disk Independent Operation (DIOP) mode, a REPT:DKDIP message will precede the actual output message line.

Format 2 is if the command is started via the RST DFC poke on the DFC status page.

### 3. VARIABLE FIELD DEFINITIONS

- a DFC member number.
- b Status of request:
  - ABORTED — Restore aborted.
  - COMPLETED — Unit restored.
  - ERROR — Encountered an error, restore aborted.
  - IN PROGRESS — Unit is being initialized.
  - NOT STARTED — The restore not started.
  - STARTED — The restore was started by DKDIP.
  - STOPPED — Unit failed diagnosis.
- c DKDIP error codes:
  - f09 — Failed to get the Unit Control Block (UCB) of the unit by name.
  - f18 — Unit is not Out Of Service (OOS).
  - f1e — Failed to open the device.
  - f20 — See Disk Driver (DKDRV) error report on the Read Only Printer (ROP).
  - f57 — Message to driver port failed.
  - f60 — Message reception failure.
  - f63 — Process timed out waiting for message.
  - f67 — Failed to close special device file.
  - ffe — Aborted due to phase 1.

SEE PROPRIETARY NOTICE ON COVER PAGE

- d                    Error code. See the System Error Codes Output Appendix, APP:SYSERR.
- e                    Type of error.
- X'1 — Diagnostic restore process error.
- X'2 — DFC driver restore process error.
- [NULL] — Bootstrap restore failure.
- f                    Error code. For a diagnostic restore process error (X'1). See DFC Output Appendix G, APP:DFC-G. For a DFC driver error (X'2). See DFC Output Appendix A, APP:DFC-A.
- g                    Error code. See DFC Output Appendix H, APP:DFC-H.

#### **4. ACTION TO BE TAKEN**

If the restore did not complete successfully, correct the source of trouble and attempt the restore again. If the error condition persists, contact the next level of technical assistance.

#### **5. REFERENCES**

OMDB Key(s)

This message has OMDB keys of 308 and 601.

Display / Menu Pages Name

COMMON PROCESSOR DISPLAY  
DFC STATUS PAGE

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Output Appendixes

APP:DFC-A  
APP:DFC-G  
APP:DFC-H  
APP:SYSERR

Input Message

RST:DFC

Output Message

REPT:DKDIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:DUI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST DUI a COMPLETED
- [2] RST DUI a ABORTED [b] [c]
- [3] RST DUI a STOPPED d
- [4] RST DUI a TASK e MSG STARTED
- [5] RST DUI a STOPPED MESSAGE IN PROGRESS
- [6] RST DUI a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a Direct User Interface (DUI) subdevice to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was aborted or stopped, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:DUI

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RST:DUIC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST DUIC a COMPLETED
- [2] RST DUIC a ABORTED [b] [c]
- [3] RST DUIC a STOPPED d
- [4] RST DUIC a TASK e MSG STARTED
- [5] RST DUIC a STOPPED MESSAGE IN PROGRESS
- [6] RST DUIC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a Direct User Interface Controller (DUIC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-H.
- d Error code. See output IOP Appendix I, APP:IOP-H.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was aborted or stopped, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:DUIC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:EAI  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

RST EAI a b [c] [d]

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore an emergency action interface subdevice (EAI) to service, whether bootstrap or manual. The EAI was initially in the out-of-service state.

## 3. VARIABLE FIELD DEFINITIONS

a Member number.

b Disposition of the request:  
  
COMPLETED — Unit restored.  
ABORTED — Restore aborted.  
STOPPED — Restore stopped.

If b = ABORTED,

c Type of error:  
  
1 — Restore process error.  
2 — Driver error.  
[NULL] — Restore denied by driver or CONFIG.

d Error code:

Restore process, see Output Appendix APP: IOP-H. Driver, see Output Appendix APP: IOP-G.

If b = STOPPED,

c Reason for stoppage, see Output Appendix APP: IOP-I.

## 4. ACTION TO BE TAKEN

If the restoral was denied or aborted, clear the source of trouble and attempt the restoral again.

## 5. REFERENCES

OMDB Keys (UNIX® RTR R1 only)  
This Format has an OMDB key of 196.

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Appendixes

APP: IOP-G

APP: IOP-H

APP: IOP-I

Input Message

RST: EAI

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:HSD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST HSD a COMPLETED
- [2] RST HSD a ABORTED [b] [c]
- [3] RST HSD a STOPPED d
- [4] RST HSD a TASK e MSG STARTED
- [5] RST HSD a STOPPED MESSAGE IN PROGRESS
- [6] RST HSD a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a High-Speed Synchronous Datalink (HSD) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:HSD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:HSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST HSDC a COMPLETED
- [2] RST HSDC a ABORTED [b] [c]
- [3] RST HSDC a STOPPED d
- [4] RST HSDC a TASK e MSG STARTED
- [5] RST HSDC a STOPPED MESSAGE IN PROGRESS
- [6] RST HSDC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a High-Speed Synchronous Datalink Controller (HSDC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:HSDC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RST:IOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST IOP a COMPLETED
- [2] RST IOP a ABORTED [b] [c]
- [3] RST IOP a STOPPED d
- [4] RST IOP a TASK e MSG STARTED
- [5] RST IOP a STOPPED MESSAGE IN PROGRESS
- [6] RST IOP a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

These messages report the disposition of a request to restore an Input/Output Processor (IOP) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:IOP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:LN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

[1] RST LNa b c [d] [e|f]  
  
[2] RST LNa b g  
[h|i]

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore the Link Node (LN) to service. This message may also be printed due to a successful LN restart via the INIT:LN input command.

## 3. VARIABLE FIELD DEFINITIONS

a A Ring Node (RN) group number (00-63).  
b The ring node member number (1-15).  
c Termination status:  
ABORTED — Restore aborted.  
COMPLETED — Unit restored.  
STOPPED — Restore stopped.  
d Type of error:  
1 — Restore process error  
2 — Driver error  
e Error code:  
1 — See Output APP:APPENDIX-3.  
2 — See Output APP:APPENDIX-4.  
f Error code - See Output APP:APPENDIX-5.  
g Termination status:  
IN PROGRESS — Restore in progress.  
NOT STARTED — Restore not started.  
h Reason command was NOT STARTED:  
CANNOT ACCESS GENERIC SPEC FILE  
CANNOT GET MIRA'S PROCESS ID NUMBER

SEE PROPRIETARY NOTICE ON COVER PAGE

CANNOT GET NODE'S UCB FROM ECD  
CANNOT SEND A MESSAGE TO IMS USER  
IMS INITIALIZATION IN PROGRESS  
INTERVAL TIMER CANNOT BE ALLOCATED  
INVALID ACTION REQUEST  
INVALID PERMISSION ACTION  
INVALID PERMISSION MESSAGE  
NODE HAS INVALID MAJOR STATE  
NODE HAS INVALID MINOR STATE  
NODE NOT FOUND IN ECD  
NODE NOT IN ACTIVE RING  
PERMISSION REQUEST FAILED  
PERMISSION RESPONSE TIME OUT  
PERMISSION TO RESTORE NODE HAS BEEN DENIED  
REMOVAL OF NODE FAILED  
REMOVAL OF NODE WAS DENIED  
REMOVE REQUEST FAILED  
RESTORE REQUEST ALREADY IN PROGRESS  
RESTORE REQUEST NOT ACCEPTED BY MIRA  
UNKNOWN RESTORE RESULT

i

Reason command is IN PROGRESS:  
RESTORE SUCCESSFULLY QUEUED WITH MIRA

#### 4. ACTION TO BE TAKEN

Format 1: If the restoral was denied or aborted, clear the source of trouble and attempt the restoral again.

Format 2: If the termination status field indicates NOT STARTED, then use the reason command field to determine why the request was not honored. If the reason command field is one of the following, attempt the indicated action:

CANNOT ACCESS GENERIC SPEC FILE - verify Generic Spec File exists, then resubmit the restore request.

CANNOT GET MIRA'S PROCESS ID NUMBER  
RESTORE REQUEST NOT ACCEPTED BY MIRA - verify MIRA is working correctly, then resubmit the restore request.

SEE PROPRIETARY NOTICE ON COVER PAGE

IMS INITIALIZATION IN PROGRESS - wait for initialization to complete, then resubmit the restore request.

NODE NOT FOUND IN ECD  
CANNOT GET NODE'S UCB FROM ECD - verify node is equipped, then resubmit the restore request.

NODE NOT IN ACTIVE RING - include node in active ring, then resubmit the restore request.

RESTORE REQUEST ALREADY IN PROGRESS - wait until previous restore request is finished, then resubmit the restore request.

For all other values of reason command where the terminations status field is NOT STARTED or ABT, restore the node using RST:LNx y. If the node is restored successfully, then resubmit the original restore request.

## 5. REFERENCES

Practice 234-100-121 *CNI Operations Manual* (non-AT&T) -

Practice 234-100-121AC *CNI Operations Manual* (AT&T only) -

Analog Signaling Link Operating Procedures Section

Analog Signaling Link Test Procedures Section

Digital Signaling Link Operating Procedures Section

Digital Signaling Link Test Procedures Section

Practice 234-151-120 *Trouble Clearing and Maintenance Procedures*

Maintenance Description Section

Error Analysis Section

Diagnostics User's Guide Section

Equipment Handling Procedures Section

Analog Signaling Link Maintenance Procedures Section

Digital Signaling Link Maintenance Procedures Section

### Output Appendixes

APP:APPENDIX-3

APP:APPENDIX-4

APP:APPENDIX-5

### Input Messages

CFR:RING

INIT:LN

OP:DMQ

OP:RING

RST:LN

### Output Messages

CFR:RING

INIT:LN

OP:DMQ

SEE PROPRIETARY NOTICE ON COVER PAGE

OP: RING  
REPT: IUN-RST

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:MHD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST MHD a b [c] [d]
- [2] RST MHD a {ABORTED|ERROR|NOT STARTED|STOPPED} [c] [d]
- [3] RST MHD a ABORTED [e] [f]
- [4] RST MHD a STOPPED [g]
- [5] RST MHD a IN PROGRESS  
APPLICATION DID NOT RESPOND
- [6] RST MHD a IN PROGRESS  
[MHD h SINGLE BLOCK READ RETRY {WORKED|FAILED}  
START DISK BLOCK = i  
{END|FAILING}  
DISK BLOCK = j]  
[MHD k {READ | WRITE} FAILED  
PARTITION = l OFFSET = m DISK BLOCK = n]  
[ \*\*\*\*\*  
\* WARNING \*  
\*\*\*\*\*  
MHD o {PRIMARY | BACKUP} BBOOT PARTITION INVALID]

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Moving Head Disk (MHD) to service, whether bootstrap or manual. The MHD was initially in the Out Of Service (OOS) state.

If the restore process was invoked via the RST MHD poke on the DFC status page during Disk Independent Operation (DIOP) mode, a REPT:DKDIP message will precede the actual output message line.

Format 2 is if the command is started via the RST MHD poke on the DFC status page.

Format 5 is for when the application did not request to abort the restore. The disk to disk copy is being started.

**NOTE:** Relative physical block number is a physical block number of the disk which may have been adjusted by disk defect management for SMD disk drive. In order to use it in the defect table, this number may need to be readjusted.

SEE PROPRIETARY NOTICE ON COVER PAGE

### 3. VARIABLE FIELD DEFINITIONS

- a MHD member number.
- b Disposition of the request.
- ABORTED — Restore aborted or was terminated.
  - COMPLETED — Unit restored to service.
  - ERROR — Encountered an error, restore aborted.
  - IN PROGRESS — MHD listed is being initialized. If MHD listed has an active mate, data is being copied from the active mate to MHD listed.
  - NOT STARTED — The restore not started.
  - STARTED — The restore was started by DKDIP.
  - STOPPED — Unit failed diagnosis.
- c DKDIP error codes:
- f09 — Failed to get the Unit Control Block (UCB) of the unit by name.
  - f0c — ugucbm( ) failed.
  - f0f — DIOP restore not allowed — mate MHD is active.
  - f12 — DIOP restore not allowed — MHD is marked essential.
  - f18 — Unit is not OOS.
  - f1e — Failed to open the device.
  - f20 — See Disk Driver (DKDRV) error report on the Read Only Printer (ROP).
  - f57 — Message to driver port failed.
  - f60 — Message reception failure.
  - f63 — Process timed out waiting for message.
  - f67 — Failed to close special device file.
  - ffe — Aborted due to phase 1.
- d Error code. See the System Error Codes Output Appendix, APP:SYSERR.
- e Type of error.
- X'1 — Diagnostic restore process error.
  - X'2 — DFC driver restore process error.
  - [NULL] — Bootstrap restore failure.
- f Error code. For a diagnostic restore process error (X'1). See DFC Output Appendix G, APP:DFC-G. For a DFC driver error (X'2). See DFC Output Appendix A, APP:DFC-A.
- g Error code. See DFC Output Appendix H, APP:DFC-H.
- h Member number.
- i First relative physical disk block number of a range that could not be read.
- j Last relative physical disk block number.
- k Member number.

SEE PROPRIETARY NOTICE ON COVER PAGE



|   |                                                                                                                                                                                                                                                                                                                                                            |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| l | Partition number for the failed Input / Output (I/O).                                                                                                                                                                                                                                                                                                      |
| m | Start block number within the partition of the failure.                                                                                                                                                                                                                                                                                                    |
| n | Relative physical disk block for the failed I/O. The read or write job specified by the data could not be successfully performed.                                                                                                                                                                                                                          |
| o | Member number. The indicated BB00T partition (PRIMARY or BACKUP) on the specified disk was found to be marked invalid. The data in that partition is questionable and cannot be guaranteed to boot. However, the data is still being copied to the destination disk and the indicated BB00T partition on the destination disk will also be marked invalid. |

#### 4. ACTION TO BE TAKEN

If restore is stopped, correct the source of trouble and attempt to restore again.

#### 5. REFERENCES

##### OMDB Key(s)

This message has OMDB keys of 308 and 601.

##### Display / Menu Page Name

COMMON PROCESSOR DISPLAY  
DFC STATUS PAGE

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*UNIX® RTR Operating System System Maintenance Manual*

##### Output Appendixes

APP:DFC-A  
APP:DFC-G  
APP:DFC-H  
APP:SYSERR

##### Input Messages

RST:DFC  
RST:MHD  
RST:SBUS

##### Output Message

REPT:DKDIP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RST:MT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

- [1] RST MT a b
- [2] RST MT a {ABORTED|ERROR|NOT STARTED|STOPPED} [c] [d]
- [3] RST MT a ABORTED [e] [f]
- [4] RST MT a STOPPED [g]

### 2. REASON FOR OUTPUT

To report the status of a request to restore a Magnetic Tape (MT) device to service.

If the restore process was invoked via the RST MT poke on the Disk File Controller (DFC) status page during Disk Independent Operation (DIOP) mode, a REPT:DKDIP message will precede the actual output message line.

Format 2 is if the command is started via the RST MT poke on the DFC status page.

### 3. VARIABLE FIELD DEFINITIONS

- a MT member number.
- b Status of request.
  - ABORTED — Restore aborted.
  - COMPLETED — Unit restored.
  - ERROR — Encountered an error, restore aborted.
  - IN PROGRESS — Unit is being initialized.
  - NOT STARTED — The restore not started.
  - STARTED — The restore was started by DKDIP.
  - STOPPED — Unit failed diagnosis.
- c DKDIP error codes:
  - f09 — Failed to get the Unit Control Block (UCB) of the unit by name.
  - f15 — MT restore not allowed: controller is not a DFC.
  - f18 — Unit is not Out Of Service (OOS).
  - f1e — Failed to open the device.
  - f20 — See Disk Driver (DKDRV) error report on the Read Only Printer (ROP).
  - f57 — Message to driver port failed.

SEE PROPRIETARY NOTICE ON COVER PAGE

- f60 — Message reception failure.  
f63 — Process timed out waiting for message.  
f67 — Failed to close special device file.  
ffe — Aborted due to phase 1.
- d      Error code. See the System Error Codes Output Appendix, APP:SYSERR.
- e      Type of error:  
         X'1 — Diagnostic restore process error.  
         X'2 — DFC or IOP driver error.  
         [NULL] — Restoration denied by driver or Configuration (CONFIG) control.
- f      Error code. If the MT is controlled by an IOP: For a diagnostic restore process error (X'1). See IOP Output Appendix H, APP:IOP-H. For a IOP driver error (X'2). See IOP Output Appendix G, APP:IOP-G.  
  
      If the MT is controlled by a DFC: For a diagnostic restore process error (X'1). See DFC Output Appendix G, APP:DFC-G. For a DFC driver error (X'2). See DFC Output Appendix A, APP:DFC-A.
- g      Error code. If the MT is controlled by an IOP, see IOP Output Appendix I, APP:IOP-I. If the MT is controlled by a DFC, see DFC Output Appendix H, APP:DFC-H.

#### 4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### 5. REFERENCES

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:DFC-A

APP:DFC-G

APP:DFC-H

APP:IOP-G

APP:IOP-H

APP:IOP-I

APP:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message  
RST:MT

Output Message  
REPT:DKDIP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RST:MTC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST MTC a COMPLETED
- [2] RST MTC a ABORTED [b] [c]
- [3] RST MTC a STOPPED d
- [4] RST MTC a TASK e MSG STARTED
- [5] RST MTC a STOPPED MESSAGE IN PROGRESS
- [6] RST MTC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Magnetic Tape Controller (MTC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:MTC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RST:MTTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST MTTY a COMPLETED
- [2] RST MTTY a ABORTED [b] [c]
- [3] RST MTTY a STOPPED d
- [4] RST MTTY a TASK e MSG STARTED
- [5] RST MTTY a STOPPED MESSAGE IN PROGRESS
- [6] RST MTTY a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Maintenance Teletypewriter (MTTY) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:MTTY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:MTTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST MTTYC a COMPLETED
- [2] RST MTTYC a ABORTED [b] [c]
- [3] RST MTTYC a STOPPED d
- [4] RST MTTYC a TASK e MSG STARTED
- [5] RST MTTYC a STOPPED MESSAGE IN PROGRESS
- [6] RST MTTYC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Maintenance Teletypewriter Controller (MTTYC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:MTTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:ROP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST ROP a COMPLETED
- [2] RST ROP a ABORTED [b] [c]
- [3] RST ROP a STOPPED d
- [4] RST ROP a TASK e MSG STARTED
- [5] RST ROP a STOPPED MESSAGE IN PROGRESS
- [6] RST ROP a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Receive-Only Printer (ROP) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:ROP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:RPCN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

RST RPCNx 0 b [c] [d]

## 2. REASON FOR OUTPUT

To report the disposition of a request to remove a Ring Peripheral Controller Node (RPCN) to service, whether automatic or manual.

## 3. VARIABLE FIELD DEFINITIONS

x                    A Ring Node (RN) group number (00-63).

b                    Termination status:

                    COMPLETED — Unit restored.  
                    ABORTED     — Restore aborted.  
                    STOPPED     — Restore stopped.

If b = ABORTED,

c                    Type of error:

                    1            — Restore process error.  
                    2            — Driver error  
                    [NULL] — Restore denied by driver or CONFIG.

d                    Error code:

                    1            — See Output APP:APPENDIX-3.  
                    2            — See Output APP:APPENDIX-4.

If b = STOPPED,

c                    Error code - See Output APP:APPENDIX-5.

## 4. ACTION TO BE TAKEN

If the restoral was denied or aborted, clear the source of trouble and attempt the restoral again.

## 5. REFERENCES

*Trouble Clearing and Maintenance Procedures - 234-151-120*

Output Appendixes  
APP:APPENDIX-3  
APP:APPENDIX-4  
APP:APPENDIX-5

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message  
RST : RPCN

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RST:SBUS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST SBUS a b
- [2] RST SBUS a {ABORTED|ERROR|NOT STARTED|STOPPED} [c] [d]
- [3] RST SBUS a ABORTED [e] [f]
- [4] RST SBUS a STOPPED [g]

## 2. REASON FOR OUTPUT

To report the status of a request to restore a Small Computer System Interface (SCSI) Bus (SBUS) to service.

If the restore process was invoked via the RST SBUS poke on the DFC status page during Disk Independent Operation (DIOP) mode, a REPT:DKDIP output message will precede the actual output message line.

Format 2 is if the command was started via the RST SBUS poke on the DFC status page.

## 3. VARIABLE FIELD DEFINITIONS

- a SBUS member number.
- b Status of request.
  - ABORTED — Restore aborted.
  - COMPLETED — Unit restored.
  - ERROR — Encountered an error, restore aborted.
  - IN PROGRESS — Unit is being initialized.
  - NOT STARTED — The restore is not started.
  - STARTED — The restore was started by DKDIP.
  - STOPPED — Restore stopped.
- c DKDIP error codes:
  - f09 — Failed to get the Unit Control Block (UCB) of the unit by name.
  - f18 — Unit is not Out Of Service (OOS).
  - f1e — Failed to open the device.
  - f20 — See Disk Driver (DKDRV) error report on the Read Only Printer (ROP).
  - f57 — Message to driver port failed.
  - f60 — Message reception failure.

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- f63 — Process timed out waiting for message.  
f67 — Failed to close special device file.  
ffe — Aborted due to phase 1.
- d            Error code. See the System Error Codes Appendix, APP:SYSERR.
- e            Type of error.  
             X'1 — Diagnostic restore process error.  
             X'2 — DFC driver restore process error.  
             [NULL] — Bootstrap restore failure.
- f            Error code. For a diagnostic restore process error (X'1). See DFC Output Appendix G, APP:DFC-G.  
             For a DFC driver error (X'2). See DFC Output Appendix A, APP:DFC-A.
- g            Error code. See DFC Output Appendix H, APP:DFC-H.

#### 4. ACTION TO BE TAKEN

If the restore did not complete successfully, correct the source of trouble and attempt the restore again. If the error condition persists, contact the next level of technical assistance.

#### 5. REFERENCES

OMDB Key(s)

This message has OMDB keys of 308 and 601.

Display / Menu Page Name

DFC STATUS PAGE

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Output Appendixes

APP:DFC-A

APP:DFC-G

APP:DFC-H

APP:SYSERR

Input Message

RST:SBUS

Output Message

REPT:DKDIP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:SCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST SCC a COMPLETED
- [2] RST SCC a ABORTED [b] [c]
- [3] RST SCC a STOPPED d
- [4] RST SCC a TASK e MSG STARTED
- [5] RST SCC a STOPPED MESSAGE IN PROGRESS
- [6] RST SCC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Switching Control Center (SCC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:SCC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:SCSDC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST SCSDC a COMPLETED
- [2] RST SCSDC a ABORTED [b] [c]
- [3] RST SCSDC a STOPPED d
- [4] RST SCSDC a TASK e MSG STARTED
- [5] RST SCSDC a STOPPED MESSAGE IN PROGRESS
- [6] RST SCSDC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Scanner And Signal Distributor Controller (SCSDC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:SCSDC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:SDL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST SDL a COMPLETED
- [2] RST SDL a ABORTED [b] [c]
- [3] RST SDL a STOPPED d
- [4] RST SDL a TASK e MSG STARTED
- [5] RST SDL a STOPPED MESSAGE IN PROGRESS
- [6] RST SDL a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Synchronous Datalink (SDL) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:SDL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... RST:SDLC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST SDLC a COMPLETED
- [2] RST SDLC a ABORTED [b] [c]
- [3] RST SDLC a STOPPED d
- [4] RST SDLC a TASK e MSG STARTED
- [5] RST SDLC a STOPPED MESSAGE IN PROGRESS
- [6] RST SDLC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Synchronous Datalink Controller (SDLC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:SDLC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:TTY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST TTY a COMPLETED
- [2] RST TTY a ABORTED [b] [c]
- [3] RST TTY a STOPPED d
- [4] RST TTY a TASK e MSG STARTED
- [5] RST TTY a STOPPED MESSAGE IN PROGRESS
- [6] RST TTY a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Teletypewriter (TTY) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:TTY

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RST:TTYC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] RST TTYC a COMPLETED
- [2] RST TTYC a ABORTED [b] [c]
- [3] RST TTYC a STOPPED d
- [4] RST TTYC a TASK e MSG STARTED
- [5] RST TTYC a STOPPED MESSAGE IN PROGRESS
- [6] RST TTYC a STOPPED MESSAGE COMPLETE

## 2. REASON FOR OUTPUT

To report the disposition of a request to restore a Teletypewriter Controller (TTYC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number.
- b Type of error:
  - X'1 — Restore process error.
  - X'2 — Driver error.
  - [NULL] — Restoration denied by driver or Configuration (CONFIG) control.

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Error code. For restore process error (X'1), see output IOP Appendix H, APP:IOP-H. For driver error (X'2), see output IOP Appendix G, APP:IOP-G.
- d Error code. See output IOP Appendix I, APP:IOP-I.
- e Diagnostic task number assigned to the request.

#### **4. ACTION TO BE TAKEN**

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

#### **5. REFERENCES**

##### OMDB Key(s)

When the message is generated by the pudrv subsystem, the OMDB key is 195 or 196.

When the message is generated by the cft subsystem, the OMDB key is 308.

When the message is generated by the diag subsystem, the OMDB key is 96.

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##### Output Appendixes

APP:IOP-G

APP:IOP-H

APP:IOP-I

##### Input Message

RST:TTYC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... RUTIL:BREAKPOINT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has 25 formats.

- [1] RUTIL BREAKPOINT FIRED STARTED  
LAST CONGESTION COUNT = a  
.  
.  
.  
any message from Format [2] through [25]  
.  
.  
.  
BP ACTION LIST COMPL
- [2] RUTILFLAG LN bb c BREAKPOINT = d FIRENUM = e
- [3] RUTILFLAG LN bb c STRAY BREAKPOINT ADDRESS = m
- [4] RUTILFLAG LN bb c STRAY BREAKPOINT ADDRESS = m,  
VECTOR MEMORY PROTECT ERROR = n
- [5] ALW RUTILFLAG LN bb c BP = d COMPL
- [6] ALW RUTILFLAG LN bb c INVALID BP = d COMPL
- [7] ALW RUTILFLAG LN bb c BP = d NOT SETUP COMPL
- [8] ALW RUTILFLAG LN bb c BP = d ILLEGAL BP STATUS = p
- [9] ALW RUTILFLAG LN bb c BP = d MEMORY PROTECTION ERROR = n
- [10] ALW RUTIL LN bb c COMPL
- [11] INH RUTILFLAG LN bb c BP = d COMPL
- [12] INH RUTIL LN bb c COMPL
- [13] INH RUTILFLAG LN bb c INVALID BP = d COMPL
- [14] INH RUTILFLAG LN bb c BP = d NOT SETUP COMPL
- [15] INH RUTILFLAG LN bb c BP = d ILLEGAL BP STATUS = p

SEE PROPRIETARY NOTICE ON COVER PAGE

- [16] ALW RUTILFLAG LN bb c BP = d MEMORY PROTECTION ERROR = n
- [17] DUMP ADDR X'ffffffff IN PROG  
ADDRESS(X')CONTENTS OF MEMORY(X')  
ffffffff: gggggggg gggggggg gggggggg gggggggg  
ffffffff: gggggggg gggggggg gggggggg gggggggg  
.  
.  
.  
ffffffff: gggggggg gggggggg gggggggg gggggggg
- [18] DUMP REG hhhh IN PROG  
REGISTER CONTENTS(X')  
hhhh: iiii
- [19] DUMP ADDR X'ffffffff BYTE COUNT X'j BAD ADDRESS STOPPED
- [20] DUMP ADDR X'ffffffff BYTE COUNT X'j BAD SIZE STOPPED
- [21] LOAD REG hhhh = X'iiiiiiii COMPL
- [22] LOAD ADDR X'ffffffff = X'gggggggg BAD ADDRESS STOPPED
- [23] LOAD ADDR X'ffffffff = X'gggggggg COMPL
- [24] RUTIL BAD REG hhhh STOPPED
- [25] RUTIL ERROR STOPPED  
LN bb c BAD RESPONSE OPCODE = k

## 2. REASON FOR OUTPUT

Response to an RGRASP breakpoint firing.

## 3. VARIABLE FIELD DEFINITIONS

|          |                                                                                |
|----------|--------------------------------------------------------------------------------|
| a        | The number of times a congestion condition has occurred at the specified node. |
| bb       | The group number of the concerned node.                                        |
| c        | The member number of the concerned node.                                       |
| d        | The concerned breakpoint number.                                               |
| e        | The number of times a breakpoint has fired.                                    |
| ffffffff | The concerned address of a DUMP or a LOAD action-list command.                 |
| gggggggg | Contents of the concerned address(es).                                         |
| hhhh     | Name of a specified register.                                                  |
| iiiiii   | Contents of the specified register.                                            |

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|   |                                               |
|---|-----------------------------------------------|
| j | The byte count of a DUMP action-list command. |
| k | An unrecognized opcode.                       |
| m | Stray breakpoint address.                     |
| n | Memory protect error code.                    |
| p | Breakpoint status.                            |

#### **4. ACTION TO BE TAKEN**

This output message is in response to a breakpoint firing.

In conditions where errors are indicated, review the proper input command syntax and command arguments given to those commands.

Otherwise, seek technical assistance.

#### **5. REFERENCES**

Input Messages  
ALW:RUTIL  
CLR:RUTIL  
INH:RUTIL  
WHEN:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... SET:CLK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] SET CLK COMPLETED  
a b
- [2] SET CLK STOPPED  
c
- [3] SET CLK COMPLETED  
a b  
WARNING - ONLY THE AM CLOCK HAS BEEN UPDATED  
IT MAY AUTOMATICALLY BE RESET LATER TO AGREE  
WITH THE SYSTEM TIME

## 2. REASON FOR OUTPUT

To report the result of executing a SET:CLK input message to set the date and time.

## 3. VARIABLE FIELD DEFINITIONS

- a Date.
- b Time.
- c Text explaining why the command was stopped.

## 4. ACTION TO BE TAKEN

Format 1 indicates successful execution. Take no action.

If Format 2 is printed, correct any command line errors and reissue the command. If the error message is not self-explanatory, seek technical assistance.

Format 3 should be printed only when the SET:CLK input message is executed on a machine running in MIN-CONFIG mode. Although Format 1 is normally printed to indicate successful execution of the input command, Format 3 may be printed under certain conditions. If the machine is running in application mode, seek technical assistance. Otherwise, the SET:CLK input message may need to be re-executed after the machine is rebooted in application mode.

## 5. REFERENCES

OMDB Keys

Formats 1 and 3 have an OMDB key of 287.

Format 2 has an OMDB key of 283.

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Input Messages  
SET:CLK  
OP:CLK

Output Message  
OP:CLK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... SET:IODRV  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] SET IODRV {COMPLETED|ABORTED}
- [2] SET IODRV NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS

## 2. REASON FOR OUTPUT

To report the result of executing a SET : IODRV input message.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

If the message reads ABORTED, the message could not be processed due to a conflict with the system status. The message will not be successfully processed until the system status changes. Check system status to determine why message aborted.

## 5. REFERENCES

OMDB Key  
Format 1 has an OMDB key of 159.

Input Message  
SET : IODRV

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... SET:LFS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has the following format:

SET LFS COMPL  
[CUSTOMIZE LBK ATTRIBUTES]

| MEM<br>LOC | PATTERN |       | MEAS<br>DUR | ERROR<br>TYPE | THR<br>VALUE | NLST<br>SYNC | NER<br>BITS |
|------------|---------|-------|-------------|---------------|--------------|--------------|-------------|
| ----       | ----    | ----- | -----       | -----         | -----        | ----         | ----        |
| N/A        | 2047    | 2047  | < 15 MINS   | BER           | 1.0E-6       | 0            | 1           |
| N/A        | 2047    | 2047  | >=15 MINS   | BER           | 1.0E-6       | 0            | 1           |
| a          | b       | c     | d           | e             | f            | g            | h           |
| .          | .       | .     | .           | .             | .            | .            | .           |
| .          | .       | .     | .           | .             | .            | .            | .           |
| .          | .       | .     | .           | .             | .            | .            | .           |

## 2. REASON FOR OUTPUT

Prints in response to input message SET:LFS.

## 3. VARIABLE FIELD DEFINITIONS

- a Memory location for customized default attributes. Must be a value in the range: (1-50).
- b Latching pattern type for a memory location.
- c Non-latching test pattern type for a memory location. respectively specified for the designated LC.
- d Measurement duration of the test in hours, minutes, seconds respectively specified for the designated LC.
- e Errored threshold type specified for the designated LC.
- f Error threshold value specified for the designated LC.
- g Maximum number of lost synchronization specified for the indicated LC.
- h Maximum number of errored bits indicated for the designated LC.

SEE PROPRIETARY NOTICE ON COVER PAGE

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Messages  
EXC:LFS  
SET:LFS

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... SET:T1M  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] SET T1M COMPL  
T1M PIIT SET TO A a MINUTE INTERVAL  
AT b NETWORK TIME
- [2] T1M PIIT COMPL  
T1M c d  
e
- [3] SET T1M STOPPED  
T1M PIIT NOT SET TO a MINUTE INTERVAL  
NOT ABLE TO GET TIMER FOR PIIT

## 2. REASON FOR OUTPUT

This output message is in response to a SET : T1M input message.

Format 1 Prints when the periodic indication interval time is set up OK.

Format 2 Prints when the Periodic Indication of Intrusive Test (PIIT) interval times out and the link state is AVL MOOS, while a loopback or test signal is active.

Format 3 Prints when the timer is not scheduled / timer not available.

## 3. VARIABLE FIELD DEFINITIONS

- a Range 5 to 30 minutes in 5-minute increments.
- b Current network time in 24-hour clock time.
- c The group number of the link node (00 - 63).
- d The member number of the link node (1 - 15).
- e Response explaining the status:
  - FAR END ALL ZERO TEST SIGNAL ACTIVE
  - FAR END DATA LOOPBACK ACTIVE
  - FAR END HIGH DENSITY TEST SIGNAL ACTIVE
  - FAR END LOW DENSITY TEST SIGNAL ACTIVE
  - FAR END QUASI-RANDOM TEST SIGNAL ACTIVE
  - FAR END YELLOW TEST SIGNAL ACTIVE

SEE PROPRIETARY NOTICE ON COVER PAGE

NEAR END ALL ZERO TEST SIGNAL ACTIVE  
NEAR END DATA LOOPBACK ACTIVE  
NEAR END HIGH DENSITY TEST SIGNAL ACTIVE  
NEAR END LOW DENSITY TEST SIGNAL ACTIVE  
NEAR END QUASI-RANDOM TEST SIGNAL ACTIVE  
NEAR END YELLOW TEST SIGNAL ACTIVE

#### **4. ACTION TO BE TAKEN**

Formats 1 and 2, none.

Format 3, Try the SET:T1M command again. If the problem persists, seek technical assistance.

#### **5. REFERENCES**

Practice 256-090-182, *CNI Maintenance Manual*, T1 Maintenance Procedures Section

##### Input Messages

ATR:T1M  
CLR:T1M  
EXC:T1M  
OP:T1M  
SET:T1M

##### Output Messages

ATR:T1M  
CLR:T1M  
EXC:T1M  
OP:T1M

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... SET:TRACE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## 1. FORMAT

SET TRACE a  
b

## 2. REASON FOR OUTPUT

This message is in response to the SET : TRACE input message.

## 3. VARIABLE FIELD DEFINITIONS

a Termination status of the input command:  
ABT  
COMPL  
STOPPED  
b Reason command was ABT or STOPPED:  
HANGUP SIGNAL RECEIVED  
IMS MESSAGE SWITCH CHANNEL BUSY  
IMS SUBSYSTEM DOWN  
IMS SUBSYSTEM OVERLOAD  
INTERRUPT SIGNAL RECEIVED  
PROGRAM MALFUNCTION  
SOFTWARE TERMINATION SIGNAL RECEIVED  
TIMEOUT SIGNAL RECEIVED  
UNEXPECTED SIGNAL RECEIVED

## 4. ACTION TO BE TAKEN

None, or if ABT or STOPPED, retry ALW: TRACE input message.

## 5. REFERENCES

Input Messages  
ALW: TRACE  
INH: TRACE  
OP: TRACE  
SET: TRACE

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
ALW: TRACE  
INH: TRACE  
OP: TRACE  
REPT: TRACE

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... SET:TRAP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] SET TRAP  
MTRP: SET TRAP COMPL; ID ASSIGNED; ID = a
- [2] SET TRAP  
MTRP: SET TRAP FAILED; [b | c]
- [3] SET TRAP  
d  
e
- [4] SET TRAP STOPPED  
d  
f  
g COMMAND(S) INITIATED
- [5] SET TRAP  
g COMMAND(S) INITIATED

## 2. REASON FOR OUTPUT

This output message is in response to a SET:TRAP input message.

Format 1. The SET:TRAP input message has been processed successfully. The trap identification number is given so that it may be used later in other message trap input messages to identify this particular trap.

Format 2. The processing of the SET:TRAP input message has failed due to the reason being displayed.

Format 3. The specified line from the user file was not processed for the reason given. Processing of the user file then continued.

Format 4. Processing of the user file stopped. The number of SET:TRAP commands from the user file that were actually initiated is indicated.

Format 5. Processing of the user file is complete, and the number of SET:TRAP commands that were actually initiated is indicated.

SEE PROPRIETARY NOTICE ON COVER PAGE

**NOTE:** The successful processing of the SET:TRAP input message does not guarantee that the trap can be started successfully. It depends on whether a set of conditions (e.g., the status of the link nodes) can be satisfied when it is time to start the time. Diagnostics will be printed if a trap cannot be started successfully.

### 3. VARIABLE FIELD DEFINITIONS

- a                      Trap Identification number.
- b                      Reason SET:TRAP input message failed (see Action To Be Taken Section for detailed explanation).
- NO RESRC (DISK SPACE EXHAUSTED)  
                        NO RESRC (MT\_TBL ENTRY UNAVAIL)  
                        NO RESRC (MAX\_SIMTRP REACHED)  
                        LINKS NOT SAME TYPE  
                        LINK SET NOT EQUIPPED  
                        LINK TYPE NOT S6 OR S7  
                        TRAP NEEDS TOO MANY ATTRIBUTES  
                        TRAPPING ON MORE THAN xx LINKS  
                        ALL NODES ARE OOS  
                        ALL NODES ARE OCCUPIED  
                        ALL NODES ARE EITHER OOS OR OCCUPIED  
                        NO ID ASSIGNED  
                        mt\_L4parse() DATA FIELD ERROR
- NOTE:** xx = Maximum number of links allowed to be trapped on at any time.
- c                      Reason SET:TRAP input message failed (internal error condition).
- NO LINK TAG  
                        INVALID LINK TYPE  
                        INVALID LNKTAG  
                        CAN'T GET LN TBL
- d                      Command from file with error.
- e                      IMPROPER TERMINATING CHARACTER FOR COMMAND IN FILE  
                        SYNTAX ERROR FOR COMMAND IN FILE  
                        COMMAND IN FILE IS NOT SET:TRAP  
                        FILENAME OPTION CANNOT BE NESTED

SEE PROPRIETARY NOTICE ON COVER PAGE

- f NON-PRINTABLE CHARACTER IN FILE  
EXCEEDS 255 MAXIMUM NUMBER OF CHARACTERS  
EXCEEDED COMMAND MAXIMUM NUMBER
- g Number of SET : TRAP commands from user file that  
were successfully initiated.

#### 4. ACTION TO BE TAKEN

Format 1: None.

Format 2: If any of the reasons in category c are printed, seek technical assistance.

If the reason printed is:

NO RESRC (DISK SPACE EXHAUSTED)  
The fixed size disk file is full of trap results.

Retrieve desired trap results before attempting any of the following:

1. Use STOP : TRAP input message to re-initialize the disk file (all trap results will be lost);  
or
2. Enable overwrite (OVRWT) option (older trap results will be gradually lost).

NO RESRC (MT\_TBL ENTRY UNAVAIL)  
All trap entries are occupied in the message trap database.

Retrieve desired trap results before attempting the following:  
Use STOP : TRAP input message to remove any unwanted traps.

NO RESRC (MAX\_SIMTRP REACHED)  
Maximum number of simultaneous traps on the Message Trap system has been reached.

Attempt any of the following:

1. Use STOP : TRAP input message to stop any unwanted active or inhibited trap; or
2. Use STOP : TRAP input message to remove any unwanted pending trap.

LINKS NOT SAME TYPE  
Links given in the SET : TRAP input message must be either all S6 links or all S7 links.

LINK SET NOT EQUIPPED  
Link set given in the SET : TRAP input message is not equipped.

LINK TYPE NOT S6 OR S7  
Links given in the SET : TRAP input message must be either all S6 links or all S7 links.

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**TRAP NEEDS TOO MANY ATTRIBUTES**

Input parameters are transformed into trap attributes which will be used by the link nodes to perform message matching. Realtime concerns at link nodes impose a limit on the number of attributes that can be used for trapping. The number of attributes generated from the parameters given in the SET : TRAP input message exceeds that limit.

Reduce the number of input parameters given in the SET : TRAP input message.

**TRAPPING ON MORE THAN xx LINKS**

Maximum number of links that can have trap on at any time has been reached (including the link(s) given in this SET : TRAP input message).

Attempt any of the following:

1. Retry SET : TRAP input message with fewer links; or
2. Use STOP : TRAP input message to stop any unwanted active or inhibited trap.

**ALL NODES ARE OOS**

All the link nodes of the links specified in the SET : TRAP input message are out of service.

**ALL NODES ARE OCCUPIED**

All the links specified in the SET : TRAP input message are occupied by other traps.

**ALL NODES ARE EITHER OOS OR OCCUPIED**

Message is self-explanatory. Refer to previous two items.

**NO ID ASSIGNED**

Processing difficulties. Retry later.

**mt\_L4() DATA FIELD ERROR**

Application parsing routine for layer 4 (L4) signaling messages currently not used.

Format 3: Correct the SET : TRAP command data in the user file.

Format 4: Correct the SET : TRAP command data in the user file.

Format 5: None.

**5. REFERENCES**

Input Messages

SET : TRAP

STOP : TRAP

Output Message

REPT : MON - TRAP

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ID ..... SET:TSC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 3 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] RING SET TSC FAILED  
\_GET\_MBUF FCODE a
- [2] RING SET TSC FAILED  
\_IMS\_HDR FCODE b
- [3] RING SET TSC FAILED  
\_IMS\_WRITE FCODE c
- [4] RING SET TSC FAILED  
LACID NOT ACTIVE
- [5] RING SET TSC FAILED  
NO RESPONSE FROM D-CHANNEL NODE LNd-e FCODE f
- [6] RING SET TSC FAILED  
REASON: X'g
- [7] RING SET TSC DONE

## 2. REASON FOR OUTPUT

Formats 1-5: these output messages give failure information during processing the command in 3B.

Format 6: this output message indicates failure during processing the command in D-channel.

Format 7: this output message indicates successful completion of command SET:TSC.

## 3. VARIABLE FIELD DEFINITIONS

- a Return code from \_get\_mbuf.
- b Return code from \_ims\_hdr.
- c Return code from \_ims\_write.
- d Group name of D-channel node in the CNI ring.
- e Member name of D-channel node in the CNI ring.
- f Return code from \_ims\_read.

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g                    00 — Retry later.  
                     04 — Invalid CRV (call block missing).  
                     08 — This is not a TSC call.

#### **4. ACTION TO BE TAKEN**

Formats 1-3: Retry later, and if fails again, seek technical assistance.

Format 4: Verify with OP:TSC for active LACID.

Format 5: The indicated D-channel node failed to respond. Seek technical assistance.

Format 6: Take action according to the reason specified (see VARIABLE FIELD DEFINITIONS).

Format 7: No action necessary.

#### **5. REFERENCES**

Input Message  
SET:TSC

Output Message  
OP:TSC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... START:ADB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has three formats.

- [1] START ADB COMPLETED, FOR a
- [2] START ADB COULD NOT LOCK a COMPLETED, FOR b
- [3] START ADB COULD NOT UNLOCK a COMPLETED, FOR b

## 2. REASON FOR OUTPUT

Response to the START:ADB input command.

## 3. VARIABLE FIELD DEFINITIONS

- a Lock Number
- b Customer name, only IBGTT is supported currently.

## 4. ACTION TO BE TAKEN

Format 2: Rerun the START:ADB input command.

Format 3: Run STOP:ADB input command; this will unlock the port even if the process is not running.

## 5. REFERENCES

Input Messages  
START:ADB  
STOP:ADB

Output Messages  
START:ADB  
STOP:ADB

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... START: CRCUPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] START CRCUPD  
CALCULATING CRCS FOR APP a
- [2] START CRCUPD  
COMPLETED CALCULATING CRCS FOR APP a
- [3] START CRCUPD  
CANNOT CALCULATE CRCS FOR INVALID APP b
- [4] START CRCUPD  
CANNOT CALCULATE CRCS FOR APP a REASON c

## 2. REASON FOR OUTPUT

Prints in response to a START: CRCUPD command. Formats 1 and 2 indicate that the Cyclic Redundancy Check (CRC) update has started or completed. In large application databases, it may take up to 45 minutes between the start and the completion of a CRC update. Formats 3 and 4 indicate why the CRC update cannot be started.

## 3. VARIABLE FIELD DEFINITIONS

- a Application database that is affected. Valid values are:
  - IBGTT — Inbound global title translation
  - PCPGTT — Positive call processing global title translation
  - ATP — AT&T Trigger Platform (ATP) data tables
- b Invalid application database. Valid values are 0, 1, 2 or 3.
- c Reason for failure to start calculating CRCs. Possible values:
  - 1-99 — UNIX® RTR System error, see output Appendix SYSERR-APP
  - 101 — General database failure, unsuccessful completion.
  - 105 — Item to be modified was not located.
  - 110 — Cannot add number, hash table full.
  - 111 — Cannot add number, 10-digit compaction table full.
  - 116 — Cannot add point code sub-system information, NCP table full.
  - 120 — Cannot add record, it already exists.

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- 123 — The dialed digit/ ANI being searched for was not found.
- 124 — Specified NPA-NXX combination was not found.
- 127 — Associated point code sub-system information does not exist.
- 141 — File descriptor is out of range.
- 143 — Error on reading from the database.
- 144 — Error on writing to the database.
- 154 — Database inconsistencies have been detected.
- 155 — Cached inconsistencies have been detected.
- 156 — The ADMINTOC or DBTOC magic number is invalid.
- 157 — Invalid database type for this application.
- 160 — Clump number is out of range for application.
- 176 — All file descriptors are active, none available.
- 180 — The replacement NPA-NXX value already exists.
- 190 — The application database value is invalid.
- 191 — The specified user identification number is invalid.
- 192 — The specified access mode is invalid.
- 193 — The specified customer identification number is invalid.
- 194 — The compaction table search chain exceeded maximum length.
- 195 — The dialed digit/ANI table search chain exceeded maximum.
- 196 — The DLN user buffer address is invalid.
- 201 — The argument 'object' is invalid.
- 202 — The argument passed in is invalid.
- 203 — The instance does not exist.
- 204 — The instance cannot be created, it exists already.
- 205 — End of object array, no more instances.
- 206 — No free IR internal buffer.
- 207 — Request IMS buffer failed.
- 208 — Build IMS header failed.
- 209 — IMS write failed.
- 212 — Data size + number of key > 480 bytes.
- 213 — Domain exceeds its buffer quota.

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- 215 — Argument 'domain' is invalid.
- 216 — Get \_BAD\_CHAN failure from IMS read.
- 217 — Get \_RTNMSG failure from IMS read.
- 218 — Get \_SRCMATCH failure from IMS read.
- 219 — Bad message type.
- 220 — IR event length > 508 bytes.
- 223 — Wrong queue type.

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

Input Message  
START : CRCUPD

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ID ..... START:DADC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

This message has four formats.

- [1] START DADC FEATURE COMPLETE
- [2] START DADC SDL a COMPLETE
- [3] START DADC FEATURE ABORT b
- [4] START DADC SDL a ABORT b

## 2. REASON FOR OUTPUT

To respond to input message START:DADC. Format 1 indicates that the DADC capability is allowed on a feature basis.

Format 2 indicates that action has been taken to start the specific DADC link.

Format 3 indicates that the abort on all DADC capability has been stopped.

Format 4 indicates that the abort on a particular synchronous data link (SDL) has been stopped.

## 3. VARIABLE FIELD DEFINITIONS

- a SDL unit number (40-55).
- b Abort code starting with 900.
  - 900 — DADC has to be in a field of its own.
  - 901 — Only expecting DADC.
  - 902 — Not expecting data in this third field.
  - 903 — Not expecting data in the data field.
  - 904 — Only expecting FEATURE or SDL a.
  - 905 — SDL number out of range.
  - 906 — Only expecting FEATURE or SDL a.
  - 907 — Only expecting FEATURE or SDL a.
  - 908 — Did not receive port ID from link handler.
  - 909 — Did not receive port ID from link handler.
  - 912 — Message returned was CFTNACK.
  - 913 — Device in GROW state.
  - 914 — Device in UNIQ state.

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915 — Device in OOS state.  
916 — Device is ACT\_DOWN.  
917 — Device is ACT\_UP.

#### **4. ACTION TO BE TAKEN**

On abort formats [3] and [4], seek technical assistance.

#### **5. REFERENCES**

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Input Messages  
START:DADC  
STOP:DADC

Output Message  
STOP:DADC

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ID ..... START:DCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1]    START DCC APP c TID t    COMPLETE  
      APPDB DCC TASK d FOR c STARTED
  
- [2]    START DCC APP c TID t    COMPLETE  
      APPDB DCC IS NOT ACTIVATED FOR c -- DCC TASK NOT STARTED
  
- [3]    START DCC APP c TID t    COMPLETE  
      APPDB DCC TASK d ALREADY RUNNING FOR c -- DCC TASK NOT STARTED
  
- [4]    START DCC APP c TID t    COMPLETE  
      APPDB SID e DOES NOT MATCH CURRENT SID f -- DCC TASK NOT STARTED
  
- [5]    START DCC APP c TID t    COMPLETE  
      INPUT ERROR - g
  
- [6]    START DCC APP c TID t    COMPLETE  
      ERROR a (LINE b) -- APPDB DCC TASK FOR c CANNOT BE STARTED

## 2. REASON FOR OUTPUT

Response to the START:DCC input command. Format 1 prints if no errors were encountered and the DCC task has been started. Status on the DCC task can be obtained via the VER:DCC command. Format 2 prints if DCC has not been activated for the specified customer unit (DCC must and can be activated via the ACTV:DCC command.) Formats 3 will print if there is already a DCC task running for the specified customer unit (only one DCC per customer unit can be active at any time.) Format 4 prints if the SID argument specified in the START:DCC input command does not match the SID currently stored in the SCRATCH APPDB area (ie. the SID specified in the currently active ACTV:DCC input message). Format 5 prints if a syntax error was found in the START:DCC command that was input. Format 6 prints if internal errors are preventing the 4ESS™ Switch from activating DCC.

## 3. VARIABLE FIELD DEFINITIONS

- a                    Error number (TBD).
  
- b                    Source line number where error was found. (For NESAC troubleshooting.)
  
- c                    The name of a APPDB customer unit. Currently, only IBGTT is supported by the DCC capability.
  
- d                    Transaction ID of the DCC task that is executing.

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|   |                                                                       |
|---|-----------------------------------------------------------------------|
| e | Snapshot ID specified in the corresponding START:DCC input message.   |
| f | Snapshot ID that is currently stored in the SCRATCH APPDB area.       |
| g | English description of the syntax error found in the command input.   |
| t | The Transaction ID that was specified in the START:DCC input message. |

#### **4. ACTION TO BE TAKEN**

Format 6: Notify NESAC.

#### **5. REFERENCES**

##### Input Messages

ACTV:DCC  
ALW:DCC  
DEACTV:DCC  
INH:DCC  
OP:DCC  
START:DCC  
STOP:DCC  
VER:DCC

##### Output Messages

INH:DCC  
OP:DCC  
VER:DCC

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ID ..... START:DLNCM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

START DLNCM STREAM IN UNKNOWN STATE  
SIDE: a DIR: b

START DLNCM STREAM COMPLETE  
SIDE: a DIR: b

START DLNCM STREAM FAILED  
SIDE: a DIR: b REASON: c

## 2. REASON FOR OUTPUT

To report the termination status of the start stream request.

## 3. VARIABLE FIELD DEFINITIONS

- a Side of stream. Possible values:
- 1A — 1A
  - 3B — 3B20D
  - BOTH — Both sides.
- b Direction. Possible values:
- 1AIN — 1A incoming.
  - 1AOUT — 1A outgoing.
  - BOTH — Both 1A incoming or outgoing.
- c Error code. (See Output Appendix APP:DLNCM-13 - UNABLE TO START STREAM.)

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendix  
APP:DLNCM-13

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ID ..... START:FTA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has four formats.

- [1]     START FTA APP a FILE b   COMPLETE  
         FILE ACTIVATION STARTED
- [2]     START FTA APP a FILE b   COMPLETE  
         FILE ACTIVATION NOT STARTED - c
- [3]     START FTA APP a FILE b   COMPLETE  
         INPUT ERROR - d
- [4]     START FTA APP a FILE b   COMPLETE  
         ERROR e (LINE f) -- FTA CANNOT BE STARTED FOR a

## 2. REASON FOR OUTPUT

Response to the File Transfer and Activation (FTA) START:FTA input command. Format 1 prints if no errors were encountered and the FTA task has been started. Status on the FTA task can be obtained via the OP:FTA command. Format 2 prints if a procedural error (e.g., the command file that was requested to be activated does not exist) was encountered while attempting to perform the FTA file activation. Format 3 prints if a syntax error was found in the START:FTA command that was input. Format 4 prints if internal errors are preventing the 4ESS™ Switch from activating FTA.

## 3. VARIABLE FIELD DEFINITIONS

- a                   The name of a FTA customer application. Either:
  - IBGTT
  - OBGTT (Refers to the PCP customer)
  - CORE
- b                   A number indicating the command file that was requested to be activated via the START:FTA input command. Command files are numbered from 0 to 99. (See the OP:FTF input message for more details.)
- c                   English description of the FTA error that caused the procedural error. Can be one of:

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FILE DOES NOT EXIST  
BAD FILE NAME  
INVALID ARGUMENT  
NO SPACE  
FILE ALREADY OPENED  
FILE IS EXECUTING  
DLN INHIBIT ACTIVE  
INTERNAL ERROR  
FILE IS ALREADY EXECUTING  
FILE IS NOT EXECUTING  
APPDB RCV IS INHIBITED  
FTA IS INHIBITED  
RESPONSE FILES EXISTS

- d English description of the syntax error found in the command input.
- e Error number (TBD).
- f Source line number where error was found. (For NESAC troubleshooting.)

#### 4. ACTION TO BE TAKEN

Format 2: Depending on the description of the error, applications of other FTA commands may correct the conditions causing the error.

Format 4: Notify NESAC.

#### 5. REFERENCES

##### Input Messages

ALW: FTA  
INH: FTA  
OP: FTA  
START: FTA  
STOP: FTA

##### Output Messages

ALW: FTA  
INH: FTA  
OP: FTA  
START: FTA  
STOP: FTA

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ID ..... START:RCBUFGET  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] START RCBUFGET a STARTED  
FOUND b ORDER NUMBERS TO PROCESS
- [2] START RCBUFGET IN PROGRESS  
c ORDER NUMBERS PROCESSED SO FAR
- [3] START RCBUFGET a IN PROGRESS  
FAILED OP:RCBMSG FOR ORDER d - ORNU eeeeeee - SKIPPING
- [4] START RCBUFGET DATA IN PROGRESS  
GETTING ORDER d - ORNU eeeeeee
- [5] START RCBUFGET a COMPLETE  
f TOTAL ORDER NUMBERS PROCESSED
- [6] START RCBUFGET a COMPLETE  
f TOTAL ORDER NUMBERS PROCESSED (g ORDERS FAILED)
- [7] START RCBUFGET a COMPLETE  
STOPPED - f TOTAL ORDER NUMBERS PROCESSED
- [8] START RCBUFGET a COMPLETE  
STOPPED - f TOTAL ORDER NUMBERS PROCESSED (g ORDERS FAILED)
- [9] START RCBUFGET a COMPLETE  
?I UNK KW ARG - TRY ",DATA"
- [10] START RCBUFGET a COMPLETE  
RCBUF PROCESS ALREADY RUNNING
- [11] START RCBUFGET a COMPLETE  
ERROR GETTING PORT
- [12] START RCBUFGET a COMPLETE  
ERROR CLEANING RCBUF DIRECTORY
- [13] START RCBUFGET a COMPLETE  
ERROR MAKING RCBUF DIRECTORY
- [14] START RCBUFGET a COMPLETE  
CANNOT CONNECT TO 1B PROCESSOR

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- [15] START RCBUFGET a COMPLETE  
ERROR CHANGING TO RCBUF DIRECTORY
- [16] START RCBUFGET a IN PROGRESS  
ERROR SENDING OP:RCBORNNU
- [17] START RCBUFGET a IN PROGRESS  
ERROR IN OP:RCBORNNU FILE
- [18] START RCBUFGET a COMPLETE  
ERROR - INCOMPATIBLE WITH 1B GENERIC

## **2. REASON FOR OUTPUT**

Response to the START:RCBUFGET input command.

Format 1 prints if no errors were encountered and the START:RCBUFGET task has been started.

Format 2 prints if the DATA keyword was not specified. This format will print every five minutes to indicate that progress is being made on the START:RCBUFGET processing.

Format 3 prints if an error was encountered when processing an individual 1B buffered Recent Change. These errors will NOT cause the START:RCBUFGET process to terminate.

Format 4 prints as each ORDER NUMBER is retrieved from the 1B. This format prints ONLY IF the DATA keyword was specified. One of formats 5-8 print at the end of the START:RCBUFGET task, if no fatal errors were encountered during early processing of this command.

Format 5 will print if no Format 3 errors were encountered.

Format 6 will print if some errors in processing individual ORDER NUMBERS were encountered. (For each of these individual errors, a Format 3 message will print.)

Formats 7 and 8 are analogous to formats 5 and 6 respectively, but print if the START:RCBUFGET task was stopped with the STOP:RCBUFGET input command.

Format 9 prints if an error was encountered during the processing of the input message syntax. The most likely error was that the optional keyword DATA was mis-spelled.

Format 10 prints if either a START:RCBUFGET or START:RCBUFPUT task is already running. (Only one of these tasks is allowed to run at any given time.)

Formats 11-18 print if an error was encountered during the processing of the START:RCBUFGET command. Seek technical assistance.

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### 3. VARIABLE FIELD DEFINITIONS

- |        |                                                                                                                                                                                                                  |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a      | Either null or DATA, depending on whether the DATA keyword was specified on the START:RCBUFGET input message.                                                                                                    |
| b      | A positive number. Indicates the number of 1B buffered Recent Change orders that the 1B says are buffered and need to be processed.                                                                              |
| c      | A positive number. Indicates the number of 1B buffered Recent Change orders that have been retrieved and saved so far.                                                                                           |
| d      | A positive number. Indicates the number of 1B buffered Recent Change orders that have been retrieved and saved so far.                                                                                           |
| eeeeee | A six-digit number. Indicates a 1B buffered Recent Change order number.                                                                                                                                          |
| f      | A positive number. Indicates the total number of 1B buffered Recent Change orders that were processed by the START:RCBUFGET task. This includes an orders that errored during the retrieval process from the 1B. |
| g      | A positive number. Indicates the number of 1B buffered Recent Change orders that errored and were skipped during their retrieval from the 1B. (These counts are included in f in Formats 5-8).                   |

### 4. ACTION TO BE TAKEN

Formats 11-18: Notify NESAC.

### 5. REFERENCES

Input Messages

START:RCBUFGET  
START:RCBUFPUT  
STOP:RCBUFGET

Output Message

STOP:RCBUFGET

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ID ..... START:RCBUFPUT  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] START RCBUFPUT a STARTED
- [2] START RCBUFPUT IN PROGRESS  
c ORDER NUMBERS PROCESSED SO FAR
- [3] START RCBUFPUT a IN PROGRESS  
ERROR IN BUFFER FILE FOR ORDER d - ORNU eeeeeee - SKIPPING
- [4] START RCBUFPUT a IN PROGRESS  
ERROR BUFFERING ORDER d - ORNU eeeeeee - SKIPPING
- [5] START RCBUFPUT DATA IN PROGRESS  
PUTTING ORDER d - ORNU eeeeeee
- [6] START RCBUFPUT a COMPLETE  
f TOTAL ORDER NUMBERS PROCESSED
- [7] START RCBUFPUT a COMPLETE  
f TOTAL ORDER NUMBERS PROCESSED (g ORDERS FAILED)
- [8] START RCBUFPUT a COMPLETE  
STOPPED - f TOTAL ORDER NUMBERS PROCESSED
- [9] START RCBUFPUT a COMPLETE  
STOPPED - f TOTAL ORDER NUMBERS PROCESSED (g ORDERS FAILED)
- [10] START RCBUFPUT a COMPLETE  
?I UNK KW ARG - TRY ",DATA"
- [11] START RCBUFPUT a COMPLETE  
RCBUF PROCESS ALREADY RUNNING
- [12] START RCBUFPUT a COMPLETE  
ERROR GETTING PORT
- [13] START RCBUFPUT a IN PROGRESS  
ERROR SENDING CLR:RCB
- [14] START RCBUFPUT a IN PROGRESS  
ERROR OPENING RCBUF DIRECTORY

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- [15] START RCBUFPUT a COMPLETE  
CANNOT CONNECT TO 1B PROCESSOR
- [16] START RCBUFPUT a COMPLETE  
ERROR CHANGING TO RCBUF DIRECTORY
- [17] START RCBUFPUT a IN PROGRESS  
ERROR - 1B NOT IN UPDATE MODE
- [18] START RCBUFPUT a COMPLETE  
ERROR - INCOMPATIBLE WITH 1B GENERIC

## **2. REASON FOR OUTPUT**

Response to the START:RCBUFPUT input command.

Format 1 prints if no errors were encountered and the START:RCBUFPUT task has been started.

Format 2 prints if the DATA keyword was not specified. This format will print every five minutes to indicate that progress is being made on the START:RCBUFPUT processing.

Formats 3 and 4 print if an error was encountered when buffering individual 1B buffered Recent Changes. These errors will NOT cause the START:RCBUFPUT process to terminate.

Format 5 prints as each ORDER NUMBER is buffered in the 1B. This format prints ONLY IF the DATA keyword was specified.

One of formats 6-9 print at the end of the START:RCBUFPUT task, if no fatal errors were encountered during early processing of this command.

Format 6 will print if no Format 3 or 4 errors were encountered.

Format 7 will print if some errors in processing individual ORDER NUMBERS were encountered. (For each of these individual errors, either a Format 3 or Format 4 message will print.)

Formats 8 and 9 are analogous to formats 6 and 7 respectively, but print if the START:RCBUFPUT task was stopped with the STOP:RCBUFPUT input command.

Format 10 prints if an error was encountered during the processing of the input message syntax. The most likely error was that the optional keyword DATA was mis-spelled.

Format 11 prints if either a START:RCBUFGET or START:RCBUFPUT task is already running. (Only one of these tasks is allowed to run at any given time.)

Formats 12-18 print if an error was encountered during the processing of the START:RCBUFPUT command. Seek technical assistance.

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### 3. VARIABLE FIELD DEFINITIONS

|        |                                                                                                                                                                                                                  |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a      | Either null or DATA, depending on whether the DATA keyword was specified on the START:RCBUFPUT input message.                                                                                                    |
| b      | A positive number. Indicates the number of 1B buffered Recent Change orders that the 1B says are buffered and need to be processed.                                                                              |
| c      | A positive number. Indicates the number of 1B buffered Recent Change orders that have been buffered so far.                                                                                                      |
| d      | A positive number. Indicates the number of 1B buffered Recent Change orders that have been buffered saved so far.                                                                                                |
| eeeeee | A six-digit number. Indicates a 1B buffered Recent Change order number.                                                                                                                                          |
| f      | A positive number. Indicates the total number of 1B buffered Recent Change orders that were processed by the START:RCBUFPUT task. This includes an orders that errored during the buffering process with the 1B. |
| g      | A positive number. Indicates the number of 1B buffered Recent Change buffering orders that errored and were skipped during buffering to the 1B. (These counts are included in f in Formats 6-9).                 |

### 4. ACTION TO BE TAKEN

Formats 12-18: Notify NESAC.

### 5. REFERENCES

#### Input Messages

START:RCBUFPUT  
START:RCBUFGET  
STOP:RCBUFPUT

#### Output Message

STOP:RCBUFPUT

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ID ..... STOP:ADB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has four formats.

- [1] STOP ADB PROCESS WAS STOPPED COMPLETED, FOR a
- [2] STOP ADB PROCESS WAS NOT STOPPED COMPLETED, FOR a
- [3] STOP ADB PROCESS WAS NOT KILLED COMPLETED, FOR a
- [4] STOP ADB PROCESS WAS NOT RUNNING COMPLETED, FOR a

## 2. REASON FOR OUTPUT

Response to the STOP:ADB input command.

## 3. VARIABLE FIELD DEFINITIONS

a Customer name, only IBGTT is supported currently.

## 4. ACTION TO BE TAKEN

Formats 2 and 3: Rerun the STOP:ADB input command.

## 5. REFERENCES

Input Messages

START:ADB

STOP:ADB

Output Messages

START:ADB

STOP:ADB

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ID ..... STOP:ATPAUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

- [1] STOP ATPAUD COMPLETED
- [2] STOP ATPAUD NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS - NOT RUNNING

## 2. REASON FOR OUTPUT

To report the termination status of the STOP:ATPAUD input message.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that the particular audit was not running at the time the command was entered. The OP:AUD input message can be used to determine the current system status.

## 5. REFERENCES

Input Messages  
OP:AUD  
STOP:ATPAUD  
  
Output Message  
OP:AUD

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ID ..... STOP:AUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] STOP AUD COMPLETED
- [2] STOP AUD NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS - NOT RUNNING
- [3] STOP AUD NOT STARTED  
CANNOT STOP NON-SEGMENTED AUDIT

## 2. REASON FOR OUTPUT

To report the termination status of the STOP:AUD input message.

**NOTE:** See the *System Maintenance Manual*, Appendixes A and B for assorted parsing errors when the IM catalog is not active.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that no audits were running at the time the command was entered. The OP:AUD input message can be used to determine the current system status.

If Format 3 is printed, the audit cannot be stopped.

## 5. REFERENCES

OMDB Keys

Format 2 has an OMDB key of 595.

Format 3 has an OMDB key of 591.

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Input Messages

OP:AUD

STOP:AUD

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Output Message  
OP: AUD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... STOP:BKDISK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

STOP BKDISK { ABORTED | IN PROGRESS | COMPLETED }  
[ COPY BKDISK NOT RUNNING |  
CANNOT SEND SIGNAL TO COPY BKDISK |  
COPY BKDISK FAILED TO TERMINATE ]

## 2. REASON FOR OUTPUT

To report the progress of the STOP BKDISK input message, or to indicate a problem.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

If the message indicates COPY BKDISK is not running, no action is needed. If the message indicates COPY BKDISK cannot be signaled, seek technical assistance. If the message indicates COPY BKDISK failed to terminate, initiate the STOP:BKDISK input command again. If the process still fails, seek technical assistance.

## 5. REFERENCES

OMDB Key

These messages have an OMDB key of 764.

Input Messages

COPY:BKDISK  
STOP:BKDISK

Output Message

COPY:BKDISK

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... STOP:DADC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B-APS  
TYPE ..... Output

## 1. FORMAT

This message has four formats.

- [1] STOP DADC FEATURE COMPLETE
- [2] STOP DADC SDL a COMPLETE
- [3] STOP DADC FEATURE ABORT b
- [4] STOP DADC SDL a ABORT b

## 2. REASON FOR OUTPUT

To respond to input message STOP:DADC.

Format 1 indicates that the DADC capability has been stopped on a feature basis.

Format 2 indicates that action has been taken to stop the specific DADC link.

Format 3 indicates that all DADC capability has been aborted.

Format 4 indicates that DADC capability has been aborted for a particular synchronous data link (SDL).

## 3. VARIABLE FIELD DEFINITIONS

- a SDL unit number (40-55).
- b Abort code:
  - 1002 — Not expecting data in this third field.
  - 1003 — Not expecting data in the data field.
  - 1004 — Only expecting FEATURE or SDL a.
  - 1005 — SDL number out of range.
  - 1006 — Only expecting FEATURE or SDL a.
  - 1007 — With FEATURE no number is allowed.
  - 1008 — Did not receive port ID from link handler.
  - 1009 — Did not receive port ID from link handler.
  - 1012 — Message returned was CFTNACK.
  - 1013 — Device in GROW state.
  - 1014 — Device in UNIQ state.
  - 1015 — Device in STOP state.

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#### **4. ACTION TO BE TAKEN**

On abort formats [3] and [4], seek technical assistance.

#### **5. REFERENCES**

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Input Messages  
START : DADC  
STOP : DADC

Output Message  
START : DADC

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ID ..... STOP:DCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] STOP DCC COMPLETE  
APPDB DCC TASK d HAS BEEN STOPPED
- [2] STOP DCC COMPLETE  
APPDB TASK FOR c IS NOT RUNNING
- [3] STOP DCC COMPLETE  
INPUT ERROR - e
- [4] STOP DCC COMPLETE  
ERROR a (LINE b) -- APPDB DCC TASK(S) CANNOT BE STOPPED

## 2. REASON FOR OUTPUT

Response to the STOP:DCC input command. Format 1 prints for each DCC task (for a particular customer unit) that has been successfully stopped. Format 2 prints if a STOP:DCC order was requested and no DCC task is running for the specified customer unit. Format 3 prints if a syntax error was found in the STOP:DCC command that was input. Format 4 prints if internal errors are preventing the 4ESS™ Switch from stopping any DCC tasks.

## 3. VARIABLE FIELD DEFINITIONS

- a Error number (TBD).
- b Source line number where error was found. (For NESAC troubleshooting.)
- c The name of the APPDB customer unit running a DCC task. Currently, only IBGTT DCC tasks are supported.
- d Transaction id of the DCC task that is executing. (Specified in the START:DCC input command.)
- e English description of the syntax error found in the command input.

## 4. ACTION TO BE TAKEN

Format 4: Notify NESAC.

## 5. REFERENCES

Input Messages  
ACTV:DCC  
ALW:DCC

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DEACTV:DCC  
INH:DCC  
OP:DCC  
START:DCC  
STOP:DCC  
VER:DCC

Output Messages  
INH:DCC  
OP:DCC

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ID ..... STOP:DCI  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] STOP DCI COMPLETED
- [2] STOP DCI NOT STARTED
- [3] STOP DCI ABORTED

## 2. REASON FOR OUTPUT

Format 1 is to report the termination of the Dual Serial Channel Interface (DCI) process in response to a STOP:DCI input message.

Format 2 is in response to a STOP:DCI input message when the Dual Serial Channel Interface (DCI) process was not running.

Format 3 is in response to a STOP:DCI input message when the Dual Serial Channel Interface (DCI) process could not be terminated.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
STOP:DCI

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ID ..... STOP:DCNAUD  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has seven formats.

- [1] STOP DCNAUD a LNb c COMPLETED  
AUDIT MODE: d
- [2] STOP DCNAUD a LNb c FAILED  
REASON: ACM AT INITIALIZATION
- [3] STOP DCNAUD a LNb c FAILED  
REASON: AUDIT IS NOT ACTIVE
- [4] STOP DCNAUD a LNb c FAILED  
REASON: NODE IS NOT DCHAN
- [5] STOP DCNAUD a LNb c FAILED  
REASON: NODE IS NOT ACTIVE
- [6] STOP DCNAUD a LNb c FAILED  
REASON: SEND MSG TO DCHAN FAILED
- [7] STOP DCNAUD a LNb c FAILED  
REASON: RECEIVED \_RTNMSG OR \_SRCMATCH MSG

## 2. REASON FOR OUTPUT

To report the termination status of the STOP:DCNAUD input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Audit member. One of the following:
  - 1 — Data Blocks audit.
  - 2 — User call reference value (CRV) Table audit.
  - 3 — Network CRV Table audit.
  - 4 — Channel ID Table audit.
  - 5 — Idle Data Blocks List audit.
- b DCN group number.
- c DCN member number.

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d                      Audit mode. One of the following:

MAN — Manual mode  
ROUT — Routine mode  
SOFT — Software mode  
UNK — Unknown mode

#### 4. ACTION TO BE TAKEN

Format 1 indicates successful execution. If the audit mode is UNK seek technical assistance; otherwise, no action is necessary.

Format 2 indicates that the Audit Control Mechanism on the DCN is under initialization. Wait until the DCN finishes initialization and retry.

Format 3 indicates that the particular audit was not running at the time the command was entered. The OP:DCNAUD input message can be used to determine the current audit status.

Format 4 indicates that the requested node is not a DCN. Retry with a correct group and member number for the DCN.

Format 5 indicates that the DCN is not active. Wait until DCN is active and retry.

Format 6 indicates that DCNAP can not send message to the DCN. Retry. If you get the same error multiple times, seek technical assistance.

Format 7 indicates that DCNAP received a returned or source matched message. Either the IMS channel is not open on the DCN or the DCN is not active.

#### 5. REFERENCES

Input Messages  
OP:DCNAUD  
STOP:DCNAUD

Output Message  
OP:DCNAUD

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ID ..... STOP:DLNCM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

STOP DLNCM STREAM IN UNKNOWN STATE  
SIDE: a DIR: b

STOP DLNCM STREAM COMPLETE  
SIDE: a DIR: b

STOP DLNCM STREAM FAILED  
SIDE: a DIR: b REASON: c

## 2. REASON FOR OUTPUT

To report the termination status of the stop stream request.

## 3. VARIABLE FIELD DEFINITIONS

- a Side of stream. Possible values:
- 1A — 1A processor.
  - 3B — 3B20D processor.
  - BOTH — Both sides.
- b Direction. Possible values:
- 1AIN — 1A incoming.
  - 1AOUT — 1A outgoing.
  - BOTH — Both 1A incoming or outgoing.
- c Error code. (See Output Appendix APP:DLNCM-13 - UNABLE TO STOP STREAM.)

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendix  
APP:DLNCM-13

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ID ..... STOP:DMQ  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**1. FORMAT**

STOP DMQ COMPLETED

**2. REASON FOR OUTPUT**

To report that a diagnostic request awaiting execution was removed from the Maintenance Input Request Administrator (MIRA) request queue in response to either an automatic stop request or STOP:DMQ input message.

**3. VARIABLE FIELD DEFINITIONS**

See Reason For Output.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Message  
STOP:DMQ

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ID ..... STOP:E-ANY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

STOP EXC ANY {COMPLETED|STOPPED}  
[a]

## 2. REASON FOR OUTPUT

To report the result of executing a STOP:EXC;ANY input command to stop a process.

## 3. VARIABLE FIELD DEFINITIONS

a                      Type of error that may have occurred.

## 4. ACTION TO BE TAKEN

Seek technical assistance if any error message is printed.

## 5. REFERENCES

OMDB Keys  
This message has OMDB keys of 282 and 284.

Input Messages  
OP:ST-PROC  
STOP:E-ANY  
STOP:E-USER

Output Message  
OP:ST-PROC

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ID ..... STOP:E-USER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] STOP EXC USER COMPLETED
- [2] STOP EXC USER STOPPED  
a

## 2. REASON FOR OUTPUT

To report the result of executing a STOP:EXC;USER input command to stop a user process.

**NOTE:** If the STOP:EXC;USER;PID a input command is used to kill a supervisor process, a COMPLETED message will be printed, but the process has not really been killed.

## 3. VARIABLE FIELD DEFINITIONS

- a Description of the error encountered.

## 4. ACTION TO BE TAKEN

Format 1 indicates success. No action is necessary.

Format 2 indicates the command has failed. The explanatory text will indicate the error encountered. Refer to the input message for the correct format and reenter the command, or check the status of the file using the OP:ST-LSTDIR input message if the message indicates that the process or file may not exist as printed. If the message indicates that an invalid signal has been used, refer to the input message for available signals.

Seek technical assistance if any other error message is printed.

## 5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 282.

Format 2 has an OMDB key of 288.

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Input Messages

OP:ST-LSTDIR  
OP:ST-PROC  
STOP:E-ANY  
STOP:E-USER

Output Messages

OP:ST-LSTDIR  
OP:ST-PROC

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ID ..... STOP:FTA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has four formats.

- [1] STOP FTA APP a FILE b COMPLETE  
FILE ACTIVATION STOPPED
- [2] STOP FTA APP a FILE b COMPLETE  
FILE ACTIVATION NOT STOPPED - c
- [3] STOP FTA APP a FILE b COMPLETE  
INPUT ERROR - d
- [4] STOP FTA APP a FILE b COMPLETE  
ERROR e (LINE f) -- FTA CANNOT BE STOPPED FOR a

## 2. REASON FOR OUTPUT

Response to the File Transfer and Activation (FTA) STOP:FTA input command. Format 1 prints if no errors were encountered and the FTA task has been stopped. Status on the FTA task can be obtained via the OP:FTA command. Format 2 prints if a procedural error (e.g., the command file activation that was requested to be stopped was in fact not active) was encountered while attempting to perform the FTA file activation stop. Format 3 prints if a syntax error was found in the STOP:FTA command that was input. Format 4 prints if internal errors are preventing the 4ESS™ Switch from activating FTA.

## 3. VARIABLE FIELD DEFINITIONS

- a The name of an FTA customer application. Either:
  - IBGTT
  - OBGTT (Refers to the PCP customer)
  - CORE
- b A number indicating the activating command file that was requested to be stopped via the STOP:FTA input command. Command files are numbered from 0 to 99. (See the OP:FTF input message for more details.)
- c English description of the FTA error that caused the procedural error. Can be one of:

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FILE DOES NOT EXIST  
BAD FILE NAME  
INVALID ARGUMENT  
NO SPACE  
FILE ALREADY OPENED  
FILE IS EXECUTING  
DLN INHIBIT ACTIVE  
INTERNAL ERROR  
FILE IS ALREADY EXECUTING  
FILE IS NOT EXECUTING  
APPDB RCV IS INHIBITED  
FTA IS INHIBITED  
RESPONSE FILES EXISTS

- d English description of the syntax error found in the command input.
- e Error number (TBD).
- f Source line number where error was found. (For NESAC troubleshooting.)

#### **4. ACTION TO BE TAKEN**

Format 2: Depending on the description of the error, applications of other FTA commands may correct the conditions causing the error.

Format 4: Notify NESAC.

#### **5. REFERENCES**

##### Input Messages

ALW: FTA  
INH: FTA  
OP: FTA  
START: FTA  
STOP: FTA

##### Output Messages

ALW: FTA  
INH: FTA  
OP: FTA  
START: FTA  
STOP: FTA

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ID ..... STOP:GEN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] STOP GEN {COMPLETED | STOPPED WITH ERROR CODE a }
- [2] STOP GEN NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS

## 2. REASON FOR OUTPUT

To report the result of executing the STOP:GEN input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code causing the process to stop. See System Error Codes Output Appendix, APP:SYSERR.

## 4. ACTION TO BE TAKEN

Correct any user execution errors by examining the procedures used for execution of the message. For certain UNIX® RTR interface errors, using the UCL option in the STOP:GEN input message may help. See System Error Codes Output Appendix, APP:SYSERR. If any other error occurs, seek technical assistance.

## 5. REFERENCES

OMDB Key  
Format 1 has an OMDB key of 326.

Output Appendix  
APP:SYSERR

Input Messages  
STOP:GEN  
UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

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Output Messages

UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

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ID ..... STOP:LFS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

STOP LFS COMPL  
LFS a b c {NEAR|FAR} AT {d|DPe} PASSED  
TERMINATED BY STOP MESSAGE

| LPBK<br>CMPT<br>---- | TEST<br>REPT<br>---- | LPBK<br>EVAL<br>---- | ELAPSED<br>TIME<br>----- | ERRORED<br>BITS SEC<br>----- | BIT<br>E-RT<br>----- | PCT<br>E-F-S<br>----- | LST<br>SYNC<br>---- |
|----------------------|----------------------|----------------------|--------------------------|------------------------------|----------------------|-----------------------|---------------------|
| f                    | g                    | h                    | i                        | j k                          | l                    | m                     | n                   |
| .                    | .                    | .                    | .                        | .                            | .                    | .                     | .                   |
| .                    | .                    | .                    | .                        | .                            | .                    | .                     | .                   |
| .                    | .                    | .                    | .                        | .                            | .                    | .                     | .                   |

## 2. REASON FOR OUTPUT

Prints in response to the STOP:LFS input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Link group number (0-63).
- b Link member number (1-15).
- c Number of Loopback Components (LC) specified in the EXC:LFS command line. TEST sequence progression specifier:  
 FAR — Indicates LFS test started from the farthest specified loopback component to the nearest.  
 NEAR — Indicates Link Fault Sectionalization (LFS) test started from the nearest specified loopback component to the farthest.
- d Loopback point to which the test sequence has progressed:  
 CSUL — Channel Service Unit (CSU) latching loopback.  
 CSUN — Channel Service Unit (CSU) non-latching loopback.  
 DSUL — Digital Service Unit (DSU) dataport latching loopback.  
 DSUN — Data Service Unit (DSU) non-latching loopback.  
 LID0 — Indicates test sequence has not progressed beyond the local loopback test.  
 NEI — Far-end network element interface. (Loopback select code octet value = x1000001).

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- OCUL — Office Channel Unit (OCU) latching loopback.
- OCUN — Office Channel Unit (OCU) non-latching loopback.
- REM — Manual remote loopback.
- RPT1 — Represents non-latching loopback test for the first 56K bps local loop regenerative repeater.
- RPT2 — Represents non-latching loopback test for the second 56K bps local loop regenerative repeater.
- e Number indicates number of Digital Signal Zero (DS0) data port relative to the near-end (01-50).
- f Specifies the Loopback Component (LC):  
CSUL, CSUN, DPee, DSUL, DSUN, NEI, REM, RPT1, and RPT2.
- g Indicates repetitive (>1) or single (1) operation (1-99).
- 1 Indicates 1st operation of the loopback component.
- 2 Indicates the 2nd operation of a unique loopback component.
- h Individual evaluations of loopback tests:
- FAIL — Indicates test failure based on input criteria.
- PASS — Indicates a successful test based on input criteria.
- TINP — Indicates the designated LC is being tested.
- i Elapsed duration of measurement for individual loopback points in hours:minutes:seconds respectively.
- j Number of errored bits for this LC (0-65535).
- k Number of errored seconds for this loopback point (0-9999).
- l Bit Error Ratio (BIT-ERT) for this loopback point:  
 $x.yE-z$  (em x, y and z are integer values (0-9)).
- OVFLW Indicates overflow.
- UNFLW Indicates underflow.
- m Percent Error Free Seconds (PCT E-F-S) for this LC. Also represented as a fixed point with precision = 0.1%.

**NOTE:** The BIT-ERT and PCT E-F-S values in an intermediate report could be worse than the specified threshold, but the test will not necessarily fail (yet). This is due to a difference in the way calculations are done for reporting versus thresholding. For example, the reported BIT-ERT is calculated by dividing the number of errored bits by the total number of bits from the start of the test up to the time of the calculation (elapsed time). For thresholding, the denominator is always the number of bits for the entire specified duration. Thresholding

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is done in this way so that the test is not overly sensitive to bit errors early in a long test.

n                      Number of lost synchronization for the loopback point (0-999).

#### **4. ACTION TO BE TAKEN**

None.

#### **5. REFERENCES**

Input Messages  
EXC:LFS  
STOP:LFS

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ID ..... STOP:OFLBOOT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### 1. FORMAT

- [1] STOP OFLBOOT COMPLETED
- [2] STOP OFLBOOT a  
b  
OLBSTATE LASTATE FUNCTION LINE  
c d e f
- [3] STOP OFLBOOT STARTED  
TYPE g
- [4] STOP OFLBOOT IN PROGRESS

### 2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

### 3. VARIABLE FIELD DEFINITIONS

- a Message type.
- ABORTED — Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.
- INFO — For information only.
- STOPPED — Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.
- TERMINATED — UNIX® RTR software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.
- b Text line:
- ABORT IN PROGRESS — Indicates a stop was issued when a stop was already in progress. The first stop could be either manual or software initiated.
- CANNOT INVOKE COMMAND ON OFFLINE SIDE — Printed if STOP:OFLBOOT is invoked on the off-line side.

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ILLEGAL STOP OFLBOOT COMMAND — A second STOP:OFLBOOT command was issued either without the restore option or outside the time limit (one hour) to execute a STOP:OFLBOOT with the RST option.

STOP FROM OFF-LINE SIDE NOT ALLOWED — Printed if STOP:OFLBOOT is invoked from the off-line side.

- c Current offline boot state.
- d Previous offline boot state.
- e Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.
- f Line number in the function e from which the output message originated. This field is used by UNIX® RTR, in conjunction with field e, to diagnose offline boot problems.
- g Abort type, indicates how abort was initiated:  
MANUAL — Manual STOP:OFLBOOT request.  
APPLICATION — Application-initiated abort.  
SOFTWARE — UNIX® RTR-initiated termination.

#### 4. ACTION TO BE TAKEN

For Formats 1, 3, and 4, no action needs to be taken.

For Format 2, the action to be taken depends on text line:

ABORT IN PROGRESS — No action is needed; let the first stop run to completion.

CANNOT INVOKE COMMAND ON OFFLINE SIDE — Execute STOP:OFLBOOT on the on-line side.

ILLEGAL STOP OFLBOOT COMMAND — If within the 1-hour time limit (from the first STOP:OFLBOOT command), try STOP:OFLBOOT again with the RST option.

STOP FROM OFF-LINE SIDE NOT ALLOWED — Execute STOP:OFLBOOT from the on-line side.

#### 5. REFERENCES

##### OMDB Keys

Formats 1 and 4 have an OMDB key of 690.

Format 2 has an OMDB key of 704.

Format 3 has an OMDB key of 691.

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Input Messages

EXC:OFLBOOT  
STOP:OFLBOOT  
SW:OFLBOOT

Output Messages

EXC:OFLBOOT  
REPT:OFLBOOT  
REPT:OFFLINE  
SW:OFLBOOT

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ID ..... STOP:RCBUFGET  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

### 1. FORMAT

- [1] STOP RCBUFGET COMPLETE
- [2] STOP RCBUFGET COMPLETE  
NO RCBUF TASK RUNNING

### 2. REASON FOR OUTPUT

Response to the STOP:RCBUFGET input command.

Format 1 prints if an active START:RCBUFGET task was terminated by this command.

Format 2 prints if the command did not find an active START:RCBUFGET task executing.

### 3. VARIABLE FIELD DEFINITIONS

None.

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

Input Message  
START:RCBUFGET

Output Message  
START:RCBUFGET

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ID ..... STOP:RCBUFPUT  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] STOP RCBUFPUT COMPLETE
- [2] STOP RCBUFPUT COMPLETE  
NO RCBUF TASK RUNNING

## 2. REASON FOR OUTPUT

Response to the STOP:RCBUFPUT input command.

Format 1 prints if an active START:RCBUFPUT task was terminated by this command.

Format 2 prints if the command did not find an active START:RCBUFPUT task executing.

## 3. VARIABLE FIELD DEFINITIONS

None.

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Message  
START:RCBUFPUT

Output Message  
START:RCBUFPUT

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... STOP:TRAP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

- [1] STOP TRAP  
MTRP:STOP TRAP ID ALL COMPL; NO ACT OR INH TRAP
- [2] STOP TRAP  
MTRP:STOP TRAP ID ALL COMPL; ID = a a a
- [3] STOP TRAP  
MTRP:STOP TRAP ID ALL FAILED; b
- [4] STOP TRAP  
MTRP:STOP TRAP ID COMPL; ID = a
- [5] STOP TRAP  
MTRP:STOP TRAP ID FAILED; [b|c]; ID = a
- [6] STOP TRAP  
MTRP:STOP TRAP RMTID ALL COMPL; NO REMOVABLE TRAP
- [7] STOP TRAP  
MTRP:STOP TRAP RMTID ALL COMPL; ID(S) = a a a
- [8] STOP TRAP  
MTRP:STOP TRAP RMTID ALL FAILED; b
- [9] STOP TRAP  
MTRP:STOP TRAP RMTID COMPL; ID = a
- [10] STOP TRAP  
MTRP:STOP TRAP RMTID FAILED; [b|d]; ID = a
- [11] STOP TRAP  
MTRP:STOP TRAP INIT Y COMPL;  
ALL ACT TRAPS INHIBITED;  
ALL ABT/CMP/TRM TRAPS REMOVED
- [12] STOP TRAP  
MTRP:STOP TRAP INIT Y FAILED; b

SEE PROPRIETARY NOTICE ON COVER PAGE

- [13] STOP TRAP  
MTRP:STOP TRAP INIT N COMPL; NO ACTION TAKEN
- [14] STOP TRAP  
MTRP:STOP TRAP OVRWT Y COMPL
- [15] STOP TRAP  
MTRP:STOP TRAP OVRWT N COMPL
- [16] STOP TRAP  
MTRP:STOP TRAP OVRWT Y|N FAILED; RETRY LATER

## 2. REASON FOR OUTPUT

This output message is in response to a STOP:TRAP input message.

Format 1 results when ID ALL is specified and there are no active or inhibited traps in the Message Trap system.

Format 2 results when ID ALL is specified and there is one or more active or inhibited traps to be stopped. A list of the trap IDs that have been stopped will be displayed.

Format 3 results when ID ALL is specified and there is one or more active or inhibited traps to be stopped. However, the processing of the STOP:TRAP input message has failed due to the reason being printed.

Format 4. When one or a list of trap IDs is given along with the ID keyword, each trap specified will be stopped in the given order. This format will be printed for the traps that have been successfully stopped. One message per trap ID stopped will be printed.

Format 5. When one or a list of trap IDs is given along with the ID keyword, each trap specified will be stopped in the given order. This format results when the processing of a trap has failed due to the reason being printed. One message per ID failed will be printed.

Format 6 results when RMTID ALL is specified and there are no pending, completed, aborted or terminated traps in the Message Trap system.

Format 7 results when RMTID ALL is specified and there is one or more traps to be removed. A list of the trap IDs that have been removed will be displayed.

Format 8 results when RMTID ALL is specified and there is one or more traps to be removed. However, the processing of the STOP:TRAP input message has failed due to the reason being printed.

Format 9. When one or a list of trap IDs is given along with the RMTID keyword, each trap specified will be removed in the given order. This format will be printed for the traps that have been successfully removed. One message per trap ID removed will be printed.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 10. When one or a list of trap IDs is given along with the RMTID keyword, each trap specified will be removed in the given order. This format results when the processing of a trap has failed due to the reason being printed. One message per ID failed will be printed.

Format 11 results when the INIT keyword (disk initialization) is specified with Y option. The disk initialization is successful and it has the side-effects of inhibiting any active traps as well as removing any aborted, completed or terminated traps. All the trap results are lost.

Format 12 results when the INIT keyword (disk initialization) is specified with Y option. The disk initialization has failed due to the reason being displayed.

Format 13 results when the INIT keyword (disk initialization) is specified with N option. No action has been taken.

Format 14 results when the OVRWT keyword (disk file overwrite) is specified with Y option and the processing of the input message is successful.

Format 15 results when the OVRWT keyword (disk file overwrite) is specified with N option and the processing of the input message is successful.

Format 16 results when the OVRWT keyword (disk file overwrite) is specified with Y or N option and the processing of the input message has failed. However, the condition should be transient.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                                                |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Trap Identification number.                                                                                                                                                                                    |
| b | Reason STOP:TRAP input message failed (internal error condition).<br><br>NO TRAP STOPPED<br>CAN'T GET INDEX<br>INVALID TRAP STATE                                                                              |
| c | Reason STOP:TRAP input message failed (with ID keyword).<br><br>NOT ACT OR INH TRAP - Can only stop active or inhibited traps.<br><br>INVALID ID - ID does not belong to any trap.                             |
| d | Reason STOP:TRAP input message failed (with RMTID keyword).<br><br>ACT TRAP - Cannot remove active traps.<br><br>INH TRAP - Cannot remove inhibited traps.<br><br>INVALID ID - ID does not belong to any trap. |

SEE PROPRIETARY NOTICE ON COVER PAGE

#### **4. ACTION TO BE TAKEN**

Formats 1, 2, 4, 6, 7, 9, 11, 13, 14, 15: None.

Format 3: Seek technical assistance.

Format 5: If any of the reasons in category b are printed, seek technical assistance; otherwise, the reasons in category c are self-explanatory.

Format 8: Seek technical assistance.

Format 10: If any of the reasons in category b are printed, seek technical assistance; otherwise, the reasons in category d are self-explanatory.

Format 12: Seek technical assistance.

Format 16: Retry in a few minutes.

#### **5. REFERENCES**

Input Message  
STOP:TRAP

Output Message  
REPT:MON-TRAP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... STOP:UPD  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has two output formats:

- [1]     STOP UPD STOPPED  
        STOP UPDATE ALL DCHN NODES FAILED  
        c
- [2]     STOP UPD STOPPED  
        STOP UPDATE LNa b DCHN NODE FAILED  
        c

## 2. REASON FOR OUTPUT

Format 1 prints in response to a STOP:UPD input message. Prints when DCHN, ALL is specified and the message is failed.

Format 2 prints when DCHN, LNa b is specified and the message is failed.

## 3. VARIABLE FIELD DEFINITIONS

- a             The group number of the link node, with a valid range from 00 to 63.
- b             The member number of the link node, with a valid range from 1 to 15.
- c             Must be one of the following:

STOP REQUEST REJECTED, UPDATE JOB NOT RUNNING  
SINGLE NODE STOP REQUEST REJECTED,  
    UPDATE ALREADY COMPLETED  
SINGLE NODE STOP REQUEST REJECTED,  
    UPDATE WAS ATTEMPTED AND FAILED  
SINGLE NODE STOP REQUEST REJECTED,  
    UPDATE WAS ABORTED  
SINGLE NODE STOP REQUEST REJECTED,  
    NODE NOT SCHEDULED FOR UPDATE  
SINGLE NODE STOP REQUEST REJECTED,  
    UPDATE IN PROGRESS AND TOO LATE TO STOP  
STOP REQUEST IS REJECTED, UPDATE ERRLOG CONDITION

## 4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Input Messages

OP:UPD

STOP:UPD

UPD:DCHN

Output Messages

OP:UPD

REPT:UPD-DCHN

UPD:DCHN

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... SW:ATP  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

SW ATP {ABORTED | ATPCM TIMEOUT | COMPLETE | DENY | FAILED}

## 2. REASON FOR OUTPUT

To report the termination status of ATP software switch.

## 3. VARIABLE FIELD DEFINITIONS

No variables.

## 4. ACTION TO BE TAKEN

Retry in case of denial or abort. Seek technical assistance in case of failure or timeout.

## 5. REFERENCES

Input Message  
SW:ATP

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... SW:CLOCK  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

**1. FORMAT**

SW CLOCK COMPL  
FORCED SWITCH BROADCAST TO ALL ADJOINING NODES

**2. REASON FOR OUTPUT**

Response to a request for a forced switch from mate clock node to master clock node  
(SW:CLOCK).

**3. VARIABLE FIELD DEFINITIONS**

None.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Input Message  
SW:CLOCK

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... SW:CU  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] SW CU ABORTED a
- [2] SW CU b COMPLETED
- [3] SW CU NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS [c]

## 2. REASON FOR OUTPUT

To report the status of an SW:CU input message for a softswitch of the Control Unit (CU).

## 3. VARIABLE FIELD DEFINITIONS

- a Error code. See System Error Codes Output Appendix, APP:SYSERR.
- b Unit number of CU switched to active.
- c Description of conflict with current system status.

## 4. ACTION TO BE TAKEN

For Format 1, take action as appropriate for the error condition.

For Format 2, no action is needed.

For Format 3, determine the conflict with the current system status. After the conflict is resolved, retry the CU softswitch.

## 5. REFERENCES

OMDB Keys

Format 1 has an OMDB key of 415.

Formats 2 and 3 have an OMDB key of 314.

Output Appendix

APP:SYSERR

Input Message

SW:CU

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... SW:DLN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

SW DLN STREAM IN UNKNOWN STATE

SW DLN STREAM COMPLETE

SW DLN FAILED  
REASON: a

## 2. REASON FOR OUTPUT

To report the termination status of software switching DLNs.

## 3. VARIABLE FIELD DEFINITIONS

a                      Error code. (See Output Appendix APP:DLNCM-13 - Unable to Switch DLNs.)

## 4. ACTION TO BE TAKEN

Seek technical assistance if error occurs.

## 5. REFERENCES

Output Appendix  
APP:DLNCM-13

SEE PROPRIETARY NOTICE ON COVER PAGE



**WARNING**  
**INAPPROPRIATE USE OF THIS**  
**MESSAGE MAY INTERRUPT OR**  
**DEGRADE SERVICE. READ PURPOSE**  
**CAREFULLY.**

ID ..... SW:OFLBOOT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**WARNING**  
**The boot was unsuccessful and the side switch might be too. This can**  
**potentially affect call origination.**

### 1. FORMAT

|     |               |         |          |      |
|-----|---------------|---------|----------|------|
| [1] | SW OFLBOOT a  |         |          |      |
|     | b             |         |          |      |
|     | OLBSTATE      | LASTATE | FUNCTION | LINE |
|     | c             | d       | e        | f    |
|     |               |         |          |      |
| [2] | SW OFLBOOT a  |         |          |      |
|     | {b h   b h i} |         |          |      |
|     | OLBSTATE      | LASTATE | FUNCTION | LINE |
|     | c             | d       | e        | f    |
|     |               |         |          |      |
| [3] | SW OFLBOOT a  |         |          |      |
|     | h i [j] b     |         |          |      |
|     | OLBSTATE      | LASTATE | FUNCTION | LINE |
|     | c             | d       | e        | f    |

### 2. REASON FOR OUTPUT

To report information regarding the execution of the offline boot feature.

### 3. VARIABLE FIELD DEFINITIONS

|            |                                                                                                                                       |
|------------|---------------------------------------------------------------------------------------------------------------------------------------|
| a          | Message type.                                                                                                                         |
|            |                                                                                                                                       |
| ABORTED    | — Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.                             |
|            |                                                                                                                                       |
| COMPLETED  | — Indicates off-line side boot has completed.                                                                                         |
|            |                                                                                                                                       |
| INFO       | — For information only.                                                                                                               |
|            |                                                                                                                                       |
| STOPPED    | — Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored. |
|            |                                                                                                                                       |
| TERMINATED | — UNIX® RTR software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.         |

SEE PROPRIETARY NOTICE ON COVER PAGE

b

Text line:

AIM SWITCH PRECHECKS TIMED OUT — Printed when the timer for Application Integrity Monitor (AIM) SW:OFLBOOT off-line pre-checks expires. The pre-check results will default to failure.

BOOT UNSUCCESSFUL, CANNOT SWITCH — SW:OFLBOOT was requested after a completed but unsuccessful offline boot. SW:OFLBOOT is valid only after a completed, successful offline boot or after a side switch.

CANNOT ACCESS ECD — SW:OFLBOOT encountered problems accessing Recent Change And Verify (RC/V) Equipment Configuration Database (ECD) device information.

CANNOT SEND MESSAGE TO USER PROCESS, PID: — SW:OFLBOOT cannot send a message to the user process identified by its process identifier. Usually the problem is no message buffers are available.

CORRUPT ECD UCB RECORD FOR h i — SW:OFLBOOT encountered inconsistent information about a device from the off-line ECD. For example, SW:OFLBOOT accessed the RC/V ECD Unit Control Block (UCB) record for a Disk File Controller (DFC) and the device type in the UCB record is not DFC. This may indicate that the off-line ECD is corrupt.

DIAGNOSTICS IN PROGRESS — Indicates the specified device's RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

INTERNAL DFC TABLE CORRUPT — Internal data or internal tables have been corrupted.

INTERNAL IOP TABLE CORRUPT — Internal data or internal tables have been corrupted.

INTERNAL UNITS TABLE CORRUPT — Internal data or internal tables have been corrupted.

LOW CORE IOPMASK CORRUPT — Data store in low core has been corrupted.

LOW CORE ORIGSIDE CORRUPT — Data store in low core has been corrupted.

NO DISK FORCED — A DFC is not forced.

NO IOP ON THE OFFLINE SIDE — Indicates that Input / Output Processor 0 (IOP 0) and Input / Output Processor 1 (IOP 1) are both on the on-line side. The switch will fail because it will not have a Maintenance Teletypewriter (MTTY) or Read Only Printer (ROP) on the other side.

SEE PROPRIETARY NOTICE ON COVER PAGE



**NOT ACTIVE** — Printed if the specified device is not in the ACT state. The incorrect state is given in variable for the device state.

**OFLBOOT NEEDS TO BE COMPLETED FIRST** — Offline boot is supported; however, one is not in progress at this time, or it is in progress but has not finished booting yet.

**OFFLINE SYSTEM IS RUNNING IN MINIMUM CONFIGURATION MODE** — Indicates the off-line side is running in minimum configuration mode. There is no AIM process on the off-line side to support offline boot; cannot side switch.

**OLBSTATE EXPECTED TO BE AFTERBOOT OR AFTERSW** — SW:OFLBOOT cannot switch due to the fact that OLBSTATE is not AFTERBOOT or AFTERSW. SW:OFLBOOT is valid only immediately after a successful offline boot or side switch.

**SWITCH FROM OFF-LINE SIDE NOT ALLOWED** — Printed if SW:OFLBOOT is invoked from the off-line side.

**SWITCH FAILED** — Serious errors are encountered during a side switch procedure. Nevertheless, the procedure may be completed if the RETROFIT option was specified. This may mean that operation will continue without call origination. If the RETROFIT option was not specified, the side switch procedure will be terminated. Note however, the system still remains inside the offline boot procedure.

**SWITCH OFFLINE SIDE COMPLETE** — The off-line side completed its portion of a side switch. This message may be found in the OLBLOG file.

**SWITCH ONLINE SIDE COMPLETE** — The on-line side completed its portion of a side switch. This message will be found only in the OLBLOG file.

**UNEXPECTED MESSAGE FROM AIM** — Indicates a message has been received unexpectedly from AIM.

- c Current offline boot state.
- d Previous offline boot state.
- e Name of the function from which the output message originated. This field is used by UNIX® RTR in diagnosing offline boot problems.
- f Line number in the function listed from which the output message originated. This field is used by UNIX® RTR, in conjunction with field e, to diagnose offline boot problems.
- g Process identification number.
- h String giving device type information. For example: CU, DFC, IOP, MHD, TTY, TTYC, and DSCH. Unit names are listed in the Member Numbers Appendix, APP:MEM-NUM-C.

SEE PROPRIETARY NOTICE ON COVER PAGE

- i Device number. A value of zero, when used with variable for device type. For example: could form DFC 0.
- j Device state.

#### 4. ACTION TO BE TAKEN

Text line:

AIM SWITCH PRECHECKS TIMED OUT — Check the OLBLOG files on the off-line side to determine if AIM is having problems; if not, try the side switch again.

BOOT UNSUCCESSFUL, CANNOT SWITCH — Try SW:OFLBOOT again with the UCL option to override the unsuccessful offline boot. **WARNING:** The boot was unsuccessful and the side switch might be too. This can potentially affect call origination.

CANNOT ACCESS ECD — Wait for the side switch to fail, then manually stop offline boot. The error is in the off-line side ECD which cannot be audited; seek technical assistance.

CANNOT SEND MESSAGE TO USER PROCESS, PID: — Try the side switch again.

CORRUPT ECD UCB RECORD FOR h i — Seek technical assistance.

DIAGNOSTICS IN PROGRESS — Wait for diagnostics to complete, fix any problems, and then try side switching again. If diagnostics are not running, the RC/V ECD UCB record is corrupt. In this case, the UCB needs to be unreserved manually or through the ECDOWN audit.

INTERNAL DFC TABLE CORRUPT — The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete. Seeking technical assistance is recommended.

INTERNAL IOP TABLE CORRUPT — The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete. Seeking technical assistance is recommended.

INTERNAL UNITS TABLE CORRUPT — The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete. Seeking technical assistance is recommended.

LOW CORE IOPMASK CORRUPT — Seek technical assistance.

LOW CORE ORIGSIDE CORRUPT — Seek technical assistance.

NO DISK FORCED — Force the DFC that was previously forced; try SW:OFLBOOT again.

NO IOP ON THE OFFLINE SIDE — Try offboot with IOP 0 or IOP 1 specified. Wait for the off-line side to be booted, then try SW:OFLBOOT again.

NOT ACTIVE — Restore this device; try SW:OFLBOOT again.

SEE PROPRIETARY NOTICE ON COVER PAGE

OFLBOOT NEEDS TO BE COMPLETED FIRST — A SW:OFLBOOT can be executed only after EXC:OFLBOOT has executed successfully.

OFFLINE SYSTEM IS RUNNING IN MINIMUM CONFIGURATION MODE — To side switch, stop offboot and execute EXC:OFLBOOT without specifying the minconfig option. When this second offline boot completes, try the side switch again.

OLBSTATE EXPECTED TO BE AFTERBOOT OR AFTERSW — Wait for offline boot or side switch to complete; try SW:OFLBOOT again.

SWITCH FROM OFF-LINE SIDE NOT ALLOWED — Execute SW:OFLBOOT from the on-line side.

SWITCH FAILED — Stop offline boot; wait for it to terminate. If RETROFIT was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If RETROFIT was specified, the side switch will continue; no action is needed.

SWITCH OFFLINE SIDE COMPLETE — This message is for information only; no action is needed.

SWITCH ONLINE SIDE COMPLETE — This message is for information only; no action is needed.

UNEXPECTED MESSAGE FROM AIM — Seek technical assistance.

## 5. REFERENCES

### OMDB Keys

Format 1 has an OMDB key of 704.

Format 2 has an OMDB key of 705 or 708.

Format 3 has an OMDB key of 706.

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

### Input Appendix

APP:MEM-NUM-B

APP:MEM-NUM-C

APP:MEM-NUM-D

### Input Messages

EXC:OFLBOOT

STOP:OFLBOOT

SW:OFLBOOT

### Output Messages

EXC:OFLBOOT

REPT:OFFLINE

REPT:OFLBOOT

STOP:OFLBOOT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... SW:PORTSW  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] SW PORTSW {ABORTED|COMPLETED|DENIED|STOPPED} FOR [a] [b]
- [2] SW PORTSW NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS
- [3] SW PORTSW NOT STARTED  
INVALID ID FIELD

## 2. REASON FOR OUTPUT

To report the result of executing the SW:PORTSW input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Port switchable subdevice name (Maintenance Teletypewriter [MTTY] or Receive-Only Printer [ROP]).
- b Failure reason:
  - ECD ERROR—Failed due to Equipment Configuration Database (ECD) failure.
  - UNABLE TO ACCESS DRIVER—Failed due to communication failure with the Input/Output Driver (IODRV) process.
  - UNABLE TO GET DRIVER STATUS—Failed due to communication failure with the Input/Output Driver (IODRV) process.

## 4. ACTION TO BE TAKEN

For a STOPPED message, check the portswitch hardware; it should be set in the automatic position, not in position 0 or 1. Both subdevices should be restored to service.

For ABORTED and DENIED messages, check the ROP output and the IODRV log files for additional help in determining the problem. IODRV log files are /etc/log/IODRVLOG0 and /etc/log/IODRVLOG1. If necessary, seek technical assistance.

## 5. REFERENCES

OMDB Key  
Format 1 has an OMDB key of 164.

Input Message  
SW:PORTSW

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:APPDL  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 Rel. 2 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] UPD APPDL - FAILURE OPENING DATA FILE - ERR a
- [2] UPD APPDL REFRESH JOB COMPLETED
- [3] UPD APPDL SDL RECORD[b] ILLEGAL RECORD
- [4] UPD APPDL SDL RECORD[b] MISSING SEMICOLON
- [5] UPD APPDL SID PASSWORD FAILED
- [6] UPD APPDL TAG "c" WAS NOT FOUND IN DATA FILE
- [7] UPD APPDL UPDATE JOB COMPLETED
- [8] UPD APPDL TAG AND TEXT DUMP
  - [d] SDLe f
- [9] UPD APPDL DUMP JOB COMPLETED

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:APPDL command.

Format 1, the data file was not opened or found.

Format 2, a user requested refresh of pages Application Data Link (APPDL) 114 and Synchronous Data Link Controller (SDLC) 115, the job has completed successfully.

Format 3, a self checking audit of the data files content, while reading the data file, has detected an illegal record in the data file. This audit has detected a record not starting with SDL. All records must start with the character stream SDL.

Format 4, a self checking audit of the data files content, while reading the data file, has detected an illegal record in the data file. This audit has detected a record that does not contain a semicolon. All records must contain a semicolon, semicolons are used to delimit the data record into its individual parts.

Format 5, the password entered by the user is not the daily password.

Format 6, User has entered an Synchronous Data Link (SDL) number that does not exist in the data file.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 7, the user requested update to pages APPDL and SDLC has completed successfully.

Format 8, a formatted Read Only Printer (ROP) and users screen output from a users requested dump of the data file.

Format 9, Format 8 has completed.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                             |
|---|---------------------------------------------------------------------------------------------------------------------------------------------|
| a | Error number associated with reason for failure:                                                                                            |
|   | 1 — Not owner,                                                                                                                              |
|   | 2 — No such file or directory,                                                                                                              |
|   | 9 — Bad file number,                                                                                                                        |
|   | 13 — Permission denied,                                                                                                                     |
|   | 17 — File exists,                                                                                                                           |
|   | 24 — Too many open files,                                                                                                                   |
|   | 27 — File to large,                                                                                                                         |
|   | 28 — No space left on device.                                                                                                               |
| b | The records line number in the data file.                                                                                                   |
| c | User has entered d which is not a valid SDL number in the data file.                                                                        |
| d | Data files line number of the record for each SDL.                                                                                          |
| e | The SDL's number.                                                                                                                           |
| f | The port name associated to the SDL number. A character stream of "(NULLED)" will appear when the numbered SDL is not assigned a port name. |

### 4. ACTION TO BE TAKEN

Format 1, check the existence of file and proceed according to error given.

Format 2, for information only.

Format 3, do an UPD:APPDL;DUMP to check the data files content. The data file record has become corrupted, either copy a back up file to overwrite the data file or edit the data file an correct the offending record, being sure the record starts with "SDL".

Format 4, do an UPD:APPDL;DUMP to check the data files content. The data file record has become corrupted, either copy a back up file to overwrite the data file or edit the data file an insert a semicolon into the offending record.

Format 5, know the daily password and retry the "UPD:APPDL" command.

Format 6, do an UPD:APPDL;DUMP to check the data files content.

Formats 7, 8, and 9, for information only.

SEE PROPRIETARY NOTICE ON COVER PAGE



**5. REFERENCES**

Input Message  
UPD:APPDL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:APPLY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1]     UPD APPLY REPT  
          a

[2]     UPD APPLY b

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:APPLY command.

Format 1 is output to give information about the progress of an update, or to report an error encountered while processing the update.

Format 2 is output upon termination of the process.

## 3. VARIABLE FIELD DEFINITIONS

a                   Information about the progress of an update, or report on an error encountered while processing the update. Error messages may be one of the following categories:

COFF       — reports an error in the internal format of a file  
database — reports an error in the database  
filesys    — reports an error in the file system  
internal — reports an error found by the field update code  
system     — reports a system error that occurred  
usage      — reports an error using field update

See the output Field Update Error Codes Appendix, APP:FUEC, for explanations of error codes which may appear in error messages.

b                   Termination mode of the input message UPD:APPLY-BYTER, UPD:APPLY-FILER, or UPD:APPLY-FUNCR. The mode will be either COMPLETED for successful completion or ABORTED for termination with errors.

## 4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Output Appendix  
APP:FUEC

Input Messages  
UPD:APPLY-BYTER  
UPD:APPLY-FILER  
UPD:APPLY-FUNCR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:APPLY-FILER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD a REPT  
      b  
UPD a b

**NOTE:** Due to the large number of errors generated by field update, an Error Messages Section, which contains a detailed description of the error messages and the meanings of the error codes, is included in the *Field Update User's Guide*.

## 2. REASON FOR OUTPUT

To report the result of executing the UPD:APPLY-FILER input message.

## 3. VARIABLE FIELD DEFINITIONS

- a                    The identification field (APPLY) of the field update input message producing this output.
- b                    Messages from the field update processes. The messages may report that the update completed or that there were errors.
- COMPLETED — The input command completed successfully.
- ABORTED — The command was abnormally terminated due to a system error or an error in execution. The UPD:SYSERR output message precedes a system error. A user error is preceded by UPD:USRERR output message. A usage error (-1) and an error message will be printed if the process ABORTED because of an error encountered while executing the command.
- WARN        — The process encountered some inconsistency while executing the input command. A WARNING or WARN message is printed, but execution continues until the update is completed.

## 4. ACTION TO BE TAKEN

If b = ABORTED, consult the Error Messages Section of the *Field Update User's Guide*.

## 5. REFERENCES

Input Message  
UPD:APPLY-FILER

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message  
UPD:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:APPLY-FUNCR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD a REPT  
      b  
UPD a b

**NOTE:** Due to the large number of errors generated by field update, an Error Messages Section, which contains a detailed description of the error messages and the meanings of the error codes, is included in the *Field Update User's Guide*,

## 2. REASON FOR OUTPUT

To report the result of executing the UPD:APPLY-FUNCR input message.

## 3. VARIABLE FIELD DEFINITIONS

- a                    The identification field (APPLY) of the field update input message producing this output.
- b                    Messages from the field update processes. The messages may report that the update completed or that there were errors.
- COMPLETED — The input command completed successfully.
- ABORTED    — The command was abnormally terminated due to a system error, a user error, or an error in execution. The UPD:SYSERR output message precedes a system error. The UPD:USERR output message precedes a user error. A usage error (-1) and an error message will be printed if the process ABORTED because of an error encountered while executing the command.
- WARN        — The process encountered some inconsistency while executing the input command. A WARNING or WARN message is printed, but execution continues until the update is completed.

## 4. ACTION TO BE TAKEN

If b = ABORTED, consult the Error Messages Section of the *Field Update User's Guide*.

## 5. REFERENCES

Input Message  
UPD:APPLY-FILER

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Output Message  
UPD:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:AUTOCHK  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

### [1] UPD AUTOCHK REPORT

SYSTEM HEALTH CHECK REPORT FOLLOWS

BEGINNING            a b c hh:mm:ss d  
ENDING              a b c hh:mm:ss d

OVERALL STATUS - {PASSED|FAILED}

-----

|                             |                                             |
|-----------------------------|---------------------------------------------|
| BREAKPOINTS IN 3B           | {PASSED FAILED NOT CHECKED UNABLE TO CHECK} |
| 3B IN DUPLEX MODE           | {PASSED FAILED NOT CHECKED UNABLE TO CHECK} |
| TEMPORARY UPDATES ON SWITCH | {PASSED FAILED NOT CHECKED UNABLE TO CHECK} |
| INCONSISTENCIES             | {PASSED FAILED NOT CHECKED UNABLE TO CHECK} |
| SCC LINK                    | {PASSED FAILED NOT CHECKED UNABLE TO CHECK} |

[INVALID DATA DETECTED IN HEALTH CHECK STRUCTURE]  
[REPORT MAY CONTAIN BAD INFORMATION]

[-----]

[FAILING SYSTEM HEALTH CHECK ITEMS - ADDITIONAL INFORMATION]

[TYPE e INCONSISTENCY DETECTED]

-----

UPD AUTOCHK REPORT COMPLETED

- [2] UPD AUTOCHK IN PROGRESS
- [3] UPD AUTOCHK PASSED
- [4] UPD AUTOCHK FAILED
- [5] UPD AUTOCHK COMPLETED
- [6] UPD AUTOCHK ABORTED
- [7] UPD AUTOCHK HEALTHCHECK HAS NOT YET BEEN RUN

SEE PROPRIETARY NOTICE ON COVER PAGE

## 2. REASON FOR OUTPUT

Format 1 is in response to the UPD:AUTOCHK input message requesting a report on the status of the "health" of the switch. A short summary is printed indicating the items checked and their status at the time the report was run (ie, PASSED, FAILED, NOT CHECKED or UNABLE TO CHECK). If any of the system health check items indicate failure or unable to check, the overall status of the UPD AUTOCHK REPORT is FAILED. In addition, if inconsistencies are detected, additional information is provided.

Format 2 is in response to the UPD:AUTOCHK input message. It indicates that the request is in progress.

Format 3 is in response to the UPD:AUTOCHK input message. It indicates that the requested system health check passed.

Format 4 is in response to the UPD:AUTOCHK input message. It indicates that the requested system health check failed.

Format 5 is in response to the UPD:AUTOCHK input message. It indicates that the request has completed.

Format 6 is in response to the UPD:AUTOCHK input message. It indicates that the request has aborted.

Format 7 is in response to the UPD:AUTOCHK input message. It indicates that the requested report was not available since the system health check has not been run yet.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                          |
|---|------------------------------------------------------------------------------------------|
| a | Day                                                                                      |
| b | Month                                                                                    |
| c | Date                                                                                     |
| d | Year                                                                                     |
| e | Type of inconsistency. See UPD:VFYCON output message page for more detailed information. |

## 4. ACTION TO BE TAKEN

This report lists any activities or situations that may interfere with the automatic application of a Software Update (SU). If the report shows that the overall status is failed, corrective action may be necessary. However, some instances of this report require that no action be taken. These instances are:

- conflicting switch activity
- other processes are in progress

Wait until the process in question completes or until the proper amount of time, according to the information set in the office profile, has passed.

SEE PROPRIETARY NOTICE ON COVER PAGE

If the UPD:AUTOCHK report lists failures that indicate off-normal situations, request a copy of the off-normal report through the use of the OP:SYSSTAT input message. Refer to the OP:SYSSTAT input message for the correct format and take the appropriate action to correct the situation. Also, any SUs in the temporary state on the switch, must be either made official (9330 poke on the 1960 page) or backed out (9340 poke on the 1960 page). Any breakpoints that exist must be cleared. If the consistency check fails, refer to the UPD:VFYCON output message for the action to be taken according to the type of inconsistency detected.

## **5. REFERENCES**

### MCC Display Pages

- 1941 (SU AUTOMATION SCHEDULING)
- 1942 (SU AUTOMATION OFFICE PROFILE)
- 1943 (SU AUTOMATION HEALTH CHECK)
- 1960 (SU INSTALLATION)

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

### Input Messages

OP:UTIL  
UPD:AUTOCHK  
UPD:BKOUT  
UPD:OFC  
UPD:VFYCON

### Output Messages

OP:UTIL  
UPD:AUTOMATION  
UPD:REPT  
UPD:VFYCON

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:AUTOMATION  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD AUTOMATION a  
                  b  
                  {c|SU d e f}  
                  g

## 2. REASON FOR OUTPUT

To give information or status regarding Software Update (SU) Automation.

## 3. VARIABLE FIELD DEFINITIONS

- a                   Category of the message:
- HEALTH CHECK — To report information regarding the current (or last) SU Automation Health Check
- INFO — Information regarding the last SU Automation request, or information on the current automatic installation that is in progress
- INSTALL — To report on the current automatic SU installation that is already in progress.
- OFFICE PROFILE — To report on the status of the request to update the SU Automation Office Profile.
- SCHEDULE — To report on a request to schedule an SU for automatic installation, or to report the status of the current SU scheduled.
- b                   A brief text phrase providing information or describing an error related to the Software Update Automation activity.
- c                   SU — An SU name.
- Reason — Reports the reason why SU automation is inhibited.
- Info — Provides information on the health check condition for which it was requested.
- text phrase — A brief text phrase providing more information.
- SU                  The SU is scheduled for installation for the given date/time to the given installation stage.
- d                   SU stage.
- e                   SU date.

SEE PROPRIETARY NOTICE ON COVER PAGE

- |   |                                                                                |
|---|--------------------------------------------------------------------------------|
| f | SU time.                                                                       |
| g | Provides information on the health check condition for which it was requested. |

#### **4. ACTION TO BE TAKEN**

The specific action required depends on the b field in the message. Most of these reports are informational in nature.

#### **5. REFERENCES**

MCC Display Pages:

- 1940 (EASY SU INSTALLATION)
- 1941 (SU AUTOMATION SCHEDULING)
- 1942 (SU AUTOMATION OFFICE PROFILE)
- 1943 (SU AUTOMATION HEALTH CHECK)
- 1950 (SU MAINTENANCE)
- 1960 (SU INSTALLATION)

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*UNIX® RTR Operating System System Maintenance Manual*

Input Messages

UPD:AUTO  
UPD:AUTOCHK  
UPD:AUTOPROFILE  
UPD:AUTOSCHED

Output Message

UPD:AUTOCHK

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:BKOUT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1]     UPD BKOUT REPT  
      a

[2]     UPD BKOUT b

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:BKOUT command.

Format 1 is output to give information about the progress of backing out an update, or to report an error encountered while processing the backout.

Format 2 is output upon termination of the process.

## 3. VARIABLE FIELD DEFINITIONS

a                    Information about the progress of backing out an update, or report on an error encountered while processing the backout. Error messages may be one of the following categories:

COFF            — reports an error in the internal format of a file  
database — reports an error in the database  
filesys        — reports an error in the file system  
internal — reports an error found by the field update code  
system        — reports a system error that occurred  
usage          — reports an error using field update

See the output Field Update Error Codes Appendix, APP:FUEC, for explanations of error codes which may appear in error messages.

b                    Termination mode of the input message UPD:BKOUT. The mode will be either COMPLETED for successful completion or ABORTED for termination with errors.

## 4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Output Appendix  
APP:FUEC

Input Message  
UPD:BKOUT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:BLDBOOT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1]     UPD BLDBOOT REPT  
          a

[2]     UPD BLDBOOT b

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:BLDBOOT command.

Format 1 is output to give information about the progress of the bldboot process, or to report an error encountered while executing the process.

Format 2 is output upon termination of the bldboot process.

## 3. VARIABLE FIELD DEFINITIONS

a               Information about the progress of an update, or report of an error encountered while processing the update. Error messages may be one of these categories:

COFF           — Reports an error in the internal format of a file.

database       — Reports an error in the database.

filesys        — Reports an error in the file system.

internal       — Reports an error found by the bldboot code.

system         — Reports a system error that occurred.

usage          — Reports an error using bldboot.

**NOTE:** See the output Field Update Error Codes Appendix, APP:FUEC, for explanations of error codes which may appear in error messages.

b               Termination mode:

ABORTED       — Termination with errors.

COMPLETED   — Successful completion.

## 4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Output Appendix  
APP:FUEC

Input Message  
UPD:BLDBOOT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:BWMNIO  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## **1. FORMAT**

This message contains 5 formats.

- [1]     UPD BWMNIO ABORTED - CAN'T FIND FILE a
- [2]     UPD BWMNIO ABORTED - CAN'T OPEN FILE a
- [3]     UPD BWMNIO ABORTED - MSGS FILE CONTAINS ERROR
- [4]     UPD BWMNIO ABORTED - MUST TERMINATE FROM 109 PAGE
- [5]     UPD BWMNIO COMPLETED

## **2. REASON FOR OUTPUT**

To report the result of executing a UPD:BWMNIO command.

## **3. VARIABLE FIELD DEFINITIONS**

a                   Name of the file the process was trying to locate or open.

## **4. ACTION TO BE TAKEN**

For formats 1 and 2 verify that the file exists. For format 3, check if the MSGS file located in the BWM directory is correct. For format 4, the field update page (109) cannot be active. Go to the 109 page and enter a poke of 401 to terminate the page.

## **5. REFERENCES**

None.

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:CLR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1]     UPD CLR REPT  
       a

[2]     UPD CLR b

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:CLR command.

Format 1 is output to give information about the progress of clearing an update, or to report an error encountered while processing the clear.

Format 2 is output upon termination of the process.

## 3. VARIABLE FIELD DEFINITIONS

a                    Information about the progress of clearing an update, or report of an error encountered while processing the clear. Error messages may be one of the following categories:

COFF            — reports an error in the internal format 1 of a file 1  
database — reports an error in the database 1  
filesys        — reports an error in the file system  
internal — reports an error found by the field 1 update code 1  
system        — reports a system error that occurred 1  
usage          — reports an error using field update 1

See the output Field Update Error Codes Appendix, APP:FUEC, for explanations of error codes which may appear in error messages.

b                    Termination mode of the input message UPD:CLR. The mode will be either COMPLETED for successful completion, or ABORTED for termination with errors.

## 4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

SEE PROPRIETARY NOTICE ON COVER PAGE

**5. REFERENCES**

Output Appendix  
APP:FUEC

Input Message  
UPD:CLR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:COMMAND  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD COMMAND a [b] c

## 2. REASON FOR OUTPUT

To report progress of software update commands.

## 3. VARIABLE FIELD DEFINITIONS

a Command poke that this progress message is for:

|         |          |         |             |           |
|---------|----------|---------|-------------|-----------|
| APPLY   | AUTO     | AUTOCHK | AUTOPROFILE | AUTOSCHED |
| BKOUT   | BLDBOOT  | BLOCK   | BOLO        | CHG       |
| CLR     | CLRBWM   | CSCANS  | DISPLAY     | DISPLYUPD |
| EASYSU  | EXALL    | EXNXT   | EXPAND      | FTRC      |
| GENP    | INITPW   | NXTWNDW | PRINT       | PRVWNDW   |
| RCVRY   | RECOVERY | REBOOT  | REDUCE      | RESET     |
| SOAK    | START    | STOP    | OFC         | UPDCON    |
| UPDDSPY | UPNAME   | VFY     | VFYBWM      | VFYCON    |

b The SU name or product path associated with the progress message.

c The command progress status with the values:

ABORTED  
ABORTED SEE ROP AND 1960 PAGE  
ALREADY EXECUTING  
APPLY SECTION COMPLETED  
BKOUT SECTION COMPLETED  
COMPLETED  
CONTINUES  
FINISHED  
IN PROGRESS  
OFFICIAL SECTION COMPLETED  
PARTIALLY COMPLETE  
PFILE CREATION IN PROGRESS  
SECTION COMPLETED BUT NOT TIMED

SEE PROPRIETARY NOTICE ON COVER PAGE

SOAK SECTION COMPLETED  
STARTED  
STOPPED  
STOPPED - BY USER REQUEST  
STOPPED AFTER SOAK, SEE 1940 PAGE  
THE SU IS ALREADY OFFICIAL

**4. ACTION TO BE TAKEN**

None. This message is for information only.

**5. REFERENCES**

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:CSCANS  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD CSCANS : ATTEMPTS TO CONNECT, TIME: aa:bb
- [2] UPD CSCANS : CAN NOT SEND UPLOAD QUERY RETURN MESSAGE TO CSCANS
- [3] UPD CSCANS :  
    INVALID FILE NAME FORMAT IN PATHNAME, PATHNAME = c
- [4] UPD CSCANS :  
    WARNING: CANNOT SEND MESSAGE TO SUEXPAND PROCESS
- [5] UPD CSCANS :  
    CONNECTION ESTABLISHED  
    FILES WILL BE STORED IN d  
    AVAILABLE SPACE = e BLOCKS
- [6] UPD CSCANS : DATA LINK DISCONNECTED
- [7] UPD CSCANS :  
    [BWM DOWNLOAD SESSION COMPLETED SUCCESSFULLY]  
    f FILES RECEIVED UNDER g:  
        h  
        .  
        .  
        .  
    ELAPSED TIME aa:bb SPACE REMAINING i  
    [j ERROR k]
- [8] UPD CSCANS :  
    NO BWM FILES DOWNLOADED
- [9] UPD CSCANS :  
    CSCANS PASSWORD FILE NOT FOUND OR INVALID PASSWORD FORMAT  
    NO BWM FILES DOWNLOADED
- [10] UPD CSCANS :  
    SECURITY VIOLATION -- PASSWORD MISMATCH
- [11] UPD CSCANS :  
    UPD CSCANS DETECTED DATA LINK DISCONNECTION
- [12] UPD CSCANS : NO FILE TRANSFER ACTIVE

SEE PROPRIETARY NOTICE ON COVER PAGE

- [13] UPD CSCANS STOPPED l
- [14] UPD CSCANS ERROR m [,ERRNO = n]
- [15] UPD CSCANS ERROR:  
CAN NOT ALLOCATE SPACE FOR PASSWORD, KEY OR ATTEMPT  
CSCANS STOPPED
- [16] UPD CSCANS ERROR: -r & -w OPTIONS MUST BE SPECIFIED
- [17] UPD CSCANS ERROR: INCOMING PASSWORD MUST BE SPECIFIED
- [18] UPD CSCANS ERROR, FAILED TO CONNECT TO PORT

## **2. REASON FOR OUTPUT**

Customer Service Computer Access Network Standards (CSCANS) reports.

Format 1 reports that a remote system tried to connect to the switch via CSCANS interface, and reports the time for this attempt.

Format 2 reports that the CSCANS file receive process (SUfilercv) could not send an upload query return message to the remote CSCANS system. The return message contains the last official Software Update (SU) number from the switch. The link is disconnected upon encountering this error.

Format 3 reports that the SUfilercv process sent a message with an invalid pathname to the SUexpand process.

Format 4 is a warning message indicating that the SUfilercv process failed to send a message to SUexpand. No SU files will be expanded.

Format 5 reports that a remote system connected to the switch successfully via CSCANS interface.

Format 6 reports that the connection over the scans data link was disconnected.

Format 7 reports that a SU download via CSCANS interface completed successfully. Files downloaded, elapsed time, and the remaining file space were also output.

Format 8 reports that no SU files were received on the switch.

Format 9 reports that the CSCANS password file was missing or had an invalid format. No SU files will be downloaded.

Format 10 reports that a security violation occurred because the password from the CSCANS system and the switch did not match. The link is disconnected upon encountering this error.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 11 reports that the remote system disconnected the data link for an unknown reason.

Format 12 reports that there is no CSCANS download currently in progress.

Format 13 reports the progress of the UPD:CSCANS-STOP input message.

Format 14 is used to report the termination of the SUfilercv process due to an error unrelated to the actual transmission of files. This message may occur either before, during or after the transmission of files.

Format 15 reports that the SUfilercv process failed to allocate working space for the password file contents.

Format 16 reports that the sugetty process did not execute SUfilercv process with correct parameters. The link is disconnected upon encountering this error.

Format 17 reports that the sugetty process did not execute SUfilercv process with password as a parameter. The link is disconnected upon encountering this error.

Format 18 reports that the SUfilercv failed to connect to its system port.

### **3. VARIABLE FIELD DEFINITIONS**

- |   |                                                                                                         |
|---|---------------------------------------------------------------------------------------------------------|
| a | The pathname that SUfilercv sent to the SUexpand process.                                               |
| b | The pathname where the SU files were stored in the switch.                                              |
| c | File space, expressed as the number of blocks before SU download session start.                         |
| d | Number of files received in current download session.                                                   |
| e | Complete pathname for the SU files received.                                                            |
| f | List of files received in current download session.                                                     |
| g | File space, in blocks, left after the current download session.                                         |
| h | Hour.                                                                                                   |
| i | Minute.                                                                                                 |
| j | Pathname of a file issued by the sending end which was not received by the CSCANS file receive process. |

SEE PROPRIETARY NOTICE ON COVER PAGE

- k** Error code specifying the reason why the file was not received by the CSCANS file receive process:
- 01 — Insufficient space on disk to store the file.
  - 02 — File length exceeds the maximum length permitted.
  - 03 — The pathname being processed matches that of a file already on disk.
  - 04 — Could not create incoming file on disk.
  - 05 — File transmission was interrupted.
- l** Code indicating reason for termination:
- 0 — Successful completion of the file transfer session.
  - 1 — Time limit to receive messages from the remote system has expired.
  - 2 — Unable to resynchronize messages with the remote sender.
  - 3 — Unable to resynchronize files with the remote sender.
  - 4 — Bad file sequence number.
  - 5 — Insufficient disk space to store incoming files.
  - 6 — Too many files interrupted.
  - 7 — An internal error occurred in the process.
  - 8 — The file receive process was terminated in response to the UPD:CSCANS-STOP input message.
  - 9 — An I/O error occurred in writing a file to disk.
  - 10 — The remote sender aborted transmission.
  - 11 — A bad disconnect message was received from the sender.
  - 12 — CSCANS password file does not exist.
  - 13 — Security violation, too many unauthorized connection attempts.
- m** Reason for termination:
- 1 — A bad argument was passed to the file receive process.
  - 2 — Failed stat call on base directory.
  - 3 — Failed ustat call on base directory.
  - 4 — Could not enable reception of messages.
  - 5 — Failed to read connect message or received invalid connect message from the remote sending system.
  - 6 — A UPD:CSCANS request failed because of invalid request message.

SEE PROPRIETARY NOTICE ON COVER PAGE

n                      The system error number. The system error number will be printed if the pathname listed is 2, 3 or 4.

#### **4. ACTION TO BE TAKEN**

Verify that all files have been received. If required, try to download software update again later.

#### **5. REFERENCES**

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Input Messages

UPD:CSCANS-REPT  
UPD:CSCANS-STOP

Output Message

UPD:CSCANS-REPT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:CSCANS-REPT  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD CSCANS REPORT:

a FILE RECEIVED UNDER b:

c

.

.

.

FILE CURRENTLY DOWNLOADING: c

ELAPSED TIME dd:dd SPACE REMAINING e

[f ERROR g]

## 2. REASON FOR OUTPUT

To report the current status of a software update download session through Customer Service Computer Access Network Standards (CSCANS) machine. This report displays the number of files received, and the name of the file currently downloading. It also displays the total time used for receiving software update files and the amount of disk space available for receiving more software update files.

## 3. VARIABLE FIELD DEFINITIONS

a The number of files received.

b Complete path name of the software update files received.

c The name of the files received.

**NOTE:** The file names displayed may not be consistent with the actual file names seen under the software update directory. This is the result of the software update expansion mechanism which changes the file name from the compressed file name to the original file name.

d The total number of hours and minutes used for receiving files, in the form of hours:minutes.

e Amount of space remaining under /etc/bwm that can be used to receive more software update files.

f Pathname of a file issued by the sending end which was not received by the CSCANS file receive process.

SEE PROPRIETARY NOTICE ON COVER PAGE

- g                      Error code specifying the reason why the file was not received by the CSCANS file receive process:
- 01 — Insufficient space on disk to store the file.
  - 02 — File length exceeds the maximum length permitted.
  - 03 — The pathname being processed matches that of a file already on disk.
  - 04 — Could not create incoming file on disk.
  - 05 — File transmission was interrupted.

#### 4. ACTION TO BE TAKEN

Verify that all files have been received. If the software update expansion mechanism is not turned on, the file names in the software update directory should be consistent with those from CSCANS. If the software update expansion mechanism is turned on, the files in the software update directory should be the expanded version of the files sent through the CSCANS machine.

#### 5. REFERENCES

MCC Display Pages:

- 1950 (SU MAINTENANCE)
- 1960 (SU INSTALLATION)

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Input Messages

- UPD:CSCANS-REPT
- UPD:CSCANS-STOP
- UPD:INITPW

Output Message

- UPD:CSCANS

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:DCHN  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

UPD DCHN STOPPED  
UPDATE LNa b DCHN NODE FAILED  
c

## 2. REASON FOR OUTPUT

This message prints when LNa b is specified in the UPD:DCHN input command and the message fails.

## 3. VARIABLE FIELD DEFINITIONS

a                    The group number of the link node (00 - 63).  
b                    The member number of the link node (1 - 15).  
c                    Reason update request stopped:  
                      UPDATE REQUEST REJECTED, UPDATE ALREADY IN PROGRESS  
                      UPDATE REQUEST REJECTED, THE RING IS UNAVAILABLE  
                      UPDATE REQUEST REJECTED, IMS INITIALIZATION IN PROGRESS

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

Input Messages  
  OP:UPD  
  STOP:UPD  
  UPD:DCHN

Output Messages  
  REPT:UPD-DCHN  
  STOP:UPD

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:DISPLAY  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD DISPLAY UPDATE DATABASE RECORD NUMBER=a GEN=b  
 SNAME=c PRODUCT PATH=d TARGET=e  
 APPLY DATE=f UTILID=g PNUM=h  
 HDR SEQUENCE=i LAST HDR SEQUENCE=j  
 SAVED BOLO PATH=k BOLO SUM=l  
 SHADOW FILE PATH=k  
 SUPRODUCT FILE=k  
 STATUS=m  
     [PERMED] [INMEMORY] [TEMPED] [OGEN]  
     [OILD] [RECLAIMED] [RECL\_ABRT] [SGEN]  
 ATTRIBUTES=n  
     [ACF] [BOOTIMAGE] [KERNAL] [SUPERVISOR]  
     [SHRLIB] [KILLABLE] [BYTER] [CRC\_INTERNAL]  
     [FUNCR] [FILER] [PSEUDO] [CRC\_EXTERNAL]  
     [3B\_PROCESS] [PACKINFO] [UFFN] [NEW\_PRODUCT]  
 APPLY UFILE=k  
 APPLY PFILE=k  
 RECLAIM UFILE=k  
 RECLAIM PFILE=k  
 [BYTER OVERWRITES:]  
     o p q  
 DISPLAY OF UPDATE RECORD r
- [2] UPD DISPLAY OF UPDATE DATABASE RECORD NUMBER=a GEN=b  
 PRODUCT PATH=d SNAME=c  
 APPLY DATE=f HDR SEQUENCE NUMBER=i  
 STATUS=m  
     [PERMED] [INMEMORY] [TEMPED] [OGEN]  
     [OILD] [RECLAIMED] [RECL\_ABRT] [SGEN]  
 ATTRIBUTES=n  
     [ACF] [BOOTIMAGE] [KERNAL] [SUPERVISOR]  
     [SHRLIB] [KILLABLE] [BYTER] [CRC\_INTERNAL]  
     [FUNCR] [FILER] [PSEUDO] [CRC\_EXTERNAL]  
     [3B\_PROCESS] [PACKINFO] [UFFN] [NEW\_PRODUCT]  
 DISPLAY OF UPDATE RECORD COMPLETED
- [3] UPD DISPLAY SUMMARY REPORT GEN=b  
 LAST OFFICIAL BWM : c STATUS:{APPLY / SOAK IN PROGRESS|OFFICIAL}  
 LAST CRAFT BWM : c STATUS:{APPLY / SOAK IN PROGRESS|OFFICIAL}  
 TEMPORARY BWM : c STATUS:{APPLY / SOAK IN PROGRESS|OFFICIAL}

SEE PROPRIETARY NOTICE ON COVER PAGE

```
[4] UPD DISPLAY BACKUP DATABASE RECORD NUMBER=a GEN=b
 PRODUCT PATH=d SUNAME=c
 APPLY DATE=f ATTRIBUTES=n
 [ACF] [BOOTIMAGE] [KERNAL] [SUPERVISOR]
 [SHRLIB] [KILLABLE] [BYTER] [CRC_INTERNAL]
 [FUNCR] [FILER] [PSEUDO] [CRC_EXTERNAL]
 [3B_PROCESS] [PACKINFO] [UFFN] [NEW_PRODUCT]
```

## 2. REASON FOR OUTPUT

Format 1 reports the result of executing the UPD:DISPLAY input message in verbose form.

Format 2 reports the result of executing the UPD:DISPLAY input message in normal form.

Format 3 is printed when the SUM option is chosen in UPD:DISPLAY.

Format 4 is printed when the BACKLOG option is chosen in UPD:DISPLAY.

## 3. VARIABLE FIELD DEFINITIONS

- a Unique internally assigned update number. This uniquely identifies each update record.
- b The generic identifier as it appears in the Equipment Configuration Database (ECD).
- c Software update package name.
- d Pathname of official product being updated.
- e Processor type for this update.
- f Time and date of creation of this update item, in the form weekday month day hour:minute:second year.
- g The updated process's utility identification number.
- h The process Identification (ID) of the running version of the process. This is only set for killable function replacement updates.
- i The software update package sequence number for this update which appears in the Header (HDR) file.
- j The previous software update package sequence number.
- k Pathname of a working file.
- l The sum of the saved bolo file used for verifying its integrity.
- m The current status flag for this update item, the particular flags that are set 4 per line:
  - INMEMORY — Update has been installed in incore memory.
  - OGEN — Update has been run through the overwrite generator to convert the relocatable .m file(s) into an absolute .u file.

SEE PROPRIETARY NOTICE ON COVER PAGE

OILD — Update has been run through the overwrite incremental loader.

PERMED — Update has been made official and is permanent in the system.

RECLAIMED — Update has been audited to reclaim patchspace.

RECL\_ABRT — Update aborted attempting to reclaim patchspace.

SGEN — Update has been run through system generation to recreate the boot image to include this update.

TEMPED — The new version of the product file has been installed in a temporary state.

n The attribute flag for this update item, the particular flags that are set 4 per line:

3B\_PROCESS — Update is to a process that runs on the 3B20/3B21.

ACF — Update is to an always contiguous product which means the product must always remain contiguous.

BOOTIMAGE — Update product is part of the boot image.

BYTER — Update is a byte overwrite type.

CRC\_EXTERNAL — Update has externally stored CRC value.

CRC\_INTERNAL — Update has internally stored CRC value.

FILER — Update is a file replacement type.

FUNCR — Update is a function overwrite type.

KERNAL — Update product is a kernel level process.

KILLABLE — Update product is a killable process.

NEW\_PRODUCT — This is a newly introduced update product.

PACKINFO — Update uses PACKINFO= to denote update products.

PSEUDO — This update record is a dummy update used for place holding.

SHRLIB — Update product is a shared library.

SUPERVISOR — Update product is a supervisor level process.

UFFN — Update uses UFFN= to denote update products.

o For byter updates only, the starting address of the byter overwrite.

p New byter update values.

q Old byter update values.

SEE PROPRIETARY NOTICE ON COVER PAGE

r

Status:

COMPLETED — Information to be printed for this update record is completed.

CONTINUES — Additional information to be printed for this update record.

#### **4. ACTION TO BE TAKEN**

There is no action to take since this is an only informational output message.

#### **5. REFERENCES**

MCC Display Pages:

1950 (SU MAINTENANCE)

1960 (SU INSTALLATION)

Input Message

UPD:DISPLAY

Output Messages

UPD:COMMAND

UPD:REPT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:FLASH  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD FLASH MEMORY a b STARTED
- [2] UPD FLASH MEMORY a b NOT SUPPORTED c
- [3] UPD FLASH MEMORY a b ABORTED d
- [4] UPD FLASH MEMORY a b IN PROGRESS e
- [5] UPD FLASH MEMORY a b FAILED f
- [6] UPD FLASH MEMORY a b COMPLETED

## 2. REASON FOR OUTPUT

To report the start and execution of the UPD:FLASH input message. FLASH is a device designed to be programmed in a system with a standard 5 volt supply.

## 3. VARIABLE FIELD DEFINITIONS

- a Member name:
  - HSDC
  - MTTYC
  - SCSDC
  - SDLC
  - TTYC
- b Member number (0-255).
- c Reason why the device is not supported:
  - 101 — The member name is not that of a peripheral controller which supports the updating of FLASH memory.
  - 104 — The value in the `u_mv` field of the ECD indicates that this version of the peripheral controller does not support the updating of FLASH memory.
  - 111 — The value in the `pcpackcode` field of the ECD indicates that this peripheral controller does not support the updating of FLASH memory.
  - 112 — The `u_dtype` field in the ECD does not indicate the type of peripheral controller associated with the "member name."

SEE PROPRIETARY NOTICE ON COVER PAGE

- 113 — Not allowed to update FLASH memory (lcall failed).
  - 114 — Not allowed to update FLASH memory (no permission).
  - 115 — Timeout - no response from update permission checking process.
- d Reason why the UPD:FLASH request was aborted:
- 102 — Cannot open /dev/ecd.
  - 103 — Cannot get ucb for device from ecd for device.
  - 105 — Cannot reserve ucb for device.
  - 106 — Cannot create output file used by Input/Output Driver (IODRV) to update FLASH memory.
  - 107 — Cannot send message to IODRV to update FLASH memory.
  - 108 — System indicates message there but message not from IODRV process.
  - 109 — Update FLASH memory job timed out.
  - 110 — Cannot write all of data to output file used to update FLASH memory.
  - 116 — Not enough FLASH data files to update FLASH memory.
  - 117 — More FLASH data files than are needed to update FLASH memory.
  - 118 — FLASH data file has a size other than 49160.
  - 200 — System function getdbseg failed.
  - 201 — System function lla\_iatt failed.
  - 202 — System function lla\_rdget failed.
  - 203 — Get UCB RID of possible peripheral controller unit failed.
  - 204 — Get up pointer of possible peripheral controller unit failed.
  - 205 — The up pointer does not point to an IOP.
  - 206 — The IOP to which this peripheral controlled is not in active state. The IOP must be active before the FLASH memory on the peripheral controller can be updated.
  - 207 — The peripheral controller is not in OOS state. The peripheral controller must be OOS before the FLASH memory on the board can be updated.
- e Count of the IN PROGRESS messages displayed. The first message is displayed after a message has been sent to the IODRV process requesting that the FLASH memory on the peripheral controller be updated. Subsequent messages are displayed while the FLASH memory is in the process of being updated by the IODRV process.

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- f Reason why the FLASH memory on the peripheral controller was not updated. Contact your technical support center for assistance.
- 10080 — Cannot get ucb into uarray.
  - 10081 — Failure returned by `proc_diag_ufm`.
  - 10082 — Invalid mv value.
  - 10083 — Could not get a timing chain entry.
  - b0000 — Timeout in peripheral controller sequence number 0.
  - b0001 — Timeout in peripheral controller sequence number 1.
  - b0002 — Timeout in peripheral controller sequence number 2.
  - b0003 — Timeout in peripheral controller sequence number 3.
  - b0004 — Timeoui in peripheral controller sequence number 4.
  - b0005 — Timeout in peripheral controller sequence number 5.
  - b0006 — Timeout in peripheral controller sequence number 6.
  - b0007 — Timeout in peripheral controller sequence number 7.
  - b0008 — Timeout in peripheral controller sequence number 8.
  - b000c — FLASH memory timeout.
  - 1a000b — Could not queue command to peripheral controller.
  - 1a000c — Could not queue command to peripheral controller.
  - 1a000d — Could not queue command to peripheral controller.
  - 1a000e — Could not queue command to peripheral controller.
  - 1a000f — Unable to get page table address to read version number.
  - 1a0010 — Could not queue command to peripheral controller.
  - 1a0011 — Could not queue command to peripheral controller.
  - 1a0012 — Could not queue command to peripheral controller.
  - 1a0013 — Unable to allocate buffer for update FLASH memory return message.
  - 1a0014 — Bad internal sequence number.
  - 1a0020 — Could not get a timing chain entry.
  - 1a0021 — Could not get a timing chain entry.
  - 1a0022 — Could not get a timing chain entry.
  - 1a0023 — Could not get a timing chain entry.
  - 1a0024 — Could not get a timing chain entry.
  - 1a0025 — Could not get a timing chain entry.

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- 1a0026 — Could not get a timing chain entry.
- 1b000a — Attempt to free use of pump code file failed.
- 1b000b — Cancellation of request for pump code file failed.
- 1b000c — Unable to assign a DMA slot.
- 1b000d — Could not queue command to peripheral controller.
- 1b000e — Could not queue command to peripheral controller.
- 1b000f — Could not queue command to peripheral controller.
- 1b0010 — Unable to get a page table address.
- 1b0011 — Unsuccessful return from the cfread function.
- 1b0012 — FLASH memory on the board is already being updated.
- 1b0014 — Could not get ucb associated with peripheral controller.
- 1b0015 — Cancellation of request for pump code file failed.
- 1bXX17 — All of the FLASH files are not present. XX is the relative number of the FLASH file that is not there.
- 1bXX18 — A FLASH data file has an incorrect size, not 49160. XX is the relative number of the FLASH file that is not there.
- 1b0019 — There are more FLASH data files than expected.
- 1b0020 — Could not get a timing chain entry.
- 1b0021 — Could not get a timing chain entry.
- 1b0022 — Could not get a timing chain entry.
- 1b014X — Unsuccessful read of FLASH data file. Requester stack overflow. Requester stack overflow. X is the relative number of the failing FLASH data file.
- 1b024X — Unsuccessful read of FLASH data file. File request stack overflow. X is the relative number of the failing FLASH data file.
- 1b034X — Unsuccessful read of FLASH data file. Message buffer overflow. X is the relative number of the failing FLASH data file.
- 1b044X — Unsuccessful read of FLASH data file. Failure in setting timer. X is the relative number of the failing FLASH data file.
- 1b054X — Unsuccessful read of FLASH data file. Could not open common file, bad status in ack msg. X is the relative number of the failing FLASH data file.
- 1b064X — Unsuccessful read of FLASH data file. Could not get segment number of file buffer for file manager read. X is the relative number of the failing FLASH data file.

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- 1b074X — Unsuccessful read of FLASH data file. Memory manager unable to allocate memory for the IODRV. X is the relative number of the failing FLASH data file.
- 1b084X — Unsuccessful read of FLASH data file. Error in reading common file. X is the relative number of the failing FLASH data file.
- 1b094X — Unsuccessful read of FLASH data file. Open or read message to file manager timed out. X is the relative number of the failing FLASH data file.
- 1b0a4X — Unsuccessful read of FLASH data file. File in invalid state upon timeout. X is the relative number of the failing FLASH data file.
- 1b0b4X — Unsuccessful read of FLASH data file. Zero Length File expected for FLASH programming. X is the relative number of the failing FLASH data file.
- 1cZZ0a — Peripheral controller FLASH programming failure.
- 1cZZ0b — Peripheral controller FLASH programming failure.
- 1cZZ0c — Peripheral controller FLASH programming failure.
- 1c000d — Peripheral controller not plugged in.
- 1cZZ0e — Peripheral controller FLASH programming failure.
- 1cZZ0f — Peripheral controller FLASH programming failure.
- 1cZZ10 — Peripheral controller FLASH programming failure.
- 1cZZ11 — Peripheral controller FLASH programming failure.
- 1cZZ12 — Peripheral controller FLASH programming failure.
- 1cZZ13 — Peripheral controller FLASH programming failure.
- 1c0014 — Invalid sequence number.
- 1c0020 — Could not get a timing chain entry.
- 1c0021 — Could not get a timing chain entry.
- 1c0030 — Unidentified/unexpected response for FLASH programming from peripheral controller.
- 1c0031 — Unidentified/unexpected response for FLASH programming from peripheral controller.
- 1c0032 — Unidentified/unexpected response for FLASH programming from peripheral controller.
- 1c0033 — Unidentified/unexpected response for FLASH programming from peripheral controller.
- 1c0034 — Unidentified/unexpected response for FLASH programming from peripheral controller.

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|    |        |                                                                                       |
|----|--------|---------------------------------------------------------------------------------------|
|    | 1c0035 | — Unidentified /unexpected response for FLASH programming from peripheral controller. |
|    | 1c0036 | — Unidentified /unexpected response for FLASH programming from peripheral controller. |
|    | 1c0037 | — Unidentified /unexpected response for FLASH programming from peripheral controller. |
|    | 1c0038 | — Unidentified /unexpected response for FLASH programming from peripheral controller. |
| ZZ |        | Failing completion code from peripheral controller.                                   |
|    | 02     | — Bad checksum on pump.                                                               |
|    | 03     | — Invalid job code.                                                                   |
|    | 04     | — Bad byte count for pump command.                                                    |
|    | 05     | — Bad restore parameters .                                                            |
|    | 06     | — Invalid pump state.                                                                 |
|    | 07     | — No PSA record found in pump file or reached end of data too soon.                   |
|    | 08     | — Failure to program FLASH memory.                                                    |
|    | 09     | — Failure to clear and erase FLASH memory.                                            |
|    | 0a     | — Amount of Data exceeds size of FLASH memory.                                        |
|    | 0b     | — Invalid hash sum over updated FLASH memory.                                         |

#### 4. ACTION TO BE TAKEN

No action is required for STARTED, IN PROGRESS, or COMPLETED messages.

ABORTED or NOT-SUPPORTED messages usually indicate that a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

For FAILED messages, contact your technical support center for assistance.

The Receive-Only Printer (ROP) output and IODRV log files can be helpful in determining the problem. IODRV log files are /etc/log/IODRVLOG0 and /etc/log/IODRVLOG1. If necessary, seek technical assistance.

#### 5. REFERENCES

OMDB Key(s)  
The OMDB key is 746.

Input Message  
UPD: FLASH

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ID ..... UPD:FLASH-DFC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD FLASH DFC a [CHECKSUM] NOT STARTED b c
- [2] UPD FLASH DFC a [CHECKSUM] STOPPED b c
- [3] UPD FLASH DFC a [CHECKSUM] ERROR b c
- [4] UPD FLASH DFC a [CHECKSUM] ABORTED b
- [5] UPD FLASH DFC a [CHECKSUM] COMPLETED d

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:FLASH;DFC input command.

## 3. VARIABLE FIELD DEFINITIONS

- a Member number of the Disk File Controller (DFC).
- b Process step or reason code:
  - f03 — Failed to open the Equipment Configuration Database (ECD).
  - f04 — See Disk Driver (DKDRV) report on the Read Only Printer (ROP).
  - f06 — Failed to get Unit Control Block (UCB) by name.
  - f07 — Invalid DFC model.
  - f08 — Unable to open the pumpfile.
  - f09 — Failed to open pumpcode file.
  - f0c — Failed to allocate buffer.
  - f0e — Failed to read the pumpfile header.
  - f13 — Failed to reserve the UCB.
  - f16 — Failed to assign SDF name for DFC.
  - f19 — Failed to open SDF for DFC.
  - f1b — Failed to enable message reception.
  - f20 — Invalid pumpcode file.
  - f25 — Unable to lseek( ) to beginning of file.
  - f2a — DFC auto pump failed.
  - f2e — DFC pump failed.
  - f31 — DFC pump failed notification.
  - f34 — Process timed out.
  - f37 — Failed to close special device file.
  - f3a — Failed to release special device file.
  - f3c — Failed to un-reserve UCB.
  - f3e — Failed to close ECD.

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- f3f — Failed to close pumpfile.
- f41 — Unable to read pumpfile.
- f44 — Message to port failure.
- f47 — Message reception failure.
- f4c — Terminated externally with signal.
- f4e — Invalid header magic number.
- f51 — Invalid pump header.
- f54 — Unused portion of the pump header is not zero.
- f61 — Failed to read the pumpfile header.
- f63 — Invalid header magic number.
- f65 — Unable to open pumpfile.
- f67 — fw and pumpfile are incompatible - issue.
- f69 — fw and pumpfile are incompatible - generic.
- c      System error code number. See System Error Codes Output Appendix, APP:SYSERR.
- d      Pumpcode hashsum check status:
  - INVALID PUMPCODE — Pumpcode failed the hashsum check.
  - VALID PUMPCODE — Pumpcode has passed the hashsum check.

#### 4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. The pump failure can also be caused by the incompatibility between the pumpcode and firmware. The pump can also fail due to a corrupted pumpcode file. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

#### 5. REFERENCES

Output Appendix  
APP:SYSERR

Input Message  
UPD:FLASH-DFC

Output Message  
UPD:FLASH-DFC

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:FTRC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1]     UPD FTRC REPT  
          a

[2]     UPD FTRC b

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:FTRC command.

Format 1 is output to give information about the progress of a function trace, or to report an error encountered while processing the function trace.

Format 2 is output upon termination of the process.

## 3. VARIABLE FIELD DEFINITIONS

a                   Information about the progress of a function trace, or report of an error encountered while processing the function trace. Error messages may be one of these categories:

COFF           — Reports an error in the internal format of a file.  
database — Reports an error in the database.  
filesys       — Reports an error in the file system.  
internal — Reports an error found by the field update code.  
system       — Reports a system error that occurred.  
usage         — Reports an error using field update.

**NOTE:** See the output Field Update Error Codes Appendix, APP:FUEC, for explanations of error codes which may appear in error messages.

b                   Termination mode:

ABORTED — Termination with errors.

COMPLETED — Successful completion.

## 4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

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**5. REFERENCES**

Output Appendix  
APP:FUEC

Input Message  
UPD:FTRC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:G-APPL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has sixteen formats.

- [1]    UPD GEN APPLICATION - APPLICATION COMPLETION WITHIN a SECONDS
- [2]    UPD GEN APPLICATION b STAGE TO c STARTED
- [3]    UPD GEN APPLICATION d COPY  
          SOURCE:   e  
          DESTINATION: f  
          UPD GEN APPLICATION COPY COMPLETE
- [4]    UPD GEN APPLICATION UNABLE TO COPY  
          RETURNED ERRNO g
- [5]    UPD GEN APPLICATION EXECUTING APPL\_CMD h  
          UPD GEN APPLICATION APPL\_CMD h COMPLETE
- [6]    UPD GEN APPLICATION APPL\_CMD h RETURNED g
- [7]    UPD GEN APPLICATION DATABASE CONVERSION - i  
          APPLYING CONVERSION SCRIPT j  
          UPD GEN APPLICATION DATABASE CONVERSION COMPLETE
- [8]    UPD GEN APPLICATION DATABASE CONVERSION - ERROR  
          RCV FAILED ON SCRIPT j
- [9]    UPD GEN APPLICATION RETURNING CONTROL TO SUPR
- [10]   UPD GEN APPLICATION FILE d NON-EXISTENT
- [11]   UPD GEN APPLICATION ABORT ERRNO=g  
          k
- [12]   UPD GEN APPLICATION (l)  
          m n ERROR g
- [13]   UPD GEN APPLICATION NAME d INVALID
- [14]   UPD GEN APPLICATION - UNABLE TO OPEN d SYSTEM ERROR g

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[15] UPD GEN APPLICATION ERROR: OFFICE IS NOT ON FINAL GENERIC RELEASE  
GENERIC RELEASE MUST BE R4!

[16] UPD GEN APPLICATION ERROR: SKIPPING RELEASES IS NOT ALLOWED!

## **2. REASON FOR OUTPUT**

To report output messages of the application retrofit process (APPLHOOK) that is used to map application specific information between 3B generics.

## **3. VARIABLE FIELD DEFINITIONS**

|   |                                                                                |
|---|--------------------------------------------------------------------------------|
| a | Time limit (in seconds) for APPLHOOK stage (i.e., ENTER, PROCEED) to complete. |
| b | APPLHOOK stage.                                                                |
| c | Name of the new generic.                                                       |
| d | File, Partition or Directory.                                                  |
| e | Path of the source file, partition or directory.                               |
| f | Path of the destination file, partition or directory.                          |
| g | Error number associated with the failed APPLHOOK job.                          |
| h | Specified APPLHOOK command.                                                    |
| i | Name of the database in the offline disk.                                      |
| j | Name of the script being applied.                                              |
| k | Reason for the aborted command.                                                |
| l | Name of the function where the error occurred.                                 |
| m | Reason for the error.                                                          |
| n | Special name used to access path to the offline root.                          |

## **4. ACTION TO BE TAKEN**

Format 1 reports the time limit for the APPLHOOK stage to complete. No action is required.

Format 2 reports the start of the APPLHOOK stage. No action is required.

Formats 3 and 5 report the start and completion of the APPLHOOK job. No action is required.

Format 4 reports that an error was encountered during the execution of the COPY job. Check if the source exists, and also check the ROP for additional information. If errors persist, contact your support organization.

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Format 6 reports that an error was encountered during the execution of the APPLHOOK command. Check if the process exists. If it does, re-execute command. If errors persist, contact your support organization.

Format 7 reports the start and completion of a database conversion job. No action is required.

Format 8 reports that a script has failed. Check if the script exists. Check the error file for additional information about the aborted script. If error file does not provide enough information to fix the problem, contact your support organization.

Format 9 reports the completion of the APPLHOOK stage, and that control is being passed to the system update process.

Format 10 reports that a file, partition or directory does not exist. Check if the file, partition or directory exists. If it does, re-execute the command. If it does not, look for previous retrofit failures. If errors persist, contact your support organization.

Formats 11 and 12 report aborted and failed processes. Check the ROP for reason of failure. If errors persist, contact your support organization.

Format 13 reports that an invalid file, partition or directory name has been passed. Check the name again and re-execute command. If errors persist, contact your support organization.

Format 14 reports that a file, partition or directory cannot be opened for reading or writing. Check if it exists and has the proper permission. If so, re-execute. If errors persist, contact your support organization.

Format 15 reports that the office being retrofitted is not in the last generic release (R4). Contact your support organization immediately.

Format 16 reports that the office being retrofitted is skipping a release. Contact your support organization immediately.

## **5. REFERENCES**

Input Message  
UPD:APPL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:G-APPLPROC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD GEN APPLPROC CANNOT GET THE TERMINAL TYPE
- [2] UPD GEN APPLPROC ERROR: CANNOT GET THE TERMINAL TYPE
- [3] UPD GEN APPLPROC ERROR: ARG KEYWORD ON CMD  
LINE WITHOUT ARGUMENT
- [4] UPD GEN APPLPROC ERROR: INVALID DATA KEYWORD ON CMD LINE
- [5] UPD GEN APPLPROC ERROR: CANNOT EXECUTE THE APPLPROC
- [6] UPD GEN APPLPROC APPLICATION PROCESS IS EXECUTING
- [7] UPD GEN APPLPROC APPLICATION PROCESS EXECUTED  
WITH ARGUMENT
- [8] UPD GEN APPLPROC APPLICATION PROCESS EXECUTED  
WITHOUT ARGUMENT
- [9] UPD GEN APPLPROC APPLICATION PROCESS HAS  
TERMINATED SUCCESSFULLY

## 2. REASON FOR OUTPUT

To report the execution status of the dummy application process and whether or not it was executed with an argument on the command line. If an application inserts their own application process in place of the dummy application process, these output messages may no longer be valid.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

For Formats 1 - 9, when the dummy application process is executed, no action needs to be taken, since the dummy application process performs no actions except print out these output messages.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 362.

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Messages

OP:G-READLOG  
UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-CONT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

Output Messages

OP:G-READLOG  
UPD:G-APPLPROC  
UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-CONT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:G-BKOUT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD GEN BACKOUT COMPLETED
- [2] UPD GEN BACKOUT STOPPED WITH ERROR CODE a
- [3] UPD GEN BACKOUT UPON COMPLETION BOOT SYSTEM SELECTING b [c]
- [4] UPD GEN BACKOUT TRANSFERRING CONTROL TO APPLICATION
- [5] UPD GEN BACKOUT APPLICATION COMPLETION WITHIN d SECONDS
- [6] UPD GEN BACKOUT NOT STARTED CONFLICT WITH CURRENT SYSTEM STATUS

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:G-BKOUT input message, and to inform the craft as to which boot option should be used when booting the old generic.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code causing the process to stop. See the System Update Error Codes Appendix, APP:SUPR.
- b Boot options:
  - BACKUP ROOT — Select backup root on EAI.
  - MHD — Force Moving Head Disk (MHD) specified on EAI (off-line disk method only).
  - PRIMARY ROOT — Select primary root on Emergency Action Interface (EAI).
- c MHD number (0-1).
- d Number of seconds for application processing.

## 4. ACTION TO BE TAKEN

Format 1 indicates the backout process has completed. There is no action to be taken when this output occurs.

Format 2 indicates that the backout stopped due to an error. Error codes are defined in the System Update Error Codes Appendix, APP:SUPR. Along with each error code is a description of the appropriate action to take.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 3 indicates that the backout is completed, boot the system as directed in this message. The force for MHD {0/1} should be left in effect until instructions to remove it are output by UPD:G-COMMIT or UPD:G-RESTR output messages.

Formats 4 and 5 are informal messages and do not require any action to be taken.

Format 6 indicates that a condition exists which will not allow the UPD:G-BKOUT process to start. Possibly /prc/supr/backout does not exist or is not executable. If the file exists and is not executable, make it executable. If the file does not exist or does exist and is already executable retry the command. If the message is output again, seek technical assistance.

## **5. REFERENCES**

### **OMDB Key**

Format 3 has an OMDB key of 326.

### **Output Appendix**

APP: SUPR

### **Input Messages**

OP:G-READLOG  
STOP:GEN  
UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-CONT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

### **Output Messages**

OP:G-READLOG  
STOP:GEN  
UPD:G-COMMIT  
UPD:G-CONT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:G-COMMIT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD GEN COMMIT COMPLETED
- [2] UPD GEN COMMIT STOPPED WITH ERROR CODE a
- [3] UPD GEN COMMIT TRANSFERRING CONTROL TO APPLICATION
- [4] UPD GEN COMMIT APPLICATION COMPLETION WITHIN b SECONDS

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:G-COMMIT input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code causing the process to stop. See the System Update Error Codes Appendix, APP: SUPR.
- b Number of seconds for application processing.

## 4. ACTION TO BE TAKEN

For Formats 1,3, and 4, take no action.

For Format 2, comply with instructions given. Craft execution errors can be corrected by examining the procedures used for execution of the command. If any other errors occur, seek technical assistance.

## 5. REFERENCES

OMDB Key  
There is an OMDB key of 326.

Output Appendix  
APP: SUPR

Input Messages  
OP: G-READLOG  
STOP: GEN  
UPD: G-BKOUT  
UPD: G-COMMIT  
UPD: G-CONT  
UPD: G-ENTER  
UPD: G-PROCD  
UPD: G-RESTR

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Messages  
OP:G-READLOG  
STOP:GEN  
UPD:G-BKOUT  
UPD:G-CONT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:G-CONT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD GEN CONTINUE {COMPLETED | STOPPED WITH ERROR CODE a }
- [2] UPD GEN CONTINUE NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS b

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:G-CONT input message.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code causing the process to stop. See the System Update Error Codes Appendix, APP:SUPR.
- b Process not initiated.

## 4. ACTION TO BE TAKEN

Correct user execution errors by examining the procedures used for execution of the command. If any other error occurs, seek technical assistance.

## 5. REFERENCES

OMDB Key  
Format 1 has an OMDB key of 326.

Output Appendix  
APP:SUPR

Input Messages  
UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-CONT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

Output Messages  
UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:G-ENTER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD GEN ENTER COMPLETED
- [2] UPD GEN ENTER STOPPED WITH ERROR CODE a
- [3] UPD GEN ENTER MOUNT TAPE AND CONTINUE
- [4] UPD GEN ENTER b BLOCKS WRITTEN
- [5] UPD GEN ENTER MHD c SELECTED FOR NEW GENERIC
- [6] UPD GEN ENTER CHANGING MHD c TO OFFLINE
- [7] UPD GEN ENTER MHD c OFFLINE
- [8] UPD GEN ENTER TRANSFERRING CONTROL TO APPLICATION
- [9] UPD GEN ENTER APPLICATION COMPLETION WITHIN d SECONDS
- [10] UPD GEN ENTER UPDATING PARTITION e IN MHD f

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:G-ENTER input message, and to provide status information and instructions concerning the update.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code causing the process to stop. See the System Update Error Codes Appendix, APP: SUPR.
- b Number of additional blocks of data written since last output message of this type.
- c Member number of disk to be forced off-line for data entry (if off-line disk method being used).
- d Number of seconds for application processing.
- e Number of a backup partition that needs to be updated from its primary.
- f Member number of off-line disk in which partition is being updated.

SEE PROPRIETARY NOTICE ON COVER PAGE

#### **4. ACTION TO BE TAKEN**

Format 1 indicates the proceed enter has completed. There is no action to be taken when this output occurs.

Format 2 indicates that enter stopped due to an error. Error codes are defined in the System Update Error Codes Appendix, APP:SUPR. Along with each error code is a description of the appropriate action to take.

Format 3 indicates to mount the appropriate tape and CONTINUE the system update procedure.

Formats 4 - 10 are informational messages and do not require any action to be taken.

#### **5. REFERENCES**

OMDB Key

There is an OMDB key of 326.

Output Appendix

APP: SUPR

Input Messages

OP: G-READLOG

STOP: GEN

UPD: G-BKOUT

UPD: G-COMMIT

UPD: G-CONT

UPD: G-ENTER

UPD: G-PROCD

UPD: G-RESTR

Output Messages

OP: G-READLOG

STOP: GEN

UPD: G-BKOUT

UPD: G-COMMIT

UPD: G-CONT

UPD: G-PROCD

UPD: G-RESTR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:G-PROCD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD GEN PROCEED COMPLETED
- [2] UPD GEN PROCEED STOPPED WITH ERROR CODE a
- [3] UPD GEN PROCEED UPON COMPLETION BOOT SYSTEM SELECTING b [c]
- [4] UPD GEN PROCEED TRANSFERRING CONTROL TO APPLICATION
- [5] UPD GEN PROCEED APPLICATION COMPLETION WITHIN d SECONDS
- [6] UPD GEN PROCEED NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:G-PROCD input message and to inform the craft which boot options to use when booting the new generic.

## 3. VARIABLE FIELD DEFINITIONS

- a Error code causing the process to stop. See the System Update Error Codes Appendix, APP:SUPR.
- b Boot options:
  - BACKUP ROOT — Select backup root on EAI.
  - MHD — Force Moving Head Disk (MHD) specified on EAI (off-line disk method only).
  - PRIMARY ROOT — Select primary root on Emergency Action Interface (EAI).
- c MHD number (0-1).
- d Number of seconds for application processing.

## 4. ACTION TO BE TAKEN

Format 1 indicates the proceed process has completed. There is no action to be taken.

Format 2 indicates that proceed stopped due to an error. Error codes are defined in the System Update Error Codes Appendix, APP:SUPR. Along with each error code is a description of the appropriate action to take.

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Format 3 indicates that when the proceed is completed, boot the system as directed in this message. The force for MHD {0/1} should be left in effect until instructions to remove it are output by UPD:G-COMMIT or UPD:G-RESTR output messages.

Format 4 is an informational message and does not require any action.

Format 5 is an informational message and does not require any action.

Format 6 indicates that a condition exists which will not allow the UPD:G-PROCD process to start. Possibly /prc/supr/proceed does not exist or is not executable. If the file does not exist and is already executable retry the command. If the message is output again, seek technical assistance.

## **5. REFERENCES**

### **OMDB Key**

Formats 1 - 5 have an OMDB key of 326.

### **Output Appendix**

APP: SUPR

### **Input Messages**

OP:G-READLOG  
STOP:GEN  
UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-CONT  
UPD:G-ENTER  
UPD:G-PROCD  
UPD:G-RESTR

### **Output Messages**

OP:G-READLOG  
STOP:GEN  
UPD:G-BKOUT  
UPD:G-COMMIT  
UPD:G-CONT  
UPD:G-ENTER  
UPD:G-RESTR

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:G-RESTR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD GEN RESTORE COMPLETED
- [2] UPD GEN RESTORE STOPPED WITH ERROR CODE a
- [3] UPD GEN RESTORE TRANSFERRING CONTROL TO APPLICATION
- [4] UPD GEN RESTORE APPLICATION COMPLETION  
WITHIN b SECONDS
- [5] UPD GEN RESTORE LOG WILL BE PURGED  
IN b SECONDS, SAVE IT IF NEEDED
- [6] UPD GEN RESTORE COMPLETION WILL BE IN b SECONDS
- [7] UPD GEN RESTORE NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:G-RESTR input message, and to inform operator when to remove force for boot disk (if the off-line disk method is being used).

## 3. VARIABLE FIELD DEFINITIONS

- a Error code causing the process to stop. See System Update Error Codes Output Appendix, APP:SUPR.
- b Number of seconds for application processing.

## 4. ACTION TO BE TAKEN

Format 1 indicates the restore process has completed. There is no action to be taken when this output occurs.

Format 2 indicates that restore stopped due to an error. Error codes are defined in the System Update Error Codes Output Appendix, APP:SUPR output message. Along with each error code is a description of the appropriate action to take.

Formats 3, 4, and 6 are informational messages and do not require any action to be taken.

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Format 5 indicated that the log file will be removed, and should be saved if it is needed.

Format 7 indicates that a condition exists which will not allow the UPD:G-RESTR process to start. Possibly /prc/supr/restore does not exist or does exist and is already executable retry the command. If the message is output again, seek technical assistance.

## **5. REFERENCES**

### **OMDB Key**

Formats 1 - 6 have an OMDB key of 326.

### **Output Appendix**

APP: SUPR

### **Input Messages**

OP: G-READLOG

STOP: GEN

UPD: G-BKOUT

UPD: G-COMMIT

UPD: G-CONT

UPD: G-ENTER

UPD: G-PROCD

UPD: G-RESTR

### **Output Messages**

OP: G-READLOG

STOP: GEN

UPD: G-BKOUT

UPD: G-COMMIT

UPD: G-CONT

UPD: G-ENTER

UPD: G-PROCD

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:ISG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD ISG a [b [c|d]] [e]

## 2. REASON FOR OUTPUT

To report any errors encountered in an invocation of incremental System Generation (SGEN), and to report the amount of memory needed to boot from the new boot load.

## 3. VARIABLE FIELD DEFINITIONS

- a One of the descriptions of any unexpected events during processing.  
Reason for error found at beginning of output file /tmp/isgdump:
- bf\_fchk — Cannot open file listed.
  - bf\_fchk — File listed is not a single extent contiguous file.
  - bf\_init — Cannot open output file listed.
  - bf\_init — Output file listed does not have exactly the number of blocks the file should have.
  - bf\_write — Insufficient space on output file to build system.
  - bh\_put — Write failed.
  - bt\_ovrwr — Unable to open output file listed.
  - bt\_ovrwr — Unable to overwrite bootab.
  - bt\_ovrwr — Unable to write to file listed.
  - bt\_pr\_seg — Too many segments in boot image.
  - chksiz — Filesize disagrees with bootheader filesize.
  - chksiz — Unable to stat bootfile.
  - db\_getdev — Invalid device type.
  - db\_getlevl — Invalid level index.
  - db\_getpth — Failed to read sgen2 record.
  - db\_getpth — Failed to read sgen3 record.
  - db\_getpth — Invalid boot constituent.
  - db\_init — Failed to attach to database.
  - db\_init — Failed to read header record.

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db\_init — Failed to read sgen1 record.

db\_nextbp — Failed to read sequence record.

db\_opnothr — Failed to open process sequence.

db\_parm — Invalid parameter type.

db\_pnum — No available process numbers.

db\_shares — Could not open shares.

db\_shares — Failed to read record.

isgen — completed: additional boot time Data in Equipment Configuration Database (ECD) form btparm.

kpcb\_frsn — Exceeded maximum number of pfile segments.

kpcb\_put — Write failed.

kpcb\_seglist — Segment in listed is marked common, but csize is zero.

pf\_cpyseg — Write failed.

pf\_csize — Cannot find kboot data.

pf\_csize — Cannot find kboot text.

pf\_csize — Cannot find kernel bss.

pf\_csize — Cannot find kernel data.

pf\_csize — Cannot find kernel text.

pf\_csize — Cannot find tv.

pf\_csize — Invalid request.

pf\_fill — Write failed.

pf\_flags — Invalid magic number.

pf\_flags — pfile listed has more than one share segment.

pf\_flags — pfile listed has share segment, but not declared as a child.

pf\_fndshdr — Seek failed.

pf\_fsize — Cannot find data of a.out.

pf\_fsize — Cannot find kernel data.

pf\_fsize — Cannot find kernel text.

pf\_fsize — Cannot find text of a.out.

pf\_fsize — Cannot find tv.

pf\_fsize — Invalid request.

pf\_fstart — Cannot find data.

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|   |                                                                                       |
|---|---------------------------------------------------------------------------------------|
|   | pf_fstart — Cannot find kernel data.                                                  |
|   | pf_fstart — Cannot find kernel text.                                                  |
|   | pf_fstart — Cannot find text.                                                         |
|   | pf_fstart — Cannot find tv.                                                           |
|   | pf_fstart — Invalid request.                                                          |
|   | pf_getfile — Bad magic.                                                               |
|   | pf_getfile — File listed must be 3bswabbbed.                                          |
|   | pf_getfile — pfile has invalid magic number.                                          |
|   | pf_getndx — Invalid pfile.                                                            |
|   | pf_getndx — Invalid request.                                                          |
|   | pf_offset — Invalid request.                                                          |
|   | pf_open — Could not find the file listed.                                             |
|   | pf_segclass — Segment number of process listed has fsize !=0;<br>csize = 0.           |
|   | pf_segclass — Segment number of process listed has<br>fsize = csize =0.               |
|   | pf_segclass — Segment number of process listed is marked<br>common but core size = 0. |
|   | pf_sgflags — Invalid pfile request.                                                   |
|   | pf_sgflags — Invalid request.                                                         |
|   | sngen — Size of boot image is given number of pages.                                  |
|   | spcb_firstsn — Exceeded maximum number of pfile segments.                             |
|   | spcb_put — Write failed.                                                              |
|   | spcb_seglist — Access of child lowered.                                               |
|   | spcb_seglist — Segment in listed is marked common, but csize is<br>zero.              |
|   | va_putpgt — Write failed.                                                             |
|   | va_putsgt — Write failed.                                                             |
|   | va_resume — Out of room in kboot's address space.                                     |
|   | va_setseg — Segment already in use.                                                   |
| b | Name of file.                                                                         |
| c | Number of blocks the file should have.                                                |
| d | Segment number.                                                                       |
| e | Number of pages.                                                                      |

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#### **4. ACTION TO BE TAKEN**

A successful run will print a message stating the amount of memory needed to boot the system. Ensure that the system is configured with this amount.

#### **5. REFERENCES**

OMDB Key

This message has an OMDB key 578.

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ID ..... UPD:OMDB  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 only  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD OMDB COMPLETED FOR THE FOLLOWING KEYS:  
a
- [2] UPD OMDB NO DATABASE ENTRY FOUND FOR  
THE FOLLOWING KEYS:  
b
- [3] UPD OMDB FAILED  
UNABLE TO ACCESS /cft/spl/omdb
- [4] UPD OMDB COMPLETED
- [5] UPD OMDB CANNOT OPEN OR CREATE LOGFILE  
UPDATE NOT LOGGED
- [6] UPD OMDB ABORTED  
UNABLE TO SEND REQUEST TO CSOP
- [7] UPD OMDB NOT STARTED  
CONFLICT WITH CURRENT SYSTEM STATUS c

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:OMDB input message.

## 3. VARIABLE FIELD DEFINITIONS

- a List of message keys for which the UPD:OMDB completed successfully.
- b List of message keys for which the UPD:OMDB failed.
- c Further explanation of error:
  - INVALID ALARM
  - INVALID KEY
  - INVALID MSGCLS
  - SYNTAX ERROR
  - TOO MANY KEYS

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#### **4. ACTION TO BE TAKEN**

For format 2, verify that the key(s) was entered correctly.

For format 3, determine if the disk is available. If the disk is available, verify the status of the Output Message Database (OMDB) disk file by using the **OP:STATUS;LISTDIR** command for **/cft/spl/omdb**.

Format 5 indicates a possible file system problem, such as lack of available disk space. The update being processed is not saved in the OMDB logfile (**/cft/spl/OMDB\_LOG**).

For format 6, verify that the Coordinator Of Spooler Output Processes (CSOP) is running.

For format 7, verify that the input message was entered correctly.

#### **5. REFERENCES**

##### **OMDB Keys**

- Format 1 has an OMDB key of 4.
- Format 2 has an OMDB key of 3.
- Format 4 has an OMDB key of 5.
- Format 5 has an OMDB key of 9.
- Format 6 has an OMDB key of 118.

##### **Input Messages**

- ACTV:OMDB**
- APPLY:OMDB**
- OP:OMDB**
- OP:ST-LSTDIR**
- UPD:OMDB**

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ID ..... UPD:REPT  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD REPT a  
b  
[c]  
[PATHNAME: d]  
[VALUES e]  
[TAG=f ERRNO=g]

## 2. REASON FOR OUTPUT

To specify errors or events that occurred as a result of performing a software update activity.

## 3. VARIABLE FIELD DEFINITIONS

- a Category of the report message:
- INFORMATION — Informational message associated with some software update activity.
- SYSTEM ERROR — System error encountered during some software update activity.
- USER ERROR — User error encountered attempting to execute a software update command. Most often the result of bad input to the command.
- WARNING — A non-fatal problem was encountered while executing a software update activity that did not cause the command to abort, but may require attention.
- b A brief text phrase describing an error or providing information associated with a software update activity:
- FILE MANAGER CALL FAILED DUE TO BUSY FILE
- MULTIPLE INVOCATIONS OF SUucm NOT ALLOWED
- NOT ENOUGH FREE SPACE TO INSTALL FILE
- PREVIOUS SU HAS TEMPORARY UPDATE ON THIS FILE
- THIS IS NOT THE LATEST SU THAT CAN BE BACKED OUT
- UPDATE ITEM IS IN OFFICIAL STATUS
- c The SU name associated with the report message.
- d Pathnames of the files associated with this report 1 per line.

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- e Values associated with the text message in the category of the report message listed, 4 per line. These provide the data which caused the text message to be printed.
- f A tag value which indicates the location where the error message originated from. This value is used by LUCENT personnel for troubleshooting purposes.
- g A unix system error number.

#### 4. ACTION TO BE TAKEN

For INFORMATION category messages, no action is necessary.

For the SYSTEM ERROR, USER ERROR, and WARNING categories, the specific action required depends on the text phrase field in the message. Most of these reports require technical assistance; however, some can be corrected and are listed alphabetically. If these actions do not succeed, then seek technical assistance:

FILE MANAGER CALL FAILED DUE TO BUSY FILE This indicates that a file manager operation on the pathname(s) given in field listed cannot be performed because a process or user has one of those files open. If this problem is corrected a retry of the failed command will usually succeed.

MULTIPLE INVOCATIONS OF SUucm NOT ALLOWED There is already a SU command running which must be completed before another command is given. Retry the command at a later time.

NOT ENOUGH FREE SPACE TO INSTALL FILE Check the filesystem referred to by listed pathnames for un-necessary files which may be using up all of the space.

PREVIOUS SU HAS TEMPORARY UPDATE ON THIS FILE The previous SU name listed must be made official before the current SU can be applied because they have overlapping updates.

THIS IS NOT THE LATEST SU THAT CAN BE BACKED OUT Use the display commands on 1950 MCC page to determine which SU needs to be backed out first.

UPDATE ITEM IS IN OFFICIAL STATUS The SU in name listed has at least one update made official. That means that a SU must be backed out using the Back Out Last Official (BOLO) SU mechanism on the 1950 MCC page.

#### 5. REFERENCES

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:REPT-DISPLAY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD a REPT  
    b  
UPD a

**NOTE:** Due to the large number of error messages generated by Field Update, a separate error messages manual is being provided which will contain a detailed description of the error messages and the meaning of the various error codes.

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:DISPLAY input message.

## 3. VARIABLE FIELD DEFINITIONS

- a                    The identification field (DISPLAY) of the Field Update input message producing this output.
- b                    COMPLETED — The requested information will be displayed successfully.
- ABORTED — The command was abnormally terminated due to a system error or an error in execution. The UPD:SYSERR precedes a system error. When the process cannot attach to the database, or cannot release the database that it was previously attached to, an execution error occurs.

## 4. ACTION TO BE TAKEN

If b = ABORTED, consult the *Field Update Error Messages manual*.

## 5. REFERENCES

*Field Update User's Guide*

*Field Update Error Messages Manual*

Input Message  
    UPD:DISPLAY

Output Message  
    UPD:SYSERR

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ID ..... UPD:REPT-FILER  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD a REPT  
    b  
UPD a b

**NOTE:** Due to the large number of error messages generated by Field Update, a separate error messages document is being provided which will contain a detailed description of the error messages and the meaning of the various error codes.

## 2. REASON FOR OUTPUT

To report the result of executing the UPD:APPLY-FILER input message.

## 3. VARIABLE FIELD DEFINITIONS

- a                    The identification field (APPLY) of the Field Update input message producing this output.
- b                    Messages from the Field Update processes. The messages may report that the update completed or that there were errors.
- COMPLETED — The input command completed successfully.
- ABORTED    — The command was abnormally terminated due to a system error, a user error, or an error in execution. The UPD:SYSERR precedes a system error. A user error will be preceded by UPD:USRERR. A usage error (-1) and an error message will be of an error encountered while executing the command.
- WARN        — The process encountered some inconsistency while executing the input command. A WARNING or WARN message is printed, but execution continues until the update is completed.

## 4. ACTION TO BE TAKEN

If c = ABORTED, consult the *Field Update Error Messages Manual*.

## 5. REFERENCES

*Field Update User's Guide*

*Field Update Error Messages Manual*

SEE PROPRIETARY NOTICE ON COVER PAGE

Input Message  
UPD:APPLY-FILER

Output Messages  
UPD:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:REPT-FTRC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD a REPT  
    b  
UPD FTRC c

## 2. REASON FOR OUTPUT

To report the result of executing the UPD:FTRC input message.

**NOTE:** Due to the large number of error messages generated by Field Update, a separate error messages document is available which contains a detailed description of the error messages and the meaning of the various error codes.

## 3. VARIABLE FIELD DEFINITIONS

- a                    The identification field (FTRC) of the Field Update input message producing this output.
- b                    A report of the requested information or an error message indicating why the report was not provided.
- c                    **ABORTED** — The command was abnormally terminated due to a system error, a user error, or an error in execution. A system error will be preceded by UPD:SYSERR. The UPD:USRERR will precede a user error. An error message is printed stating the reason the process terminated if an error was encountered while executing the process.
- COMPLETED** — The input command completed successfully.

## 4. ACTION TO BE TAKEN

If c = ABORTED, consult the *3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual* if the reason of the error is not explained in the ABORTED message.

## 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System System Maintenance Manual*

Input Message  
UPD:FTRC

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Output Message  
UPD:SYSERR

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ID ..... UPD:REPT-FUNCR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD a REPT  
      b  
UPD a b

## 2. REASON FOR OUTPUT

To report the result of executing the UPD:APPLY-FUNCR input message.

**NOTE:** Due to the large number of error messages generated by Field Update, a separate error messages manual is available which contains a detailed description of the error messages and the meaning of the various error codes.

## 3. VARIABLE FIELD DEFINITIONS

- a                    The identification field (APPLY) of the Field Update input message producing this output.
- b                    Messages from the Field Update processes. The messages may report that the update completed or that there were errors.
- ABORTED — The command was abnormally terminated due to a system error, a user error, or an error in execution. The UPD:SYSERR precedes a system error. UPD:USRERR will precede a user error. A usage error (-l) and an error message will be printed if the process ABORTED because of an error encountered while executing the input command.
- COMPLETED — The input command completed successfully.
- WARN        — The process encountered some inconsistency while executing the input command. A WARN or WARNING message is printed, but the process continues to execute until the update is completed.

## 4. ACTION TO BE TAKEN

If c = ABORTED, consult the *3B20D and 3B21D Computers UNIX® RTR Operating System Maintenance Manual*.

## 5. REFERENCES

CIC Select Code 304-046 *3B20D and 3B21D Computers UNIX® RTR Operating System Maintenance Manual*

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Input Message  
UPD:APPLY-FUNCR

Output Message  
UPD:SYSERR

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:RESET  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1]     UPD RESET REPT  
         a

[2]     UPD RESET b

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:RESET command.

Format 1 is output to give information about the progress of resetting an update, or to report an error encountered while resetting the update.

Format 2 is output upon termination of the process.

## 3. VARIABLE FIELD DEFINITIONS

a                    Information about the progress of resetting an update, or report an error encountered while resetting the update. Error messages may be one of the following categories:

COFF            — reports an error in the internal format of a file  
database — reports an error in the database  
filesys        — reports an error in the file system  
internal — reports an error found by the field update code  
system        — reports a system error that occurred  
usage          — reports an error using field update

See the Field Update Error Codes output Appendix APP:FUEC for explanations of error codes which may appear in error messages.

b                    Termination mode of the input message UPD:RESET. The mode will be either COMPLETED for successful completion, or ABORTED for termination with errors.

## 4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

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**5. REFERENCES**

Output Appendix  
APP:FUEC

Input Message  
UPD:RESET

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ID ..... UPD:SCP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] UPD SCP MSG COMPLETED
- [2] UPD SCP ERROR - COULD NOT CREATE a
- [3] UPD SCP ERROR - COULD NOT OPEN a FOR WRITING
- [4] UPD SCP ERROR - COULD NOT OPEN a FOR READING
- [5] UPD SCP ERROR - COULD NOT SEEK INTO a
- [6] UPD SCP ERROR - COULD NOT WRITE TO a
- [7] UPD SCP ERROR - COULD NOT READ FROM a
- [8] UPD SCP ERROR - COULD NOT STAT a
- [9] UPD SCP ERROR - CAN'T DETERMINE GENERIC FOR a
- [10] UPD SCP ERROR - FEATURE IS NOT ENABLED FOR 4Eb

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:SCP command.

## 3. VARIABLE FIELD DEFINITIONS

- a Path name of the file that caused the error to print.
- b Selected 1B generic that does not have this feature enabled.

## 4. ACTION TO BE TAKEN

Format 1 is a normal output message and no action is required.

Formats 2 through 9 indicate that there was a problem while performing an operation to a file. Re-execute the command. If errors persist, seek technical assistance.

Format 10 indicates that this feature is not available for the selected 1B disk file generic.

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**5. REFERENCES**

Input Messages  
DUMP: SCP  
UPD: SCP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:SYSERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD SYSERR a [b] [c]

## 2. REASON FOR OUTPUT

To specify system errors that occurred as a result of performing a Field Update activity.

In many cases, the problem cannot be fixed without more sophisticated diagnostics, or technical assistance from the Switching Control Center (SCC) or Product Engineering Control Center (PECC). However, in a few cases, a field site may be able to correct the problem locally. The system errors are described here with these few cases in mind.

Since the errors can result from executing any of several Field Update input messages, the input message is identified by a specific UPD or LOAD output message following one or more UPD:SYSERR output messages.

## 3. VARIABLE FIELD DEFINITIONS

a Error code: 1-140.  
b, c Additional data.

## 4. ACTION TO BE TAKEN

The specific action required depends on the type of the error that occurred. An invalid update name (UPNM) or pathname (UF or FN) may be the result of an input error. Re-enter the input message with the correct update name or pathname. Otherwise, obtain technical assistance.

| If a =<br>Reason                                                                                   | Additional Data Fields |    |
|----------------------------------------------------------------------------------------------------|------------------------|----|
|                                                                                                    | b                      | c  |
| 1<br>Unable to open the central<br>update database.                                                | --                     | -- |
| 2<br>Unable to open a specific<br>history file for a particular<br>pfile, 3ba.out, or object file. | History filename.      | -- |

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| If a =<br>Reason                                                                                                                          | Additional Data Fields |    |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|
|                                                                                                                                           | b                      | c  |
| 3<br>Unable to access a particular history file entry.                                                                                    | History filename.      | -- |
| 4<br>Unable to access UF entry built from UF keyword entered in a UPD:UPNM input message and attached to the 'owning' history file entry. | --                     | -- |
| 5<br>Unable to write a UF item into the history file.                                                                                     | History filename.      | -- |
| 6<br>Unable to write a history file item into the history file.                                                                           | History filename.      | -- |
| 7<br>Unable to rewrite an existing history file item into the history file.                                                               | History filename.      | -- |
| 8<br>Could not add entry to CUD or BUD.                                                                                                   | --                     | -- |
| 9<br>Unable to close the history file.                                                                                                    | History filename.      | -- |
| 10<br>Unable to close the central update data base.                                                                                       | --                     | -- |
| 11<br>Call to lla_dbatt failed.                                                                                                           | Dictionary pathname.   | -- |

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| If a =<br>Reason                                                                        | Additional Data Fields (cont'd)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
|                                                                                         | b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | c  |
| 12<br>Call to lla_dbatt failed.                                                         | Dictionary pathname.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -- |
| 13<br>Call to lla_rdget for the sgen<br>header record failed.                           | --                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -- |
| 14<br>Call to lla_rdget for the<br>sgen2 record failed.                                 | --                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -- |
| 15<br>Call to lla_opensq for the<br>sg_process sequence failed.                         | --                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -- |
| 16<br>Call to lla_nextsq for the<br>next proc_rec in the<br>sg_process sequence failed. | --                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -- |
| 17<br>Overwrite Generator<br>(OGEN) failed.                                             | <p>One of the following OGEN<br/>return codes:</p> <p>0 - Normal end.</p> <p>1 - Bad arguments passed to<br/>internal function.</p> <p>2 - Can't find name in<br/>passwd file.</p> <p>3 - Bad magic number in<br/>aouthdr.</p> <p>4 - First source file not<br/>brnch.tbl in library.</p> <p>5 - Unknown storage class.</p> <p>6 - Inconsistent magic<br/>number in mfiles.</p> | -- |

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| If a =<br>Reason                                        | Additional Data Fields (cont'd)<br>b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | c |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 17<br>Overwrite Generator<br>(OGEN) failed.<br>(cont'd) | <p>7 - Illegal mark state.</p> <p>8 - Illegal build transaction.</p> <p>9 - Scoping inconsistencies.</p> <p>10 - Bad dotype in stclass.</p> <p>11 - Can't reopen stdout.</p> <p>12 - Duplicate function symbols.</p> <p>13 - Duplicate file name in mfiles.</p> <p>14 - Duplicate .file symbols.</p> <p>15 - Duplicate transfer vector (tv) reservations.</p> <p>16 - Illegal scn parity.</p> <p>17 - Illegal reloc type.</p> <p>18 - Illegal reloc size.</p> <p>19 - Illegal state in close.</p> <p>20 - Can't allocate memory.</p> <p>21 - Can't ldopen library.</p> <p>22 - Illegal transaction.</p> <p>23 - Illegal transaction.</p> <p>24 - Error transition.</p> <p>25 - Function maximum exceeded. No more than 50 functions can be replaced using one UPD message.</p> |   |

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| If a =<br>Reason                                        | Additional Data Fields (cont'd)                                                                                                                                          |   |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|                                                         | b                                                                                                                                                                        | c |
| 17<br>Overwrite Generator<br>(OGEN) failed.<br>(cont'd) | 26 - Can't close mfile.                                                                                                                                                  |   |
|                                                         | 27 - Can't read mfile section header.                                                                                                                                    |   |
|                                                         | 28 - Can't read mfile linenum.                                                                                                                                           |   |
|                                                         | 29 - Can't seek to mfile linenum.                                                                                                                                        |   |
|                                                         | 30 - Can't find symbol in mfile.                                                                                                                                         |   |
|                                                         | 31 - Can't read mfile segment.                                                                                                                                           |   |
|                                                         | 32 - Can't ldopen mfile.                                                                                                                                                 |   |
|                                                         | 33 - Can't open mfile for relocation.                                                                                                                                    |   |
|                                                         | 34 - Can't read aux reloc.                                                                                                                                               |   |
|                                                         | 35 - Can't read mscn for reloc.                                                                                                                                          |   |
|                                                         | 36 - Can't seek to mcontent.                                                                                                                                             |   |
|                                                         | 37 - Can't read mfile auxent.                                                                                                                                            |   |
|                                                         | 38 - Added function present. The mfile marks the added function. If ogen finds that the function already exists, it figures that the mfile was not meant for this pfile. |   |

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| If a =<br>Reason                                        | Additional Data Fields (cont'd)<br>b                                                                                                                                           | c |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 17<br>Overwrite Generator<br>(OGEN) failed.<br>(cont'd) | 39 - Can't find function in<br>branch table.                                                                                                                                   |   |
|                                                         | 40 - Inconsistent F_NODE<br>flags. An update that<br>suppresses the installation<br>of decision functions must<br>be consistent throughout.                                    |   |
|                                                         | 41 - Not enough patch<br>space.                                                                                                                                                |   |
|                                                         | 42 - Not enough spare slots.                                                                                                                                                   |   |
|                                                         | 43 - F_AR32W flag is not<br>set in the filehdr. On the 3B,<br>ogen expects the file to look<br>as if it were build on a 32-bit<br>machine with left to right<br>byte ordering. |   |
|                                                         | 44 - Can't find text section.                                                                                                                                                  |   |
|                                                         | 45 - Can't read aouthdr.                                                                                                                                                       |   |
|                                                         | 46 - Unknown option on<br>command line.                                                                                                                                        |   |
|                                                         | 47 - Can't read patch block<br>count.                                                                                                                                          |   |
|                                                         | 48 - Can't seek to pfile<br>header.                                                                                                                                            |   |
|                                                         | 49 - Can't read pfile scn<br>header.                                                                                                                                           |   |
|                                                         | 50 - Can't read pfile<br>linenum.                                                                                                                                              |   |
|                                                         | 51 - Can't seek to pfile<br>linenum.                                                                                                                                           |   |

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| If a =<br>Reason                                        | Additional Data Fields (cont'd)              |   |
|---------------------------------------------------------|----------------------------------------------|---|
|                                                         | b                                            | c |
| 17<br>Overwrite Generator<br>(OGEN) failed.<br>(cont'd) | 52 - Missing pfile name; no<br>-p argument.  |   |
|                                                         | 53 - Can't read pfile<br>segment.            |   |
|                                                         | 54 - Can't open pfile.                       |   |
|                                                         | 55 - Can't read pfile<br>optional header.    |   |
|                                                         | 56 - Can't seek to pfile<br>optional header. |   |
|                                                         | 57 - Can't read patch entry.                 |   |
|                                                         | 58 - Can't seek to patch list.               |   |
|                                                         | 59 - Can't open pfile for<br>relocation.     |   |
|                                                         | 60 - Can't read pfile reloc.                 |   |
|                                                         | 61 - Can't seek to pfile<br>reloc.           |   |
|                                                         | 62 - Can't find pscn for<br>virtual address. |   |
|                                                         | 63 - Can't read pfile scn.                   |   |
|                                                         | 64 - Can't seek to pfile scn.                |   |
|                                                         | 65 - Can't read pfile auxent.                |   |
|                                                         | 66 - Illegal state in tm.                    |   |
|                                                         | 67 - Can't read mfile scnhdr<br>for reloc.   |   |

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| If a =<br>Reason                                        | Additional Data Fields (cont'd)           |   |
|---------------------------------------------------------|-------------------------------------------|---|
|                                                         | b                                         | c |
| 17<br>Overwrite Generator<br>(OGEN) failed.<br>(cont'd) | 68 - Can't read mfile reloc<br>entry.     |   |
|                                                         | 69 - Can't seek to reloc.                 |   |
|                                                         | 70 - Bad relocation type.                 |   |
|                                                         | 71 - Can't find mscn name<br>in tree.     |   |
|                                                         | 72 - Can't find symbol in<br>tree.        |   |
|                                                         | 73 - Can't open temporary<br>file.        |   |
|                                                         | 74 - Can't read from<br>temporary file.   |   |
|                                                         | 75 - Tree was null after<br>mfiles.       |   |
|                                                         | 76 - Can't seek in<br>temporary file.     |   |
|                                                         | 77 - Can't unlink temporary<br>file.      |   |
|                                                         | 78 - Reserved slot in use.                |   |
|                                                         | 79 - Can't write to<br>temporary file.    |   |
|                                                         | 80 - Can't open ufile to<br>write filhdr. |   |
|                                                         | 81 - Can't write ufile<br>header.         |   |

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| If a =<br>Reason                                        | Additional Data Fields (cont'd)             |   |
|---------------------------------------------------------|---------------------------------------------|---|
|                                                         | b                                           | c |
| 17<br>Overwrite Generator<br>(OGEN) failed.<br>(cont'd) | 82 - Can't seek to ufile<br>scnhdr.         |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         |                                             |   |
|                                                         | 83 - Can't write uscnhdr.                   |   |
|                                                         | 84 - Can't open ufile for<br>linenum.       |   |
|                                                         | 85 - Can't seek to ufile<br>linenum.        |   |
|                                                         | 86 - Can't write ufile<br>linenum.          |   |
|                                                         | 87 - Missing ufile name; no<br>-u argument. |   |
|                                                         | 88 - Unexpected action.                     |   |
|                                                         | 89 - Can't open ufile for<br>new symbols.   |   |
|                                                         | 90 - Can't seek to new ufile<br>segment.    |   |
|                                                         | 91 - Can't write new ufile<br>segment.      |   |
|                                                         | 92 - Symbol not defined.                    |   |
|                                                         | 93 - Can't seek for ufile<br>symbols.       |   |
|                                                         | 94 - Can't write new ufile<br>auxent.       |   |
|                                                         | 95 - Can't write old ufile<br>scnhdr.       |   |

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| If a =<br>Reason                                        | Additional Data Fields (cont'd)                   |   |
|---------------------------------------------------------|---------------------------------------------------|---|
|                                                         | b                                                 | c |
| 17<br>Overwrite Generator<br>(OGEN) failed.<br>(cont'd) | 96 - Can't open ufile for old<br>symbols.         |   |
|                                                         | 97 - Can't seek in ufile for<br>old symbols.      |   |
|                                                         | 98 - Can't write ufile old<br>segment.            |   |
|                                                         | 99 - Can't open ufile.                            |   |
|                                                         | 100 - Can't seek to ufile<br>opthdr.              |   |
|                                                         | 101 - Can't write ufile opt<br>hdr.               |   |
|                                                         | 102 - Can't write ufile old<br>auxent.            |   |
|                                                         | 103 - Can't seek in ufile.                        |   |
|                                                         | 104 - Can't open ufile for<br>scn content.        |   |
|                                                         | 105 - Can't seek to ufile scn.                    |   |
|                                                         | 106 - Can't write ufile scn.                      |   |
|                                                         | 107 - System patch count is<br>too large for x86. |   |
|                                                         | 108 - Zero-th symbol not<br>.file in pfile.       |   |

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| If a =<br>Reason                                         | Additional Data Fields (cont'd)<br>b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | c  |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 18<br>Dynamic Update Function<br>Replacer (DUFR) Failed. | <p>One of the following DUFR return codes:</p> <p>3 - More than one segment needs attaching in order to perform overwrite.</p> <p>4 - DUFR encountered an error when opening or reading the absolute overwrite file, or there is an error in the format of the absolute overwrite file.</p> <p>5 - More than 50 words need writing in order to perform update.</p> <p>6 - More than one segment needs attaching in order to perform overwrite.</p> <p>7 - KOP is unable to attach to one of the segments to be overwritten.</p> <p>8 - DUFR could not grow the patch segment to write the replacement function.</p> <p>9 - KOP is unable to release to one of the segments that was overwritten.</p> <p>10 - DUFR is unable to attach one or more segments to be overwritten.</p> <p>12 - DUFR discovered a mismatch between the old data in the absolute overwrite file and the old</p> | -- |

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| If a =<br>Reason                                                     | Additional Data Fields (cont'd)<br>b<br>c                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18<br>Dynamic Update Function<br>Replacer (DUFR) failed.<br>(cont'd) | <p>data in the core image of the process. This error is most likely a user error. It can result from incorrect old data on a LOAD:UPNM input message, in a .m file, pfile, 3ba.out, or object file.</p> <p>14 - More than 50 words need writing in order to perform update.</p> <p>16 - DUFR encountered an internal error.</p> <p>18 - DUFR is unable to release one or more segments that were overwritten. No action needs to be taken, since the link to the attached segments will be broken when DUFR terminates.</p> <p>20 - Overwrite attempts to a reference address not in the address space of the process. This error is most likely a user error. It can result from an incorrect address value on a LOAD:UPNM input message, an incorrect pfile, 3ba.out, or object file, or an invalid utility ID.</p> <p>22 - The address of a transfer vector (or an overwrite from a LOAD:UPNM input message) is not aligned to</p> |

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| If a =<br>Reason                                                     | Additional Data Fields (cont'd)<br>b                                                                                                                                                                                                                                                     | c |
|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 18<br>Dynamic Update Function<br>Replacer (DUFR) failed.<br>(cont'd) | a full word boundary. This error can result from an incorrect address on a LOAD:UPNM input message.                                                                                                                                                                                      |   |
|                                                                      | 24 - Error in obtaining process ID from the utility manager. This error can be a user error resulting from an incorrect UID value on a LOAD:UPNM input message, an incorrect pfile, 3ba.out, or object file, or treating a killable process that is not in core as a nonkillable update. |   |
|                                                                      | 26 - Error in processing overwrite for multiple invocations of a process. At least one instance of the process was updated correctly.                                                                                                                                                    |   |
|                                                                      | 28 - Error in p_creating kopf process.                                                                                                                                                                                                                                                   |   |
|                                                                      | 30 - The kopf process did not send a kopf-init event to kop.                                                                                                                                                                                                                             |   |
|                                                                      | 32 - The kopf and kop processes were faulted due to a system-initialization (phase 1), the overwrite has been backed out.                                                                                                                                                                |   |
|                                                                      | 34 - The kop process was faulted, the overwrite/backout was not performed.                                                                                                                                                                                                               |   |

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| If a =<br>Reason                                                     | Additional Data Fields (cont'd)                                                         |   |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---|
|                                                                      | b                                                                                       | c |
| 18<br>Dynamic Update Function<br>Replacer (DUFR) failed.<br>(cont'd) | 36 - DUFR process faulted.                                                              |   |
|                                                                      | 38 - DUFR process<br>externally terminated.                                             |   |
|                                                                      | 40 - Bad processing<br>sequence attempted by<br>DUFR.                                   |   |
| 19<br>Overwrite Incremental<br>Loader (OILD) failed.                 | One of the following OILD<br>return codes:                                              |   |
|                                                                      | 1 - Missing or unknown --<br>argument in the OILD call.                                 |   |
|                                                                      | 2 - Duplicate flags in the<br>OILD call.                                                |   |
|                                                                      | 3 - UNIX® signal caused a<br>program interrupt.                                         |   |
|                                                                      | 4 - Bad version of OILD<br>being used.                                                  |   |
|                                                                      | 20 - No input pfile, 3ba.out,<br>or object filename given.                              |   |
|                                                                      | 22 - Cannot open the input<br>pfile, 3ba.out, or object file.                           |   |
|                                                                      | 23 - UNIX® memory-<br>allocation failure while<br>building internal data<br>structures. |   |
|                                                                      | 24 - UNIX® read failure for<br>the input pfile, 3ba.out, or<br>object file.             |   |

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| If a =<br>Reason                                                 | Additional Data Fields (cont'd)<br>b                                                                   | c |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---|
| 19<br>Overwrite Incremental<br>Loader (OILD) failed.<br>(cont'd) | 25 - Bad input pfile,<br>3ba.out, or object file: no<br>header structures present.                     |   |
|                                                                  | 26 - Bad input pfile,<br>3ba.out, or object file:<br>invalid magic number; file<br>is of unknown type. |   |
|                                                                  | 27 - Bad input pfile,<br>3ba.out, or object file: not in<br>common object file format.                 |   |
|                                                                  | 28 - UNIX® file positioning<br>failure for the input pfile,<br>3ba.out, or object file.                |   |
|                                                                  | 40 - No output pfile,<br>3ba.out, or object filename<br>given.                                         |   |
|                                                                  | 41 - Output pfile, 3ba.out,<br>or object file already exists.                                          |   |
|                                                                  | 42 - Cannot open the<br>output pfile, 3ba.out, or<br>object file.                                      |   |
|                                                                  | 43 - Same as 23.                                                                                       |   |
|                                                                  | 44 - UNIX® read failure for<br>the output pfile, 3ba.out, or<br>object file.                           |   |
|                                                                  | 45 - UNIX® write failure<br>for the output pfile, 3ba.out,<br>or object file.                          |   |
|                                                                  | 48 - UNIX® file positioning<br>failure for the output pfile,<br>3ba.out, or object file.               |   |

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| If a =<br>Reason                                                 | Additional Data Fields (cont'd)<br>b                                               | c |
|------------------------------------------------------------------|------------------------------------------------------------------------------------|---|
| 19<br>Overwrite Incremental<br>Loader (OILD) failed.<br>(cont'd) | 58 - UNIX® file close<br>failure for the output pfile,<br>3ba.out, or object file. |   |
|                                                                  | 60 - No absolute overwrite<br>filename given.                                      |   |
|                                                                  | 62 - Cannot open absolute<br>overwrite file.                                       |   |
|                                                                  | 63 - Same as 23.                                                                   |   |
|                                                                  | 64 - UNIX® read failure for<br>the absolute overwrite file.                        |   |
|                                                                  | 65 - Bad absolute overwrite<br>file: no header structure<br>present.               |   |
|                                                                  | 66 - Bad magic number:<br>absolute overwrite file is of<br>unknown type.           |   |
|                                                                  | 68 - UNIX® file positioning<br>failure for the absolute<br>overwrite file.         |   |
|                                                                  | 69 - Bad overwrite.                                                                |   |
|                                                                  | 73 - Bad overwrite:<br>old/new data mismatch.                                      |   |
|                                                                  | 74 - Bad overwrite:<br>unknown .filename.                                          |   |
|                                                                  | 77 - Bad overwrite:<br>relocation entries not<br>allowed.                          |   |
|                                                                  | 83 - Same as 23.                                                                   |   |

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| If a =<br>Reason                                                 | Additional Data Fields (cont'd)                                             |   |
|------------------------------------------------------------------|-----------------------------------------------------------------------------|---|
|                                                                  | b                                                                           | c |
| 19<br>Overwrite Incremental<br>Loader (OILD) failed.<br>(cont'd) | 86 - Bad overwrite: absolute<br>overwrite file - input pfile<br>mismatch.   |   |
|                                                                  | 90 - Same as 86.                                                            |   |
|                                                                  | 100 - No patch list.                                                        |   |
|                                                                  | 103 - Same as 23.                                                           |   |
|                                                                  | 111 - Bad absolute<br>overwrite file.                                       |   |
|                                                                  | 116 - Same as 111.                                                          |   |
|                                                                  | 120 - Missing or duplicate<br>.file symbol.                                 |   |
|                                                                  | 123 - Same as 23.                                                           |   |
|                                                                  | 124 - Same as 44.                                                           |   |
|                                                                  | 125 - Same as 45.                                                           |   |
|                                                                  | 129 - Missing or duplicate<br>function name.                                |   |
|                                                                  | 132 - Bad symbol table<br>entry in absolute overwrite<br>file.              |   |
|                                                                  | 134 - Bad symbol table<br>entry in input pfile, 3ba.out,<br>or object file. |   |

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| If a =<br>Reason                                                 | Additional Data Fields (cont'd)                                            |   |
|------------------------------------------------------------------|----------------------------------------------------------------------------|---|
|                                                                  | b                                                                          | c |
| 19<br>Overwrite Incremental<br>Loader (OILD) failed.<br>(cont'd) | 135 - Same as 134.                                                         |   |
|                                                                  | 136 - Same as 134.                                                         |   |
|                                                                  | 143 - Same as 23.                                                          |   |
|                                                                  | 163 - Same as 23.                                                          |   |
|                                                                  | 177 - Same as 111.                                                         |   |
| 20<br>Incremental System<br>Generation (ISGEN) failed.           | One of the following ISGEN<br>return codes:                                |   |
|                                                                  | 1 - Reason for error found<br>at beginning of output file<br>/tmp/isgdump. |   |
|                                                                  | 2 - bf_init: cannot open<br>output file C.                                 |   |
|                                                                  | 3 - bf_fchk: cannot open file<br>C.                                        |   |
|                                                                  | 4 - bf_fchk: file C is not a<br>single extent contiguous<br>file.          |   |

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| If a =<br>Reason                                                   | Additional Data Fields (cont'd)<br>b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | c |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 20<br>Incremental System<br>Generation (ISGEN) failed.<br>(cont'd) | <p>5 - bf_write: insufficient space on output file to build system.</p> <p>6 - bh_put: write failed.</p> <p>7 - bt_pr_seg: too many segments in boot image.</p> <p>8 - bt_ovrwr: unable to overwrite bootab.</p> <p>9 - bt_ovrwr: unable to open output file c.</p> <p>10 - bt_ovrwr: unable to write to file c.</p> <p>11 - db_init: failed to attach to data base.</p> <p>12 - db_init: failed to read header record.</p> <p>13 - db_init: failed to read sgen1 record.</p> <p>14 - db_getpth: failed to read sgen2 record.</p> <p>15 - db_getpth: failed to read sgen3 record.</p> <p>16 - db_pnum: no available process numbers.</p> <p>17 - usage: isgen [-o outputfile] dbname.</p> <p>18 - kpcb_put: write failed.</p> |   |

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| If a =<br>Reason                                                   | Additional Data Fields (cont'd)                              |   |
|--------------------------------------------------------------------|--------------------------------------------------------------|---|
|                                                                    | b                                                            | c |
| 20<br>Incremental System<br>Generation (ISGEN) failed.<br>(cont'd) | 19 - kpcb_frsn: exceeded<br>max number of pfile<br>segments. |   |
|                                                                    | 20 - pf_csize: can't find<br>kboot text.                     |   |
|                                                                    | 21 - pf_csize: can't find<br>kboot data.                     |   |
|                                                                    | 22 - pf_csize: can't find<br>kernel text.                    |   |
|                                                                    | 23 - pf_csize: can't find<br>kernel data.                    |   |
|                                                                    | 24 - pf_csize: can't find<br>kernel bss.                     |   |
|                                                                    | 25 - pf_csize: can't find tv.                                |   |
|                                                                    | 26 - pf_fsize: can't find text<br>of a.out.                  |   |
|                                                                    | 27 - pf_fsize: can't find data<br>of a.out.                  |   |
|                                                                    | 28 - pf_fsize: can't find<br>kernel text.                    |   |
|                                                                    | 29 - pf_fsize: can't find<br>kernel data.                    |   |
|                                                                    | 30 - pf_fsize: can't find tv.                                |   |
| 31 - pf_fstart: can't find<br>text.                                |                                                              |   |
| 32 - pf_fstart: can't find<br>data.                                |                                                              |   |

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| If a =<br>Reason                                                      | Additional Data Fields (cont'd)                                 |    |
|-----------------------------------------------------------------------|-----------------------------------------------------------------|----|
|                                                                       | b                                                               | c  |
| 20<br>Incremental System<br>Generation (ISGEN) failed.<br>(cont'd)    | 33 - pf_fstart: can't find<br>kernel text.                      |    |
|                                                                       | 34 - pf_fstart: can't find<br>kernel data.                      |    |
|                                                                       | 35 - pf_fstart: can't find tv.                                  |    |
|                                                                       | 36 - pf_cpyseg: write failed.                                   |    |
|                                                                       | 37 - pf_fill: write failed.                                     |    |
|                                                                       | 38 - spcb_put: write failed.                                    |    |
|                                                                       | 39 - spcb_firstsn: exceeded<br>max number of pfile<br>segments. |    |
|                                                                       | 40 - va_resume: out of room<br>in kboot's address space.        |    |
|                                                                       | 41 - va_putsgt: write failed.                                   |    |
|                                                                       | 42 - va_putpgt: write failed.                                   |    |
|                                                                       | 43 - va_putpgt: write failed.                                   |    |
|                                                                       | 44 - pf_getfile: file c must<br>be 3bswabbed.                   |    |
| 21<br>The file or process that is<br>being updated is not<br>swabbed. | --                                                              | -- |

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| If a =<br>Reason              | Additional Data Fields (cont'd)   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | b                                 | c                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 22<br>Pcreate of DUFR failed. | Pathname used to pcreate<br>DUFR. | <p>If a = 22-25, 28-30, 40-43, or 101-108, c = one of the following UNIX® system error codes:</p> <p>2 - This error occurs when a filename is specified and the file should exist but doesn't, or when one of the directories in a pathname does not exist.</p> <p>4 - An asynchronous signal (such as interrupt or quit), which the user has elected to catch, occurred during a system call. If execution is resumed after processing the signal, it will appear as if the interrupted system call returned this error condition.</p> <p>5 - Some physical I/O error occurred during a read or write. This error may in some cases occur on a call following the one to which it actually applies.</p> <p>6 - I/O on a special file refers to a subdevice which does not exist, or beyond the limits of the device. It may also</p> |

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| If a =<br>Reason                          | Additional Data Fields (cont'd)<br>b                                                                   | c                                                                                                                                                                                           |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22<br>Pcreate of DUFR failed.<br>(cont'd) | occur when, for<br>example, a tape drive is<br>not on-line or no disk<br>pack is loaded on a<br>drive. | 7 - An argument list<br>longer than 5,120 bytes<br>is presented to a<br>member of the exec<br>family.                                                                                       |
|                                           |                                                                                                        | 8 - A request is made to<br>execute a file which,<br>although it has the<br>appropriate<br>permissions, does not<br>start with a valid magic<br>number.                                     |
|                                           |                                                                                                        | 9 - Either a file<br>descriptor refers to no<br>open file, or a read<br>(respectively writing)<br>request is made to a file<br>which is open only for<br>writing (respectively<br>reading). |
|                                           |                                                                                                        | 10 - A wait was<br>executed by a process<br>that had no existing or<br>unwaited-for child<br>process.                                                                                       |
|                                           |                                                                                                        | 11 - A fork failed<br>because the system's<br>process table is full or<br>the user is not allowed<br>to create any more<br>processes.                                                       |

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| If a =<br>Reason                          | Additional Data Fields (cont'd) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           | b                               | c                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 22<br>Pcreate of DUFR failed.<br>(cont'd) |                                 | <p>12 - During an exec, a program asks for more space than the system is able to supply. This is not a temporary condition; the maximum space size is a system parameter. The error may also occur if the arrangement of text, data, and stack segments requires too many segmentation registers, or if there is not enough swap space during a fork.</p> <p>13 - An attempt was made to access a file in a way forbidden by the protection system.</p> <p>14 - The system encountered a hardware fault in attempting to use an argument of a system call.</p> <p>17 - An existing file was mentioned in an inappropriate context, e.g., link.</p> <p>20 - A nondirectory file was specified where a directory is required, for example, in a path prefix or as an argument to chdir.</p> |

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| If a =<br>Reason                          | Additional Data Fields (cont'd) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           | b                               | c                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 22<br>Pcreate of DUFR failed.<br>(cont'd) |                                 | <p>21 - An attempt to write on a directory.</p> <p>22 - Some invalid argument (e.g., dismounting a nonmounted device; mentioning an undefined signal in signal or kill; reading or writing a file for which lseek has generated a negative pointer).</p> <p>23 - The system's table of open files is full, and temporarily no more opens can be accepted.</p> <p>24 - No process may have more than 20 file descriptors open at a time.</p> <p>26 - An attempt to execute a pure-procedure program which is currently open for writing (or reading). Also an attempt to open for writing a pure-procedure program that is being executed.</p> <p>27 - The size of a file exceeded the maximum file size.</p> <p>28 - During a write to an ordinary file, there is no free space left on the device.</p> |

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| If a =<br>Reason                          | Additional Data Fields (cont'd) |                                                                                                                                                                                      |
|-------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           | b                               | c                                                                                                                                                                                    |
| 22<br>Pcreate of DUFR failed.<br>(cont'd) |                                 | 29 - An lseek was<br>issued to a pipe.                                                                                                                                               |
|                                           |                                 | 30 - An attempt to<br>modify a file or<br>directory was made on<br>a device mounted read-<br>only.                                                                                   |
|                                           |                                 | 31 - An attempt to<br>make more than the<br>maximum number of<br>links (1000) to a file.                                                                                             |
|                                           |                                 | 32 - A write on a pipe<br>for which there is no<br>process to read the data.<br>This condition normally<br>generates a signal; the<br>error is returned if the<br>signal is ignored. |
|                                           |                                 | 39 - The first access of a<br>block not in a file. This<br>is not an error on writes<br>for regular files but<br>there is for reads.                                                 |
|                                           |                                 | 41 - No more extents<br>exist for an extent file.                                                                                                                                    |
|                                           |                                 | 42 - A pathname<br>component is too long.<br>The maximum size of a<br>pathname component is<br>14 characters (not<br>including null<br>character).                                   |
|                                           |                                 | 43 - No entries left in<br>system tables.                                                                                                                                            |

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| If a =<br>Reason                                                                                                                                                                                                                                                                                                                                                                                                | Additional Data Fields (cont'd)            |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                 | b                                          | c                                                                                      |
| 22<br>Pcreate of DUFR failed.<br>(cont'd)                                                                                                                                                                                                                                                                                                                                                                       |                                            | 44 - A request for service was made from a driver which does not perform that request. |
| 23<br>Pcreate of DUFR failed.                                                                                                                                                                                                                                                                                                                                                                                   | Path used to pcreate DUFR.                 | (See column C where A = 22.)                                                           |
| 24<br>Fork UNIX® system call failed.                                                                                                                                                                                                                                                                                                                                                                            | Path for fork.                             | (See column C where A = 22.)                                                           |
| 25<br>Exec UNIX® system call failed.                                                                                                                                                                                                                                                                                                                                                                            | Path being rejected.                       | (See column C where A = 22.)                                                           |
| 26<br>Wait UNIX® system call failed.                                                                                                                                                                                                                                                                                                                                                                            | Path for the process on which wait failed. | Value returned from wait system call.                                                  |
| 27<br>Exceed process was interrupted. Syserr 27 occurs when a running field update process (for example ISGEN) receives a signal and is interrupted. Usually, a second syserr will follow: syserr 20 -1, in the case for ISGEN, indicating that an exceed process was interrupted. Note that the -1 is not an ISGEN return code and may be ignored. The -1 indicates the death of a child of an exceed process. | Path of the interrupted process.           | Interrupt signal.                                                                      |
| 28<br>A read-only access UNIX® system call failed.                                                                                                                                                                                                                                                                                                                                                              | Path being accessed.                       | (See column C where A = 22.)                                                           |

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| If a =<br>Reason                                                                                                                 | Additional Data Fields (cont'd) |                              |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------|
|                                                                                                                                  | b                               | c                            |
| 36<br>Read of phdr of filename issued to determine the type of pfile, 3ba.out, or object file failed.                            | Filename.                       | --                           |
| 37<br>Bad magic on filename given in b. A read to determine the type of pfile, 3ba.out, or object file failed.                   | Filename.                       | --                           |
| 38<br>Erroneous system patch count.                                                                                              | --                              | --                           |
| 39<br>Unable to build an absolute overwrite file due to a failure encountered during an open, read, write, or close of the file. | --                              | --                           |
| 40<br>Falloc UNIX® system call failed.                                                                                           | Pathname.                       | (See column C where A = 22.) |
| 41<br>Create UNIX® system call failed.                                                                                           | Pathname.                       | (See column C where A = 22.) |
| 42<br>Malloc UNIX® system call failed.                                                                                           | Pathname.                       | (See column C where A = 22.) |
| 43<br>Chown UNIX® system call failed.                                                                                            | Pathname.                       | (See column C where A = 22.) |
| 50<br>Failed to create prchk from process path b.                                                                                | Pathname.                       | --                           |

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| If a =<br>Reason                                       | Additional Data Fields (cont'd) |    |
|--------------------------------------------------------|---------------------------------|----|
|                                                        | b                               | c  |
| 51<br>Failed to send message to<br>prchk.              | --                              | -- |
| 52<br>Failed to receive message<br>from prchk.         | --                              | -- |
| 53<br>Prchk returned code b.                           | --                              | -- |
| 54<br>Failed to send terminate<br>message.             | --                              | -- |
| 60<br>Failed to open file b.                           | Filename.                       | -- |
| 61<br>Failed to close file b.                          | Filename.                       | -- |
| 64<br>Unable to read the section<br>header of a pfile. | Section number.                 | -- |
| 65<br>Failed to read patchlist in<br>file b.           | Filename.                       | -- |
| 66<br>Failed to read tv section<br>header in file b.   | Filename.                       | -- |
| 67<br>Failed to read tv entry in file<br>b.            | Filename.                       | -- |
| 68<br>Failed to read pfile header<br>in file b.        | Filename.                       | -- |

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| If a =<br>Reason                                                                   | Additional Data Fields (cont'd) |    |
|------------------------------------------------------------------------------------|---------------------------------|----|
|                                                                                    | b                               | c  |
| 69<br>Failed to read history file entry.                                           | --                              | -- |
| 70<br>No processes were found with Utility ID b.                                   | Utility ID.                     | -- |
| 71<br>Unable to find section header which corresponds to the patch list overwrite. | Filename.                       | -- |
| 75<br>Unable to allocate space for patchlist.                                      | --                              | -- |
| 76<br>Unable to allocate space for pfile list.                                     | --                              | -- |
| 77<br>Unable to allocate space for list of audited pfiles.                         | --                              | -- |
| 80<br>Failed to write NK update header for update file b.                          | Filename.                       | -- |
| 81<br>Failed to write update file entries for update file b.                       | Filename.                       | -- |
| 82<br>Failed to write K update header for update file b.                           | Filename.                       | -- |
| 83<br>Failed to write null optional header for update file b.                      | Filename.                       | -- |

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| If a =<br>Reason                                    | Additional Data Fields (cont'd) |              |
|-----------------------------------------------------|---------------------------------|--------------|
|                                                     | b                               | c            |
| 90<br>Failed to seek to patch list<br>for file b.   | Filename.                       | --           |
| 91<br>Failed to seek to tv slot for<br>file b.      | Filename.                       | --           |
| 92<br>Failed to seek to history file<br>entry.      | --                              | --           |
| 95<br>Failed to find cud entry for<br>file b.       | Filename.                       | --           |
| 96<br>Failed to find first cud entry<br>for file b. | Filename.                       | --           |
| 97<br>No patchlist entries for file<br>b.           | Filename.                       | --           |
| 101<br>Backout operation failed.                    | (See column C<br>where A = 22.) | Filename(s). |
| 102<br>Pcreate failed.                              | (See column C<br>where A = 22.) | Filename(s). |
| 103<br>Sendw to fufmgr failed.                      | (See column C<br>where A = 22.) |              |
| 105<br>Full pathname was not<br>supplied.           | (See column C<br>where A = 22.) | Filename(s). |
| 106<br>Perm operation failed.                       | (See column C<br>where A = 22.) | Filename(s). |
| 107<br>Mv operation failed.                         | (See column C<br>where A = 22.) | Filename(s). |

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| If a =<br>Reason                                                                                                               | Additional Data Fields (cont'd)                           |              |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------|
|                                                                                                                                | b                                                         | c            |
| 108<br>Temp operation failed.                                                                                                  | (See column C<br>where A = 22.)                           | Filename(s). |
| 109<br>Atomic Switch operation<br>failed.                                                                                      | Error code.                                               | Filename(s). |
| 110<br>Unable to send msg to<br>process manager. Failure to<br>lock segments of a library in<br>core.                          | Message type.                                             | Error code.  |
| 111<br>Unable to receive<br>acknowledgement of msg to<br>process manager. Failure to<br>lock segments of a library in<br>core. | Message type.                                             | Error code.  |
| 112<br>Process manager could not<br>lock library segments in<br>core.                                                          | Message name.                                             | Error code.  |
| 130<br>TRC failed.                                                                                                             | 2 - Invalid request.                                      |              |
|                                                                                                                                | 3 - No function with this<br>name was found in the pfile. |              |
|                                                                                                                                | 4 - No function<br>encompasses this address.              |              |
|                                                                                                                                | 5 - Failure in reading<br>symbol table for this pfile.    |              |
| 130<br>TRC failed.                                                                                                             | 6 - Failure in reading file<br>header of this pfile.      |              |
|                                                                                                                                |                                                           |              |

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| If a =<br>Reason                   | Additional Data Fields (cont'd)                                              |                            |
|------------------------------------|------------------------------------------------------------------------------|----------------------------|
|                                    | b                                                                            | c                          |
|                                    | 7 - Failure in reading history file for this pfile.                          |                            |
|                                    | 8 - Unable to locate symbol table of this pfile.                             |                            |
|                                    | 9 - Pfile failed to open.                                                    |                            |
|                                    | 10 - History file for this pfile failed to open.                             |                            |
|                                    | 11 - Central update data base failed to open.                                |                            |
|                                    | 12 - Working pfile copy has decision functions and therefore cannot be used. |                            |
|                                    | 13 - Official pfile copy cannot be used because it is not audited.           |                            |
|                                    | 14 - Pfile not swabbed.                                                      |                            |
|                                    | 15 - Invalid command.                                                        |                            |
| 132<br>UP dispatch failed          | Error code x86.                                                              |                            |
| 133<br>Audit request failed.       | Error code x86.                                                              |                            |
| 135<br>Reduction operation failed. | 1 - Open failed on BUD or its working copy                                   | BUD or working copy of BUD |
|                                    | 2 - Close failed on BUD or its working copy                                  | BUD or working copy of BUD |

SEE PROPRIETARY NOTICE ON COVER PAGE



| If a =<br>Reason                                                                          | Additional Data Fields (cont'd)              |                                                                                           |
|-------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------|
|                                                                                           | b                                            | c                                                                                         |
| 135<br>Reduction operation failed.<br>(cont'd)                                            | 3 - Temporary updates on system              | Updated file's pathname                                                                   |
|                                                                                           | 4 - UN-AUDITED files on system               | File's pathname                                                                           |
|                                                                                           | 5 - Error in creation of working copy of BUD | [BUD][working copy]                                                                       |
| 140<br>Requirement for contiguous files not met. Files do not exist or are not contiguous | Filename.                                    | Filename or (null) - error exists in the global header file where the filename is stored. |

## 5. REFERENCES

PA-4C003-01 *Field Update User's Guide*

### Input Messages

UPD:BKOUT  
UPD:DISPLAY

### Output Messages

LOAD:UPNM  
UPD:DISPLAY  
UPD:UPNM

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... UPD:UPNM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] UPD UPNM - AUTO BACK-OUT DELAY STARTED
- [2] UPD UPNM DUFR WARNING: -2: UPDATE REQUEST ON NAMED DATA SEGMENT
- [3] UPD UPNM DUFR WARNING: -4: TARGET PROCESS SEGMENT NAMES CLEARED

## 2. REASON FOR OUTPUT

To specify an action or provide information outside of the normal field update reporting scheme (through UPD).

Format 1 indicates that the in-core copy of the target process has been overwritten, and the automatic backout delay has started (default is five minutes). Should a phase 1 occur before the delay period completes, the update will be backed out, leaving the update in a pending temp state. A continue may be requested.

Format 2 is provided when a killable Kernel Processes (KPUPDATE) feature is the target process and a named data segment has been encountered (the name is included in the SDE for the segment, located in the kernel's address space). Normally, any (text) segment DUFR attaches to will have its name cleared to prevent inconsistencies should the target process die. For named data segments, DUFR will attach to the segment and see that it is overwritten, but the name will NOT be cleared.

Format 3 is given to inform the user that during an update on a KPUPDATE type process, one or more (text) segment names were cleared.

## 3. VARIABLE FIELD DEFINITIONS

See Reason For Output.

## 4. ACTION TO BE TAKEN

Format 1 tells the user to begin any sanity testing before the update is made temporary, in case sanity degrades to the point where a backout cannot be made manually.

Format 2 informs the user of the named data segments, as there now is added risk of data inconsistencies if the target process dies and is recreated during update.

For Format 3, the user should be aware of the situation in case the target process' segment name is important to other application programming. Otherwise, the warning may be ignored.

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**5. REFERENCES**

Input Messages

UPD:APPLY-BYTER

UPD:APPLY-FUNCR

UPD:RECLAIM

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... UPD:VERSION  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD VERSION {APPLY|BKOUT} [MISMATCH]

| PARTITION | VERSION | BWM |
|-----------|---------|-----|
| a         | b       | c   |
| .         | .       | .   |
| .         | .       | .   |
| .         | .       | .   |

## 2. REASON FOR OUTPUT

To respond to the input message UPD:VERSION.

## 3. VARIABLE FIELD DEFINITIONS

|          |                                                                                                                                                                                                                                                                                                              |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| APPLY    | The input message used the APPLY keyword.                                                                                                                                                                                                                                                                    |
| BKOUT    | The input message used the BKOUT keyword.                                                                                                                                                                                                                                                                    |
| MISMATCH | The applied or backed out generic text version and/or software update level does not logically follow from the current generic text versions and/or software update levels.                                                                                                                                  |
| a        | Partition name. The pseudo-partition name APPLY or BKOUT refers to the generic text string specified in the UPD:VERSION input command. The pseudo-partition Equipment Configuration Database (ECD) refers to the 'systype' and 'genid' items from the 'eaiopt' form in the equipment configuration database. |
| b        | Generic text version of this partition.                                                                                                                                                                                                                                                                      |
| c        | Software update level of this partition. The ECD partition does not have a software update level.                                                                                                                                                                                                            |

## 4. ACTION TO BE TAKEN

If a mismatch was indicated, check that the generic text specified on the last UPD:VERSION input message was correct. If incorrect, re-enter with correct information. If it was correct, then check and correct, if need be, the items 'systype' and 'genid' on the 'eaiopt' form using ECD recent change. The key is 'option\_name: eaiop0'.

## 5. REFERENCES

Input Messages  
OP:VERSION  
UPD:VERSION

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Output Message  
OP:VERSION

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ID ..... UPD:VFY  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

[1]     UPD VFY REPT  
          a

[2]     UPD VFY b

## 2. REASON FOR OUTPUT

To report the result of executing a UPD:VFY command.

Format 1 is output to give information about the progress of verifying an update, or to report an error encountered while verifying the update.

Format 2 is output upon termination of the process.

## 3. VARIABLE FIELD DEFINITIONS

a                   Information about the progress of verifying an update, or report of an error encountered while verifying the update. Error messages may be one of the following categories:

COFF       — reports an error in the internal format of a file  
database — reports an error in the database  
filesys    — reports an error in the file system  
internal — reports an error found by the field update code  
system     — reports a system error that occurred  
usage      — reports an error using field update

See the Field Update Error Codes output Appendix APP:FUEC for explanations of error codes which may appear in error messages.

b                   Termination mode of the input message UPD:VFY. The mode will be either COMPLETED for successful completion, or ABORTED for termination with errors.

## 4. ACTION TO BE TAKEN

No action needed for informational reports. If a command aborts, seek technical assistance.

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**5. REFERENCES**

Output Appendix  
APP:FUEC

Input Message  
UPD:VFY

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ID ..... UPD:VFYCON  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

UPD VFYCON - TABLE OF [a] INCONSISTENCIES

| SUNAME | UPD   | PRODUCT | TYPE  |
|--------|-------|---------|-------|
| =====  | ===== | =====   | ===== |
| b      | c     | d       | e     |

UPD VFYCON - TABLE f

## 2. REASON FOR OUTPUT

To report all software update inconsistencies associated with temporary updates in the system, in response to a UPD:VFYCON input message or poke that performs Software Update (SU) inconsistency checks.

## 3. VARIABLE FIELD DEFINITIONS

- a Target processor that consistency check was run for. If none listed then all processors were checked.
- b Software update name associated with the inconsistency.
- c Update number in the SU database.
- d The product name associated with the inconsistency.
- e The type of inconsistency:
  - MISSING APPLY PFILE — FUNCR or BYTER type update is missing a working file needed to install the update.
  - MISSING APPLY UFILE — FUNCR or BYTER type update is missing a working file needed to install the update.
  - MISSING BOLO SAVEFILE — Working files necessary to perform back out of last official SU are missing. Technical assistance is required to clear this inconsistency.
  - MISSING MIRROR FILE — An always contiguous product is missing its mirror disk image which is required to software update the product.
  - MISSING OFFICIAL PRODUCT FILE — This official version of a product being updated is missing. Technical assistance is required to clear this inconsistency.
  - MISSING TEMPORARY FILE — FILER update is missing a working file needed to install the update.

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UPDATE NOT IN TEMPORARY STATE — Update has lost filesystem temp meaning it is not activated.

UPDATE NOT INSTALLED IN PROCESSOR — FUNCR or BYTER type update is not installed in processor memory meaning it is not activated.

f

Status:

COMPLETED — Only one inconsistency table

CONTINUES — Additional tables to follow.

#### 4. ACTION TO BE TAKEN

The normal recovery actions are to roll forward or roll backward the current temporary updates using a UPD:RCVRY input message, unless the inconsistency type indicates that technical assistance is required.

#### 5. REFERENCES

MCC Display Page(s):  
1950 (SU MAINTENANCE)  
1960 (SU INSTALLATION)

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*  
*UNIX® RTR Operating System System Maintenance Manual*

Input Messages  
UPD:RCVRY  
UPD:VFYCON

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ID ..... VER:APPFILE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER:APPFILE IP, HASH CODE FAILURE  
ID c HSHADR d BINK e SYS f COMP g
  
- [2] VER:APPFILE HASH HEAD TABLE FAILURE  
BINK e SYS f COMP g
  
- [3] VER:APPFILE MERGE MAP FAILURE  
BINK e SYS f COMP g
  
- [4] VER:APPFILE MAIN HASH TABLE FAILURE  
BINK e SYS f COMP g
  
- [5] VER:APPFILE MAP ERROR
 

|        | ID | SIZE | DISK<br>START | DISK<br>END | CORE<br>START | CORE<br>END |
|--------|----|------|---------------|-------------|---------------|-------------|
| CS2FS: | h  | i    | j             | k           | l             | m           |
| ID2FS: | n  | o    | p             | q           |               |             |
  
- [6] VER:APPFILE a COMPLETED, b ERRORS DETECTED

## 2. REASON FOR OUTPUT

The six formats appear only if errors are detected.

In response to the VER:APPFILE command.

Formats 1 through 4 are output when the computed hash sum for a memory range does not agree with the hash sum in the system hash sum tables. Only ten such messages will be output.

Format 5 is output when inconsistencies are detected between the ID2FS and CS2FS maps.

Format 6 is output on completion of the audit. It summarizes the total number of errors actually detected.

## 3. VARIABLE FIELD DEFINITIONS

- a The 1B file being verified.
- b The actual number of errors detected during the audit.

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|   |                                                                                                      |
|---|------------------------------------------------------------------------------------------------------|
| c | The ID tag for the detected error.                                                                   |
| d | The address of the invalid hash sum in the hash sum table.                                           |
| e | The starting address of the BINK containing the error.                                               |
| f | The hash sum contained in the hash sum table.                                                        |
| g | The computed hash sum.                                                                               |
| h | The File Store ID tag for this memory range, according to the CS2FS map.                             |
| i | The size of the memory range according to the CS2FS map.                                             |
| j | The File Store starting address according to CS2FS.                                                  |
| k | The File Store ending address according to CS2FS.                                                    |
| l | The Main Memory starting address according to CS2FS. This field is blank if the memory is disk only. |
| m | The Main Memory ending address according to CS2FS. This field is blank if the memory is disk only.   |
| n | The File Store ID tag for this memory range, according to the ID2FS map.                             |
| o | The size of the memory range according to the ID2FS map.                                             |
| p | The File Store starting address according to ID2FS.                                                  |
| q | The File Store ending address according to ID2FS.                                                    |

#### **4. ACTION TO BE TAKEN**

If any error messages (formats 1-5) are output, seek technical assistance.

#### **5. REFERENCES**

Input Messages  
OP: APPFILE  
VER: APPFILE

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ID ..... VER:APPTAPE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] APPTAPE TYPE **a** WRITTEN mm/dd/yy hh:mm
- [2] TAPE HEADER TYPE INVALID
- [3] TAPE HEADER MAGIC NUMBER INVALID

## 2. REASON FOR OUTPUT

In response to the VER:APPTAPE command to print the tape header from an LTS, TOSL, or ERAP archive tape.

## 3. VARIABLE FIELD DEFINITIONS

|          |                                               |
|----------|-----------------------------------------------|
| a        | Type of data on archive tape:                 |
| LTS      | Tape contains Long Term Storage data.         |
| TOSL     | Tape contains Trunk Out of Service List data. |
| ERAP     | Tape contains ERror Analysis Program data.    |
| mm/dd/yy | Date tape was written.                        |
| hh:mm    | Time of day tape was written.                 |

## 4. ACTION TO BE TAKEN

Format 1 is the expected output.

Format 2 is reported if the tape appears to be an archive tape, but the tape type value is unknown.

Format 3 indicates that the tape is not an archive tape produced by COPY:APPTAPE.

## 5. REFERENCES

Input Messages  
COPY:APPTAPE  
VER:APPTAPE  
LOAD:APPTAPE

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ID ..... VER:ATP-ATV  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER ATP ATV IN PROGRESS  
ENTRY#: aaaa      ENABLED: b      NUM ACTIONS: c  
VALIDATION KEY  
    FID: dd      TID: eee      STATE: ffffffffffffffff      DIRECTION: gggggggg  
    ACTION1:      hhhhhhhhhhhh      (ii, jjjjjjjj)  
        kkkkkkkkk      : llllllll  
        kkkkkkkkk      : llllllll  
        .  
        .  
        .  
    ACTION2:      hhhhhhhhhhhh      (ii, jjjjjjjj)  
        kkkkkkkkk      : llllllll  
        kkkkkkkkk      : llllllll  
        .  
        .  
        .
- [2] VER ATP ATV COMPLETE MESSAGE:      CODE      5  
    m
- [3] VER ATP ATV COMPLETE  
    INVALID CALL STATE
- [4] VER ATP ATV COMPLETE  
    INVALID DIRECTION
- [5] VER ATP ATV COMPLETE  
    INVALID FEATURE ID
- [6] VER ATP ATV COMPLETE  
    INVALID TRIGGER ID
- [7] VER ATP ATV COMPLETE  
    UNEXPECTED KEYWORD
- [8] VER ATP ATV COMPLETE  
    INCOMPLETE VALIDATION KEY
- [9] VER ATP ATV COMPLETE  
    ERROR OPENING DATABASE

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- [10] VER ATP ATV COMPLETE  
ERROR CLOSING DATABASE
- [11] VER ATP ATV COMPLETE  
ATV TABLE CANNOT BE VERIFIED - ERRNO = n
- [12] VER ATP ATV COMPLETE  
ATV ENTRY NOT EQUIPPED
- [13] VER ATP ATV COMPLETE  
ERROR -- ATP DATABASE IS NOT INITIALIZED

## **2. REASON FOR OUTPUT**

Formats 1 - 2 output messages are the normal response to a previously input VER:ATP-ATV message. One or more (up to 2048) Format 1 outputs will print as a result of the VER:ATP-ATV input message, depending on the input parameters specified and each Format 1 can have 0 to 8 actions with associated parameter list print.

The ATP actions and the parameter fields required for each are depicted in the following list.

- Play Announcement - Announcement Identifier, Repetitions, Direction, Announcement Complete TI pointer
- Stop Announcement - Direction
- Reprompt - Announcement Identifier, #of Reprompts, Direction
- Collect Trigger - Star/Pound ID, Interruptible Announcements, Busy/Ringing ID, Interdigit Timeout, Direction
- Stop Collecting - Direction
- Collect Digits - Direction, Clear Digit Buffer, Interruptible Announcements, Start Predigit Timing, End of Digit ID, Interdigit Timeout, Predigit Timeout, Minimum Digits, Maximum Digits
- Set Timer - Timer ID, Duration
- Clear Timer - Timer ID
- Redirect - Logical Address
- Partition - Logical Address
- Final Handle - Final Handling Treatment
- Update Billing Info - Hundreds, Tens, Ones
- Send Facility - Component Type, Cause
- Send OOB Data - Feature Option, Drop Data Option, Cause

A single Format 2 output message will print at the end of all Format 1 messages.

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Formats 3 - 11 output messages give diagnostic information on either internal problems found in the ATP data structures or on invalid syntax. In the latter case, retry the command input with help from the Input Message explanation.

Format 12 output message indicates that the requested record, given the key data specified in the input message, does not exist in the database.

Format 13 output message indicates that a verify of the ATP Database (APPDB) has been requested at a switch before the ATP portion of the APPDB has been initialized. The ATP portion of the APPDB will be initialized automatically prior to the first ATP Recent Change request.

### 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Entry number of the slot which holds the ATV table data (0-2047).                                                                                                                         |
| b | Action list status:<br><br>N — Disabled.<br><br>Y — Enabled.                                                                                                                              |
| c | Indicates the total number of actions for a particular ATV entry (0-8). If this value is zero the action/associated parameter list should be empty.                                       |
| d | Part of the validation key which constitutes a unique ATV entry. It defines the Feature ID provisioned in the Feature Table (0-63).                                                       |
| e | Part of the validation key which constitutes a unique ATV entry. It defines the Trigger ID that is either provisioned in the Trigger Table or is in the set of fixed Trigger IDs (0-127). |
| f | Part of the validation key which constitutes a unique ATV entry. The Call State:<br><br>ANSWER<br><br>POST DISCONNECT<br><br>PRE ANSWER<br><br>UNSPECIFIED                                |
| g | Part of the validation key which constitutes a unique ATV entry. The direction of the call:<br><br>CALLED<br><br>CALLING                                                                  |
| h | Defines one of the eight actions to be taken for this ATV table validation key. List of expected actions:<br><br>CLEAR PER CALL INFO<br><br>CLEAR TIMER                                   |

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COLLECT DIGITS  
COLLECT TRIGGER  
DISABLE ATP  
DISABLE INB  
DISABLE 00B  
ENABLE INB  
ENABLE 00B  
ENABLE USER 00B  
FINAL HANDLE  
PARTITION  
PLAY ANNOUNCEMENT  
REDIRECT  
REMOVE OGT  
REPROMPT  
ROUTE CALL  
SCREEN FOR 800  
SCREEN 00B DATA  
SEND FACILITY  
SET TIMER  
STOP ANNOUNCEMENT  
STOP COLLECTING  
UPDATE BILLING INFO  
i Numeric equivalent to action field in database table.  
jjjjjjj Numeric equivalent to parameter list field in database table.  
k Action parameter name:  
\*/# INIT  
ADJ LOG ADDR  
ANNC ID  
ANN C TI PTR  
BUSY/RING  
CAUSE  
CLEAR BUF  
COMPONENT TYPE

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|   |                                                                                                |
|---|------------------------------------------------------------------------------------------------|
|   | DIGS (MAX)                                                                                     |
|   | DIGS (MIN)                                                                                     |
|   | DIRECTION                                                                                      |
|   | DROP DATA                                                                                      |
|   | DURATION                                                                                       |
|   | EOD INI                                                                                        |
|   | FEATURE OPTION                                                                                 |
|   | FHT                                                                                            |
|   | HUNDREDS                                                                                       |
|   | IAI                                                                                            |
|   | NO. REPS                                                                                       |
|   | ONES                                                                                           |
|   | PREDIG TMG                                                                                     |
|   | PRT DIAL TMG                                                                                   |
|   | PRT DIG TMG                                                                                    |
|   | STRT PRE TMG                                                                                   |
|   | TENS                                                                                           |
|   | TIMER ID                                                                                       |
| l | Action parameter value.                                                                        |
| m | Number of Format 1 formats that were necessary to completely output all ATV entries requested. |
| n | APPDB error number.                                                                            |

#### 4. ACTION TO BE TAKEN

For Formats 3 - 8 check the input message for correctness or use the RTR PDS interactive help capability.

For Formats 9 - 11 there is potential corruption in the ATP Database (APPDB). Seek technical assistance if the message implicates APPDB corruption.

#### 5. REFERENCES

Input Message  
VER:ATP-ATV

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## 1. FORMAT

- ## 2. REASON FOR OUTPUT

Formats 3 and 4 indicate errors where found parsing the input command parameters.

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Formats 5 - 7 give diagnostic information on internal problems found in the AT&T Trigger Platform (ATP) data structures. The address given is relative to the APPDB translation space in either disk file but not the ATP node.

Format 8 indicates that the requested record, given the key data specified in the input message, does not exist in the database.

Format 9: This output message indicates that a verify of the ATP database has been requested at a switch before the ATP portion of the APPDB database has been initialized. The ATP portion of the APPDB will be initialized automatically prior to the first ATP Recent Change request.

### **3. VARIABLE FIELD DEFINITIONS**

- |   |                                                                                                                                        |
|---|----------------------------------------------------------------------------------------------------------------------------------------|
| a | This is the entry number of the slot which holds the Feature Table data. The range for this variable is 0-127.                         |
| b | This is the Feature ID which should be in the range 0-63.                                                                              |
| c | This is the item which provides the number of feature identifiers that exist for this entry. This variable should be in the range 1-8. |
| d | This is the Feature Identifier which should be in the range 0-255.                                                                     |
| f | APPDB error number.                                                                                                                    |
| g | The number of Format 1 outputs that were necessary to completely output all ATP entries requested.                                     |

### **4. ACTION TO BE TAKEN**

Formats 3 - 4: Check the input message for correctness or use the RTR PDS interactive help capability.

Formats 5 - 7: There is potential corruption in the APPDB (ATP database). Seek technical assistance if this is the case.

### **5. REFERENCES**

Input Message  
VER:ATP-FEATURE

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ID ..... VER:ATP-RESTRICT  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER ATP RESTRICT IN PROGRESS  
RESTRICT aaaa NUMBERS:  
bbb bbb bbb ...  
.  
.  
.
- [2] VER ATP RESTRICT COMPLETE MESSAGE: CODE 5  
C
- [3] VER ATP RESTRICT COMPLETE  
UNEXPECTED KEYWORD
- [4] VER ATP RESTRICT COMPLETE  
MISSING KEYWORD
- [5] VER ATP RESTRICT COMPLETE  
CANNOT VERIFY APPDB -- COPY IN PROGRESS
- [6] VER ATP RESTRICT COMPLETE  
INCOMPLETE VALIDATION KEY, N-TABLE TYPE EXPECTED
- [7] VER ATP RESTRICT COMPLETE  
INVALID NPA-NXX RANGE VALUE
- [8] VER ATP RESTRICT COMPLETE  
LOW NPA-NXX RANGE VALUE MUST BE LESS THAN HIGH RANGE VALUE
- [9] VER ATP RESTRICT COMPLETE  
UNSUCCESSFUL NPA-NXX TABLE READ

## 2. REASON FOR OUTPUT

These output messages are in response to a previously input VER:ATP-RESTRICT message.

Format 1 output is printed as a valid response to the VER:ATP-RESTRICT message that is input. For each line with table values (bbb), there can be up to 15 bbb entries per line and as many as 67 total lines (1000 values).

One Format 2 is printed at the end of the Format 1 output.

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Formats 3 and 4 indicate errors where found parsing the input command parameters. Format 3 may end in "-- TRY VER:ATP; ..." under certain conditions.

Format 5 may be output if the COPY:APPDB maintenance task is being run. The proper action in this case is to retry the desired VER:ATP-RESTRICT command at a later time.

Format 6 is output if an improper TABLE TYPE was specified in the input command, only NPA, NXX, and CNPA are valid.

Format 7 is output if there is an error detected in the low range that was specified in the VER:ATP-RESTRICT Input Message.

Format 8 is output if both a low- and high- end npa-nxx range is specified and the high end value is less than the low end value.

Format 9 is output if there is trouble reading the disk copy of the ATP Database (APPDB). Seek technical assistance.

### **3. VARIABLE FIELD DEFINITIONS**

|      |                                                                                                                                                                             |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| aaaa | The ATP RESTRICT table type requested and output. Possible values are NPA, NXX, and CNPA.                                                                                   |
| bbb  | This is one of the list of ATP RESTRICT values populated in the requested table (000-999). Each bbb value is exactly three digits long, columns aligned with leading zeros. |
| c    | The number of Format 1 formats that were necessary to completely output all ATV entries requested.                                                                          |

### **4. ACTION TO BE TAKEN**

Formats 3 - 4 and 6 - 8 check the input message for correctness or use the RTR PDS interactive help capability.

Format 5 retry later.

Format 9 there is potential corruption in the ATP Database (APPDB). Seek technical assistance if this is the case.

### **5. REFERENCES**

Input Message  
VER:ATP-RESTRICT

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VER:ATP-STOP  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER ATP STOP COMPLETE  
OPEN /dev/kmem FAILED: a(b)
- [2] VER ATP STOP COMPLETE  
TERMED c

## 2. REASON FOR OUTPUT

This message prints in response to the input message VER:ATP-STOP.

## 3. VARIABLE FIELD DEFINITIONS

- a UNIX® error number (explained by English text in variable b).
- b English text explanation of UNIX® error number describing reason why /dev/kmem open failed.
- c The UNIX® RTR pid (Process Identifier) of the VER:ATP-STOP process killed as a result of executing this command.

## 4. ACTION TO BE TAKEN

Format 1. Try the input command again. If trouble persists, seek technical assistance.

## 5. REFERENCES

Input Message  
VER:ATP-STOP

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VER:ATP-TRIGGER  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER ATP TRIGGER IN PROGRESS  
TRIGGER STRING: aaaa  
TRIGGER ID: bbb
  
- [2] VER ATP TRIGGER COMPLETE MESSAGE: CODE 5  
d
  
- [3] VER ATP TRIGGER COMPLETE  
UNEXPECTED KEYWORD
  
- [4] VER ATP TRIGGER COMPLETE  
INVALID DIGIT STRING
  
- [5] VER ATP TRIGGER COMPLETE  
ERROR OPENING DATABASE
  
- [6] VER ATP TRIGGER COMPLETE  
ERROR CLOSING DATABASE
  
- [7] VER ATP TRIGGER COMPLETE  
TRIGGER TABLE CANNOT BE VERIFIED - ERRNO = c
  
- [8] VER ATP TRIGGER COMPLETE  
TRIGGER ENTRY NOT EQUIPPED
  
- [9] VER ATP TRIGGER COMPLETE  
ERROR -- ATP DATABASE IS NOT INITIALIZED

## 2. REASON FOR OUTPUT

The following formats correspond to the input formats given in the VER:ATP-TRIGGER input command.

One Format 1 is printed for each trigger entry matched according to the input message parameters.

One Format 2 is printed at the end of all Format 1 outputs printed as the result of a single VER:ATP-TRIGGER input command.

Formats 3-7 are error messages indicating incorrect data or possible corruption in the AT&T Trigger Platform (ATP) data structures.

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Format 8 indicates that the requested record, given the key data specified in the input message, does not exist in the database.

Format 9: This output message indicates that a verify of the ATP database has been requested at a switch before the ATP portion of the APPDB database has been initialized. The ATP portion of the APPDB will be initialized automatically prior to the first ATP Recent Change request.

### **3. VARIABLE FIELD DEFINITIONS**

- |   |                                                                                                                                                                                                                                                                                        |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | This is the DTMF digit string which triggers the actions for call processing to perform. This should be a character string starting with a "*" or "#". The next three digits can be 0-9 or "*" (or omitted). The string must be at least one character long but not greater than four. |
| b | This is the ID associated with the DTMF digit string. It must be in the range 51-127.                                                                                                                                                                                                  |
| c | APPDB error number.                                                                                                                                                                                                                                                                    |
| d | The number of Format 1 formats that were necessary to completely output all ATP entries requested.                                                                                                                                                                                     |

### **4. ACTION TO BE TAKEN**

Formats 1, 2 and 8: None.

Formats 3 - 4: Check the message for correctness or use the RTR PDS interactive help capability.

Formats 5 - 7: There is potential corruption in the ATP (APPDB database). Seek technical assistance in this case.

### **5. REFERENCES**

Input Message  
VER:ATP-TRIGGER

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... VER:COAMS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has two formats.

- [1]    VER COAMS NSC a COMPL  
      NO DATA FOUND
- [2]    VER COAMS NSC a COMPL  
      NSC        DLNSC        TTYC  
      a            b            c

## 2. REASON FOR OUTPUT

Both formats are the response to the input message VER:COAMS:NSC a!

## 3. VARIABLE FIELD DEFINITIONS

- a                    The NSCX complex number.
- b                    The DLNSC number mapped to the NSCX complex. The map is done through the DLNSC UCB ECD record field 62 (packcode). Refer to the VER:COAMS input manual page for more detail on this mapping.
- c                    The TTYC (tty controller) number associated with the DLNSC.

## 4. ACTION TO BE TAKEN

No action required. This message is the response to an input message.

## 5. REFERENCES

Input Message  
VER:COAMS

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VER:DCC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 4 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has nine formats.

- [1] VER DCC APP c tttt  
TRANSID -- d  
DIGITS CHECKSUM RECORDS PROCESSED  
iii jjj kkkk xxxxxxxx nnnnnnnn  
  
1-18 lines of data per message
- [2] VER:COMPLETE MESSAGE:CODE 5,  
l
- [3] VER DCC APP c tttt  
NO TRANSLATIONS FOUND
- [4] VER DCC APP c COMPLETE  
APPDB DCC TASK d FOR c IS STILL RUNNING
- [5] VER DCC APP c COMPLETE  
APPDB DCC TASK FOR c IS NOT RUNNING
- [6] VER DCC APP c COMPLETE  
APPDB DCC TASK d FOR c WAS STOPPED AT e
- [7] VER DCC APP c COMPLETE  
APPDB DCC TASK d FOR c ERRORED AT e  
f
- [8] VER DCC APP c COMPLETE  
INPUT ERROR - g
- [9] VER DCC APP c COMPLETE  
ERROR a (LINE b) -- APPDB DCC TASK FOR c CANNOT BE VERIFIED

## 2. REASON FOR OUTPUT

Response to the VER:DCC input command.

Format 1 prints if no errors were encountered and the DCC task has completed. The resulting checksums that were computed are printed in the output. If there are more checksums to be printed than can be output in one Format 1 output, then multiple formats will be printed.

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Only one Format 2 will print per complete reporting of DCC task results.

If no checksums were computed when the last START:DCC command was executed (i.e., no records matched the START:DCC input parameters), one Format 3 will print.

Format 4 prints if the DCC task for the specified customer unit being verified is still running.

Format 5 will print if there is no DCC task running for the specified customer unit.

Format 6 prints if the last executed DCC task was aborted manually via the STOP:DCC command.

Format 7 prints if the last executed DCC task encountered an error and was aborted automatically by the 4ESS™ Switch.

Format 8 prints if a syntax error was found in the VER:DCC command that was input.

Format 9 prints if internal errors are preventing the 4ESS™ Switch from determining the status of a DCC task.

### 3. VARIABLE FIELD DEFINITIONS

|      |                                                                                                                                                                                                                                                   |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a    | Error number (TBD).                                                                                                                                                                                                                               |
| b    | Source line number where error was found. (For NESAC troubleshooting.)                                                                                                                                                                            |
| c    | The name of a APPDB customer unit. Currently, only IBGTT is supported by the DCC capability.                                                                                                                                                      |
| d    | Transaction ID of the DCC task that is executing or the DCC task that has completed.                                                                                                                                                              |
| e    | Date and time that the DCC task was aborted or errored.                                                                                                                                                                                           |
| f    | English sentence describing reason for error.                                                                                                                                                                                                     |
| g    | English description of the syntax error found in the command input.                                                                                                                                                                               |
| iii  | This field indicates the ABC value or ABC range to which the checksum that is output pertains.                                                                                                                                                    |
| jjj  | This field indicates the DEF value or DEF range to which the checksum that is output pertains. It may also be blank.                                                                                                                              |
| kkkk | This field indicates the GHIJ range to which the checksum that is output pertains. It may also be blank.                                                                                                                                          |
| l    | The number of Format 1 formats that were necessary to completely output all checksums computed by the DCC task being verified. This number can be used to determine whether all outputs were received by the user requesting the VER:DCC command. |

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|             |                                                                                                                              |
|-------------|------------------------------------------------------------------------------------------------------------------------------|
| tttt        | One of the following character strings:                                                                                      |
| STARTED     | Printed on the first of one or more Format 1 outputs.                                                                        |
| IN PROGRESS | Printed on all other Format 1 outputs.                                                                                       |
| xxxxxxxx    | An eight-digit hexadecimal (characters 0-9 and A-F) number. This is the checksum for the corresponding range that is output. |
| nnnnnnnn    | The number of records used as input to determine the corresponding checksum.                                                 |

#### **4. ACTION TO BE TAKEN**

Format 7 or 9: Notify NESAC.

#### **5. REFERENCES**

##### Input Messages

ACTV:DCC  
ALW:DCC  
DEACTV:DCC  
INH:DCC  
OP:DCC  
START:DCC  
STOP:DCC  
VER:DCC

##### Output Messages

INH:DCC  
OP:DCC

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VER:DGA  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 and later  
APPLICATION .. 4E,3B,XTSI  
TYPE ..... Output

## 1. FORMAT

[1] VER:DGA:DT a

| DTU        | TOTAL | DG 1 | DG 2 | DG 3 | DG 4 | DG 5 | BTAN |
|------------|-------|------|------|------|------|------|------|
| ---        | ---   | ---  | ---  | ---  | ---  | ---  | ---  |
| b          | c     | d    | d    | d    | d    | d    | e    |
| •          |       |      |      |      |      |      |      |
| •          |       |      |      |      |      |      |      |
| •          |       |      |      |      |      |      |      |
| DT TOTAL f |       |      |      |      |      |      |      |

[2] VER:DGA:DT a, JTO OPTION

| DTU        | TOTAL | DG 1 | DG 2 | DG 3 | DG 4 | DG 5 | BTAN |
|------------|-------|------|------|------|------|------|------|
| ---        | ---   | ---  | ---  | ---  | ---  | ---  | ---  |
| b          | c     | d    | d    | d    | d    | d    | e    |
| •          |       |      |      |      |      |      |      |
| •          |       |      |      |      |      |      |      |
| •          |       |      |      |      |      |      |      |
| DT TOTAL f |       |      |      |      |      |      |      |

[3] VER:DGA,TDIU gg-hh:DIF a

| DIU | THW | 5THW | TOTAL | TDG1 | DG1 | TDG2 | DG2 | TDG3 | DG3 | TDG4 | DG4 | TDG5 | DG5 | BTAN |
|-----|-----|------|-------|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| --- | --- | ---  | ---   | ---  | --- | ---  | --- | ---  | --- | ---  | --- | ---  | --- | ---  |
| i   | j   | k    | l     | m    | n   | m    | n   | m    | n   | m    | n   | m    | n   | e    |
| •   |     |      |       |      |     |      |     |      |     |      |     |      |     |      |
| •   |     |      |       |      |     |      |     |      |     |      |     |      |     |      |
| •   |     |      |       |      |     |      |     |      |     |      |     |      |     |      |

[4] VER:DGA:DIF a

| DIU         | THW | 5THW | TOTAL | TDG1 | DG1 | TDG2 | DG2 | TDG3 | DG3 | TDG4 | DG4 | TDG5 | DG5 | BTAN |
|-------------|-----|------|-------|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| ---         | --- | ---  | ---   | ---  | --- | ---  | --- | ---  | --- | ---  | --- | ---  | --- | ---  |
| i           | j   | k    | l     | m    | n   | m    | n   | m    | n   | m    | n   | m    | n   | e    |
| •           |     |      |       |      |     |      |     |      |     |      |     |      |     |      |
| •           |     |      |       |      |     |      |     |      |     |      |     |      |     |      |
| •           |     |      |       |      |     |      |     |      |     |      |     |      |     |      |
| DIF TOTAL f |     |      |       |      |     |      |     |      |     |      |     |      |     |      |

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[5] VER:DGA:DIF a, JTO OPTION

| DIU | THW | 5THW | TOTAL | TDG1 | DG1 | TDG2 | DG2 | TDG3 | DG3 | TDG4 | DG4 | TDG5 | DG5 | BTAN |
|-----|-----|------|-------|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| i   | j   | k    | l     | m    | n   | m    | n   | m    | n   | m    | n   | m    | n   | e    |
| .   |     |      |       |      |     |      |     |      |     |      |     |      |     |      |
| .   |     |      |       |      |     |      |     |      |     |      |     |      |     |      |
| .   |     |      |       |      |     |      |     |      |     |      |     |      |     |      |

D3U TOTAL f

[6] VER:DGA:XTSI a

| D3U | APP | DG | F2    | EQP | ## | DG | F2    | EQP | ## | DG | F2    | EQP | ## | DG | F2    | EQP | ## | BTAN |
|-----|-----|----|-------|-----|----|----|-------|-----|----|----|-------|-----|----|----|-------|-----|----|------|
| o   | p   | q  | {r s} | t   | u  | q  | {r s} | t   | u  | q  | {r s} | t   | u  | q  | {r s} | t   | u  | e    |
| .   |     |    |       |     |    |    |       |     |    |    |       |     |    |    |       |     |    |      |
| .   |     |    |       |     |    |    |       |     |    |    |       |     |    |    |       |     |    |      |
| .   |     |    |       |     |    |    |       |     |    |    |       |     |    |    |       |     |    |      |

D3U TOTAL f

VER:DGA COMPLETED

2. REASON FOR OUTPUT

- Format 1, is used to show the Digroup Terminal (DT) format for assigned and unassigned digroups.
- Format 2, is used to display the DT unassigned digroups when JTO option is used.
- Format 3, is used to show the Digital Interface Frame (DIF) format using ranges with the Type of Digital Interface Unit (TDIU) option.
- Format 4, is used to show the Digital Interface Frame (DIF) format.
- Format 5, is used to display the DIF unassigned digroups when JTO option is used.
- Format 6, is used to show the Extended Time Slot Interchange (XTSI) format for assigned and unassigned digroups or unassigned digroups when the JTO option is used.

3. VARIABLE FIELD DEFINITIONS

- a The DT, DIF and XTSI unit number.
- b The DTU Member number.
- c Total amount of digroups for the DT Unit (DTU) member number.
- d The amount of digroups for each DTU member.
- e The Base Trunk Appearance Number (BTAN).

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|    |                                                                        |
|----|------------------------------------------------------------------------|
| f  | Accumulative Frame Total.                                              |
| gg | Start value of search range for Type of Digital Interface Unit (TDIU). |
| hh | End value of search range for TDIU.                                    |
| i  | The Digital Unit (DIU) is the unit member number.                      |
| j  | The Type of Hardware (THW) for DIU.                                    |
| k  | Type of hardware for Digroup 5.                                        |
| l  | Total number of digroups.                                              |
| m  | Type of digroup.                                                       |
| n  | Total number of digroups.                                              |
| o  | D3 Unit (D3U) number.                                                  |
| p  | Type of D3U framing.                                                   |
| q  | Digroup number.                                                        |
| r  | Digroup Framing:<br>E — Extended Super Frame<br>S — Super Frame        |
| s  | Two-wire group feature:<br>N — No<br>Y — Yes                           |
| t  | Digroup equipage:<br>P — Present<br>F — Future                         |
| u  | Number of equipped circuits in this digroup.                           |

#### 4. ACTION TO BE TAKEN

For information only.

#### 5. REFERENCES

Input Message  
VER:DGA

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VER:GT6TRAN  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

[1] VER GT6TRAN a STAT COMPLETED  
GT6TRAN252 b  
GT6TRAN253 b  
GT10TRAN252 b  
GT10TRAN253 b

VER:COMPLETE MESSAGE: CODE 5,  
1

[2] VER GT6TRAN a TT ccc SUM COMPLETED  
GTTRANccc TOTAL # ENTRIES d

VER:COMPLETE MESSAGE: CODE 5,  
1

[3] VER GT6TRAN a TT ccc ABC eee DEF fff i

| TT  | DIGITS        | PRIMARY |           | SECONDARY |           |
|-----|---------------|---------|-----------|-----------|-----------|
| ccc | eeffff        | SSN     | PC        | SSN       | PC        |
| ccc | eeffff        | ggg     | hhhhhhhhh | ggg       | hhhhhhhhh |
| or  |               |         |           |           |           |
| ccc | eeffff-eeffff | ggg     | hhhhhhhhh | ggg       | hhhhhhhhh |

1 to 18 lines of data per message

VER:COMPLETE MESSAGE: CODE 5,  
j

[4] VER GT6TRAN a TT ccc ABC eee DEF fff i  
NO TRANSLATIONS FOUND

VER:COMPLETE MESSAGE: CODE 5,  
1

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[5] VER GT6TRAN a DBI ALL i

|     |     |           |     |           |         |         |
|-----|-----|-----------|-----|-----------|---------|---------|
| DBI | SSN | PC        | SSN | PC        | PRI/SEC | SEC/PRI |
| kkk | ggg | hhhhhhhhh | ggg | hhhhhhhhh | lllllll | lllllll |

1-20 lines of data per message

VER:COMPLETE MESSAGE: CODE 5,  
j

[6] VER GT6TRAN a DBI kkk i

|                   |     |           |     |           |
|-------------------|-----|-----------|-----|-----------|
| DBI               | SSN | PC        | SSN | PC        |
| kkk               | ggg | hhhhhhhhh | ggg | hhhhhhhhh |
| TT DIGITS         |     |           |     |           |
| ccc eeffff        |     | mmmmmm    |     | mmmmmm    |
| or                |     |           |     |           |
| ccc eeffff-eeffff |     | mmmmmm    |     | mmmmmm    |

1-17 lines of data per message

VER:COMPLETE MESSAGE: CODE 5,  
j

[7] VER GT6TRAN a DBI kkk COMPLETED  
DBI ENTRY UNEQUIPPED

VER:COMPLETE MESSAGE: CODE 5,  
1

[8] VER GT6TRAN a DBI kkk COMPLETED  
ACITRANS BAD ABC SAP, TT ccc  
ACI ADDR X'nnnnnnnn VALUE X'00000000

[9] VER GT6TRAN a DBI kkk COMPLETED  
ACITRANS BAD DBI SAP, TT ccc  
ACI ADDR X'nnnnnnnn VALUE X'00000000

[10] VER GT6TRAN a DBI kkk COMPLETED  
ABCHT BAD TYPE, TT ccc ABC eee  
ACI ADDR X'nnnnnnnn VALUE X'00000000

[11] VER GT6TRAN a DBI kkk COMPLETED  
ABCHT BAD DBI, TT ccc ABC eee  
ACI ADDR X'nnnnnnnn VALUE X'00000000

[12] VER GT6TRAN a DBI kkk COMPLETED  
ABCHT BAD DEF SAP, TT ccc ABC eee  
ACI ADDR X'nnnnnnnn VALUE X'00000000

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- [13] VER GT6TRAN a DBI kkk COMPLETED  
DEFHT BAD TYPE, TT ccc ABC eee DEF fff  
ACI ADDR X'nnnnnnnn VALUE X'00000000
- [14] VER GT6TRAN a DBI kkk COMPLETED  
DEFHT BAD DBI, TT ccc ABC eee DEF fff  
ACI ADDR X'nnnnnnnn VALUE X'00000000

## 2. REASON FOR OUTPUT

There are 14 formats in all; the first seven correspond to the seven input formats given in the VER:GT6TRAN input message. Formats 8-14 are error messages indicating corruption in the 6-digit GTT database.

Formats 1-7: these output messages are in response to a previously input VER:GT6TRAN message. Output Formats 1-7 correspond directly to input Formats 1-7 of VER:GT6TRAN.

Formats 8-14: these output messages give diagnostic information on internal problems found in the 6-Digit GTT data structures. The address given is relative to the ACI translation space in either the 1Bfile or the DLN, based on the input request.

## 3. VARIABLE FIELD DEFINITIONS

- a RNA x where x is the Ring Node Address (RNA) of a Direct Link Node (DLN). This field is optional based on whether the input command specified an RNA x.
- b ACTIVATED — Feature is activated.  
DEACTIVATED — Feature is not active.
- c This is the Translation Type (TT), which should have a value of either 252 or 253. TT 252 is used for the SDN services and all digits listed are the dialing number. TT 253 is used for 800 services and all digits listed are the dialed number.
- d This gives the total number of entries in the 6-digit GTT database for the specified translation type. Note that a 3-digit translation in this database only counts as one entry, not 1000 entries.
- e This represents the first 3 digits of the Automatic Number Identification (ANI), referred to as the ABC digits or the NPA.
- f This represents the second 3 digits of the Automatic Number Identification (ANI), referred to as the DEF digits or the NXX. For Formats 3 and 4, the value of fff can be ALL.
- g This represents the Subsystem Number (SSN) of a network database, Network Control Point (NCP). Routing to an NCP is based on a pointcode and the SSN.

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- h This represents the Pointcode (PC) of a NCP database. Routing to an NCP is based on a PC and an SSN. In the network, the first 3 digits of the PC are the network id (254), the 4th and 5th digits are the region, the 6th digit is the cluster id, and digits 7 thru 9 are the member number.
- i **STARTED** — First message in a multiple segmented response.  
**INPROG** — Second message through second to last message in a multiple segmented response.  
**COMPLETED** — Last message in a response.
- j Number of message segments in a response.
- k This is the Database Index (DBI) number (range 0-511). Each DBI has two network database PC/SSN combinations (i.e., mated NCPs). The two PC/SSN databases do not imply primary/secondary routing. The primary NCP is determined by indications in the 6-digit GTT routing structures.
- l These are peg counts of the number of 3 or 6-digit entries that route to a DBI. Each DBI has two SSN/PC combinations that do not imply primary/secondary status (see item kkk). The lllll counts under a "PRI/SEC" listing are for the first PC/SSN as the primary NCP and the second SSN/PC as the secondary NCP. Conversely, counts under the "SEC/PRI" listing are for the second PC/SSN as the primary NCP and the first SSN/PC as the secondary NCP.
- m These are peg counts of the number of 3 or 6-digit entries that route to the specified DBI. The peg count is under the SSN/PC that is the primary NCP.
- n ACI database byte offset.
- o 32-bit image of database location.

#### 4. ACTION TO BE TAKEN

Formats 1-7: These are normal output messages in response to the corresponding format in the VER:GT6TRAN input message.

Formats 8-14: There is potential corruption in the 6-digit GTT database.

- If the input message VER:GT6TRAN was verifying data in a DLN (using the RNA option), then run AUD:DLN 2, INS "LNxx-y"! where xx is the group number of DLN and y is the member number of the DLN. If the audit finds and corrects errors, then rerun VER:GT6TRAN.
- If the input message VER:GT6TRAN was verifying the 1Bfile, then run AUD:NUM 43! on the 1B. If the audit finds and corrects errors, then run AUD:DLN 2 (see the AUD:DLN input message) on all DLNs and then rerun VER:GT6TRAN.
- If these VER:GT6TRAN Format 8-14 errors persist, then seek technical assistance.

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**5. REFERENCES**

Input Messages  
AUD:DLN  
VER:GT6TRAN

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VER:GTT  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 Rel. 3 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

[1] VER GTT a STAT COMPLETED  
GT6TRAN252 b  
GT6TRAN253 b  
GT10TRAN252 b  
GT10TRAN253 b  
GTT10CNPA b

VER:COMPLETE MESSAGE:CODE 5,  
1

[2] VER GTT a TT ccc SUM COMPLETED  
GTTRANccc TOTAL # ENTRIES d  
VER:COMPLETE MESSAGE:CODE 5,  
1

[3] VER GTT a TT ccc mmm eee DEF fff GHIJ pppp i

| DIGITS                  | NPT  | TREE | CUST | PRIMARY       | SECONDARY         |
|-------------------------|------|------|------|---------------|-------------------|
|                         | SSN  | PC   | SSN  | PC            | DBI               |
| eeeffffpppp             | zzzz | ZZ   | yyyy | ggg hhhhhhhhh | ggg hhhhhhhhh kkk |
| or                      |      |      |      |               |                   |
| eeeffffpppp-eeeffffpppp | zzzz | ZZ   | yyyy | ggg hhhhhhhhh | ggg hhhhhhhhh kkk |

1 to 18 lines of data per message

VER:COMPLETE MESSAGE:CODE 5,  
j

[4] VER GTT a DBI ALL i

| DBI | SSN | PC        | SSN | PC        | PRI/SEC |
|-----|-----|-----------|-----|-----------|---------|
| kkk | ggg | hhhhhhhhh | ggg | hhhhhhhhh | lllllll |

1-20 lines of data per message

VER:COMPLETE MESSAGE:CODE 5,  
j

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[5] VER GTT a DBI kkk i

|                         | PRIMARY |           | SECONDARY |           |
|-------------------------|---------|-----------|-----------|-----------|
| DBI                     | SSN     | PC        | SSN       | PC        |
| kkk                     | ggg     | hhhhhhhhh | ggg       | hhhhhhhhh |
| DIGITS                  |         | NPT TREE  |           |           |
| eeefffp PPP             |         | zzzz ZZ   |           |           |
| or                      |         |           |           |           |
| eeefffp PPP-eeefffp PPP |         | zzzz ZZ   |           |           |

1-17 lines of data per message

VER:COMPLETE MESSAGE:CODE 5,  
j

[6] VER GTT a DBI kkk COMPLETED  
DBI ROOT NOT ASSIGNED

VER:COMPLETE MESSAGE:CODE 5,  
1

[7] VER GTT a DBI kkk COMPLETED  
DBI NOT USED

VER:COMPLETE MESSAGE:CODE 5,  
1

[8] VER GTT a CUSTID yyyy i

|                         | PRIMARY |      |     | SECONDARY |           |
|-------------------------|---------|------|-----|-----------|-----------|
| DIGITS                  | NPT     | TREE | DBI | SSN       | PC        |
| eeefffp PPP             | zzzz    | ZZ   | kkk | ggg       | hhhhhhhhh |
| or                      |         |      |     |           |           |
| eeefffp PPP-eeefffp PPP | zzzz    | ZZ   | kkk | ggg       | hhhhhhhhh |

1-18 lines of data per message

VER:COMPLETE MESSAGE:CODE 5,  
j

SEE PROPRIETARY NOTICE ON COVER PAGE

[9] VER GTT a CUSTID ALL i  
CUSTID DBI SSN PC SSN PC PRI/SEC IDX  
yyyy kkk ggg hhhhhhhh ggg hhhhhhhh llllll [Y]

1-20 lines of data per message

VER:COMPLETE MESSAGE:CODE 5,  
j

[10] VER GTT a CUSTID yyyy COMPLETED  
CUSTID NOT ASSIGNED

VER:COMPLETE MESSAGE:CODE 5,  
l

[11] VER GTT MAP COMPLETED

VER:COMPLETE MESSAGE:CODE 5,  
l

[12] VER GTT a DBI kkk COMPLETED  
AVL TOO DEEP - NPANXX/NPT = eefff/z  
ani ani ani ani

.  
.  
.

FILE=t, LINE=u

[13] VER GTT a DBI kkk COMPLETED  
PULLED BAD ANI FROM STACK - ANI = ani  
ani ani ani ani

.  
.  
.

FILE=t, LINE=u

[14] VER GTT a DBI kkk COMPLETED  
BAD ADMINTOC ADDR - X'xxxxxxxx  
FILE=t, LINE=u

[15] VER GTT a DBI kkk COMPLETED  
BAD ADMINTOC MAGIC - X'yyyyyyyy  
FILE=t, LINE=u

[16] VER GTT a DBI kkk COMPLETED  
BAD ANI ani in CID CHAIN yyyy (CID ADDR xxxxxxxx)  
FILE=t, LINE=u

SEE PROPRIETARY NOTICE ON COVER PAGE

- [17] VER GTT a DBI kkk COMPLETED  
BAD BACK ani IN ANI RECORD ani (ANI ADDR xxxxxxxx), SHOULD BE ani  
FILE=t, LINE=u
- [18] VER GTT a DBI kkk COMPLETED  
BAD CID yyyy IN ANI RECORD ani (ANI ADDR xxxxxxxx)  
FILE=t, LINE=u
- [19] VER GTT a DBI kkk COMPLETED  
BAD DBI REF kkk IN ANI RECORD ani (ANI ADDR xxxxxxxx), CID yyyy [s]  
FILE=t, LINE=u
- [20] VER GTT a DBI kkk COMPLETED  
BAD DBTOC MAGIC - X'yyyyyyyy  
FILE=t, LINE=u
- [21] VER GTT a DBI kkk COMPLETED  
BAD INDEX idx IN ANI RECORD ani (ANI ADDR xxxxxxxx)  
FILE=t, LINE=u
- [22] VER GTT a DBI kkk COMPLETED  
BAD INDEX idx IN ANI RECORD ani (ANI ADDR xxxxxxxx)  
FILE=t, LINE=u
- [23] VER GTT a DBI kkk COMPLETED  
BAD NCP s IN ANI RECORD ani (ANI ADDR xxxxxxxx)  
FILE=t, LINE=u
- [24] VER GTT a DBI kkk COMPLETED  
BAD DBI kkk IN CID yyyy NCP [s] (CID ADDR xxxxxxxx)  
FILE=t, LINE=u
- [25] VER GTT a DBI kkk COMPLETED  
BAD NPANXX PTR idx IN ANI ROOT ani (ANI ADDR xxxxxxxx)  
FILE=t, LINE=u
- [26] VER GTT a DBI kkk COMPLETED  
BAD PARENT ani IN ANI RECORD ani (ANI ADDR xxxxxxxx)  
FILE=t, LINE=u
- [27] VER GTT a DBI kkk COMPLETED  
BAD PARENT ani IN ANI RECORD ani (ANI ADDR xxxxxxxx), SHOULD BE ani  
FILE=t, LINE=u
- [28] VER GTT a DBI kkk COMPLETED  
BAD RANGE DATA (pppp, pppp) IN AVL ROOT ani (ANI ADDR xxxxxxxx)  
FILE=t, LINE=u

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- [29] VER GTT a DBI kkk COMPLETED  
BAD RANGE IN ANI RECORD ani (ANI ADDR xxxxxxxx)  
LOW pppp IS NOT <= HIGH pppp  
FILE=t, LINE=u
- [30] VER GTT a DBI kkk COMPLETED  
BAD RIGHT POINTER (pppp) IN AVL ROOT ani (ANI ADDR xxxxxxxx)  
FILE=t, LINE=u
- [31] VER GTT a DBI kkk COMPLETED  
BAD TABLE ADDR - X'xxxxxxxx  
FILE=t, LINE=u
- [32] VER GTT a DBI kkk COMPLETED  
BAD TLPTR (ani) IN CID yyyy (CID ADDR xxxxxxxx)  
FILE=t, LINE=u
- [33] VER GTT a DBI kkk COMPLETED  
INTERNAL ERROR - BAD AVL ROOT ani  
FILE=t, LINE=u
- [34] VER GTT a DBI kkk COMPLETED  
INTERNAL ERROR - BAD CID - yyyy  
FILE=t, LINE=u
- [35] VER GTT a DBI kkk COMPLETED  
INTERNAL ERROR - BAD DBI - kkk  
FILE=t, LINE=u
- [36] VER GTT a DBI kkk COMPLETED  
INTERNAL ERROR - BAD INDEX - idx  
FILE=t, LINE=u
- [37] VER GTT a DBI kkk COMPLETED  
PARENT LOW RANGE pppp (ani/X'xxxxxxxx) OVERLAPS WITH  
CHILD pppp (ani/X'xxxxxxxx)  
FILE=t, LINE=u
- [38] VER GTT a DBI kkk COMPLETED  
TREE TOO DEEP: ANI ani, CID yyyy  
FILE=t, LINE=u
- [39] VER GTT a DBI kkk COMPLETED  
ASSERTION FAILED FILE=t LINE=u  
v  
ERRNO=w(x)

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- [40] VER GTT a DBI kkk COMPLETED  
CUSTID yyy DBI kkk USED q TIMES HAS NO POINT CODE  
APPDB DBI ADDR X'nnnnnnnn
- [41] VER GTT a DBI kkk COMPLETED  
TT ccc DBI kkk USED nn TIMES HAS NO POINT CODE  
APPDB DBI ADDR X'nnnnnnnn
- [42] VER GTT a DBI kkk COMPLETED  
CUSTID r DBI kkk USED nn TIMES HAS NO POINT CODE  
APPDB DBI ADDR X'nnnnnnnn
- [43] VER GTT a DBI kkk COMPLETED  
BAD CUSTIDX, TT ccc ABC eee DEF fff GHIJ pppp  
CUSTIDX r
- [44] VER GTT a DBI kkk COMPLETED  
TT ccc ABC eee DEF fff GHIJ pppp REFERS TO DBI kkk  
DBI kkk IS NOT ASSIGNED
- [45] VER GTT a DBI kkk COMPLETED  
BAD CUSTIDX, TT ccc ABC eee DEF fff GHIJ pppp  
CUSTIDX r
- [46] VER GTT a DBI kkk COMPLETED  
INV PREFIX xx IN CMPN RECORD AT nnnnnnnn
- [47] VER GTT a DBI kkk COMPLETED  
DUP CMPN TAGS eeffff and eeffff (nnnnnnnn)
- [48] VER GTT a DBI kkk COMPLETED  
EMPTY REC IN CHAIN xx AT nnnnnnnn
- [49] VER GTT a DBI kkk COMPLETED  
CHAIN TOO LONG xx AT nnnnnnnn
- [50] VER GTT a DBI kkk COMPLETED  
INV INDEX xx AT nnnnnnnn
- [51] VER GTT a DBI kkk COMPLETED  
REV-HASHED BAD CMPN INDEX xx AT nnnnnnnn
- [52] VER GTT a DBI kkk COMPLETED  
INV CMPN INDEX xx AT nnnnnnnn
- [53] VER GTT a DBI kkk COMPLETED  
CHAIN HAS EMPTY REC xx AT nnnnnnnn

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- [54] VER GTT a DBI kkk COMPLETED  
CHAIN TOO LONG xx AT nnnnnnnn
- [55] VER GTT a DBI kkk COMPLETED  
INV INDEX xx AT nnnnnnnn
- [56] VER GTT a DBI kkk COMPLETED  
REV-HASHED BAD CMPN INDEX xx AT nnnnnnnn
- [57] VER GTT a DBI kkk COMPLETED  
UNEXPECTED RESP FROM DS FOR pppp - x
- [58] VER GTT a DBI kkk COMPLETED  
TIMED OUT WAITING FOR DLN OUTPUT
- [59] VER GTT a CUSTID yyyy COMPLETED  
TIMED OUT WAITING FOR DLN OUTPUT

## 2. REASON FOR OUTPUT

The formats correspond to the input formats given in the VER:GTT input message. Formats 13-57 are error messages indicating possible corruption in the APPDB database.

Formats 1-11. These output messages are in response to a previously input VER:GTT message.

Formats 12-59. These output messages give diagnostic information on internal problems found in the 10-Digit GTT data structures. The address given is relative to the APPDB translation space in any of the valid disk files (/dev/appdb0, /dev/appdb1 or /dev/appdb2) or the DLN, based on the input request.

## 3. VARIABLE FIELD DEFINITIONS

- a RNA x where x is the Ring Node Address (RNA) of a Direct Link Node (DLN). This field is optional based on whether the input command specified an RNA x. The field could be a lone keyword equal to SHADOW or SCRATCH. For this case, the APPDB database used is /dev/appdb1 or /dev/appdb2, respectively. If the field a does not exist, the APPDB used is /dev/appdb0.
- b ACTIVATED — Feature is active.  
DEACTIVATED — Feature is not active.
- ccc This is the Translation Type (TT), which should have a value of either 242, 252 or 253. TT 252 is used for the SDN services and all digits listed are the dialing number. TT 253 is used for 800 and 900 services and all digits listed are the dialed number. TT 242 is used for Positive Call Processing (PCP) GT Translations.

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|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| d         | This gives the total number of entries in the 10-digit GTT database for the specified translation type.                                                                                                                                                                                                                                                                                                                                               |
| eee       | This represents the first 3 digits of the Automatic Number Identification (ANI), referred to as the ABC digits or the NPA.                                                                                                                                                                                                                                                                                                                            |
| fff       | This represents the second 3 digits of the Automatic Number Identification (ANI), referred to as the DEF digits or the NXX. For Format 3, the value of fff can be ALL.                                                                                                                                                                                                                                                                                |
| ggg       | This represents the Subsystem Number (SSN) of a network database (Network Control Point [NCP]). Routing to an NCP is based on a point code (hhhhhhhhh) and the SSN.                                                                                                                                                                                                                                                                                   |
| hhhhhhhhh | This represents the Point Code (PC) of a Network Database (NCP). Routing to an NCP is based on a PC and an SSN. In the network, the first 3 digits of the PC are the network id (254), the 4th and 5th digits are the region, the 6th digit is the cluster id, and digits 7 through 9 are the member number.                                                                                                                                          |
| i         | STARTED — First message in a multiple segmented response.<br>IN PROGRESS — Second message through second to last message in a multiple segmented response.<br>COMPLETED — Last message in a response.                                                                                                                                                                                                                                                 |
| j         | Number of message segments in a response.                                                                                                                                                                                                                                                                                                                                                                                                             |
| kkk       | This is the Database Index (DBI) number. Its range is 0-127 for TTs 242 and 252, 0-1023 for TT 253. Each DBI has two network database PC/SSN combinations (i.e., mated NCPs). This field is also called NCP Index (NCPI).                                                                                                                                                                                                                             |
| llllll    | These are peg counts of the number of 3 or 6-digit entries that route to a DBI. Each DBI has two SSN/PC combinations that do not imply primary/secondary status (see item kkk). The llllll count under a PRI/SEC listing are for the first PC/SSN as the primary NCP and the second SSN/PC as the secondary NCP. Conversely, counts under the SEC/PRI listing are for the second PC/SSN as the primary NCP and the first SSN/PC as the secondary NCP. |
| mmm       | APN — Action point numbering plan.<br>NANP — North American numbering plan.                                                                                                                                                                                                                                                                                                                                                                           |
| nn        | Number which represents the number of records that the database currently says is using the DBI recorded in the output message.                                                                                                                                                                                                                                                                                                                       |
| pppp      | This field is the GHJ digits of the ANI (the last 4 digits) or the value ALL. The GHJ range is from 0-9999. The field may be a range, as specified on the input message.                                                                                                                                                                                                                                                                              |
| q         | This is the number of times a DBI was referenced by ANI(s) in the GTT 10-digit database. The DBI being referenced has no point code assigned.                                                                                                                                                                                                                                                                                                         |

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|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |                                                                 |      |                                                                   |      |                                                            |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------|------|-------------------------------------------------------------------|------|------------------------------------------------------------|
| r        | This field is the customer index. Customer indexes are associated with TT 252. The field ranges from 0 to 9999. Customer indexes point to a DBI.                                                                                                                                                                                                                                                                                                         |     |                                                                 |      |                                                                   |      |                                                            |
| s        | A SPGT NCP index (a value between 0 and 2 inclusive) indicating which of the three DBI pointers in the CID TABLE record is used by this SPGT customer record.                                                                                                                                                                                                                                                                                            |     |                                                                 |      |                                                                   |      |                                                            |
| t        | File name where a defensive check failure occurred.                                                                                                                                                                                                                                                                                                                                                                                                      |     |                                                                 |      |                                                                   |      |                                                            |
| u        | Source line number within file t where a defensive check failure occurred.                                                                                                                                                                                                                                                                                                                                                                               |     |                                                                 |      |                                                                   |      |                                                            |
| v        | The C program text at source line u in source file t that has the defensive check.                                                                                                                                                                                                                                                                                                                                                                       |     |                                                                 |      |                                                                   |      |                                                            |
| w        | The system error number.                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |                                                                 |      |                                                                   |      |                                                            |
| x        | A short phrase telling what the system error number means.                                                                                                                                                                                                                                                                                                                                                                                               |     |                                                                 |      |                                                                   |      |                                                            |
| xx       | Number which represents the ANI TABLE record number or the ANI TABLE chain that is in error.                                                                                                                                                                                                                                                                                                                                                             |     |                                                                 |      |                                                                   |      |                                                            |
| xxxxxxxx | A byte address in DLN memory relative to the beginning of the in-core APPDB database.                                                                                                                                                                                                                                                                                                                                                                    |     |                                                                 |      |                                                                   |      |                                                            |
| yyyy     | A customer index. Valid customer indexes range from 1 to 9999.                                                                                                                                                                                                                                                                                                                                                                                           |     |                                                                 |      |                                                                   |      |                                                            |
| yyyyyyyy | A core data value in hexadecimal notation.                                                                                                                                                                                                                                                                                                                                                                                                               |     |                                                                 |      |                                                                   |      |                                                            |
| z        | a number indicating the SPGT record's Numbering Plan Type (0 indicates NANP, 1 indicates APN). (For TT 252 only).                                                                                                                                                                                                                                                                                                                                        |     |                                                                 |      |                                                                   |      |                                                            |
| zzzz     | Indicates the database spectrum (or numbering plan type) the information came from. The possible values are: <table> <tr> <td>APN</td><td>— Action point numbering plan, only valid with TTs 242 and 252.</td></tr> <tr> <td>NANP</td><td>— North American numbering plan, only valid with TTs 242 and 252.</td></tr> <tr> <td>NONE</td><td>— A numbering plan does not exist, only valid with TT 253.</td></tr> </table> | APN | — Action point numbering plan, only valid with TTs 242 and 252. | NANP | — North American numbering plan, only valid with TTs 242 and 252. | NONE | — A numbering plan does not exist, only valid with TT 253. |
| APN      | — Action point numbering plan, only valid with TTs 242 and 252.                                                                                                                                                                                                                                                                                                                                                                                          |     |                                                                 |      |                                                                   |      |                                                            |
| NANP     | — North American numbering plan, only valid with TTs 242 and 252.                                                                                                                                                                                                                                                                                                                                                                                        |     |                                                                 |      |                                                                   |      |                                                            |
| NONE     | — A numbering plan does not exist, only valid with TT 253.                                                                                                                                                                                                                                                                                                                                                                                               |     |                                                                 |      |                                                                   |      |                                                            |
| Y        | Indicates the NCP Index used within the CID Record for which this line of information applies (values can be from 0 to 2 inclusive.)                                                                                                                                                                                                                                                                                                                     |     |                                                                 |      |                                                                   |      |                                                            |
| ZZ       | The database tree within the numbering plan type that the information originates from. The possible values are: <table> <tr> <td>03</td><td>— Tree traversed with just 3 digits.</td></tr> <tr> <td>06</td><td>— Tree traversed with 6 digits.</td></tr> <tr> <td>10</td><td>— Tree traversed with 10 digits.</td></tr> </table>                                                                                          | 03  | — Tree traversed with just 3 digits.                            | 06   | — Tree traversed with 6 digits.                                   | 10   | — Tree traversed with 10 digits.                           |
| 03       | — Tree traversed with just 3 digits.                                                                                                                                                                                                                                                                                                                                                                                                                     |     |                                                                 |      |                                                                   |      |                                                            |
| 06       | — Tree traversed with 6 digits.                                                                                                                                                                                                                                                                                                                                                                                                                          |     |                                                                 |      |                                                                   |      |                                                            |
| 10       | — Tree traversed with 10 digits.                                                                                                                                                                                                                                                                                                                                                                                                                         |     |                                                                 |      |                                                                   |      |                                                            |
| ani      | A reference to an ANI record block in the SPGT ANI TABLE.                                                                                                                                                                                                                                                                                                                                                                                                |     |                                                                 |      |                                                                   |      |                                                            |
| idx      | A reference to an NPANXX record block in the SPGT NPANXX TABLE.                                                                                                                                                                                                                                                                                                                                                                                          |     |                                                                 |      |                                                                   |      |                                                            |

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#### **4. ACTION TO BE TAKEN**

Formats 1-11. These are normal output messages in response to the corresponding format in the VER:GTT input message.

Formats: 12, 13, 43, 44, 45, 47 with a TT of 252 specified in the VER:GTT input command.

Remove that npt/npanxx using the input command RC:GTT with the following options:

- Translation type: 252
- Database Operation: D
- Digit number: npanxx from eeefff of VER:GTT output
- Numbering Plan Type: npt from the VER:GTT input command or if no npt was specified then "N".

Formats 13-57. There is potential corruption in the APPDB (10-digit GTT database). Notify National Electronic Switching Assistance Center (NESAC).

Formats 58-59. The switch is under a heavy update load, retry in 30 minutes.

#### **5. REFERENCES**

Input Messages  
DUMP:RNA  
RC:GTT  
VER:GTT

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... VER:GTT-CRCHK  
WORK CENTER.. MOC,IRAS  
GENERIC ..... 4AP12 only  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER GTT CRCHK RETRIEVE IBGTT CRC
- [2] VER GTT CRCHK NUMBER OF UNITS CHECKED - a
- [3] VER GTT CRCHK FILE CRC CHECK COMPLETED
- [4] VER GTT CRCHK COULD NOT OPEN IBGTT SCRATCH DATABASE - errno is a
- [5] VER GTT CRCHK IBGTT GET CRC ERROR - error is a
- [6] VER GTT CRCHK IBGTT GET CLUMP ERROR - error is a
- [7] VER GTT CRCHK IBGTT CLUMP ERROR - error is a
- [8] VER GTT CRCHK CRC MISMATCH ON CLUMP NUMBER - clump is a

## 2. REASON FOR OUTPUT

Print the results of expanding the IBGTT application data file.

Formats 1 through 3 indicate that the CRC check is in progress or has completed successfully.

Format 4 indicates that the input file (SCRATCH partition) could not be opened for read and/or write access.

Formats 5 through 7 indicate an error in an attempt to access the expanded file data.

Format 8 indicates that a transmission error has occurred.

## 3. VARIABLE FIELD DEFINITIONS

- a Error number:
- 141 — Invalid file descriptor.
  - 143 — Disk read error.
  - 144 — Disk write error.
  - 154 — The database has a corruption problem.
  - 155 — The cache table is corrupt.

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#### **4. ACTION TO BE TAKEN**

If Format 4 prints, this indicates a system error such as insufficient file descriptors or lack of an input file. Check that the appropriate file exist and reboot the system. If the problem does not go away, seek technical assistance from NESAC.

If Formats 5 through 7 print, this indicates some problem in accessing or performing the CRC calculation. Seek technical assistance.

If Format 8 prints, this indicates that a transmission error has occurred and a request should be made for the Off-Line switch to retransmit the file.

#### **5. REFERENCES**

Input Messages

VER:GTT-CRCHK  
VER:GTT-FEXP  
VER:MEMORY

Output Messages

VER:GTT-FEXP  
VER:MEMORY

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ID ..... VER:GTT-FEXPN  
WORK CENTER.. MOC,IRAS  
GENERIC ..... 4AP12 only  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER:GTT FEXPN BEGINNING CMPN TABLE EXPANSION
- [2] VER:GTT FEXPN BEGINNING ANI TABLE EXPANSION
- [3] VER:GTT FEXPN BEGINNING NCP TABLE UPDATE
- [4] VER:GTT FEXPN CALCULATING IBGTT CRC
- [5] VER:GTT FEXPN FILE EXPANSION COMPLETED
- [6] VER:GTT FEXPN COULD NOT OPEN IBGTT ACTIVE DATABASE - errno is a
- [7] VER:GTT FEXPN COULD NOT OPEN IBGTT SCRATCH DATABASE - errno is a
- [8] VER:GTT FEXPN INVALID SWITCH - FILE EXPANSION TERMINATED
- [9] VER:GTT FEXPN SCRATCH FILE INITIALIZATION FAILED - errno is a
- [10] VER:GTT FEXPN CMPN TABLE EXPANSION FAILURE - errno is a
- [11] VER:GTT FEXPN ANI TABLE EXPANSION FAILURE - errno is a
- [12] VER:GTT FEXPN NCP TABLE UPDATE FAILURE - errno is a
- [13] IBGTT CRC ERROR - errno is a

## 2. REASON FOR OUTPUT

Print the results of expanding the IBGTT application data file.

## 3. VARIABLE FIELD DEFINITIONS

- a Error number:
  - 120 — The object already exists.
  - 123 — No records were found in the ANI table.
  - 124 — No records were found in the Compaction table.
  - 127 — No records were found in the NCP table.
  - 141 — Invalid file descriptor.

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- 143 — Disk read error.
- 144 — Disk write error.
- 154 — The database has a corruption problem.
- 155 — The cache table is corrupt.
- 156 — The database has a bad magic number.
- 157 — Invalid database.
- 175 — Invalid database version.
- 178 — Accessed address is invalid.
- 197 — Invalid search on database.

#### **4. ACTION TO BE TAKEN**

Formats 1 through 5 indicate that the expansion is in progress or has completed successfully.

Formats 6 and 7 indicate that either the input file (ACTIVE partition) or the output file (SCRATCH partition) could not be opened for read and/or write access.

Format 8 indicates that an attempt has been made to execute the command at an On-Site switch in the field.

Formats 9 through 11 indicate an error in the expansion procedure of one of the IBGTT data stores.

Format 12 indicates an error with the CRC calculation of the expanded file.

#### **5. REFERENCES**

##### **Input Messages**

VER:GTT-CRCHK  
VER:GTT-FEXPN  
VER:MEMORY

##### **Output Messages**

VER:GTT-CRCHK  
VER:MEMORY

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ID ..... VER:LVFILE  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 and later  
APPLICATION .. 4E  
TYPE ..... Output

**1. FORMAT**

See Reason For Output.

**2. REASON FOR OUTPUT**

This message has been replaced with the OP:NODES output message.

**3. VARIABLE FIELD DEFINITIONS**

See Reason For Output.

**4. ACTION TO BE TAKEN**

None.

**5. REFERENCES**

Output Message  
OP:NODES

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ID ..... VER:MEMORY  
WORK CENTER.. MOC  
GENERIC ..... 4AP13 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

[1] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED

APPLICATION b  
CREATED {c HRS, d MINS, e SECS AGO|f}  
START ADDR g  
UPD SEQ NUM h

iiii jjjjjj kkkk llllllll mmmmmmm nnn  
iiii jjjjjj kkkk llllllll mmmmmmm nnn  
.  
.  
.

TOTAL CLUMPS oooo  
CLUMP SIZE pppp

VER:COMPLETE MESSAGE: CODE 5,  
q

[2] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED

APPLICATION b  
CREATED {c HRS, d MINS, e SECS AGO|f}  
START ADDR g  
UPD SEQ NUM h  
SNAPSHOT ID r

iiii jjjjjj kkkk llllllll mmmmmmm nnn  
iiii jjjjjj kkkk llllllll mmmmmmm nnn  
.  
.  
.

TOTAL CLUMPS oooo  
CLUMP SIZE pppp

VER:COMPLETE MESSAGE: CODE 5,  
q

[3] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
NG - MISSING APP ARG

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- [4] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
NG - UNK APP ARG s
- [5] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
NG - UNK KW t
- [6] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
NG - TRY VER:MEMORY:APPDB
- [7] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
NO VALID DBTOC
- [8] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
WARNING: DBTOC 0 IS CORRUPT
- [9] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
NG - BAD RNA
- [10] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
CANNOT ATTACH TO DATABASE u, ERROR v
- [11] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
CANNOT GET CLUMP FROM DATABASE u, ERROR v
- [12] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
CANNOT ATTACH TO CUSTOMER UNIT b IN DATABASE u, ERROR v
- [13] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
CANNOT GET CLUMP FROM DATABASE u, ERROR v
- [14] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
APP b IS NOT INITIALIZED
- [15] VER MEMORY {RNA a|SHADOW|SCRATCH|blank} APPDB COMPLETED  
CANNOT READ OUTBOUND DLN FOR APP b

## 2. REASON FOR OUTPUT

Formats 1 and 2 output messages are in response to a previously input VER:MEMORY message. They indicate that the VER:MEMORY input message executed successfully. (Format 1 is normally output.)

Format 2 is output if the source APPDB being read is the SCRATCH database and the corresponding customer unit's Data Consistency Check (DCC) "snapshot ID" field has a value. (See the ACTV:DCC and START:DCC input messages for more explanation on the "snapshot ID".)

Formats 3 through 15 are error messages indicating either syntax errors or internal software problems (for example, database corruption.)

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If the APP keyword is specified on the VER:MEMORY input message, then only one Format 1 or 2 is output. If the APP keyword is omitted, then a Format 1 or 2 message is output for each application (customer unit) using the database.

Formats 3-6 output messages indicate errors were found interpreting the Input Message as entered by the user.

Formats 7-15 output messages give diagnostic information on internal problems found in the database structure.

### 3. VARIABLE FIELD DEFINITIONS

|         |                                                                                                                                                                                                                       |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a       | The Ring Node Address (RNA) of a Direct Link Node (DLN). This field is optional based on whether the input command specified an RNA value. If a DLN RNA is present, the source database is taken from within the DLN. |
| SHADOW  | Specifies the source database as backup disk file /dev/appdb1. This field is optional based on the SHADOW keyword of the input command.                                                                               |
| SCRATCH | Specifies the source database as backup disk file /dev/appdb2. This field is optional based on the SCRATCH keyword of the input command.                                                                              |
| blank   | If RNA, SHADOW, or SCRATCH does not appear in the output message, the database used is a disk file located at /dev/appdb0.                                                                                            |
| b       | The customer unit name for which this table applies:<br>— ATP<br>— IBGTT<br>— PCPGTT                                                                                                                                  |
| c       | Hours for the OBGTT customer unit indicating when the SPGTT database was last initialized.                                                                                                                            |
| d       | Minutes for the OBGTT customer unit indicating when the SPGTT database was last initialized.                                                                                                                          |
| e       | Seconds for the OBGTT customer unit indicating when the SPGTT database was last initialized.                                                                                                                          |
| f       | For all other customer units, the time and date field has the usual UNIX® format for date and time.                                                                                                                   |
| g       | The starting address (in UNIX® blocks -- that is, 512 bytes) in the database partition for this customer unit.                                                                                                        |
| h       | Number of updates to this database.                                                                                                                                                                                   |

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|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| iiii     | <p>The name of the customer unit table that the data on this output line applies to. Each customer unit is broken into a number of data tables. The following is a list of the possible data tables that a customer unit can have. Not all customer units have the same number or combination of tables. A line of data per customer unit table is output.</p> <p>ATV TBL — Signifies the AT&amp;T Trigger Platform (ATP) ATV table.</p> <p>CRC TBL — Signifies the data table that holds the CRC audit data for the customer unit.</p> <p>CUSTID TBL — Signifies the Customer ID data table.</p> <p>EPOC TBL — Signifies the Self-Provisioning GTT (SPGT) EPOCH table.</p> <p>FID TBL — Signifies the AT&amp;T Trigger Platform (ATP) Feature ID table.</p> <p>HEAD TBL — Signifies the Self-Provisioning GTT (SPGT) HEAD table.</p> <p>NCP TBL — Signifies the NCP routine data table.</p> <p>NPA NXX — Signifies the NPANXX "compression" table.</p> <p>NPA TBL — Signifies the ATP RESTRICT table.</p> <p>PAV TBL — Signifies the Extended Preassigned Values (EPAV) data table.</p> <p>SIX DIGIT — Signifies the 6D translation data table.</p> <p>TEN DIGIT — Signifies the — 0D translation data table.</p> <p>THREE DIGIT — Signifies the 3D translation data table.</p> <p>TRIG TBL — Signifies the AT&amp;T Trigger Platform (ATP) Trigger ID table.</p> |
| jjjjjj   | Is the starting address (in UNIX® blocks) of this data table, relative to the start of the customer unit (that is, START ADDR in header).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| kkkk     | Is the "version id" of this data table. When a reformatting of a data table is necessary, this number will change.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| llllllll | Is the total number of record "slots" allocated for this table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| mmmmmmmm | Is the total number of record "slots" used by this table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| nnn      | Is the percentage of records used to records allocated (that is, $100 * \text{llllllll} / \text{mmmmmmmm}$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| oooo     | The total number of "clumps" allocated for this customer unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| pppp     | The number of bytes in a "clump" for this customer unit. The total number of bytes allocated for a customer unit is the customer unit's "no. of clumps" multiplied by its "number of bytes per clump" values (that is, 0000 times pppp).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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- q The number of formats that were necessary to completely output all ATP Database (APPDB) entries requested.
- r A one to eight alpha-numeric representing the "snapshot ID" of the corresponding SCRATCH area customer unit.
- s The APP argument entered that is not correct.
- t The keyword entered that is not correct.
- u The name of the 3B disk database file that the software is having trouble with:
- /dev/appdb0
  - /dev/appdb1
  - /dev/appdb2
  - /tmp/zz.3.XXX (The last filename format in the preceding list is a temporary file used by 4ESS™ software to access DLN memory. The XXX portion of the filename is a variable field indicating the RNA of the DLN being accessed.)
- v A UNIX® error number. Refer to output message VER:GTT for possible values and explanations.

#### 4. ACTION TO BE TAKEN

Formats 1-2 is a normal output message indicating VER:MEMORY executed successfully.

Formats 3-6 locate the VER:MEMORY Input Message, determine the correct input syntax, and re-enter the command correctly.

Formats 7-15 there is potential corruption in the database or software problems. Notify NESAC.

#### 5. REFERENCES

Input Messages  
ACTV:DCC  
START:DCC  
VER:MEMORY

Output Message  
VER:GTT

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ID ..... VER:PCP  
WORK CENTER.. MOC,IRAS  
GENERIC ..... 4AP12 Rel. 3 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

This message has four formats.

- [1] VER PCP CANI a TOA b TSVC c NUMPL d i  
[xxxxxxxx, xxxxxxxx, xxxxxxxx, xxxxxxxx, ]  
1 to 20 sets of data per message  
VER:COMPLETE MESSAGE: CODE 5,  
j
- [2] VER PCP CANI a TOA b TSVC c NUMPL d COMPLETED  
NO DATA FOUND  
VER:COMPLETE MESSAGE: CODE 5,
- [3] VER PCP CANI a TOA b TSVC c NUMPL d COMPLETED  
INVALID OR MISSING {e} DATA  
VER:COMPLETE MESSAGE: CODE 5,
- [4] VER PCP CANI a TOA b TSVC c NUMPL d COMPLETED  
UNABLE TO FIND DATA 3 Supplementary {g}  
VER:COMPLETE MESSAGE: CODE -1,

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## 2. REASON FOR OUTPUT

Format 1 prints in response to a previously input VER:PCP message.

Format 2 prints in response to a valid input message and no data found for that ANI key.

Format 3 prints in response to an invalid key in the input message.

Format 4 prints in response to an internal error while the data was attempted to be retrieved.

## 3. VARIABLE FIELD DEFINITIONS

|          |                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------|
| a        | The 10-digit automatic number identification (ANI).                                                                |
| b        | The type of access; the possible values are SA for switched access, and DC for direct connect.                     |
| c        | Type of service; the possible values are LDS for Long Distance Service customers, and OMEG for MEGACOM® customers. |
| d        | Numbering plan type; the possible values are NANP and APN.                                                         |
| e        | Invalid keyword or data; possible values are CANI, TOA, TSVC, and NUMPL.                                           |
| xxxxxxxx | 1-8 digits that represent the pre-assigned values (PAV) for the ANI key.                                           |
| i        | STARTED — First message in a multiple segmented response.<br>COMPLETED — Last message in a response.               |
| j        | The segment number of the output message.                                                                          |
| g        | An internal error encountered while the data was being accessed.                                                   |

## 4. ACTION TO BE TAKEN

If Format 4 prints, seek technical assistance.

## 5. REFERENCES

Input Message  
VER:PCP

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... VER:SD-NID  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER SD NID IN PROGRESS
- NETWORK ID ENTRIES PRESENT IN THE APPDB:  
a [a] [a] [a] [a] [a] [a...]
- [2] VER SD NID COMPLETE MESSAGE CODE 5,
- [3] VER SD NID COMPLETE  
NID ENTRY NOT EQUIPPED
- [4] VER SD NID COMPLETE  
NID ENTRY TABLE CANNOT BE VERIFIED - ERRNO b

## 2. REASON FOR OUTPUT

Format 1 is the normal response to a previously input VER:SD-NID input message.

Format 2 will print when Format 1 is finished.

Format 3 indicates entry does not exist in the database.

Format 4 gives diagnostic information on either internal problems found in the Segmentation Directory (SD) data structures or on invalid syntax. In the latter case, refer to the VER:SD-NID input message and retry the command.

## 3. VARIABLE FIELD DEFINITIONS

- a Network Identification (ID).
- b Application Database (APPDB) error number.

## 4. ACTION TO BE TAKEN

Format 4, there is potential corruption in the APPDB (SD database). Seek technical assistance if the message implicates APPDB database corruption.

## 5. REFERENCES

Input Message  
VER:SD-NID

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VER:SD-NULLPARM  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER SD NULLPARM IN PROGRESS  
  
NPARM value = a
- [2] VER SD NULLPARM COMPLETE MESSAGE CODE 5,
- [3] VER SD NULLPARM COMPLETE  
NULLPARM ENTRY NOT EQUIPPED
- [4] VER SD NULLPARM COMPLETE  
NULLPARM ENTRY TABLE CANNOT BE VERIFIED - ERRNO b

## 2. REASON FOR OUTPUT

Format 1 is the normal response to a previously input VER:SD-NULLPARM input message.

Format 2 will print when Format 1 is finished.

Format 3 indicates entry does not exist in the database.

Format 4 gives diagnostic information on either internal problems found in the Segmentation Directory (SD) data structures or on invalid syntax. In the latter case, refer to the VER:SD-NULLPARM input message and retry the command.

## 3. VARIABLE FIELD DEFINITIONS

- a NULLPARM value.
- b Application Database (APPDB) error number.

## 4. ACTION TO BE TAKEN

Format 4, there is potential corruption in the APPDB (SD database). Seek technical assistance if the message implicates APPDB database corruption.

## 5. REFERENCES

Input Message  
VER:SD-NULLPARM

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ID ..... VER:SD-OLI  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER SD OLI IN PROGRESS
- OLI ENTRIES PRESENT IN THE APPDB:  
a [a] [a] [a] [a] [a] [a...]
- [2] VER SD OLI COMPLETE MESSAGE CODE 5,
- [3] VER SD OLI COMPLETE  
OLI ENTRY NOT EQUIPPED
- [4] VER SD OLI COMPLETE  
OLI ENTRY TABLE CANNOT BE VERIFIED - ERRNO b

## 2. REASON FOR OUTPUT

Format 1 is the normal response to a VER:SD-OLI input message.

Format 2 will print when Format 1 is finished.

Format 3 indicates there is no entry in the Originating Line Information (OLI) screening table.

Format 4 gives diagnostic information on either internal problems found in the Segmentation Directory (SD) data structures or on invalid syntax. In the latter case, refer to the VER:SD-OLI input message and retry the command.

## 3. VARIABLE FIELD DEFINITIONS

- a Originating Line Information (OLI) value.
- b Application Database (APPDB) error number.

## 4. ACTION TO BE TAKEN

Format 4, there is potential corruption in the APPDB (SD database). Seek technical assistance if the message implicates APPDB database corruption.

## 5. REFERENCES

Input Message  
VER:SD-OLI

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ID ..... VER:UPDATE  
WORK CENTER.. MOC  
GENERIC ..... 4AP16 and later  
APPLICATION .. 4E  
TYPE ..... Output

## 1. FORMAT

- [1] VER:UPDATE:TAPE,MT a
- TAPE HEADER  
TAPE TYPE: GEN  
GENERIC b  
MOST RECENT OFL GENERATION: YR c,MON d,DAY e AT f:g  
THIS TAPE WRITTEN: YR c,MON d,DAY e AT f:g  
FSIDS: h,TAPE IDS: i  
PARTIAL UPD FLG: j,PHASE REQD: k
- [2] VER:UPDATE:TAPE,MT a
- TAPE HEADER  
TAPE TYPE: ODA  
BASE l,CONTROL m  
ORIGINAL GENERIC b  
MOST RECENT OFL GENERATION: YR c,MON d,DAY e AT f:g  
THIS TAPE WRITTEN: YR c,MON d,DAY e AT f:g  
FSIDS: h,TAPE IDS: i  
PARTIAL UPD FLG: j,PHASE REQD: k
- [3] VER:UPDATE:TAPE,MT a
- TAPE HEADER  
TAPE TYPE: n  
ORIGINAL GENERIC b  
MOST RECENT OFL GENERATION: YR c,MON d,DAY e AT f:g  
THIS TAPE WRITTEN: YR c,MON d,DAY e AT f:g  
FSIDS: h,TAPE IDS: i  
PARTIAL UPD FLG: j,PHASE REQD: k

## 2. REASON FOR OUTPUT

Format 1 is output if the tape is a Generic (GEN) tape.

Format 2 is output if the tape is an Office Data Assembler (ODA) tape.

Format 3 is output if the tape is a Library (LIB), Network Management (NWM), Trouble Location Procedure (TLP) or Traffic and Plant Measurement (TPM) tape.

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### 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                                                          |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Tape unit number (0   1) where the tape is mounted.                                                                                                                      |
| b | The generic release of the information on the tape.                                                                                                                      |
| c | The year on which the tape information was generated / written to tape.                                                                                                  |
| d | The month on which the tape information was generated / written to tape.                                                                                                 |
| e | The day on which the tape information was generated / written to tape.                                                                                                   |
| f | The hour at which the tape information was generated / written to tape.                                                                                                  |
| g | The minute at which the tape information was generated / written to tape.                                                                                                |
| h | File Store Identifications (FSIDS) stored on this tape.                                                                                                                  |
| i | Tape Identifications (IDs) stored on this tape.                                                                                                                          |
| j | Partial update flag:<br><br>0 — Indicates this is not a partial update tape.<br>1 — Indicates this is a partial update tape.                                             |
| k | Phase required.                                                                                                                                                          |
| l | The BASE (building) identification for this tape. This must be 4 characters long. Spaces appear after the BASE number if it is not 4 characters long.                    |
| m | The CONTROL (machine) number identification for this tape. This is 2 characters long. A space is inserted after the CONTROL number if it is not 2 characters long.       |
| n | Indicates the type of information on the tape:<br><br>LIB — Library<br>NWM — Network Management<br>TLP — Trouble Location Procedure<br>TPM — Traffic / Plant Measurement |

### 4. ACTION TO BE TAKEN

None.

### 5. REFERENCES

Input Messages  
LOAD:UPDATE  
VER:UPDATE

Output Message  
LOAD:UPDATE

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## 1. FORMAT

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- [18] VFY FILE CANNOT OPEN a
- [19] VFY FILE SPECIFICATION FILE ERROR IN LINE h
- [20] VFY FILE STOPPED - CANNOT OPEN SPECFILE a
- [21] VFY FILE FLDUPD IN PROGRESS FOR FILE a
- [22] VFY FILE CRC UPDATE FAILED FOR a
- [23] VFY FILE CANNOT UNMOUNT THE OFF-LINE FILE SYSTEM
- [24] VFY FILE UDGNNM COMMAND FAILED FOR MHD i
- [25] VFY FILE PATH NAME TOO LONG  
a
- [26] VFY FILE VERIFICATION FAILURE ON FILE a  
STORED CRC VALUE = j CALCULATED CRC VALUE = k
- [27] VFY FILE CANNOT ACCESS a
- [28] VFY FILE VERIFICATION FAILURE ON FILE a  
FILE TYPE CHECK FAILED l EXPECTED
- [29] VFY FILE VERIFICATION FAILURE ON FILE a  
SPECIFIED FILE IS NOT EXECUTABLE
- [30] VFY FILE VERIFICATION FAILURE ON FILE a  
SPECIFIED FILE HAS ZERO LENGTH
- [31] VFY FILE CANNOT OPEN PIPE TO a
- [32] VFY FILE CANNOT READ PIPE FROM a
- [33] VFY FILE IMPROPER DEVICE NAME a
- [34] VFY FILE CANNOT STORE CRC FOR a
- [35] VFY FILE CANNOT PROCESS a  
UPDATE MAY BE IN PROGRESS
- [36] VFY FILE CANNOT ALLOCATE MEMORY FOR a
- [37] VFY FILE READ ERROR FOR SPECFILE a

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## 2. REASON FOR OUTPUT

Formats 1 through 5 are printed to inform the user of the message's status.

Formats 6 through 37 are printed to inform the user of various problems that the VFY:FILE command has encountered.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                                                                                                                                                                                                                                                                         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Name of the file for which the message is printed.                                                                                                                                                                                                                                      |
| b | The size of the essential file (mod 2).                                                                                                                                                                                                                                                 |
| c | The calculated Cyclic Redundancy Check (CRC) value for the essential file. For files which contain their own CRC information, this value should match the size of the file.                                                                                                             |
| d | The number of files verified. This count includes files that failed verification.                                                                                                                                                                                                       |
| e | The number of errors encountered during processing.                                                                                                                                                                                                                                     |
| f | The error message reported by /usr/bin/mop.                                                                                                                                                                                                                                             |
| g | The name of the file being used for global CRC values. Normally this is /.crcvalues. This name will be /._crcvalues if the pfile currently being processed is in a temporary state, the /.crclock directory exists, and there is no lock file for the pfile in the /.crclock directory. |
| h | The line number in the specfile that contains the formatting error.                                                                                                                                                                                                                     |
| i | The off-line disk number specified as the argument to the DN keyword on the VFY:FILE command line.                                                                                                                                                                                      |
| j | The stored CRC value for the current file. If the CRC information is stored in /.crcvalues, this field contains both the size of file and the CRC.                                                                                                                                      |
| k | The calculated CRC value for the current file. If the stored CRC information for this file is kept in /.crcvalues, this field contains both the calculated size of the file and the CRC.                                                                                                |
| l | The requested file type against which the specified file was checked.                                                                                                                                                                                                                   |

## 4. ACTION TO BE TAKEN

If the error count for Format 3 or 5 is non-zero, examine the Receive-Only Printer (ROP) output for other message formats to determine the cause of the errors. Otherwise, no user action is required for Formats 1 through 5.

Format 6 indicates that VFY:FILE has terminated.

If Format 7 is printed, the Mount Off-Line Partition (MOP) process has failed. Examine the mop error message and take appropriate action.

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If Format 8 is printed, the user has selected a database partition which does not represent a file system. Find the correct partition number and reenter the command.

Format 9 is generally printed because the user is attempting to use the GEN option on a file which is not executable and trying to store the CRC internally. These files must have their CRC information stored in `/.crcvalues`. If this is not the case, seek technical assistance.

If Formats 10, 12, 13, 15, 16, 22, 26, or 30 are printed, seek technical assistance.

Format 11 indicates that a file is missing or does not have execute permission.

Format 14 is a warning message which may be ignored if CRC information is being generated for the first time. If this is not the case, seek technical assistance.

Format 17 indicates that VFY:FILE cannot find CRC information which is supposed to be in `/.crcvalues`. If the CRC information was present and has been lost, seek technical assistance.

If Format 18 is printed, VFY:FILE cannot open the file. This is usually an input error. If this is not the case, seek technical assistance.

Formats 19 and 20 indicate problems with specification file supplied to the FLIST parameter. Verify the correctness of the input command and the contents of the specification file.

Format 21 indicates that a field update is in progress for the current file. VFY:FILE will not run the CRC algorithm against this file until the update is made permanent. This is an information only message. If this message reoccurs for several days in a row, then check the Software Update status of the file to determine why it has not been made official.

If Format 23 is printed, MOP has been terminated unexpectedly and has left the off-line partition mounted. VFY:FILE has attempted to unmount the file system unsuccessfully. Use **mop -u** to unmount the file system.

If Format 24 is printed, VFY:FILE is unable to verify `/dev/boot`, `/dev/lboot`, and `/dev/vtoc` from the off-line disk. Seek technical assistance.

Format 25 is printed when the path name of the file to be verified is too long for searching `/.crcvalues`. Although the maximum allowed length for the arguments to either of the FN or OLMP options is 63 characters, their combined length must not exceed 63 characters.

Format 27 indicates that VFY:FILE cannot get status of the file. This is usually an input error. If this is not the case, seek technical assistance.

Format 28 indicates that the specified file's actual file type is something other than the expected file type. Use the `OP:STATUS;LISTDIR` command to examine the existing file type. If the specified file's existing file type does not match the expected file type, seek technical assistance. Otherwise, verify the correctness of the input message.

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Format 29 indicates that execute permission is not set for owner. Use the `ALW:FILESYS;ACCESS` input command to set the appropriate bit.

Formats 31, 32 and 33 indicate problems with accessing an off partition VTOC; seek technical assistance.

Format 34 is printed when the user has requested that a CRC value be generated for a file and stored in that file. The file is not suitable for storing the CRC value internally. The user should store the generated value globally; for example, use the `g` character when specifying the checking type.

If Format 35 is printed, the user may be attempting to process a file that is being updated. If file update is in progress, the user must wait until it is completed before attempting to run `VFY:FILE`; otherwise, the user needs to go into the `crlock` directory and remove the file that has the same name as the file that `VFY:FILE` will not process.

Format 36 is printed when `VFY:FILE` is unable to allocate sufficient space to read the specification file into memory. The user should seek technical assistance.

Format 37 is printed when `VFY:FILE` is unable to read the specification file into memory. The user should seek technical assistance.

## 5. REFERENCES

### OMDB Keys

Formats 1, 4, 6, 9, 11, 12, 14, 18, 19, 21, 27, and 34 have an OMDB key of 549.

Formats 2 and 5 have an OMDB key of 551.

Formats 3, 7, 8, and 25 have an OMDB key of 550.

Format 35 has an OMDB key of 557.

Format 26 has an OMDB key of 559.

Formats 28, 29, and 30 have an OMDB key of 655.

Format 23 has an OMDB key of 660.

Formats 10, 13, 15, 16, 17, 18, 20, 22, 24, 31, 32, 33, 36, and 37 have an OMDB key of 670.

CIC Select Code 303-023 *Lucent Technologies 3B20D/3B21D Computer UNIX® RTR Operating System Operating System Interfaces Programmer's Manual, Volume 3*

Practice 254-341-230 *Craft Interface Software Subsystem Description Lucent Technologies 3B20D/3B21D Computer*

### Input Messages

`ALW:F-ACCESS`

`OP:ST-LSTDIR`

`VFY:FILE`

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ID ..... VFY:MHD  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] VFY MHD a { NOT STARTED b c |  
                  STOPPED b c |  
                  ERROR b c |  
                  ABORTED b c |  
                  STARTED |  
                  COMPLETED |  
                  IN PROGRESS }
- [2] VFY MHD a EARLY TERM VFY FAILED d  
          TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC  
          e f g h [e f g h] [e f g h] [e f g h]
- [3] VFY MHD a EARLY TERM VFY FAILED d  
          BLOCKS BLOCKS BLOCKS BLOCKS  
          i [i] [i] [i]
- [4] VFY MHD a ABORTED b  
          ERROR DATA j k l m n

## 2. REASON FOR OUTPUT

To report the status of a request to verify a Moving Head Disk (MHD).

If the verify process was invoked via the "VFY MHD" poke on the Data File System Access (DFSAs) display page during Disk Independent Operation (DIOP) mode, a REPT:DKDIP message will precede the output message.

Format 4 provides additional error information when an explicit Small Computer System Interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

## 3. VARIABLE FIELD DEFINITIONS

- a MHD member number.
- b Process step or reason code:
- f01 — Failed to fopen() /tmp file.
  - f03 — fseek() failed on the output file.
  - f04 — Failed to open ECD.
  - f05 — Failed to get UCB by name.
  - f06 — Failed to get UCB of controlling unit.
  - f07 — Controlling unit is not active.

SEE PROPRIETARY NOTICE ON COVER PAGE

- f09 — MHD size not recognized.
- f0a — TRACK, BLOCK, or NEW are not valid for SCSI MHD.
- f0c — TRACK is not valid for SCSI MHD.
- f12 — BLOCK is not valid for Storage Module Device (SMD) MHD.
- f13 — Failed to get top Unit Control Block (UCB).
- f14 — Top UCB is not a Disk File Controller (DFC).
- f15 — Unknown DFC type.
- f18 — Failed to reserve UCB.
- f1b — Failed to assign special device file name.
- f1d — Failed to open device file.
- f21 — Failed to set Input / Output (I/O) mode of device file.
- f24 — Failed to enable message reception.
- f27 — See Disk Driver (DKDRV) report on the Read Only Printer (ROP).
- f30 — Head Universal Pointer Table (UPT) address is not available.
- f36 — See DKDRV report on the ROP.
- f37 — DKDIP virtual address translation failure.
- f39 — See DKDRV report on the ROP.
- f42 — DFC Random Access Memory (RAM) read failed.
- f45 — Verify (VFY) data overwritten - repeat input request starting from track number.
- f46 — Start block greater than the Last Block Address (LBA).
- f47 — See DKDRV report on the ROP.
- f48 — DKDIP virtual address translation failure.
- f49 — See DKDRV report on the ROP.
- f4c — Read of the DFC head UPT failed.
- f4e — See DKDRV report on the ROP.
- f52 — Read of the DFC firmware UPT failed.
- f55 — Failed to get UCB of the MHD's SBUS by Record Identification (RID).
- f58 — See DKDRV report on the ROP.
- f5b — Read of the verify failure data failed.
- f5e — Invalid verify data.
- f63 — lseek( ) to "comb" defect table failed.
- f64 — DKDIP virtual address translation failure.
- f66 — First read of defect table failed.
- f69 — lseek( ) to "comb" defect table failed.
- f6a — DKDIP virtual address translation failure.
- f6c — Second read of defect table failed.
- f6e — Message to port failure.
- f71 — Message reception failure.
- f72 — Manual abort requested.
- f73 — Manual abort requested.
- f74 — Process timed out.
- f78 — Failed to close special device file.
- f7c — Failed to release special device file.
- f7f — Failed to unreserve UCB.
- f83 — Failed to close ECD.
- f86 — Terminated externally with signal.
- f93 — Failed to get the segment number.

SEE PROPRIETARY NOTICE ON COVER PAGE

|   |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | f96 — SCSI "format" command failed.                                                                                                                                                                                                                                                                                                                                                                                |
|   | f99 — Message to port failure.                                                                                                                                                                                                                                                                                                                                                                                     |
|   | f9c — Message reception failure.                                                                                                                                                                                                                                                                                                                                                                                   |
|   | f9f — See DKDRV report on the ROP.                                                                                                                                                                                                                                                                                                                                                                                 |
|   | fa1 — Failed to get the segment number.                                                                                                                                                                                                                                                                                                                                                                            |
|   | fa5 — SCSI "inquiry" command failed.                                                                                                                                                                                                                                                                                                                                                                               |
|   | fa7 — SCSI "inquiry" command data underflow.                                                                                                                                                                                                                                                                                                                                                                       |
|   | fa9 — Failed to get the segment number.                                                                                                                                                                                                                                                                                                                                                                            |
|   | fb1 — SCSI "mode sense" command failed.                                                                                                                                                                                                                                                                                                                                                                            |
|   | fb2 — Data overflow - too many block descriptors.                                                                                                                                                                                                                                                                                                                                                                  |
|   | fb5 — Failed to get the segment number.                                                                                                                                                                                                                                                                                                                                                                            |
|   | fb9 — SCSI "mode select" command failed.                                                                                                                                                                                                                                                                                                                                                                           |
|   | fc1 — See DKDRV report on the ROP.                                                                                                                                                                                                                                                                                                                                                                                 |
|   | fc6 — Failed to get the segment number.                                                                                                                                                                                                                                                                                                                                                                            |
|   | fc9 — SCSI "read capacity" command failed.                                                                                                                                                                                                                                                                                                                                                                         |
|   | ffe — Aborted due to phase 1.                                                                                                                                                                                                                                                                                                                                                                                      |
| c | System error code number. See System Error Codes Output Appendix, APP:SYSERR.                                                                                                                                                                                                                                                                                                                                      |
| d | Number of failures (bad sectors for SMD MHD or bad blocks for SCSI MHD) found during the verify step.                                                                                                                                                                                                                                                                                                              |
| e | Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field only applies to an SMD MHD.                                                                                                                                                |
| f | Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.                                                                                                                                                                                                      |
| g | Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.                                                                                                                                                                                                          |
| h | Sector number in use when the failure occurred. It is a relative number (0 to 31). This variable field only applies to an SMD MHD.                                                                                                                                                                                                                                                                                 |
| i | Logical disk block number of the bad disk block found on the SCSI disk drive during the verify operation.                                                                                                                                                                                                                                                                                                          |
| j | Command completion word. The command completion word is eight hexadecimal digits of the form AAAABBCC.<br><br>AAAA = SCSI Job Block (SJB) completion code. See "Job completion code" under "General Job Information" in output DFC Appendix K, APP:DFC-K.<br><br>BB = Status byte. See "Target SCSI status byte" under "SCSI Command Information" in output DFC Appendix K, APP:DFC-K.<br><br>CC = Fill. Not used. |

SEE PROPRIETARY NOTICE ON COVER PAGE

- k First word of Extended Sense Data (ESD). See output DFC Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 0 of ESD.
  - BB = Byte 1 of ESD.
  - CC = Byte 2 of ESD.
  - DD = Byte 3 of ESD.
- l Second word of ESD. See output DFC Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 4 of ESD.
  - BB = Byte 5 of ESD.
  - CC = Byte 6 of ESD.
  - DD = Byte 7 of ESD.
- m Third word of ESD. See output DFC Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 8 of ESD.
  - BB = Byte 9 of ESD.
  - CC = Byte 10 of ESD.
  - DD = Byte 11 of ESD.
- n Fourth word of ESD. See output DFC Appendix J, APP:DFC-J. This word is structured as eight hexadecimal digits of the form AABBCDD.
- AA = Byte 12 of ESD.
  - BB = Byte 13 of ESD.
  - CC = Byte 14 of ESD.
  - DD = Byte 15 of ESD.

#### 4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying a verification failure means that the indicated disk sectors had uncorrectable data errors or that the format information contained in the sector headers was not as expected. This disk media should not be used until the problem is corrected. For an SMD MHD, the HEAD and TRACK information is output to help determine if the problem is with the MHD (head alignment) or in the disk media (bad surface).

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For an SMD MHD, the CYL, HEAD, and SECT information can be used as input to the LOAD:MHD;DEFECT command. For an SCSI MHD, the BLOCK information can be used as input to the LOAD:MHD;DEFECT command.

If Format 4 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

## **5. REFERENCES**

### OMDB Keys

Format 1 has OMDB keys of 147, 148, and 149.

Format 2 has an OMDB key of 146.

Format 3 has an OMDB key of 569.

Format 4 has an OMDB key of 666.

### Display / Menu Page Name

DISK FILE SYSTEM ACCESS

CIC Select Code 304-046 *Lucent Technologies 3B20D and 3B21D Computers*

*UNIX® RTR Operating System System Maintenance Manual*

### Output Appendixes

APP:DFC-J

APP:DFC-K

APP:SYSERR

### Input Messages

LOAD:MHD-DEFECT

LOAD:MHD-FIRM

VFY:MHD

### Output Message

REPT:DKDIP

SEE PROPRIETARY NOTICE ON COVER PAGE





ID ..... VFY:PAUTH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

[1] VFY PAUTH COMPLETED

| IDENT | PSSWDPFX | PSSWDSFX |
|-------|----------|----------|
| a     | b        | c        |
| .     | .        | .        |
| .     | .        | .        |
| .     | .        | .        |

[2] VFY PAUTH COMPLETED

| IDENT | LAST LOGIN | STATUS |
|-------|------------|--------|
| a     | d          | e      |

## 2. REASON FOR OUTPUT

To report the result of a VFY:PAUTH input message, which allows verification of a person or group time of last login and user status or a person or group password prefix and suffix.

Format 1 indicates successful completion of the VFY:PAUTH input message executed with the password enhancement feature disabled.

Format 2 indicates successful completion of the VFY:PAUTH input message executed with the password enhancement feature enabled.

## 3. VARIABLE FIELD DEFINITIONS

|   |                              |
|---|------------------------------|
| a | Person identity.             |
| b | Password prefix.             |
| c | Password suffix.             |
| d | Date and time of last login. |
| e | User status:                 |
|   | DISABLE                      |
|   | ENABLE                       |

## 4. ACTION TO BE TAKEN

None.

SEE PROPRIETARY NOTICE ON COVER PAGE

## **5. REFERENCES**

OMDB Key

Formats 1 and 2 have an OMDB key of 306.

Input Message

VFY:PAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... VFY:PCGRP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

VFY PCGRP COMPLETED

| IDENT | PROFL | COMGR |
|-------|-------|-------|
| a     | b     | c     |
|       | .     | .     |
|       | .     | .     |
|       | .     | .     |

## 2. REASON FOR OUTPUT

To report the result of entering a VFY:PCGRP input message.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                         |
|---|-----------------------------------------|
| a | Person identity.                        |
| b | A profile with a set of command groups. |
| c | Command group.                          |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 305.

Input Message  
VFY:PCGRP

Output Message  
VFY:PAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VFY:PROFL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

VFY PROFL

{PROFILE | PROFILE COMGR}

|   |   |  |   |   |   |
|---|---|--|---|---|---|
| { | a |  | a | b | } |
| { | . |  | . | . | } |
| { | . |  | . | . | } |
| { | . |  | . | . | } |

## 2. REASON FOR OUTPUT

Outputs the list of user command group Profiles (PROFLs) resulting from the VFY:PROFL input message or outputs entries from the command group Profile (PROFL) database that were selected by the VFY:PROFL, IDENT input command.

## 3. VARIABLE FIELD DEFINITIONS

|   |                   |
|---|-------------------|
| a | Profile identity. |
| b | Command group.    |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 305.

Input Messages  
ADD:PROFL  
CHG:PROFL  
DEL:PROFL  
VFY:PROFL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VFY:TAPE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] VFY TAPE STARTED
- [2] VFY TAPE ABORTED  
OPEN ERROR
- [3] VFY TAPE STOPPED {UNABLE TO READ HEADER a |  
DATA READ ERROR - BLOCK TOO LARGE - HEADER a |  
DATA READ ERROR - HEADER a, RECORD b |  
EOF ON INPUT - HEADER a, RECORD b |  
UNABLE TO POSITION TAPE AT BEGINNING OF SESSION c |  
UNABLE TO POSITION TAPE AT BEGINNING OF SESSION c VOLUME d |  
DATA READ ERROR - HEADER a, RECORD b IN SESSION c VOLUME d |  
EOF ON INPUT - HEADER a, RECORD b IN SESSION c VOLUME d |  
UNEXPECTED END OF DATA - HEADER a}
- [4] VFY TAPE STOPPED  
{LSEEK FAILED |  
CLOSE ERROR |  
CANNOT POSITION TAPE AT BEGINNING OF TAPE |  
CANNOT SPECIFY MULTI-VOLUME OPTIONS WITH A SINGLE VOLUME TAPE |  
ECD ACCESS FAILED - CANNOT DETERMINE TAPE DRIVE TYPE |  
UNLINK OF TEMPORARY NOREWIND TAPE SPECIAL DEVICE FILE FAILED |  
UNABLE TO CREATE TEMPORARY NOREWIND TAPE SPECIAL DEVICE FILE |  
MULTI-VOLUME TAPES ARE ONLY SUPPORTED ON THE 3B21D |  
UNABLE TO READ HEADER a IN SESSION c VOLUME d |  
DATA READ ERROR - BLOCK TOO LARGE - HEADER a IN SESSION c VOLUME d |  
UNEXPECTED END OF DATA - HEADER a IN SESSION c VOLUME d}
- [5] VFY TAPE IN PROGRESS {HEADER HASH SUM MATCH - HEADER a |  
HEADER HASH SUM MISMATCH - HEADER a |  
DATA HASH SUM MISMATCH - HEADER a |  
e RETRIES NEEDED TO READ HEADER a |  
e RETRIES NEEDED TO READ DATA a, RECORD b |  
MORE THAN TWO TOP VOLUMES ON TAPE |  
SESSION c VOLUME d COMPLETED |  
SESSION c VOLUME d OUT OF SEQUENCE}

SEE PROPRIETARY NOTICE ON COVER PAGE

- [6] VFY TAPE IN PROGRESS  
{HEADER HASH SUM MATCH - HEADER a IN SESSION c VOLUME d |  
HEADER HASH SUM MISMATCH - HEADER a IN SESSION c VOLUME d |  
DATA HASH SUM MISMATCH - HEADER a IN SESSION c VOLUME d |  
e RETRIES NEEDED TO READ HEADER a IN SESSION c VOLUME d |  
e RETRIES NEEDED TO READ DATA a, RECORD b IN SESSION c VOLUME d}
- [7] VFY TAPE COMPLETED RETRIES = f, HEADER MISMATCHES = g,  
DATA MISMATCHES = h

## 2. REASON FOR OUTPUT

To output information concerning the condition of a system tape which is being verified in response to the VFY:TAPE input message.

## 3. VARIABLE FIELD DEFINITIONS

- |   |                                                                                |
|---|--------------------------------------------------------------------------------|
| a | Number of header (a count that identifies the header within a logical volume). |
| b | Number of data record following a given header.                                |
| c | Number of backup session on tape (1-9).                                        |
| d | Number of logical volume within a backup session (0-9).                        |
| e | Number of retries needed to read successfully (0-9).                           |
| f | Total number of retries needed in reading system tape.                         |
| g | Total number of header hash sum mismatches found on tape.                      |
| h | Total number of data hash sum mismatches found on tape.                        |

## 4. ACTION TO BE TAKEN

A STOPPED output message indicates probable physical damage to the tape or an improper end of tape marker. HASH SUM MISMATCH output messages indicate an inconsistency between the data being read and that which was originally written. A RETRIES NEEDED output message implies difficulty with reading a particular spot on the tape. An LSEEK FAILED output message indicates difficulty when trying to find the offset to re-read the tape when initial read has failed. All of these messages imply that the spot on the tape being read when the message occurred may be unusable.

A COMPLETED message with zero retries, zero header mismatches, and zero data mismatches indicates a completely verified tape.

SEE PROPRIETARY NOTICE ON COVER PAGE



## **5. REFERENCES**

### OMDB Key(s)

Formats 1 and 2 have an OMDB key of 181.  
Format 3 has OMDB keys of 182, 183, 752, and 755.  
Format 4 has OMDB keys of 181 and 754.  
Format 5 has OMDB keys of 182, 320, 321, and 753.  
Format 6 has OMDB keys of 181, 754, 756, and 757.  
Format 7 has an OMDB key of 184.

### Input Message

VFY:TAPE

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VFY:TAUTH  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

VFY TAUTH COMPLETED

TERM

a

.

.

.

## 2. REASON FOR OUTPUT

To verify the requested terminal identities in the Terminal Authority (TAUTH) database resulting from the VFY:TAUTH input command.

## 3. VARIABLE FIELD DEFINITIONS

a                      List of terminal identities in four characters, starting with "tty".

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key

This message has an OMDB key of 305.

Input Messages

ADD:TAUTH

DEL:TAUTH

VFY:TAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... VFY:TCGRP  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

VFY TCGRP COMPLETED

| TERM | COMGR |
|------|-------|
|------|-------|

|   |   |
|---|---|
| a | b |
|   | . |
|   | . |
|   | . |

## 2. REASON FOR OUTPUT

To print in response to the VFY:TCGRP command, which allows the retrieval of entries from the Terminal Command Group (TCGRP) database.

## 3. VARIABLE FIELD DEFINITIONS

|   |                                       |
|---|---------------------------------------|
| a | Terminal identity in four characters. |
| b | Command group.                        |

## 4. ACTION TO BE TAKEN

None.

## 5. REFERENCES

OMDB Key  
This message has an OMDB key of 305.

Input Messages  
ADD:TCGRP  
DEL:TCGRP  
VFY:TCGRP

Output Message  
VFY:TAUTH

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... WHEN:COND  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] WHEN COND E STARTED [H]
- [2] WHEN COND E STOPPED a
- [3] WHEN COND E COMPLETED b c #d

## 2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

## 3. VARIABLE FIELD DEFINITIONS

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STARTED   | The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.                                                                                                                                                                                                                                                                              |
| H         | Hard breakpoint implementation.                                                                                                                                                                                                                                                                                                                                                                                                       |
| STOPPED   | The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.                                                                                                                                                                                                                                                                                                             |
| a         | Type of error that was encountered:<br><br>NGBPT — There is already a breakpoint defined for the same address of the same process.<br><br>TOOMANY — Only 20 breakpoints are allowed to be defined at one time.<br><br>UCERR — The utility circuit either does not respond or does not match the circuit present earlier in the debugging session.<br><br>UCFNAV — The particular utility circuit function requested is not available. |
| COMPLETED | The breakpoint was successfully 'planted'. Supplementary information is also supplied.                                                                                                                                                                                                                                                                                                                                                |
| b         | State of the breakpoint:<br><br>DISABLED — The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message.<br><br>ENABLED — The breakpoint's action list will be executed as soon as the breakpoint conditions occur.                                                                                                                                       |

SEE PROPRIETARY NOTICE ON COVER PAGE

- c Breakpoint number. This is used in all future references to the breakpoint.
- d Generic Access Package (GRASP) execution sequence number.

#### **4. ACTION TO BE TAKEN**

If the termination status was STOPPED because of TOOMANY, NGBPT, or UCFNAV, another breakpoint will have to be cleared with the CLR:UTILFLAG input message before this one can be processed.

If the termination status was STOPPED because of UCERR, the utility circuit hardware may be faulty. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

#### **5. REFERENCES**

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description  
3B20D/3B21D Processor*

##### Input Messages

ALW:UTIL  
ALW:UTILFLAG  
CLR:UTIL  
CLR:UTILFLAG  
INIT:UC  
OP:ST-PROC  
OP:UTIL  
WHEN:PID  
WHEN:UID

##### Output Message

OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... WHEN:PID  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] WHEN PID a ADDR b STARTED c
- [2] WHEN PID a ADDR b STOPPED d
- [3] WHEN PID a ADDR b COMPLETED e f #g

## 2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

## 3. VARIABLE FIELD DEFINITIONS

- a Process ID (PID) of the target process.
- b Address of the breakpoint.
- STARTED The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.
- c Breakpoint implementation:
  - HARD — Hardware implementation.
  - SOFT — Software implementation.
- STOPPED The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.
- d Type of error that was encountered:
  - NGADDR — The address specified is not valid for the specified process.
  - NGBPT — There is already a breakpoint defined for the same address of the same process.
  - NGOPC — The first byte of the specified opcode does not agree with that specified on the WHEN input message.
  - NGPID — The process ID specified is not that of a running process.
  - PLNTFAIL — Attempt to plant software breakpoint failed.
  - TOOMANY — Only 20 breakpoints are allowed to be defined at one time.
  - UCERR — The utility circuit either does not respond or does not match the circuit present earlier in the debugging session.
  - UCFNAV — The particular utility circuit function requested is not available.

SEE PROPRIETARY NOTICE ON COVER PAGE

- COMPLETED      The breakpoint was successfully "planted". Supplementary information is also supplied.
- e                    State of the breakpoint:
- DISABLED — The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message.
- ENABLED — The breakpoint's action list will be executed as soon as the breakpoint conditions occur.
- f                    Breakpoint number. This is used in all future references to the breakpoint.
- g                    Generic Access Package (GRASP) execution sequence number.

#### 4. ACTION TO BE TAKEN

If the termination status was STOPPED because of TOOMANY, NGBPT, or UCFNAV, another breakpoint will have to be cleared with the CLR:UTILFLAG input message before this one can be processed.

If the termination status was STOPPED because of NGADDR or NGOPC, recheck the address or opcode used against the program listings. Consider that the listings themselves might be in error.

If the termination status was STOPPED because of NGPID and it happens repeatedly, consider using the process Utility Identification (UID) instead of a PID.

If the termination status was STOPPED because of UCERR, the utility circuit hardware may be faulty. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 493 and, if c is STOPPED, 503.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*  
*3B20D/3B21D Processor*

##### Input Messages

ALW:UTIL  
ALW:UTILFLAG  
CLR:UTIL  
CLR:UTILFLAG  
INIT:UC  
OP:ST-PROC  
OP:UTIL  
WHEN:PID  
WHEN:UID

SEE PROPRIETARY NOTICE ON COVER PAGE

Output Message  
OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... WHEN:RUTIL  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## 1. FORMAT

This message has 12 formats.

- [1] WHEN RUTIL ABT  
ZZZZ
- [2] WHEN RUTIL STOPPED  
LN aa b ADDR X'c BP = d eeee
- [3] WHEN RUTIL COMPL  
LN aa b ADDR X'c BP = d DISABLED
- [4] WHEN RUTIL ABT  
TOO MANY INSTRUCTIONS f
- [5] WHEN RUTIL ABT  
INCONSISTENT RNA; PREV g CURR h
- [6] WHEN RUTIL ABT  
INCONSISTENT NTYP; PREV i CURR j
- [7] WHEN RUTIL ABT  
SEND2KERN MKNODE() FAILED k
- [8] WHEN RUTIL ABT  
SEND2KERN OPEN() FAILED k
- [9] WHEN RUTIL ABT  
SEND2KERN KERNEL RETURNED ERROR l
- [10] WHEN RUTIL ABT  
KERNEL RESPONSE TIMEOUT m
- [11] LOAD REG ABT  
LOAD INV REG/UVAR VALUE
- [12] DUMP REG ABT  
DUMP INV REG/UVAR VALUE

## 2. REASON FOR OUTPUT

Response to the WHEN:RUTIL input command.

SEE PROPRIETARY NOTICE ON COVER PAGE

Format 1: Indicates that the command has been aborted. See explanatory message following.

Format 2: Indicates that the command has been rejected by the kernel or by the concerned node itself. See explanation of reason following.

Format 3: Indicates the successful setting of a breakpoint.

Format 4: The command has been rejected by the craft process itself. There are too many instructions being attempted by the user.

Format 5: Commands within an action-list must have consistent ring node addresses.

Format 6: Commands within an action-list must have consistent node types.

Format 7: Creating the special file for the kernel has failed.

Format 8: Attempting to open the file for kernel processing has failed.

Format 9: The kernel has returned a failing return code.

Format 10: The kernel has not responded to the craft process.

Format 11: Indicates that this action-list command has been aborted. The register or uvar name is invalid. See the WHEN:RUTIL Input Message for valid register or uvar names. The uvar capability is not yet available in the RGRASP tool.

Format 12: Indicates that this action-list command has been aborted. The register or uvar name is invalid. See the WHEN:RUTIL Input Message for valid register or uvar names. The uvar capability is not yet available in the RGRASP tool.

### **3. VARIABLE FIELD DEFINITIONS**

zzzz                      Explanatory message.

#### **TOO MANY CMDS IN WHEN ACTION LIST**

Currently the user is only allowed to specify a maximum of 24 action list items in total over all breakpoints at a given node.

#### **UNSUPPORTED COMMAND**

Currently this command is unsupported.

#### **'OP' NOT ALLOWED**

The OP:RUTIL command is not allowed in an action-list.

#### **NESTED 'WHEN' NOT ALLOWED**

Nested breakpoint action lists are not permitted.

#### **RING NODE ADDRESS REQUIRED**

A node address was expected.

SEE PROPRIETARY NOTICE ON COVER PAGE

INVALID ADDRESS <address> FOR CMD <cmd name> <cmd number>

The address given for this command is invalid.

INVALID DATA VALUE <data value>

The data value provided for the command is invalid.

NO DATA PROVIDED

Data was expected but was not provided with the command.

INVALID NUMBER OF DATA ITEMS

The number of expected data items did not match the number of data parameters provided.

INVALID DATA PROVIDED

The data item provided is not valid for the command being processed.

TOO MANY OFFSETS

The number of offsets given exceeds the currently allowed maximum.

INVALID OFFSET(S) PROVIDED

There were no offsets given with the OFF parameter.

OFFSETS INVALID FOR CMD <command name> <command number>

The offsets provided are invalid for the command being processed.

aa The group number of the concerned node.

b The member number of the concerned node.

c The address of the breakpoint.

d The breakpoint number.

eeee Explanation as to why the set-breakpoint operation was stopped.

TOOMANY

Currently a user is only allowed five breakpoints in a node.

NGADDR

An invalid address for the breakpoint was provided.

NGSPACE

There is no data space left to store indicated breakpoint(s).

NGOPC

An invalid opcode has been provided.

NGBCMD

One of the action-list commands is invalid.

NGRETURN

SEE PROPRIETARY NOTICE ON COVER PAGE

|   |                                                       |
|---|-------------------------------------------------------|
|   | The node has returned a code which is not recognized. |
|   | VECTOR MEMORY PROTECTION ERROR CODE = n               |
| f | The number of user instructions attempted.            |
| g | The previous ring node address provided.              |
| h | The current ring node address being specified.        |
| i | The previous node type provided.                      |
| j | The current node type being specified.                |
| k | The value of the global variable errno.               |
| l | The kernel's return value.                            |
| m | The maximum time allotted to await a kernel response. |
| n | Error return value from memory write request.         |

#### 4. ACTION TO BE TAKEN

For formats 1 through 6, 11 and 12, review the current input command to determine the error.

For formats 7 through 10, seek technical assistance.

See also the output message of the individual commands placed within the WHEN:RUTIL <action-list>.

#### 5. REFERENCES

Input Messages  
ALW:RUTIL  
CLR:RUTIL  
INH:RUTIL  
OP:RUTIL  
WHEN:RUTIL

Output Messages  
ALW:RUTIL  
CLR:RUTIL  
INH:RUTIL

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... WHEN:UID  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## 1. FORMAT

- [1] WHEN UID a ADDR b STARTED c
- [2] WHEN UID a ADDR b STOPPED d
- [3] WHEN UID a ADDR b COMPLETED e f #g

## 2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

## 3. VARIABLE FIELD DEFINITIONS

- a Utility ID of the target process.
- b Address of the breakpoint.
- STARTED The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.
- c Breakpoint implementation:
  - HARD — Hardware implementation.
  - SOFT — Software implementation.
- STOPPED The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.
- d Type of error that was encountered:
  - NGADDR — The specified address is not valid for the specified process.
  - NGBPT — There is already a breakpoint defined for the same address of the same process.
  - NGOPC — The first byte of the specified opcode does not agree with that specified in the WHEN message.
  - PLNTFAIL — Attempt to plant software breakpoint failed.
  - TOOMANY — Only 20 breakpoints are allowed to be defined at one time.
  - UCERR — The utility circuit either does not respond or does not match the circuit present earlier in the debugging session.
  - UCFNAV — The particular utility circuit function requested is not available.

SEE PROPRIETARY NOTICE ON COVER PAGE

- COMPLETED      The breakpoint was successfully "planted". Supplementary information is also supplied.
- e      State of the breakpoint:
- DISABLED — The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message.
- ENABLED — The breakpoint's action list will be executed as soon as the breakpoint conditions occur.
- f      Breakpoint number. This is used in all future references to the breakpoint.
- g      Generic Access Package (GRASP) execution sequence number.

#### 4. ACTION TO BE TAKEN

The termination status was STOPPED because of TOOMANY, NGBPT, or UCFNAV, another breakpoint will have to be cleared with CLR:UTILFLAG before this one can be processed.

If the termination status was STOPPED because of NGADDR or NGOPC, recheck the address or opcode used against the program listing. Consider that the listings themselves might be in error.

If the termination status was STOPPED because of UCERR, the utility circuit hardware may be faulty. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

#### 5. REFERENCES

##### OMDB Keys

Format 1 has OMDB keys of 493 and, if c is STOPPED, 503.

Practice 254-341-115 *Generic Access Package (GRASP) Software Subsystem Description*  
*3B20D/3B21D Processor*

##### Input Messages

ALW:UTIL  
ALW:UTILFLAG  
CLR:UTIL  
CLR:UTILFLAG  
INIT:UC  
OP:ST-PROC  
OP:UTIL  
WHEN:PID  
WHEN:UID

##### Output Message

OP:UTIL

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... APP:ACK-DB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## ACKNOWLEDGEMENT DATABASE APPENDIX

If an error is encountered with the Acknowledgement Database, an input message acknowledgement of the this format may appear:

NA BAD ACKDB <key 1> <key 2> <key 3> <key 4>

where key = a numerical value.

This appendix lists the text associated with each key.

To clear the condition where every command results in the NA BAD ACKDB acknowledgement, enter the CLR:ACKDB command followed by the 808 and 805 pokes on the 103 page.

The list contains acknowledgements which print after an input indicator (; ! or ?) or delete command character (DEL or CAN) is entered. The ACKDB key assigned to each acknowledgement is also given.

| KEY | TEXT                    |
|-----|-------------------------|
| 0   |                         |
| 1   | - OK                    |
| 2   | - NG                    |
| 3   | - RL                    |
| 4   | - IP                    |
| 5   | - PF                    |
| 6   | - ?V                    |
| 7   | - ?A                    |
| 8   | - ?I                    |
| 9   | - ?D                    |
| 10  | - ?E                    |
| 11  | - ?C                    |
| 12  | - ?P                    |
| 13  | - ?T                    |
| 14  | - ?O                    |
| 15  | - ?X                    |
| 16  | - NA                    |
| 17  | - FIRST PARAMETER BLOCK |

SEE PROPRIETARY NOTICE ON COVER PAGE

| KEY | TEXT (continued)                      |
|-----|---------------------------------------|
| 18  | - SECOND PARAMETER BLOCK              |
| 19  | - THIRD PARAMETER BLOCK               |
| 20  | - DATA BLOCK                          |
| 21  | - FIRST KEYWORD                       |
| 22  | - SECOND KEYWORD                      |
| 23  | - THIRD KEYWORD                       |
| 24  | - FOURTH KEYWORD                      |
| 25  | - OPTIONAL KEYWORD                    |
| 26  | - PUNCTUATION ERROR                   |
| 27  | - INVALID CHARACTER                   |
| 28  | - MISSING KEYWORD                     |
| 29  | - EXTRA KEYWORD                       |
| 30  | - INVALID KEYWORD                     |
| 31  | - INCONSISTENT KEYWORD                |
| 32  | - MISSING DATA                        |
| 33  | - RANGE ERROR                         |
| 34  | - INVALID DATA                        |
| 35  | - INCONSISTENT DATA                   |
| 36  | - INPUT ERROR                         |
| 37  | - INVALID KEY                         |
| 38  | - INVALID EQUIPMENT ID                |
| 39  | - BLOCK                               |
| 40  | - REPT                                |
| 41  | - CFTSHL                              |
| 42  | - DLGSHL                              |
| 43  | - ABORTED                             |
| 44  | - NOT STARTED                         |
| 45  | - COMPLETED                           |
| 46  | - CONFLICT WITH CURRENT SYSTEM STATUS |
| 47  | - RETRY LATER                         |
| 48  | - INVALID ACTION FIELD                |
| 49  | - INVALID ID FIELD                    |
| 50  | - INVALID DATA FIELD                  |
| 51  | - UNABLE TO IDENTIFY ERROR            |
| 52  | - ERROR                               |
| 53  | - ACKDB UNAVAILABLE                   |
| 54  | - TERMINAL IN SERVICE                 |
| 55  | - UNIDENTIFIED ERROR                  |
| 56  | - HANGUP SIGNAL RECEIVED              |
| 57  | - UNABLE TO READ LINE                 |
| 58  | - CANNOT CHANGE DIRECTORY TO          |
| 59  | - CANNOT CREATE                       |
| 60  | - EOF ENCOUNTERED                     |
| 61  | - SETGID TO                           |

SEE PROPRIETARY NOTICE ON COVER PAGE

| KEY | TEXT (continued)                                         |
|-----|----------------------------------------------------------|
| 62  | - SETUID TO                                              |
| 63  | - INTERRUPT RECEIVED                                     |
| 64  | - IMPROPERLY TERMINATED INPUT                            |
| 65  | - INVALID ENVIRONMENT ARGUMENT PASSED TO ALTERNATE SHELL |
| 66  | - TERMINAL READING ERROR,                                |
| 67  | - UNABLE TO EXECUTE PROCESS                              |
| 68  | - UNABLE TO INITIATE COMMAND                             |
| 69  | - UNABLE TO MATCH COMMAND                                |
| 70  | - UNABLE TO FORK PROCESS                                 |
| 71  | - CANNOT EXECUTE 'EXC:UCL' ITSELF                        |
| 72  | - TERMINAL SECURITY VIOLATION                            |
| 73  | - PREVIOUS COMMAND HAD A SYNTAX ERROR                    |
| 74  | - NO PREVIOUS COMMAND AVAILABLE                          |
| 75  | - BAD IM CATALOG                                         |
| 76  | - CAPABILITY MODE                                        |
| 77  | - OF .pname FILE                                         |
| 78  | - INSTALL a .pname FILE IN DIRECTORY                     |
| 79  | - AND SHELL WILL RECOVER                                 |
| 80  | - ALTERNATE SHELL                                        |
| 81  | - FAILED                                                 |
| 82  | - ERRNO                                                  |
| 83  | - OF .pname FILE FOR ALTERNATE SHELL                     |
| 84  | - AND ENVIRONMENT ARGUMENT MISSING                       |
| 85  | - 'EXC:UCL' INVALID IN PART MODE                         |
| 86  | - IMPROPERLY ESCAPED INPUT                               |
| 87  | - INSUFFICIENT AUTHORITY                                 |
| 88  | - INVALID POSITIONAL PARAMETER                           |
| 89  | - KEYWORD                                                |
| 90  | - TYPED OUT OF ORDER                                     |
| 91  | - UNRECOGNIZABLE MESSAGE                                 |
| 92  | - MISSING POSITIONAL PARAMETERS                          |
| 93  | - TOO MANY POSITIONAL PARAMETERS                         |
| 94  | - INCORRECT VALUE                                        |
| 95  | - FOR POSITIONAL PARAMETERS                              |
| 96  | - NOT ENOUGH VALUES WERE TYPED FOR                       |
| 97  | - TOO MANY VALUES WERE TYPED FOR                         |
| 98  | - ARG                                                    |
| 99  | - ONLY ONE MAY BE USED                                   |
| 100 | - OF                                                     |
| 101 | - OR                                                     |
| 102 | - DUPLICATED KEYWORD                                     |
| 103 | - INVALID VERB                                           |
| 104 | - MISSING VERB                                           |
| 105 | - TO EXECUTE COMMAND                                     |

SEE PROPRIETARY NOTICE ON COVER PAGE

| KEY | TEXT (continued)                            |
|-----|---------------------------------------------|
| 106 | - INVALID TERMINATOR                        |
| 107 | - FILE INACCESSIBLE                         |
| 108 | - SEGMENT NAME CANNOT BE CLEARED            |
| 109 | - CANCELED                                  |
| 110 | - COMMAND CANCELED WHILE IN EXECUTION       |
| 111 | - Enter Password                            |
| 112 | - Identification Terminated                 |
| 113 | - UNABLE TO ACCESS AUTHORITY ADMINISTRATION |
| 114 | - Illegal Password                          |
| 115 | - Identification Aborted                    |
| 116 | - UNABLE TO RETRIEVE AUTHORITY GROUPS       |
| 117 | - Terminal out of service. Restarting.      |
| 118 | - SEGCODE CANNOT BE DETERMINED              |
| 119 | - TOO MANY KEYS                             |
| 120 | - SYNTAX ERROR                              |
| 121 | - INVALID MESSAGE CLASS                     |
| 122 | - INVALID ALARM                             |
| 123 | - INVALID OMDB COPY                         |
| 124 | - NON-EXISTENT PERSON IDENTITY              |
| 125 | - NON-EXISTENT TERMINAL IDENTITY            |
| 126 | - PASSWORD PREFIX NOT UNIQUE                |
| 127 | - PASSWORD PREFIX                           |
| 128 | - AND/OR SUFFIX INCORRECT                   |
| 129 | - COMMAND GROUP NOT ASSIGNED TO             |
| 130 | - THIS PERSON                               |
| 131 | - THIS TERMINAL                             |
| 132 | - TERMINAL ID ALREADY EXISTS                |
| 133 | - INVALID TERMINAL IDENTITY                 |
| 134 | - PERSON IDENTITY NOT UNIQUE                |
| 135 | - MISSING PARAMETER(S)                      |
| 136 | - ILLEGAL LENGTH                            |
| 137 | - AUTHORITY ADMINISTRATION UNDER UPDATE     |
| 138 | - COMMAND GROUP ALREADY ASSIGNED TO         |
| 139 | - NO PERSON AUTHORITY PRESENT               |
| 140 | - NO TERMINAL AUTHORITY PRESENT             |
| 141 | - NO AUTHORITY GROUPS ASSIGNED TO           |
| 142 | - INSUFFICIENT RESOURCES                    |
| 143 | - PASSWORD SUFFIX                           |

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... APP:APPENDIX-01  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

# APPENDIX 1

## CNI CCIS Signaling Network Critical Event Identification List

| Eventid   | Data           | Meaning                                          |
|-----------|----------------|--------------------------------------------------|
| C7SPI     | Point Code     | Signaling point isolation begins                 |
| C7SPIO    | Point Code     | SPI due to far end POU begins                    |
| C7SPIE    | Point Code     | Signaling point isolation ends                   |
| C7LSF     | Link Set       | Link set failure begins                          |
| C7ALTRE   | Link Set       | Alternate routing ends                           |
| C7ALTR    | Link Set       | Alternate routing begins                         |
| C7LSFE    | Link Set       | Link set failure ends                            |
| C7POR     | Signaling Link | Far end POU event begins                         |
| C7PORE    | Signaling Link | Far end POU event ends                           |
| C7LCON1X  | Signaling Link | Transmit buffer L1 onset begins                  |
| C7LCDIS1X | Signaling Link | Transmit buffer L1 discard begins                |
| C7LCABM1X | Signaling Link | Transmit buffer L1 abatement begins              |
| C7LCON2X  | Signaling Link | Transmit buffer L2 onset begins                  |
| C7LCDIS2X | Signaling Link | Transmit buffer L2 discard begins                |
| C7LCABM2X | Signaling Link | Transmit buffer L1 abatement begins              |
| C7LCON3X  | Signaling Link | Transmit buffer L3 onset begins                  |
| C7LCDIS3X | Signaling Link | Transmit buffer L2 discard begins                |
| C7LCABM3X | Signaling Link | Transmit buffer L1 abatement begins              |
| C7ACOER   | Signaling Link | Automatic changeover due to excessive error rate |
| C7ACOCOV  | Signaling Link | Automatic changeover due to changeover received  |
| C7FLDER   | Signaling Link | Declared failure due to excessive error rate     |
| C7FLDCOL  | Signaling Link | Declared failure due to continuous overload      |
| C7FLDSNT  | Signaling Link | Declared failure due to sanity check failure     |
| C7FLDCOV  | Signaling Link | Declared failure due to changeover               |
| C7MCON    | Signaling Link | Near end manual changeover                       |
| C7MCOF    | Signaling Link | Far end manual changeover                        |

SEE PROPRIETARY NOTICE ON COVER PAGE

CNI CCIS Signaling Network Critical Event Identification List (continued)

| Eventid    | Data                     | Meaning                                    |
|------------|--------------------------|--------------------------------------------|
| C7ACB      | Signaling Link           | Automatic changeback                       |
| C7ACBFLD   | Signaling Link           | Automatic changeback from FLD              |
| C7MCB      | Signaling Link           | Manual changeback                          |
| C7TFR      | Signaling Link           | TFR broadcast for a problem link           |
| C7TFA      | Signaling Link           | TFA broadcast for a recovering link        |
| C7TCR      | Point Code               | TFR broadcast for a problem cluster        |
| C7TCA      | Point Code               | TFA broadcast for a recovering cluster     |
| C7SSPF     | Subsystem                | Subsystem of adjacent office is prohibited |
| C7SSAF     | Subsystem                | Subsystem of adjacent office is allowed    |
| STPINIT    | Point Code               | STP initialization                         |
| CT1FAFL    | PBX Node                 | T1FA hardware/firmware failure begins      |
| CT1FARCVRY | PBX Node                 | T1FA hardware/firmware failure ends        |
| CTREDAL    | PBX Node                 | Red alarm declared                         |
| CTREDALC   | PBX Node                 | Red alarm cleared                          |
| CTYELAL    | PBX Node                 | Yellow alarm declared                      |
| CTYELALC   | PBX Node                 | Yellow alarm cleared                       |
| CPMOOS     | PBX Link                 | Manual out-of-service begins               |
| CPMOOSE    | PBX Link                 | Manual out-of-service ends                 |
| CPFLD      | PBX Link With Diagnostic | Declared link failure: various reasons     |
| CPARSFLD   | PBX Link                 | Automatic return to service                |
| CPDIS      | PBX Link                 | D-Channel in service                       |
| CPDOOS     | PBX Link                 | D-Channel out-of-service                   |
| CPDSTBY    | PBX Link                 | D-Channel in standby                       |
| CPFLDNS    | PBX Link                 | Declared link failure (Non-signaling)      |
| CPDUMOOS   | PBX Link                 | Mated link failed-Undo other link's MOOS   |
| CPDSERVF   | PBX Link                 | Service message exchange failed on link    |
| CPALCIF    | PBX Link                 | Auto link check failure                    |
| CPTRBL     | PBX Link                 | Onset of trouble code                      |
| CPTRBLE    | PBX Link                 | End of trouble code                        |

SEE PROPRIETARY NOTICE ON COVER PAGE



ID ..... APP:APPENDIX-02  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## APPENDIX 2

### System Error Code Numbers

---

| Code(s) | Definition |
|---------|------------|
|---------|------------|

---

|    |                            |
|----|----------------------------|
| 1  | Not a super-user.          |
| 2  | No such file or directory. |
| 3  | No such process.           |
| 4  | Interrupted system call.   |
| 5  | I/O error.                 |
| 6  | No such device or address. |
| 7  | Argument list too long.    |
| 8  | Exec format error.         |
| 9  | Bad file number.           |
| 10 | No children.               |
| 11 | No more processes.         |
| 12 | Not enough core.           |
| 13 | Permission denied.         |
| 14 | Bad address.               |
| 15 | Block device required.     |
| 16 | Mount device busy.         |
| 17 | File exists.               |
| 18 | Cross-device link.         |
| 19 | No such device.            |
| 20 | Not a directory.           |
| 21 | Is a directory.            |
| 22 | Invalid argument.          |
| 23 | File table overflow.       |

SEE PROPRIETARY NOTICE ON COVER PAGE

System Error Code Numbers (continued)

---

| Code(s) | Definition                                                       |
|---------|------------------------------------------------------------------|
| <hr/>   |                                                                  |
| 24      | Too many open files.                                             |
| 25      | Not a typewriter.                                                |
| 26      | Text file busy.                                                  |
| 27      | File too large.                                                  |
| 28      | No space left on device.                                         |
| 29      | Illegal seek.                                                    |
| 30      | Read-only file system.                                           |
| 31      | Too many links.                                                  |
| 32      | Broken pipe.                                                     |
| 33-34   | Not used.                                                        |
| 35      | No message.                                                      |
| 36      | Not allocated.                                                   |
| 37-38   | Not used.                                                        |
| 39      | First access of logical block.                                   |
| 40      | Fmove failed.                                                    |
| 41      | No extents.                                                      |
| 42      | Pathname too long.                                               |
| 43      | No entries left.                                                 |
| 44      | Invalid operation.                                               |
| 45-50   | Not used.                                                        |
| 51      | Message type not recognized.                                     |
| 52      | Cannot find process in process tables.                           |
| 53      | Library file does not exist.                                     |
| 54      | All process slots (DCTEs) are in use (pstart fail).              |
| 55      | Failure to load a kernel process because of insufficient memory. |
| 56      | All sdes are allocated or there is no swap space left.           |
| 57      | Unable to read a pfile or library file.                          |
| 58      | Segment too big for virtual address space available.             |

SEE PROPRIETARY NOTICE ON COVER PAGE

System Error Code Numbers (continued)

| Code(s) | Definition                                           |
|---------|------------------------------------------------------|
| 59      | Cannot add a shared segment to a process.            |
| 60      | Invalid emt value for driver.                        |
| 61      | I/O map error.                                       |
| 62      | Hardware not available (out-of-service or reserved). |
| 63      | Not a pseudo unit.                                   |
| 64      | Pointer not valid.                                   |
| 65      | No mate unit.                                        |
| 66      | Not a legitimate start Unit Control Block.           |
| 67      | Bad equipment ID entry.                              |
| 68      | Bad search level entry.                              |
| 69      | Could not find equipment ID unit.                    |
| 70      | Unit not out-of-service.                             |
| 71      | Unit already reserved.                               |
| 72      | Not idle MDCT entry.                                 |
| 73      | Backup not available.                                |
| 74      | Unit Control Block type incorrect.                   |
| 75      | Not a CU Unit Control Block.                         |
| 76      | Invalid Maintenance Channel order.                   |
| 77      | PCPMD driver busy. Try again later.                  |
| 78      | Micro-assist code in off-line / slave failed.        |
| 79      | Pointer not pointing to a Unit Control Block.        |
| 80      | Invalid PCPMD driver command.                        |
| 81      | Cannot fault the driver.                             |
| 82      | CONFIG program returned a failure.                   |
| 83      | Processor not duplexed.                              |

SEE PROPRIETARY NOTICE ON COVER PAGE

System Error Code Numbers (continued)

| Code(s) | Definition                                                      |
|---------|-----------------------------------------------------------------|
| 84      | Mate processor not active.                                      |
| 85      | Invalid argument.                                               |
| 86      | Maintenance channel hardware error.                             |
| 87      | EXECMCH function did not process expected number of bytes.      |
| 88      | PTIMER kernel function failed.                                  |
| 89      | Read of off-line CU timed out.                                  |
| 90      | Parity error in on-line processor.                              |
| 91      | Parity error in off-line processor.                             |
| 92      | Data is not same in both processors.                            |
| 93      | The on-line processor was specified when off-line was expected. |
| 94      | Stop DMA routine failed.                                        |
| 95      | Start DMA routine failed.                                       |
| 96      | Unequipped Unit Control Block specified or accessed.            |
| 97      | Not a top Unit Control Block.                                   |
| 98      | Named Unit Control Block not found.                             |
| 99      | Bad tab value.                                                  |
| 100-119 | Not used.                                                       |
| 120     | "lla_nsgrid" function failed.                                   |
| 121     | "lla_rdget" function failed.                                    |
| 122     | "lla_uprid" function failed.                                    |
| 123     | "lla_opnsq" function failed.                                    |
| 124     | "lla_attrid" function failed.                                   |
| 125     | "lla_delete" function failed.                                   |
| 126     | "lla_sinfo" function failed.                                    |
| 127     | "lla_get" function failed.                                      |
| 128     | "lla_gtrid" function failed.                                    |

SEE PROPRIETARY NOTICE ON COVER PAGE

ID ..... APP:APPENDIX-03  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

### APPENDIX 3

#### Error Codes Generated By IMSRMVRST Process

**NOTE:** The codes are in decimal.

| Code  | Meaning                              |
|-------|--------------------------------------|
| 1     | Cannot enable message reception.     |
| 2     | recvw function error.                |
| 3     | Cannot open spooler.                 |
| 4     | Cannot open ECD manager.             |
| 5     | Cannot get UCB.                      |
| 6     | UCB not for requested unit.          |
| 7-8   | Not used.                            |
| 9     | Invalid command tag from DIAMON.     |
| 10    | Not used.                            |
| 11    | Sendw function error.                |
| 12    | Cannot set u_tnum in UCB.            |
| 13    | Not used.                            |
| 14    | Cannot set u_manrqst in UCB.         |
| 15    | Not used.                            |
| 16    | Abort request via manual input.      |
| 17    | Sendpw function call error.          |
| 18    | Received illegal instruction signal. |
| 19    | Received bus error signal.           |
| 20    | Received segment violation signal.   |
| 21-22 | Not used.                            |
| 23    | Request to im.state returned fail.   |
| 24    | Np minor state did not get updated.  |
| 25    | Nm minor state did not get updated.  |
| 26    | Ri minor state did not get updated.  |
| 27    | Received _IMS_ABT event.             |

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ID ..... APP:APPENDIX-04  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

#### APPENDIX 4

Error codes Returned to the IMSRMVRST Process  
By The IMS Driver

**NOTE:** The codes are in decimal.

| Code | Meaning                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------|
| -1   | Fail due to driver error.                                                                                |
| -2   | User denied the request.                                                                                 |
| -3   | Driver denied the request.                                                                               |
| -4   | Driver denied the request, invalid input parameter.                                                      |
| -5   | Restore of node failed, however the restore may succeed if attempted again after waiting 1 to 2 minutes. |

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ID ..... APP:APPENDIX-05  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## APPENDIX 5

### Reason For a Remove or Restore Request Being Stopped

**NOTE:** The codes are in decimal.

| Code  | Meaning                                                                                                                                                           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | The diagnostic had failures.                                                                                                                                      |
| 2-3   | Not used.                                                                                                                                                         |
| 4     | The unit is already active.                                                                                                                                       |
| 5     | The unit is already out of service.                                                                                                                               |
| 6     | The unit is off-line.                                                                                                                                             |
| 7     | The unit is unavailable (forced).                                                                                                                                 |
| 8     | The unit is in the INIT state.                                                                                                                                    |
| 9     | The unit is in the GROW state.                                                                                                                                    |
| 10    | Diagnostic was aborted, request denied.                                                                                                                           |
| 11    | The unit is in the UNEQIP state.                                                                                                                                  |
| 12    | The unit is in the STBY state.                                                                                                                                    |
| 13-15 | Not used.                                                                                                                                                         |
| 16    | Node was unable to be configured into the active ring.                                                                                                            |
| 17    | Diagnostic went ATP, but either the RI or NP node minor state (or both) was other than USBL. Verify that the ucb MV field is correct for the node being restored. |
| 18    | Same as 17 except diagnostic went CATP.                                                                                                                           |
| 19    | Diagnostic ran CATP with the ring down, but the NP minor state was not USBL.                                                                                      |

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ID ..... APP:APPENDIX-06  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## APPENDIX 6

### Error Codes Generated in Response to Diagnostic Commands By IMSDRV

**NOTE:** The codes are in hexadecimal notation.

| Code | Definition                                 |
|------|--------------------------------------------|
| 1    | Failed to attach interrupt.                |
| 2    | Failed to detach interrupt.                |
| 3    | Failed to get dma address (getdma failed). |
| 4    | Wrong sequence.                            |
| 5    | Wrong opcode.                              |
| 6    | Wrong node address.                        |
| 7    | Driver not open for diagnostics.           |
| 8    | Failed to open since init is in progress.  |
| 9    | Failed to lock segment.                    |
| A    | Failed diagnostics due to other reasons.   |
| B    | Failed due to time out.                    |
| C    | Fault code received.                       |

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ID ..... APP:APPENDIX-07  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## APPENDIX 7

### Codes Printed in REPT IMSDRV INIT Messages

| Request Code | Definition                                                      |
|--------------|-----------------------------------------------------------------|
| 1            | Normal process start via E_INIT event.                          |
| 2            | Abort requested by user of IMS via event.                       |
| 3            | Abort requested from within IMS via _it_abort().                |
| 4            | UNIX® RTR level 1 initialization (FLT_SINIT received).          |
| 5            | IMS driver faulted by UNIX® RTR, indicating a software problem. |
| 6            | Requested from within IMS via _it_rqinit().                     |
| 7            | Illegal request from within IMS via _it_rqinit().               |
| 8            | Message from user of IMS - min mode not requested.              |
| 9            | Message from user of IMS - min mode requested.                  |
| 10           | Illegal request in message from user of IMS.                    |
| 11           | Phase failed before break and requested IMS abort.              |
| 12           | Phase failed after break and requested IMS abort.               |
| 13           | Unexpected 1B acknowledgement message from user of IMS.         |
| 14           | Program encountered illegal sequence (level) code.              |
| 15           | FPI requested by user via event.                                |
| 16           | Timeout awaiting begin non-critical message from user of IMS.   |
| 17           | Internal software failure requesting IMS abort.                 |

**NOTE:** If more than one code applies, their sum is printed in the message.

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| Escalation Flags | Definition                                                        |
|------------------|-------------------------------------------------------------------|
| X'0000           | No escalation occurred.                                           |
| X'0001           | Too many recent initializations at requested level.               |
| X'0002           | Non-boot initialization requested during initialization or abort. |
| X'0004           | Level 2, 3 or 4 sequence requested when not in boot prologue.     |
| X'0008           | Program bug - reqseq() got illegal sequence (level) code.         |
| X'0010           | Phase failed before break and requested sequence abort.           |
| X'0020           | Program bug - illegal phase termination code before break.        |
| X'0040           | Program bug - couldn't start guard timer.                         |
| X'0080           | Phase requested guard timer recycle, which failed.                |
| X'0100           | Phase failed after break and requested sequence abort.            |
| X'0200           | Program bug - illegal phase termination code after break.         |
| X'0400           | Program bug - phase retry couldn't restart guard timer.           |
| X'0800           | Phase failed and requested retry too many times.                  |
| X'1000           | Phase did not report termination within time limit requested.     |
| X'2000           | Other abort request during initialization.                        |
| X'4000           | No timer for real-time break between phases.                      |
| X'8000           | Non-critical process creations received out of sequence.          |

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| Phase Name | Definition |
|------------|------------|
|------------|------------|

**NOTE:** Each IMS initialization sequence consists of a series of individual initialization phases. The following tables show these phases, in chronological order, for each of the IMS initialization sequences.

\* Phase table for IMS level 0 initialization sequence

|      |                                               |
|------|-----------------------------------------------|
| IMCL | Re-establish driver's RTR timer               |
| ITCT | Ensure initialization timer is stopped        |
| ITAB | Begin breaking after each phase               |
| ITPG | Print generic and release id                  |
| ITSB | Notify user that initialization is starting   |
| ITST | Correct for stimuli lost in starting sequence |
| ITBA | Block all IMS audits                          |
| AUCN | Run audit CNC 1                               |
| AUS1 | Run audit NODEST 1                            |
| CFRF | Refresh ring group and ring summary pages     |
| ITUA | Start unblocking all IMS audits               |
| XXX0 | Spare slot for field update                   |
| XXX1 | Spare slot for field update                   |
| ITAN | Stop breaking after each phase                |
| ITSC | Notify user of initialization complete        |

\* Phase table for IMS level 1B initialization sequence

|      |                                               |
|------|-----------------------------------------------|
| IMCL | Re-establish driver's RTR timer               |
| ITCT | Ensure initialization timer is stopped        |
| RGRS | Ensure ring is stable                         |
| OPRR | Restart RPC DMA channels                      |
| UNH1 | Restart IUN DMA channels, etc.                |
| ITAB | Begin breaking after each phase               |
| ITPG | Print generic and release id                  |
| ITSB | Notify user that initialization is starting   |
| ITST | Correct for stimuli lost in starting sequence |
| ITBA | Block all IMS audits                          |
| RMAM | Abort RPC maintenance activities              |
| AUCN | Run audit CNC 1                               |
| AUS1 | Run audit NODEST 1                            |
| IMNA | Start Node Audit                              |
| CFRF | Refresh ring group and ring summary pages     |
| ITUA | Start unblocking all IMS audits               |
| XXX0 | Spare slot for field update                   |
| XXX1 | Spare slot for field update                   |

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| Phase Name | Definition |
|------------|------------|
|------------|------------|

|      |                                        |
|------|----------------------------------------|
| ITAN | Stop breaking after each phase         |
| ITSC | Notify user of initialization complete |

\* Phase table for IMS level 1B initialization sequence

|      |                                                       |
|------|-------------------------------------------------------|
| IMCL | Re-establish driver's RTR timer                       |
| ITCT | Ensure initialization timer is stopped                |
| RGRS | Ensure ring is stable                                 |
| OPOF | Cancel message switch periodic timer                  |
| ITBA | Block all IMS audits                                  |
| ITAB | Begin breaking after each phase                       |
| ITPG | Print generic and release id                          |
| ITSB | Stop user access to message switch in 3B              |
| OPIN | All message switch data initialization                |
| RMRS | Abort RPC maintenance activities, restart RPCs        |
| OPON | Restart message switch periodic timer                 |
| RGDA | Ring data initialization ring audit                   |
| RMAR | Clean up RPC initialization after ring initialization |
| UNH1 | Restart IUN DMA channels, etc.                        |
| IMNA | Start Node Audit                                      |
| CFRF | Refresh ring group and ring summary pages             |
| ITUA | Start unblocking all IMS audits                       |
| XXX0 | Spare slot for field update                           |
| XXX1 | Spare slot for field update                           |
| ITAN | Stop breaking after each phase                        |
| ITSC | Notify user of initialization complete                |

\* Phase table for IMS boot and FPI prologue initialization sequence

|      |                                                |
|------|------------------------------------------------|
| IMFU | Initialize IMS field update system             |
| IMSP | Node bit map, ring maintenance status, etc.    |
| IMCL | Initialize all driver timing and gearshift     |
| RMDT | RPC maintenance data init                      |
| RMD0 | Mark DLN data not ready                        |
| IMKF | Clear history of DMERT faults handled          |
| ITPC | Clear process creation table                   |
| OPAB | Message switch abort                           |
| RGCH | Clear deferrable ring configuration job tables |
| IMDM | UNIX® RTR message receiver, attach to port     |
| NPPD | Indicate NP pumper inaccessible                |
| NPRI | Node recovery monitor set inhibit flag         |
| IMEA | Automatic ring fault recovery                  |
| DBAE | Attach driver to ECD                           |

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| Phase Name | Definition                                                     |
|------------|----------------------------------------------------------------|
| NPCC       | CNC restore job queues                                         |
| ITDI       | Monitor DIOP status                                            |
| XXX0       | Spare slot for field update                                    |
| XXX1       | Spare slot for field update                                    |
| CFRF       | Write display page indicators                                  |
| ITAB       | Begin breaking after each phase                                |
| ITSU       | Suspend other IMS processes                                    |
| TRTR       | If tdcg not running, add to automatic creation / recovery list |
| ITBA       | Block all IMS audits                                           |
| ITSB       | Ask user which boot level                                      |

\* Phase table for IMS level 2 initialization sequence

|      |                               |
|------|-------------------------------|
| ITL2 | Invoke level 3 initialization |
|------|-------------------------------|

\* Phase table for IMS level 3 initialization sequence

|      |                                                           |
|------|-----------------------------------------------------------|
| ITCT | Ensure initialization timer is stopped                    |
| ITAB | Begin breaking after each phase                           |
| CFIT | Write display page to LVL3 INIT                           |
| DBIN | Initialize internal database from ECD                     |
| RMD1 | Initialize DLN DMA data                                   |
| RGDT | Ring data initialization                                  |
| ARCD | Application Redundancy Control (ARC) data                 |
| MESG | Generate data structures for measurements                 |
| NPLD | Initialize 3BWRT data                                     |
| UNDT | IUN maintenance data in 3B                                |
| OPIN | Message switch data initialization                        |
| PERF | Performance measurements of IMS driver                    |
| IMPA | Open _MTCE channel - r / w IMS maintenance messages       |
| IMIL | Open _DFLT channel - rcv source match copies, etc.        |
| RMLF | Initialize IMS load factor table                          |
| RMIN | Restart OOS RPCs (if all fail request npp.p, UCL restore) |
| RGRI | Ring initialization                                       |
| RMAR | Clean up RPC initialization after ring initialization     |
| RGSM | Set non OOS IUN minor states                              |
| UNH3 | Check IUN hardware, update states                         |
| RGIS | Initialize isolated nodes states                          |
| RGBI | Deal with BISO / EISO nodes if inactive                   |
| IMSN | Notify AIM node states known                              |
| IMSM | Start measurements on OOS nodes                           |
| TRMR | Set message switch ready flag for TRACE                   |
| NPHB | Node recovery monitor start heartbeat timer               |

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| Phase Name | Definition                              |
|------------|-----------------------------------------|
| IMNA       | Start Node Audit                        |
| ITUA       | Start unblocking all IMS audits         |
| IMCL       | Cease requiring high gear due to boot   |
| NPNR       | Adjust the pump rate for 3BWRT          |
| IMFU       | Start field update system               |
| XXX0       | Spare slot for field update             |
| XXX1       | Spare slot for field update             |
| ITAN       | Stop breaking after each phase          |
| ITSC       | Notify user of initialization complete  |
| CFCC       | Write display page to CRIT SEQ complete |

\* Phase table for IMS level 4 initialization sequence

|      |                                                       |
|------|-------------------------------------------------------|
| ITCT | Ensure initialization timer is stopped                |
| ITAB | Begin breaking after each phase                       |
| CFIT | Write display page to LVL4 INIT                       |
| DBIN | Initialize internal database from ECD                 |
| RMD1 | Initialize DLN DMA data                               |
| RGDT | Ring data initialization                              |
| ARCD | Application Redundancy Control (ARC) data             |
| RGID | IUN test data initialization                          |
| MESG | Generate data structures for measurements             |
| NPLD | Initialize 3BWRT data                                 |
| UNDT | IUN maintenance data in 3B                            |
| OPIN | Message switch data initialization                    |
| PERF | Performance measurements of IMS driver                |
| IMPA | Open _MTCE channel - r/w IMS maintenance messages     |
| IMIL | Open _DFLT channel - rcv source match copies, etc.    |
| RMLF | Initialize IMS load factor table                      |
| NPPC | Add npp.p to automatic creation/recovery list         |
| RMIN | Restore all OOS RPCs without diagnostics              |
| RGRI | Ring initialization                                   |
| RMAR | Clean up RPC initialization after ring initialization |
| RGTI | Test IUN communications                               |
| IMSN | Notify AIM node states known                          |
| UNH4 | UCL restore IUNs by generic                           |
| RGIS | Initialize isolated nodes states                      |
| RGBI | Deal with BISO/EISO nodes if inactive                 |
| IMSM | Start measurements on OOS nodes                       |
| ITMW | Start periodic min-mode warning                       |
| TRMR | Set message switch ready flag for TRACE               |
| NPHB | Node recovery monitor start heartbeat timer           |
| IMNA | Start Node Audit                                      |

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| Phase Name | Definition                              |
|------------|-----------------------------------------|
| ITUA       | Start unblocking all IMS audits         |
| IMCL       | Cease requiring high gear due to boot   |
| NPNR       | Adjust the pump rate for 3BWRT          |
| IMFU       | Start field update system               |
| XXX0       | Spare slot for field update             |
| XXX1       | Spare slot for field update             |
| ITAN       | Stop breaking after each phase          |
| ITSC       | Notify user of initialization complete  |
| CFCC       | Write display page to CRIT SEQ complete |

\* Phase table for IMS Non-Critical Process Creations sequence

|      |                                                                   |
|------|-------------------------------------------------------------------|
| ITCT | Ensure initialization timer is stopped                            |
| ITST | Correct for stimuli lost in starting sequence                     |
| CFRT | Add imsrts.p to automatic creation / recovery list                |
| MECR | Add msdc.p to automatic creation / recovery list                  |
| NPPC | If not done, add npp.p to automatic creation / recovery list      |
| CRTM | Add op_rtm.p to automatic creation / recovery list                |
| ITPG | Print generic and release id                                      |
| XXX0 | Spare slot for field update                                       |
| XXX1 | Spare slot for field update                                       |
| ITLP | All permanent processes are on automatic creation / recovery list |
| ITTT | Terminate transient IMS processes                                 |

\* Phase table for IMS abort sequence

|      |                                                 |
|------|-------------------------------------------------|
| IMCL | Initialize all driver timing and gearshift      |
| ITAG | Start master guard timer for abort              |
| TRMN | Reset message switch ready flag for TRACE       |
| ITPG | Print generic and release id                    |
| OPAB | Message switch abort                            |
| ITAB | Begin breaking after each phase                 |
| NPRA | Node recovery monitor                           |
| RMAB | RPC.MTCE abort                                  |
| UNAB | Shutdown IUN DMA                                |
| CFRF | Write display page indicators                   |
| XXX0 | Spare slot for field update                     |
| XXX1 | Spare slot for field update                     |
| ITAN | Stop breaking after each phase                  |
| ITTE | Terminate most processes, send events to others |

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| Failure Code | Definition                                                                                                             |
|--------------|------------------------------------------------------------------------------------------------------------------------|
| 0            | Sequence was not started - startseq() failed.                                                                          |
| 1            | Phase failed before break and requested sequence abort.                                                                |
| 2            | Phase failed before break and requested IMS abort                                                                      |
| 3            | Phase failed before break and requested UNIX® RTR boot.                                                                |
| 4            | Program bug - illegal phase termination code before break.                                                             |
| 5            | Program bug - couldn't start guard timer.                                                                              |
| 6            | Program bug - requested guard timer recycle couldn't cancel timer.                                                     |
| 7            | Program bug - requested guard timer recycle couldn't restart timer.                                                    |
| 8            | Phase requested guard timer recycle too many times.                                                                    |
| 9            | Phase failed after break and requested sequence abort.                                                                 |
| 10           | Phase failed after break and requested IMS abort.                                                                      |
| 11           | Phase failed after break and requested UNIX® RTR boot.                                                                 |
| 12           | Program bug - illegal phase termination code after break.                                                              |
| 13           | Phase did not report termination within time limit requested.                                                          |
| 14           | The user of IMS was not found (not attached to its port, etc.)                                                         |
| 15           | Program bug - phase retry couldn't start pause timer.                                                                  |
| 16           | Phase failed and requested retry too many times.                                                                       |
| 17           | Escalation due to request (see request code of the next such message which indicates that a new sequence has started). |
| 18           | No timer for real-time break between phases.                                                                           |

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ID ..... APP:APPENDIX-08  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,IMS  
TYPE ..... Output

## APPENDIX 8

### BI Status Word

| Bit   | Description              |
|-------|--------------------------|
| 00    | Parity Error Byte 4      |
| 01    | Parity Error Byte 1      |
| 02    | Parity Error Byte 2      |
| 03    | Parity Error Byte 3      |
| 04    | EOT Error                |
| 05    | FIFO Access Error        |
| 06    | FIFO Overflow            |
| 07    | Command Overflow         |
| 08-14 | Data FIFO Count          |
| 15    | DFLAG                    |
| 16-23 | NP Message Register      |
| 24    | NP Sane                  |
| 25    | Command Available        |
| 26    | DMA Mode                 |
| 27    | DMA Direction            |
| 28    | End of Transfer Expected |
| 29    | Interrupt Request        |
| 30    | Transfer Request         |
| 31    | Setup Request            |

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ID ..... APP:APPENDIX-09  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

APPENDIX 9

Destination Classes for Use with Input Messages

| DESTINATION<br>NUMBER | LOCATION             | DEVICE NAME<br>IN THE ECD |
|-----------------------|----------------------|---------------------------|
| 37                    | MCRT<br>MROP         | ttya<br>rop0              |
| 96                    | MCRT<br>MROP<br>SCCS | ttya<br>rop0<br>ttyz      |
| 140                   | NESAC<br>SCCS (VC7)  | ttyy                      |
| 141                   | SCCS                 | ttyz                      |
| 142                   | MROP                 | rop0                      |
| 143                   | NESAC<br>SCCS        | ttyy<br>ttyz              |
| 144                   | NESAC<br>MROP        | ttyy<br>rop0              |

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ID ..... APP:APPENDIX-10  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## APPENDIX 10

A REPT:MON-SLK message is output when the monitor has been turned on by the MON:SLK input command and an event selected for monitoring and associated with a signaling link or node has occurred. When the monitor for this particular event is on, the stimuli will be reported. When the monitor is off, new events that occur will not generate a REPT:MON-SLK output message.

The Events Mask specified in the MON:SLK input command defines the kinds of link/node-related and/or internal state change-related events that can be reported by REPT:MON-SLK messages. The input document for the input command list and define the Events Masks. These are hexadecimal values. Events Masks for specific needs may be formed by "oring" the Events Mask values. The default Events Mask for MON:SLK is 4cde7f. The table that appears later in this appendix specifies for each Events Mask the events that will be reported and a possible location of the trouble (if determinate) that caused the generation of the output message.

The input document for the input command include instructions for turning on or off the link monitor for a specific link or node.

\*\*\*\*\*

**CAUTION:** Because the use of the link monitor can result in large amounts of output, some caution should be exercised when using the MON:SLK capability. System availability may be affected.

\*\*\*\*\*

When using the monitor for areas not covered by the default Events Mask, particular caution should be exercised. For example, Events Mask 00001 requests that a REPT:MON-SLK message be output each time the 3B20D/3B21D computer receives input associated with a ring node event. From the table in this appendix, you can see that when Events Mask 00001 is requested, some of the following events will be reported:

- Conditional Node Removal
- Data Pump Complete
- Node Removed
- Node Initialized
- Node IMS IS From MSN
- Node IMS OOS From MSN

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- CNI,Removal Allowed
- CNI,Removal Denied, Link In-Service

When analyzing monitor outputs, keep in mind that single events in isolation usually do not give the complete picture of what is going on in either the link or the node or the network. To fully understand what is taking place, some understanding of both the internal software structure and various protocols is helpful.

Link/node monitor output, REPT:MON-SLK, may contain fields a b c d e f g. The output document for this message explains the use of each field. The Event Description column of the table in this appendix shows what may appear in variable field f, which contains the output text that describes the event that has caused the output message. The following paragraphs describe the information contained in each column of the table. On each page of the table, the Events Mask that requests the generation of an output message when any of the events shown in the Event Description column occurs.

**Event Description Column:** For each Events Mask, this column lists the events that will be reported by a REPT:MON-SLK message. Each event relates to a link, node or internal state change occurrence that was processed by the 3B20D/3B21D computer. This column is the output text that describes the event. For some events, the output text includes variable data fields. For example, for Events Mask 00040, the output message for event CCS7 Changeback Acknowledgement (CBA) contains data items b, c, and d, which identify the incoming Ring Node Address (RNA), Originating Point Code (OPC), and Signaling Link Code (SLC), respectively.

Where data fields are included in the event text:

|    |                                                                                                          |
|----|----------------------------------------------------------------------------------------------------------|
| a  | CCS6 band number.                                                                                        |
| b  | Incoming node identification in group-member number format.                                              |
| c  | Concerned Point Code (CPC), Destination Point Code (DPC), or Originating Point Code (OPC) (hexadecimal). |
| d  | Signaling Link Code (SLC).                                                                               |
| e  | Congestion level.                                                                                        |
| f  | Invalid node type.                                                                                       |
| g  | Node ring node address (RNA).                                                                            |
| h  | Digital signal zero (DS0) control code.                                                                  |
| xx | Link state numbers.                                                                                      |
| yy | Link events.                                                                                             |

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Possible Trouble Location Column: For each event shown in the Event Description column, this column shows a possible reason (if determinate) for the event. For example, an entry of "Near-End" usually means a near-end problem; however sometimes the trouble can be caused by the other end of the link. Note that diagnostics are the primary tool for troubleshooting. Link monitor output may provide assistance in troubleshooting; however the capability to use this output to pinpoint a trouble location is limited. The entries shown in this column are defined as:

|                   |                                                                                                                                                                                                                                                                                                                            |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Facility:         | The trouble associated with this report is outside of the ring hardware. Along with a facility problem the trouble could be in the Channel Service Unit / digital Service Unit (CSU / DSU), T1 Facility Access (T1FA), TF5, TF7, or all the cabling to the LI. Any of the facility equipment should be considered suspect. |
| Far-End:          | The trouble associated with this report is most likely the result of an abnormality at the distant end of the link.                                                                                                                                                                                                        |
| Indeterminate:    | The trouble associated with this report could be at either the Far-End or Near-End, or, as in the case of Digital Signal Zero A (DS0-A) control codes, anywhere in between the two ends.                                                                                                                                   |
| Information only: | This report is output for information only.                                                                                                                                                                                                                                                                                |
| Near-End:         | The trouble associated with this report is likely the result of a local hardware or software difficulty.                                                                                                                                                                                                                   |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00001

| Event Description                                 | Possible Trouble Location |
|---------------------------------------------------|---------------------------|
| APPLICATION ALLOWED REMOVAL,AFTER TIMEOUT         | Indeterminate             |
| APPLICATION ALLOWED REMOVAL                       | Indeterminate             |
| CNI, REMOVAL ALLOWED                              | Indeterminate             |
| CNI, REMOVAL DENIED, LINK IN-SERVICE              | Indeterminate             |
| CONDITIONAL NODE REMOVAL                          | Indeterminate             |
| CONDITIONAL REMOVAL ALLOWED                       | Indeterminate             |
| DATA PUMP COMPLETE                                | Information Only          |
| DATA PUMP FAILED                                  | Information Only          |
| DECLARED FAILURE, PARTIAL DIAGNOSTICS REQUESTED   | Information Only          |
| FIRST ALIVE MSG TIMEOUT                           | Information Only          |
| INIT, SKIPPED NODE OOS                            | Indeterminate             |
| INIT, SKIPPED NODE RECOVERY IN PROGRESS           | Indeterminate             |
| INIT, SKIPPED DATA PUMP FAILED                    | Indeterminate             |
| INIT, SKIPPED DATA PUMP PENDING                   | Indeterminate             |
| INIT, SKIPPED DATA PUMP IN PROGRESS               | Indeterminate             |
| INIT, CNI DATA PUMPED, AWAIT USER                 | Indeterminate             |
| INIT, LINK ACTIVATION STARTED                     | Indeterminate             |
| NODE DATA DOES NOT AGREE WITH NODE SOFTWARE       | Information Only          |
| NODE INITIALIZED                                  | Information Only          |
| NODE IMS IS FROM MSN                              | Information Only          |
| NODE IMS OOS FROM MSN                             | Information Only          |
| NODE LOAD INCORRECT cLNODETYPE=f, NODE REPORTED g | Information Only          |
| NODE REMOVED                                      | Indeterminate             |
| NODE REPORTS 3B DOWNR                             | Indeterminate             |
| NODE REQUEST TIMEOUT                              | Indeterminate             |
| NODE REMOVED FROM MSN                             | Near-End                  |
| NODE RESTORED                                     | Information Only          |
| NODE RESTORED FROM MSN                            | Information Only          |
| RECENT CHANGE REQUEST                             | Indeterminate             |
| REMOVAL ALLOWED                                   | Indeterminate             |
| REMOVAL DENIED BY APPLICATION                     | Near-End                  |
| SECOND ALIVE MSG TIMEOUT                          | Information Only          |
| START CRITICAL NODE RECOVERY                      | Information Only          |
| TIMEOUT AWAITING CLALIVE MSG                      | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00001 (continued)

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| Event Description                       | Possible Trouble Location |
|-----------------------------------------|---------------------------|
| CRITICAL NODE RECOVERY SUCCESSFUL       | Information Only          |
| CRITICAL NODE RECOVERY FAILED           | Information Only          |
| START CRITICAL NODE RECOVERY            | Information Only          |
| INIT/RESTORAL TIMER RESTART             | Indeterminate             |
| INIT/RESTORAL TIMER TIMEOUT             | Indeterminate             |
| NODE AUDIT EVENT                        | Indeterminate             |
| NODE REMOVED FROM MSN                   | Indeterminate             |
| NODE RESTORED FROM MSN                  | Indeterminate             |
| UNRECOGNIZED SLM MSG TYPE               | Indeterminate             |
| AUTOMATIC LINK CHECK PASSED             | Information Only          |
| NODE OOS, AUTOMATIC LINK CHECK BYPASSED | Near-End                  |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00002

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| Event Description              | Possible Trouble Location |
|--------------------------------|---------------------------|
| BLOCKED                        | Near-End                  |
| CNI MAINTENANCE COMPLAINT      | Near-End                  |
| CONTINUOUS LINK CONGESTION     | Near-End                  |
| CONTINUOUS PSC                 | Near-End                  |
| COV                            | Indeterminate             |
| DIAGNOSTIC DELAY TIMER EXPIRED | Information Only          |
| EMERGENCY REQUESTED            | Information Only          |
| FAR-END PRO                    | Far-End                   |
| LBO                            | Facility                  |
| LEVEL 2 DEMAND RESTART         | Information Only          |
| LI COMATOSE                    | Near-End                  |
| LI WRITE FAILURE               | Near-End                  |
| LINK ACTIVATE RETURNED         | Near-End                  |
| LOST SYNC                      | Near-End                  |
| MAINTENANCE CNI FAILURE        | Near-End                  |
| MAINTENANCE IMS FAILURE        | Near-End                  |
| MAINTENANCE RING FAILURE       | Near-End                  |
| MAINTENANCE TIMER EXPIRED      | Information Only          |
| NEAR-END PRO                   | Near-End                  |
| STOP PRO RETURNED              | Near-End                  |
| UNKNOWN FAILURE TYPE           | Indeterminate             |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00004

| Event Description                          | Possible Trouble Location |
|--------------------------------------------|---------------------------|
| 2/3 BAD BACKWARD SEQUENCE NUMBERS RECEIVED | Indeterminate             |
| 2/3 BAD FORWARD INDICATOR BITS RECEIVED    | Indeterminate             |
| ALIGNMENT ERROR RATE THRESHOLD EXCEEDED    | Facility                  |
| ALIGNMENT GUARD TIMER, T1 EXPIRED          | Indeterminate             |
| ALIGNMENT NOT POSSIBLE, T2 EXPIRED         | Indeterminate             |
| ALIGNMENT NOT POSSIBLE, T3 EXPIRED         | Indeterminate             |
| BAD START PARAMETERS                       | Near-End                  |
| BOUNCING FE SIPO                           | Far-End                   |
| BSNT RECEIVED                              | Information Only          |
| CCS7 COA/ECA TIMER EXPIRED                 | Indeterminate             |
| CCS7: SIPOS SENT FOR INIT                  | Near-End                  |
| CCS7: SIPOS SENT FOR ISUP DOWN             | Near-End                  |
| CONGESTION GUARD TIMER EXPIRED             | Indeterminate             |
| DIAGNOSTIC DELAY TIMER EXPIRED             | Information Only          |
| EMERGENCY REQUESTED                        | Information Only          |
| ENC ALL ONES KEY                           | Near-End                  |
| ENC CANNOT GENERATE AUDIT DATA             | Near-End                  |
| ENC CANNOT INIT ENCRYPTION                 | Near-End                  |
| ENC CANNOT PROCESS PUBKEY                  | Indeterminate             |
| ENC CANNOT START                           | Near-End                  |
| ENC DES KEY ALL ZERO                       | Indeterminate             |
| ENC DES TEST FAILED                        | Indeterminate             |
| ENC ERROR THRESHOLD EXCEEDED               | Facility                  |
| BAD START PARAMETER PASSED FROM NP TO LI   | Near-End                  |
| LEVEL 2 NOT STARTED IN TIME                | Near-End                  |
| EXCESSIVE RCV BUFFER CONGESTION            | Near-End                  |
| ENC KEY EQUALS ONE                         | Near-End                  |
| ENC LAPB CANNOT EXECUTE                    | Near-End                  |
| ENC LINK STUCK AT ZERO                     | Near-End                  |
| ENC NO SYNC REPORT FROM KEY EXCHANGE       | Indeterminate             |
| ENC NULL KEY GENERATED                     | Near-End                  |
| ENC RANDOM NUMBER GENERATION FAILED        | Near-End                  |
| ENC STREAM CHECK FAILED                    | Indeterminate             |
| ENC TRANSMIT BUFFER TOO SMALL              | Near-End                  |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00004 (continued)

| Event Description                            | Possible Trouble Location |
|----------------------------------------------|---------------------------|
| ENC UNEXPECTED MESSAGES IN LONG KEY          | Indeterminate             |
| ENC UNEXPECTED MESSAGES IN SHORT KEY         | Indeterminate             |
| EXCESSIVE ACKNOWLEDGEMENT TIMER EXCEEDED     | Indeterminate             |
| FAR-END PRO                                  | Far-End                   |
| FAR-END PRO RECOVERED, NEAR END SENDING SIPO | Information Only          |
| INVALID TRANSMIT FRAME SIZE                  | Near-End                  |
| LEVEL 2 DEMAND RESTART                       | Information Only          |
| LEVEL 2 RESTART DUE TO BAD NP PRO STATE      | Near-End                  |
| LI COMATOSE                                  | Near-End                  |
| LI DETECTED IDLE CODE                        | Near-End                  |
| LI ILLEGAL INTERRUPT DETECTED                | Near-End                  |
| LI INVALID INTERNAL STATE TRANSITION         | Near-End                  |
| LI PARITY CHECKING CIRCUIT FAILED            | Near-End                  |
| LI PARITY ERROR DETECTED                     | Near-End                  |
| LI PROCESSOR FAILED                          | Near-End                  |
| LI SUM CHECK ERROR                           | Near-End                  |
| LSSU RECEIVED WITH SIO, SIOS, SIN, SIE       | Indeterminate             |
| MAINTENANCE TIMER EXPIRED                    | Information Only          |
| NEAR-END PRO                                 | Near-End                  |
| NODE SILENT                                  | Near-End                  |
| NULL POINTER FOUND IN RE_XMIT QUEUE          | Near-End                  |
| RECEIVER LINK FAILURE                        | Indeterminate             |
| REMOTE CHANGEOVER REMINDER                   | Information Only          |
| RETRIEVAL COMPLETE                           | Information Only          |
| STOP/START COMMAND REFUSED                   | Near-End                  |
| SU ERROR RATE MONITOR THRESHOLD EXCEEDED     | Facility                  |
| Q707 T2 TIMEOUT                              | Indeterminate             |
| UNEXPECTED SIE RECEIVED                      | Indeterminate             |
| UNEXPECTED SIN RECEIVED                      | Indeterminate             |
| UNEXPECTED SIO RECEIVED                      | Indeterminate             |
| DS0-A COMPOSITE CLOCK FAILURE                | Near-End                  |
| LOCAL LOOP_BACK TEST FAILURE                 | Near-End                  |
| LOCAL LOOP_BACK TEST PASSED                  | Information Only          |
| ALL ONES RECEIVED ON LINK                    | Indeterminate             |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00004 (continued)

| Event Description                                   | Possible Trouble Location |
|-----------------------------------------------------|---------------------------|
| SUERM EXCEEDED DUE TO OCTET COUNTING MODE           | Indeterminate             |
| DSU RLSD LEAD INDICATES VALID DATA NOT RECEIVED     | Near-End                  |
| L2 NOT READY FOR DATA RETRIEVAL                     | Near-End                  |
| TIMED OUT WAITING FOR LI DATA RETRIEVAL READY       | Near-End                  |
| UNKNOWN FAILURE                                     | Near-End                  |
| EIM ERROR RATE MONITOR THRESHOLD EXCEEDED           | Indeterminate             |
| SIO/SIOS RECEIVED DURING INITIAL ALIGNMENT          | Indeterminate             |
| SIO/SIOS RECEIVED; LSC ALIGNMENT READY              | Indeterminate             |
| SIO/SIOS RECEIVED; LSC ALIGNMENT NOT READY          | Indeterminate             |
| SIO/SIOS RECEIVED; LSC IN SERVICE                   | Indeterminate             |
| SIO/SIOS RECEIVED; LSC PROCESSOR OUTAGE             | Indeterminate             |
| SIN/SIE RECEIVED; LSC IN SERVICE                    | Indeterminate             |
| SIN/SIE RECEIVED; LSC PROCESSOR OUTAGE              | Indeterminate             |
| MTPL2 INTERNAL EVENTQ OVERFLOW                      | Near End                  |
| MTPL2 INVALID INTERNAL EVENT                        | Near End                  |
| MTPL2 INVALID INTERNAL STATE                        | Near End                  |
| MTPL2 GET FROM TRANSMIT BUFFER FAILED               | Near End                  |
| MTPL2 GET FROM RETRANSMIT BUFFER FAILED             | Near End                  |
| MTPL2 ERASE FROM RETRANSMIT BUFFER FAILED           | Near End                  |
| MTPL2 BAD MSU                                       | Near End                  |
| LNC DETECTED DEAD LINK PROCESSOR                    | Near End                  |
| MTPL2 TRANSMIT BUFFER OVERFLOW                      | Near End                  |
| MTPL2 RETRANSMIT BUFFER OVERFLOW                    | Near End                  |
| MTPL2 FAILED FOR NO KNOWN REASON                    | Near End                  |
| START PARAMETERS TO L2 FAILED - BAD MSG SIZE        | Near End                  |
| START PARAMETERS TO L2 FAILED - NO BUFFERS          | Near End                  |
| START PARAMETERS TO L2 FAILED - L2 COMPONENT FAILED | Near End                  |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00008

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| Event Description          | Possible Trouble Location |
|----------------------------|---------------------------|
| 3B INITIALIZING            | Information Only          |
| CCS6 ELT/LTR TIMER EXPIRED | Information Only          |
| CCS6 ESU TIMER EXPIRED     | Information Only          |
| EMERGENCY REMOVED          | Information Only          |
| FAR-END PSC ENDED          | Information Only          |
| LEVEL 2 ACTIVE             | Information Only          |
| LEVEL 3 RECOVERY COMPLETE  | Information Only          |
| LEVEL 3 RECOVERY STARTED   | Information Only          |
| LINK ACTIVATE RETURNED     | Information Only          |
| LONG KEY EXCHANGE STARTED  | Information Only          |
| LONG KEY ON PIC            | Information Only          |
| MINOR CHANGE REQUESTED     | Information Only          |
| NODE INITIALIZED           | Information Only          |
| STOP PRO RETURNED          | Near-End                  |
| TIMEOUT UNKNOWN ENCSTATE   | Near-End                  |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00010

| Event Description                                       | Possible Trouble Location |
|---------------------------------------------------------|---------------------------|
| 3B INITIALIZING                                         | Information Only          |
| APPL COMPLETE, CONTINUE LINK RECOVERY                   | Information Only          |
| CCS7 CBA TIMER EXPIRED                                  | Information Only          |
| EMERGENCY REMOVED                                       | Information Only          |
| LEVEL 3 RECOVERY COMPLETE                               | Information Only          |
| LEVEL 3 RECOVERY STARTED                                | Information Only          |
| LONG KEY EXCHANGE STARTED                               | Information Only          |
| MINOR CHANGE REQUESTED                                  | Information Only          |
| MUTUAL PROVE-IN COMPLETE                                | Information Only          |
| NODE INITIALIZED                                        | Information Only          |
| OPERATING IN ENCRYPTED MODE                             | Information Only          |
| PSLT TIMER EXPIRED                                      | Indeterminate             |
| RECEIVED SLTM DISCARDED, NOT IN AVAILABLE STATE         | Indeterminate             |
| SLT COMPLETE                                            | Information Only          |
| SLT FAILURE                                             | Indeterminate             |
| SLTA FAILURE, DPC=c RECEIVED, EXPECTED=c                | Indeterminate             |
| SLTA FAILURE, EXPECTED TEST PATTERN NOT RECEIVED        | Indeterminate             |
| SLTA FAILURE, LENGTH INDICATOR=d RECEIVED, EXPECTED=d   | Indeterminate             |
| SLTA FAILURE, OPC=c RECEIVED, EXPECTED=c                | Indeterminate             |
| SLTA FAILURE, SLC=d RECEIVED, EXPECTED=d                | Indeterminate             |
| SLTA TIMER EXPIRED                                      | Indeterminate             |
| SLTA WARNING: 'SLTCHK OFF' AND LINK APPEARS SELF LOOPED | Indeterminate             |
| SLTA WARNING: 'SLTCHK OFF' YET LINK IS NOT SELF LOOPED  | Indeterminate             |
| SLTA, OPC=c, DPC=c, SLC=d                               | Information Only          |
| SLTM FAILURE, DPC=c RECEIVED, EXPECTED=c                | Indeterminate             |
| SLTM FAILURE, OPC=c RECEIVED, EXPECTED=c                | Indeterminate             |
| SLTM FAILURE, SLC=d RECEIVED, EXPECTED=d                | Indeterminate             |
| SLTM, OPC=c, DPC=c, SLC=d                               | Information Only          |

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**Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test**

Events Mask 00020

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| Event Description                                   | Possible Trouble Location |
|-----------------------------------------------------|---------------------------|
| CCS6 ELT                                            | Information Only          |
| CCS6 ELTs/LTRs - NOT SENT, LINK APPEARS SELF-LOOPED | Near-End                  |
| CCS6 ELTs/LTRs - SENT, BUT LINK APPEARS SELF-LOOPED | Near-End                  |
| CCS6 ESU                                            | Information Only          |
| CCS6 LTA                                            | Information Only          |
| CCS6 LTA - NOT SENT, LINK APPEARS SELF-LOOPED       | Near-End                  |
| CCS6 LTA - SENT, BUT LINK APPEARS SELF-LOOPED       | Near-End                  |
| CCS6 LTR                                            | Information Only          |
| CCS6 MCO                                            | Information Only          |
| CCS6 MCOA                                           | Information Only          |
| CCS6 PSC                                            | Information Only          |
| CCS6 RAB                                            | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00040

| Event Description                     | Possible Trouble Location |
|---------------------------------------|---------------------------|
| CCS7 CBA, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 CBD, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 COA, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 COO, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 ECA, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 ECO, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 LFU, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 LIA, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 LID, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 LIN, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 LUA, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 LUN, IN RNA=b, OPC=c, SLC=d      | Information Only          |
| CCS7 RCT, OPC=c, DPC=c                | Information Only          |
| CCS7 TFC, CPC=c, OPC=c, DPC=c, CONG=e | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00080

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| Event Description | Possible Trouble Location |
|-------------------|---------------------------|
| CCS6 TFA BAND=a   | Information Only          |
| CCS6 TFP BAND=a   | Information Only          |
| CCS6 TFR BAND=a   | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00100

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| Event Description             | Possible Trouble Location |
|-------------------------------|---------------------------|
| CCS7 TCA, CPC=c, OPC=c, DPC=c | Information Only          |
| CCS7 TCP, CPC=c, OPC=c, DPC=c | Information Only          |
| CCS7 TCR, CPC=c, OPC=c, DPC=c | Information Only          |
| CCS7 TFA, CPC=c, OPC=c, DPC=c | Information Only          |
| CCS7 TFP, CPC=c, OPC=c, DPC=c | Information Only          |
| CCS7 TFR, CPC=c, OPC=c, DPC=c | Information Only          |

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**Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test**

Events Mask 00200

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| Event Description                                       | Possible Trouble Location |
|---------------------------------------------------------|---------------------------|
| CCS6 ELTs/LTRs - NOT SENT, LINK APPEARS SELF-LOOPED     | Near-End                  |
| CCS6 ELTs/LTRs - SENT, BUT LINK APPEARS SELF-LOOPED     | Near-End                  |
| CCS6 LTA - NOT SENT, LINK APPEARS SELF-LOOPED           | Near-End                  |
| CCS6 LTA - SENT, BUT LINK APPEARS SELF-LOOPED           | Near-End                  |
| SLTA WARNING: 'SLTCHK OFF' AND LINK APPEARS SELF LOOPED | Indeterminate             |
| SLTA WARNING: 'SLTCHK OFF' YET LINK IS NOT SELF LOOPED  | Indeterminate             |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 00400

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| Event Description                   | Possible Trouble Location |
|-------------------------------------|---------------------------|
| CCS6 ELT                            | Information Only          |
| CCS6 FAR-END MCO TIMER EXPIRED      | Information Only          |
| CCS6 LTA                            | Information Only          |
| CCS6 LTR                            | Information Only          |
| CCS6 MCO                            | Information Only          |
| CCS6 MCOA                           | Information Only          |
| CCS6 NEAR-END MCO TIMER EXPIRED     | Information Only          |
| CCS7 FAR-END INHIBIT TIMER EXPIRED  | Information Only          |
| CCS7 LFU                            | Information Only          |
| CCS7 LIA                            | Information Only          |
| CCS7 LID                            | Information Only          |
| CCS7 LIN                            | Information Only          |
| CCS7 LUA                            | Information Only          |
| CCS7 LUN                            | Information Only          |
| CCS7 NEAR-END INHIBIT TIMER EXPIRED | Information Only          |
| CCS7 UNINHIBIT TIMER EXPIRED        | Information Only          |
| MINOR CHANGE REQUESTED              | Information Only          |
| NEAR/FAR END MCO ACCEPTED           | Information Only          |
| NEAR/FAR END MCO REFUSED            | Indeterminate             |
| NEAR/FAR END MI ACCEPTED            | Information Only          |
| NEAR/FAR END MI REFUSED             | Indeterminate             |

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**Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test**

Events Mask 00800

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| Event Description              | Possible Trouble Location |
|--------------------------------|---------------------------|
| AUDIT DATA RECEIVED            | Information Only          |
| CONNECT TO MAINTENANCE REQUEST | Information Only          |
| CONNECT TO VAT1 REQUEST        | Information Only          |
| DISCONNECT FROM MAINTENANCE    | Information Only          |
| DISCONNECT FROM VAT1           | Information Only          |
| DISCONNECT VFL RETURNED        | Information Only          |
| FORCE REKEY                    | Information Only          |
| MINOR CHANGE REQUESTED         | Information Only          |
| RESTART PROTOCOL               | Information Only          |
| SET UP FOR REKEY               | Information Only          |
| VFL CONNECTED                  | Information Only          |
| VFL CONNECTION DENIED          | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 01000

| Event Description                                                                              | Possible Trouble Location     |
|------------------------------------------------------------------------------------------------|-------------------------------|
| LINK OOS -- Combined fail code -- L1 code<br>-- (See Appendix 12 for DCHN and SADC fail codes) | Indeterminate                 |
| AUTO LK CHECK INTERNAL PASSED                                                                  | Information Only              |
| GENERIC TIMER TIMEOUT                                                                          | Information Only/<br>Near-End |
| LDLKFL-FAILCODE=xxxxxxx L1CODE=yyyyyyyyy                                                       | Indeterminate                 |
| LKOS -FAILCODE=xxxxxxx L1CODE=yyyyyyyyy                                                        | Indeterminate                 |
| LKOS_DM -FAILCODE=xxxxxxx L1CODE=yyyyyyyyy                                                     | Indeterminate                 |
| L3IS ACK                                                                                       | Information Only              |
| L300S ACK                                                                                      | Information Only              |
| MINOR CHANGE REQUESTED                                                                         | Information Only              |
| SERV ACK IND                                                                                   | Information Only              |
| SERV IND                                                                                       | Information Only              |
| XMIT BUFFER CONGESTION                                                                         | Information Only/<br>Near-End |
| XMIT BUFFER CONGESTION ENDS                                                                    | Information Only              |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 04000

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| Event Description          | Possible Trouble Location |
|----------------------------|---------------------------|
| LINK IS                    | Information Only          |
| LEVEL 2 ESTABLISHED - LKIS | Information Only          |
| MINOR CHANGE REQUESTED     | Information Only          |
| RECENT CHANGE REQUEST      | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 08000

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| Event Description               | Possible Trouble Location |
|---------------------------------|---------------------------|
| DLN USER REQUEST - ACT 1WAYOUT  | Information Only          |
| DLN USER REQUEST - ACT HOME     | Information Only          |
| DLN USER REQUEST - NO CHANGE    | Information Only          |
| DLN USER REQUEST - OFL          | Information Only          |
| DLN USER REQUEST - OOS          | Information Only          |
| DLN USER REQUEST - STBY         | Information Only          |
| DLN USER RESPONSE TIMER EXPIRED | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 10000

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| Event Description                                                                           | Possible Trouble Location            |
|---------------------------------------------------------------------------------------------|--------------------------------------|
| CHANGING FROM PAIR-STATE xx TO xx FOR EVENT yy<br>CHANGING FROM STATE xx TO xx FOR EVENT yy | Information Only<br>Information Only |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 20000

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| Event Description                      | Possible Trouble Location |
|----------------------------------------|---------------------------|
| LSSU RECEIVED WITH SIO, SIOS, SIN, SIE | Indeterminate             |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 40000

| Event Description                                        | Possible Trouble Location |
|----------------------------------------------------------|---------------------------|
| CHANGEOVER COMPLETED                                     | Information Only          |
| CHANGEOVER (NO DR) STARTED, LINK STATE ACT               | Information Only          |
| CHANGEOVER (NO DR) STARTED, LINK STATE CB WCBA           | Information Only          |
| CHANGEOVER (NO DR) STARTED, LINK STATE CB W6/OOS         | Information Only          |
| CHANGEOVER (NO DR) STARTED, LINK STATE C0 W RET COMPL    | Information Only          |
| CHANGEOVER (NO DR) STARTED, LINK STATE C0 W6/7           | Information Only          |
| CHANGEOVER (NO DR) STARTED, LINK STATE REMOTE C0         | Information Only          |
| CHANGEOVER STARTED                                       | Information Only          |
| CHANGEOVER STARTED, C00/COA HANDSHAKE COMPLETE           | Information Only          |
| C0 GUARD TIMER TIMEOUT, LINK STATE ACT                   | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE CB WCBA               | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE CB W6                 | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE CBM                   | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE OOS                   | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE REMOTE C0             | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE WDRC                  | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE W6 C0                 | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE W6/7 C0               | Near-End                  |
| C0 GUARD TIMER TIMEOUT, LINK STATE W7 C0                 | Near-End                  |
| CT7FENA, FAR END NOT ACCESSIBLE                          | Information Only          |
| LINK STATE NOT WAITING FOR DATA RETRIEVAL COMPLETE       | Information Only          |
| S6 CHANGEOVER COMPLETE                                   | Information Only          |
| S6 CHANGEOVER COMPLETE, PROCEED WITH S7 C0               | Information Only          |
| S6 CHANGEOVER COMPLETE, STATE NOT WAITING FOR 6 COMPLETE | Information Only          |
| BT1 TIMER TIMEOUT, LINK STATE NOT READY FOR C0           | Information Only          |
| T1 TIMER TIMEOUT, PROCEED WITH CHANGEOVER                | Information Only          |
| T2 TIMER TIMEOUT, LINK STATE NOT READY FOR C0            | Far-End                   |
| T2 TIMER TIMEOUT, PROCEED WITH CHANGEOVER                | Far-End                   |
| T1 TIMER TIMEOUT FOR SIPO                                | Far-End                   |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 80000

| Event Description                                       | Possible Trouble Location |
|---------------------------------------------------------|---------------------------|
| BEGIN ACTUAL CHANGEBACK                                 | Information Only          |
| CB GUARD TIMER TIMEOUT, LINK STATE IS ACT               | Near-End                  |
| CB GUARD TIMER TIMEOUT, LINK STATE IS CB WCBA           | Near-End                  |
| CB GUARD TIMER TIMEOUT, LINK STATE IS CB W6             | Near-End                  |
| CB GUARD TIMER TIMEOUT, LINK STATE IS C0 WAITING ON DRC | Near-End                  |
| CB GUARD TIMER TIMEOUT, LINK STATE IS C0 W6             | Near-End                  |
| CB GUARD TIMER TIMEOUT, LINK STATE IS C0 W6/7           | Near-End                  |
| CB GUARD TIMER TIMEOUT, LINK STATE IS C0 W7             | Near-End                  |
| CB GUARD TIMER TIMEOUT, LINK STATE IS REMOTE C0         | Near-End                  |
| CB GUARD TIMER TIMEOUT, LINK STATE IS OOS               | Near-End                  |
| CHANGEBACK STARTED, LINK STATE CB W6, ACT, OR CB WCBA   | Information Only          |
| CHANGEBACK STARTED, LINK STATE IS CBM OR OOS            | Information Only          |
| CHANGEBACK STARTED, LINK STATE IS C0 STATE              | Information Only          |
| CHANGEBACK STARTED, LINK STATE IS WAITING FOR DRC       | Information Only          |
| T4 TIMEOUT WAITING FOR CBA, LINK STATE NOT WAITING CBA  | Far-End                   |
| T4 TIMEOUT WAITING FOR CBA, LINK STATE WAITING CBA      | Far-End                   |
| T5 TIMEOUT WAITING FOR CBA, LINK STATE NOT WAITING CBA  | Far-End                   |
| T5 TIMEOUT WAITING FOR CBA, LINK STATE WAITING CBA      | Far-End                   |
| CHANGEBACK S6 PART COMPLETE, LINK STATE CB W6           | Information Only          |
| CHANGEBACK S6 PART COMPLETE, LINK STATE NOT CB W6       | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 100000

---

| Event Description                         | Possible Trouble Location |
|-------------------------------------------|---------------------------|
| RECEIVED T1FA MSG TYPE _T1BAD             | Information Only          |
| RECEIVED T1FA MSG TYPE _T1INSANE          | Information Only          |
| RECEIVED T1FA MSG TYPE _T1STAT            | Information Only          |
| RECEIVED T1FA MSG TYPE 0XXXXXXXXX INVALID | Near-End                  |
| CHANGING T1FA STATE xx TO xx FOR EVENT yy | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 200000

---

| Event Description             | Possible Trouble Location |
|-------------------------------|---------------------------|
| CCS7 RCP, CPC=c, OPC=c, DPC=c | Information Only          |
| CCS7 RCR, CPC=c, OPC=c, DPC=c | Information Only          |
| CCS7 RSP, CPC=c, OPC=c, DPC=c | Information Only          |
| CCS7 RSR, CPC=c, OPC=c, DPC=c | Information Only          |

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Link Monitor Masks, Event Descriptions,  
and Possible Trouble Locations Test

Events Mask 400000

---

| Event Description                            | Possible Trouble Location |
|----------------------------------------------|---------------------------|
| ALL ZEROS CONTROL CODE RECEIVED              | Facility / Indeterminate  |
| CSU LOOP-BACK CONTROL CODE RECEIVED          | Facility / Indeterminate  |
| UNASSIGNED MUX CONTROL CODE RECEIVED         | Facility / Indeterminate  |
| RELEASE CONTROL CONTROL CODE RECEIVED        | Facility / Indeterminate  |
| MAINTENANCE INITIATE CONTROL CODE RECEIVED   | Facility / Indeterminate  |
| DSU LOOP-BACK CONTROL CODE RECEIVED          | Facility / Indeterminate  |
| TEST ALERT CONTROL CODE RECEIVED             | Facility / Indeterminate  |
| TEST CODE CONTROL CODE RECEIVED              | Facility / Indeterminate  |
| NSC CONTROL CODE RECEIVED                    | Facility / Indeterminate  |
| MJU ALERT CONTROL CODE RECEIVED              | Facility / Indeterminate  |
| BLOCK CONTROL CODE RECEIVED                  | Facility / Indeterminate  |
| OCU LOOP-BACK CONTROL CODE RECEIVED          | Facility / Indeterminate  |
| MUX-OUT-OF-SYNC CONTROL CODE RECEIVED        | Facility / Indeterminate  |
| FAR END VOICE CONTROL CODE RECEIVED          | Facility / Indeterminate  |
| TRANSITION IN PROGRESS CONTROL CODE RECEIVED | Facility / Indeterminate  |
| NOT READY CONTROL CODE RECEIVED              | Facility / Indeterminate  |
| LOOP-BACK ENABLE CONTROL CODE RECEIVED       | Facility / Indeterminate  |
| ABNORMAL STATION CONTROL CODE RECEIVED       | Facility / Indeterminate  |
| CONTROL MODE IDLE CONTROL CODE RECEIVED      | Facility / Indeterminate  |
| UNKNOWN DS0 CONTROL CODE RECEIVED = h        | Facility / Indeterminate  |
| NETWORK ELEMENT LOOP-BACK CODE RECEIVED      | Facility / Indeterminate  |

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ID ..... APP:APPENDIX-11  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## APPENDIX 11

The fail codes are bit mapped. Multiple failure events may occur in the same code. The table below indicates the failure events and their corresponding hexadecimal code.

There are two types of fail codes: 1) Combined Code and 2) L1 Code. The Combined Code is a summary of failure indicators. The L1 Code is specific to the LI4 hardware/software and link hardware status (Layer 1 of the protocol model). The CPFLD critical event contains the Combined Code.

### DCHN and SADC Link Fail Codes

| Combined Code | Event                               |
|---------------|-------------------------------------|
| X'00000000    | LINK IN SERVICE                     |
| X'00000001    | L1 HDW OFF-NORMAL                   |
| X'00000002    | L1 SOFTWARE OFF-NORMAL              |
| -----         |                                     |
| X'00000003    | Special Case: L1 HDW LOOP SET       |
| -----         |                                     |
| X'00000004    | UNUSED                              |
| X'00000008    | L1 RECEIVER OFF                     |
| X'00000010    | L1 RECEIVER OFF, ERRORED RCV DATA   |
| X'00000020    | L1 NO FLAGS RECEIVED                |
| X'00000040    | L1 DACS TROUBLE CODE DETECTED       |
| X'00000080    | UNUSED                              |
| X'00000100    | L2 RELEASE CONFIRM                  |
| X'00000200    | L2 RELEASE INDICATION, FAR END DISC |
| X'00000400    | L2 RELEASE INDICATION, FAR END FRMR |
| X'00000800    | L2 RELEASE INDICATION, TIMEOUT      |
| X'00001000    | L2 RELEASE INDICATION, FAR END DM   |
| X'00002000    | UNUSED                              |
| X'00004000    | UNUSED                              |
| X'00008000    | UNUSED                              |
| X'00010000    | UNUSED                              |

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DCHN and SADC Link Fail Codes (cont.)

| Combined Code | Event                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------|
| X'00020000    | UNUSED                                                                                                |
| X'00040000    | UNUSED                                                                                                |
| X'00080000    | UNUSED                                                                                                |
| X'00100000    | UNUSED                                                                                                |
| X'00200000    | UNUSED                                                                                                |
| X'00400000    | UNUSED                                                                                                |
| X'00800000    | NODE DETECTED LOSS OF ACCESS TO 3B OR RING<br>SILENCE LASTING 10 SECS OR LONGER AND TOOK LINK<br>DOWN |
| X'01000000    | DECLARED LINK FAILURE (90s continuous outage)                                                         |
| X'02000000    | AUTO LINK CHECK INTERNAL FAIL                                                                         |
| X'04000000    | UNUSED                                                                                                |
| X'08000000    | UNUSED                                                                                                |
| X'10000000    | CRAFT MOOS OF "IS" LINK                                                                               |
| X'20000000    | NODE REMOVED                                                                                          |
| X'40000000    | L3 SERV AUDIT TIMEOUT                                                                                 |
| X'80000000    | UNUSED                                                                                                |

SEE PROPRIETARY NOTICE ON COVER PAGE

DCHN and SADC Link Fail Codes (cont.)

| L1 Code    | Event                             |
|------------|-----------------------------------|
| X'00000001 | L1 HDW OFF-NORMAL                 |
| X'00000002 | L1 SOFTWARE OFF-NORMAL            |
| -----      |                                   |
| X'00000003 | Special Case: L1 HDW LOOP SET     |
| -----      |                                   |
| X'00000004 | UNUSED                            |
| X'00000008 | L1 RECEIVER OFF                   |
| X'00000010 | L1 RECEIVER OFF, ERRORED RCV DATA |
| X'00000020 | L1 NO FLAGS RECEIVED              |
| X'00000040 | UNUSED                            |
| X'00000080 | UNUSED                            |
|            |                                   |
| X'00000100 | IGNORE                            |
| X'00000200 | IGNORE                            |
| X'00000400 | IGNORE                            |
| X'00000800 | IGNORE                            |
| X'00001000 | IGNORE                            |
| X'00002000 | IGNORE                            |
| X'00004000 | IGNORE                            |
| X'00008000 | IGNORE                            |
|            |                                   |
| X'00010000 | UNUSED                            |
| X'00020000 | UNUSED                            |
| X'00040000 | UNUSED                            |
| X'00080000 | UNUSED                            |
| X'00100000 | UNUSED                            |
| X'00200000 | UNUSED                            |
| X'00400000 | UNUSED                            |
| X'00800000 | UNUSED                            |
|            |                                   |
| X'01000000 | IGNORE                            |
| X'02000000 | IGNORE                            |
| X'04000000 | IGNORE                            |
| X'08000000 | IGNORE                            |
| X'10000000 | IGNORE                            |
| X'20000000 | IGNORE                            |
| X'40000000 | IGNORE                            |
| X'80000000 | IGNORE                            |

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ID ..... APP:APPENDIX-12  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## APPENDIX 12

The fail codes are bit mapped. Multiple failure events may occur in the same code.

### CCS6 Fail Codes

| Fail Code | Definition                          |
|-----------|-------------------------------------|
| 1         | Node initialized.                   |
| 2         | IMS node failed.                    |
| 3         | Prove-in complete.                  |
| 4         | ELT received.                       |
| 5         | LTR received.                       |
| 6         | LTA received.                       |
| 7         | Maintenance timer timeout.          |
| 8         | Send load transfer timer timeout.   |
| 9         | Prove-in mode requested.            |
| 10        | LBO detected.                       |
| 11        | COV received.                       |
| 12        | LI insane.                          |
| 13        | Far-end PRO received.               |
| 14        | Near-end PRO sent.                  |
| 15        | New LN data received.               |
| 16        | Long sync started (encrypted link). |
| 17        | IMS remove delay timer expired.     |
| 18        | ESU message received.               |
| 19        | Far-end psc timeout.                |
| 20        | Near-end psc timeout.               |
| 21        | RAB message received.               |
| 22        | MCO message received.               |
| 23        | MCOA message received.              |

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**APPENDIX 12**

**CCS6 Fail Codes (continued)**

| Fail Code | Definition                               |
|-----------|------------------------------------------|
| 24        | Connect VFL to VAT1 or maintenance bus.  |
| 25        | Disconnect VFL from previous test setup. |
| 26        | Unused.                                  |
| 27        | Unused.                                  |
| 28        | Unused.                                  |
| 29        | Unused.                                  |
| 30        | Transmit buffer overload.                |
| 31        | Transmit buffer overflow.                |

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ID ..... APP:APPENDIX-13  
WORK CENTER.. MOC  
GENERIC ..... 4AP14 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## CCS7 Fail Codes

The fail codes are categorized as follows:

- 0x0aa — FIBR and BNSR failures.
- 0x1aa — Excessive acknowledgement delay.
- 0x2aa — Excessive error rate.
- 0x3aa — Excessive duration of congestion.
- 0x4aa — General hardware trouble.
- 0x5aa — General software trouble.
- 0x6aa — Other troubles.
- 0x7aa — General facility trouble (including DS0-A codes received).

The aa portion of the number ranges from 00 to ff (hexadecimal) and is used to provide further resolution of the problem. The exact fail codes and there meaning follow.

### CCS7 Fail Codes

---

| FAIL CODE | DEFINITION |
|-----------|------------|
|-----------|------------|

---

|       |                                             |
|-------|---------------------------------------------|
| 0x001 | 2/3 bad backward sequence numbers received. |
| 0x002 | 2/3 bad forward indicator bits received.    |
| 0x101 | Excessive acknowledgement timer expired.    |
| 0x201 | SU error rate monitor threshold exceeded.   |
| 0x202 | Alignment error rate threshold exceeded.    |
| 0x203 | SUERM exceeded due to octet counting mode.  |
| 0x204 | EIM error rate monitor threshold exceeded.  |

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**CCS7 Fail Codes (Continued)**

| <b>FAIL CODE</b> | <b>DEFINITION</b>                            |
|------------------|----------------------------------------------|
| 0x301            | Congestion guard timer expired, 0x302 taken. |
| 0x401            | Node removed.                                |
| 0x402            | Node restored.                               |
| 0x403            | Node reinitialized.                          |
| 0x404            | Alignment guard timer, t1 expired.           |
| 0x405            | Alignment not possible, t2 expired.          |
| 0x406            | Alignment not possible, t3 expired.          |
| 0x407            | LSSU received with SIO, SIOS, SIN, SIE.      |
| 0x408            | Receiver Link Failure.                       |
| 0x409            | Invalid transmit frame size.                 |
| 0x410            | LI comatose.                                 |
| 0x411            | LI write failed.                             |
| 0x412            | SIO received in a wrong state                |
| 0x413            | SIN received in a wrong state                |
| 0x414            | SIE received in a wrong state                |
| 0x415            | DS0 Composite clock failure.                 |
| 0x416            | Local loop-back test failure.                |
| 0x418            | SIOS received during initial align.          |
| 0x419            | SIO / SIOS received; lsc align ready.        |
| 0x420            | SIO / SIOS received; lsc align not ready.    |
| 0x421            | SIO / SIOS received; lsc in service.         |
| 0x422            | SIO / SIOS received; lsc processor outage.   |
| 0x423            | SIN / SIE received; lsc in service.          |
| 0x424            | SIN / SIE received; lsc processor outage.    |
| 0x425            | Link Processor on ULN appears to be dead.    |
| 0x501            | Invalid internal state transition.           |
| 0x502            | Null pointer found in re-xmit queue.         |
| 0x503            | Encryption trouble.                          |
| 0x506            | Maintenance guard timer expired.             |
| 0x507            | Link blocked.                                |
| 0x508            | Link abnormal.                               |
| 0x509            | Level 2 demand restart.                      |
| 0x511            | Unknown fail code.                           |
| 0x514            | Link did not restore after initialization.   |
| 0x515            | LI parity failure.                           |
| 0x516            | LI parity-checking circuit failure.          |

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CCS7 Fail Codes (Continued)

| FAIL CODE | DEFINITION                                 |
|-----------|--------------------------------------------|
| 0x517     | LI checksum failure.                       |
| 0x518     | LI-NP interface failure.                   |
| 0x519     | LI 8086 test failure.                      |
| 0x520     | Link idle is detected.                     |
| 0x521     | LI illegal interrupt detected.             |
| 0x522     | Link check failed, selfloop not set.       |
| 0x523     | Link check failed, data doesn't match.     |
| 0x524     | Bad parameters passed from NP to LI.       |
| 0x525     | Level 2 not started in time.               |
| 0x526     | Node Processor detected bad PRO state.     |
| 0x528     | MTPL2 internal eventq overflow.            |
| 0x529     | MTPL2 invalid internal event.              |
| 0x530     | MTPL2 invalid internal state.              |
| 0x531     | MTPL2 transmit buffer overflow.            |
| 0x532     | MTPL2 get from transmit buffer failed.     |
| 0x533     | MTPL2 transmit buffer overflow.            |
| 0x534     | MTPL2 get from retransmit buffer failed.   |
| 0x535     | MTPL2 erase from retransmit buffer failed. |
| 0x536     | MTPL2 bad MSU bad data.                    |
| 0x601     | SIPOs sent.                                |
| 0x602     | SIPOs received.                            |
| 0x603     | Bad link parameters.                       |
| 0x604     | Remote changeover.                         |
| 0x605     | Bad command to LI.                         |
| 0x606     | Periodic SLT failed.                       |
| 0x607     | Far end bouncing SIPO.                     |
| 0x608     | Unable to access 3B/ring.                  |
| 0x609     | BX25 error threshold exceeded.             |
| 0x610     | Link stuck at zero.                        |
| 0x611     | Cannot exec LAPB.                          |
| 0x612     | Des test failed.                           |
| 0x613     | Unexp msg during long key exch.            |
| 0x614     | Stream check fails.                        |
| 0x615     | Random number generation failed.           |
| 0x616     | Cannot exec PUBKEY process.                |
| 0x617     | Null key generated.                        |
| 0x618     | Key = 1.                                   |
| 0x619     | All ones key.                              |

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**CCS7 Fail Codes (Continued)**

| FAIL CODE | DEFINITION                                      |
|-----------|-------------------------------------------------|
| 0x620     | Cannot generate auditdata.                      |
| 0x621     | Unexp msg during short key exch.                |
| 0x622     | Cannot init enc, des problem.                   |
| 0x623     | Des key all zeroes.                             |
| 0x624     | No sync report from key exchange.               |
| 0x625     | Encryption could not get started.               |
| 0x626     | Transmit buffer too small.                      |
| 0x627     | Management inhibit.                             |
| 0x628     | ISDN user part down.                            |
| 0x629     | Excessive local rcv buffer congestion.          |
| 0x630     | All ones received on link.                      |
| 0x631     | DSU RLSD lead indicates valid data not received |
| 0x633     | Invalid parms to L2 - no buffer available.      |
| 0x634     | Invalid parms to L2 - L2 component failed.      |

The following 0x700 - 0x7ff range are facility failures and control codes received (for DS0 facility types). The actual control code received is in the aa part of the 7aa code. Bit 0 of the control code is considered to be a "don't care" bit, meaning bit 0 could be either a 1 or a 0. Therefore, there are two possible codes for the same type of control code shown.

**CCS7 Fail Codes (Continued)**

| FAIL CODE | DEFINITION                                    |
|-----------|-----------------------------------------------|
| 0x700     | All Zeros control code received.              |
| 0x701     | All Zeros control code received.              |
| 0x714     | CSU Loop-back control code received.          |
| 0x715     | CSU Loop-back control code received.          |
| 0x718     | Unassigned Mux channel control code received. |
| 0x719     | Unassigned Mux channel control code received. |
| 0x71e     | Release control code received.                |
| 0x71f     | Release control code received.                |
| 0x723     | Maintenance Initiate control code received.   |
| 0x724     | Maintenance Initiate control code received.   |
| 0x734     | DSU Loop-back control code received.          |

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**CCS7 Fail Codes (Continued)**

| <b>FAIL CODE</b> | <b>DEFINITION</b>                             |
|------------------|-----------------------------------------------|
| 0x735            | DSU Loop-back control code received.          |
| 0x736            | Test Alert control code received.             |
| 0x737            | Test Alert control code received.             |
| 0x738            | Test Code control code received.              |
| 0x739            | Test Code control code received.              |
| 0x74c            | NSC control code received.                    |
| 0x74d            | NSC control code received.                    |
| 0x74e            | MJU Alert control code received.              |
| 0x74f            | MJU Alert control code received.              |
| 0x750            | Block control code received.                  |
| 0x751            | Block control code received.                  |
| 0x754            | OCU Loop-back control code received.          |
| 0x755            | OCU Loop-back control code received.          |
| 0x758            | MUX-Out-Of-Sync control code received.        |
| 0x759            | MUX-Out-Of-Sync control code received.        |
| 0x75a            | Far End Voice control code received.          |
| 0x75b            | Far End Voice control code received.          |
| 0x75c            | Transition In Progress control code received. |
| 0x75d            | Transition In Progress control code received. |
| 0x75e            | Not Ready control code received.              |
| 0x75f            | Not Ready control code received.              |
| 0x76a            | Loop-Back Enable control code received.       |
| 0x76b            | Loop-Back Enable control code received.       |
| 0x778            | Abnormal Station control code received.       |
| 0x779            | Abnormal Station control code received.       |
| 0x77e            | Control Mode Idle control code received.      |
| 0x77f            | Control Mode Idle control code received.      |
| 0x782            | Network Element Loop-Back code received.      |

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ID ..... APP:APPENDIX-14  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## APPENDIX 14

**NOTE:** Each SLMK initialization sequence consists of a series of individual initialization states. The following tables show these states, in chronological order, for each of the SLMK initialization sequences. The sequences do not progress in numerical order. State 14 is the normal steady state for the SLMK process, all other states are considered transient.

### States Printed in REPT SLMK INIT Messages

| State | Definition                                                                                                                            |
|-------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Normal process start via E_INIT event.                                                                                                |
| 2     | Abort state, shared library initialization incomplete.                                                                                |
| 3     | IMS channels open, shared libraries not initialized.                                                                                  |
| 4     | Shared libraries initialized.                                                                                                         |
| 5     | IMS channels closed after previous open, shared libraries not initialized.                                                            |
| 6     | IMS channels opened, shared libraries initialized.                                                                                    |
| 7     | IMS channels opened, received first IMS boot message (applin) from CNI application.                                                   |
| 8     | Abort state, shared libraries initialized.                                                                                            |
| 9     | Shared libraries initialized, IMS channels opened.                                                                                    |
| 10    | Shared libraries initialized, IMS channels closed.                                                                                    |
| 11    | Shared libraries initialized, IMS channels opened, received first IMS boot message from CNI application, pump of remote data started. |
| 12    | Received second IMS boot message (start reports) from CNI application and remote data pump complete.                                  |
| 13    | Initialization of CCS6/CCS7 links complete.                                                                                           |
| 14    | Received last IMS boot message (socitome) from CNI application.                                                                       |
| 15    | IMS channels closed, start of level 1 initialization.                                                                                 |
| 16    | Reopened IMS channels during level 1.                                                                                                 |
| 17    | Received first IMS boot message (applin) from CNI application during level 1.                                                         |
| 18    | Recovery state of SLMK, shared library contents reused.                                                                               |
| 19    | Start of internal level 1 initialization.                                                                                             |

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States Printed in REPT SLMK INIT Messages (continued)

| State | Definition                                                                                             |
|-------|--------------------------------------------------------------------------------------------------------|
| 20    | Received first IMS boot message (applin) during internal level 1 initialization.                       |
| 21    | Received second IMS boot message (start reports) from CNI application but remote data pump incomplete. |
| 22    | Remote data pump complete, waiting second IMS boot message (start reports) from CNI application.       |

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ID ..... APP:APPENDIX-15  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## APPENDIX 15

### States Printed in REPT : SLMK Messages

**NOTE:** Each SLMK initialization sequence consists of a series of individual initialization states. The following tables show these states, in chronological order, for each of the SLMK initialization sequences. The sequences do not progress in numerical order. State 14 is the normal steady state for the SLMK process, all other states are considered transient.

| State | Description                                                                                                                           |
|-------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Normal process start via E_INIT event.                                                                                                |
| 2     | Abort state, shared library initialization incomplete.                                                                                |
| 3     | IMS channels open, shared libraries not initialized.                                                                                  |
| 4     | Shared libraries initialized.                                                                                                         |
| 5     | IMS channels closed after previous open, shared libraries not initialized.                                                            |
| 6     | IMS channels opened, shared libraries initialized.                                                                                    |
| 7     | IMS channels opened, received first IMS boot message (applin) from CNI application.                                                   |
| 8     | Abort state, shared libraries initialized.                                                                                            |
| 9     | Shared libraries initialized, IMS channels opened.                                                                                    |
| 10    | Shared libraries initialized, IMS channels closed.                                                                                    |
| 11    | Shared libraries initialized, IMS channels opened, received first IMS boot message from CNI application, pump of remote data started. |
| 12    | Received second IMS boot message (start reports) from CNI application and remote data pump complete.                                  |
| 13    | Initialization of CCS6/CCS7 links complete.                                                                                           |
| 14    | Received last IMS boot message (socitome) from CNI application.                                                                       |
| 15    | IMS channels closed, start of level 1 initialization.                                                                                 |
| 16    | Reopened IMS channels during level 1.                                                                                                 |
| 17    | Received first IMS boot message (applin) from CNI application during level 1.                                                         |
| 18    | Recovery state of SLMK, shared library contents reused.                                                                               |
| 19    | Start of internal level 1 initialization.                                                                                             |
| 20    | Received first IMS boot message (applin) during internal level 1 initialization.                                                      |
| 21    | Received second IMS boot message (start reports) from CNI application but remote data pump incomplete.                                |
| 22    | Remote data pump complete, waiting second IMS boot message (start reports) from CNI application.                                      |

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ID ..... APP:APPENDIX-16  
WORK CENTER.. MOC  
GENERIC ..... 4AP15 Rel. 2 and later  
APPLICATION .. 4E,CNI  
TYPE ..... Output

## APPENDIX 16

### Part 1 - Description of the steps involved in a successful Activate FE LLB Sequence.

Follow the steps:

1. OMAP process in 3B receives Activate FE LLB request from the originator, verifies that the NE ULN node and link are in states in which intrusive T1M testing is allowed (and "enables the ULN node for T1M intrusive testing), and sends the ACTivate FE LLB request to the NE ULN. (This takes approx. from 1 to 3 seconds).
2. NE ULN initiates a message exchange to check whether a LLB or a PLB has been previously activated (before this request) at a remote point on the T1 facility. (This "Pre-existing Loop Back Check" takes only a fractional part of a second.)
3. NE ULN activates 1.544 Mb/s LLB activation signal until a remote T1 Termination's hardware (that is, the FE ULN) detects this signal (takes approx. 5 seconds).
4. [Optional: occurs when FE T1 Terminal is a Hardware In-Service (Restored-To-Service) ULN]

FE ULN verifies, with OMAP software in the 3B Host processor, that T1M intrusive testing is allowed, and, if allowed, proceeds to activate the LLB in the FE ULN. (takes from about 1 second up to seven seconds)

**NOTE:** If the remote or FE T1 Terminal is NOT a ULN that is Hardware In-Service (it is a ULN that is "Removed from Service", or it is a different, commercial T1 Terminal), the T1 Terminal hardware may respond immediately upon the detecting the ACT LLB signal by activating its LLB, thus eliminating the "Permissions" step described previously in this paragraph.

5. With FE (or remote) LLB set, the LLB activation signal still being transmitted by NE ULN is returned to NE until NE ULN detects this returned signal. When the NE ULN detects this signal as confirmation that the FE ULN has activated its LLB, the NE ULN then removes the 1.544Mb/s LLB activate signal. (This takes approx 5 seconds).
6. NE ULN reports back via OMAP in 3B to the originator of the ACT FE LLB request the results of the ACT FE LLB sequence. (This takes from a fractional part of second to several seconds until the report starts to appear).

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If the ACT FE LLB sequence fails after progressing to STEP 3 previously, it will automatically proceed to execute the DEACT FE LLB sequence, starting approximately at STEP 2 in Part 2, in an attempt to deactivate any remote LLB that may have become activated by the partial ACT LLB sequence. In this case the ACT FE LLB sequence will be reported as having failed, and the results of the "Post-deactivation Check" STEP 7 in Part 2, will also be reported to indicate:

- confirmation that loopbacks have been cleared, or
- post-deactivation check is Incomplete (or inconclusive); Test session originator must use OP:T1M . . . ;RAW input message to manually verify loopback status.

## **Part 2 - Description of the steps involved in a successful Deactivate FE LLB Sequence.**

Follow the steps:

1. OMAP process in 3B receives Deactivate FE LLB request from the originator, verifies that the NE ULN node and link are in states in which intrusive T1M testing is allowed (and "enables the ULN node for T1M intrusive testing), and sends the Deactivate FE LLB request to the NE ULN. (This takes approx. from 1 to 3 seconds).
2. NE ULN initiates a message exchange to perform a "Continuity Check" through the T1 Facility and the activated remote or FE LLB. NE ULN receipt of the same message exactly as sent out confirms continuity and that a remote or FE LLB is set. (This "Continuity Check" takes from only a fractional part of a second (check passes) up to 20 seconds (check fails)).
3. NE ULN activates 1.544 Mb/s LLB deactivation signal until a remote T1 Termination's hardware (that is, the FE ULN) detects this signal (normally takes approx. 5 seconds).
4. [Optional: occurs when FE T1 Terminal is a Hardware In-Service (Restored-To-Service) ULN]

FE ULN verifies, with OMAP software in the 3B Host processor, that T1M intrusive testing is allowed, and , if allowed, proceeds to deactivate the LLB in the FE ULN. (takes from about 1 second up to 7 seconds)

**NOTE:** If the remote or FE T1 Terminal is NOT a ULN that is Hardware In-Service (it is a ULN that is "Removed from Service", or it is a different, commercial T1 Terminal), the T1 Terminal hardware may respond immediately upon the detecting the DEACT LLB signal by deactivating its LLB, thus eliminating the "Permissions" step described in this paragraph.

5. [Optional: occurs when FE T1 Terminal is a Hardware In-Service (Restored-To-Service) ULN]

If the FE T1 terminal is a Hardware-IS ULN, it returns a maintenance message over the T1 ESF-DL alerting the NE ULN that the FE ULN has taken down its LLB. (This takes only a fractional part of a second.)

If the FE T1 terminal is NOT a Hardware-IS ULN, the NE ULN may get no specific indication that the FE T1 terminal has deactivated its LLB.

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6. In either case, the NE ULN guard times for about 15 seconds for a response from the FE ULN that it has deactivated its LLB. When the NE ULN gets a "FE LLB deactivated" response or its guard timer expires, it releases the DEACT LLB signal.
7. NE ULN initiates a message exchange to perform a "Post-deactivation check that the loopback has been released."
  - a. IF the NE ULN gets an appropriate ESF-DL response message in reply to the request message it sent to the FE T1 terminal THEN the NE ULN knows all loopbacks have been deactivated,
  - b. IF the NE ULN, on two consecutive, separate attempts, gets no response message back at all (within a guard timed interval),
    - AND if the "Continuity Check" (STEP 2 in Part 2) passed, THEN the NE ULN interprets the failure to get any response back as an indication that the remote or FE LLB has been deactivated.

Otherwise the "Continuity Check" had also failed, and the NE ULN cannot distinguish whether a failure to get any response during the Post-Deactivation Check indicates that the LLB was released, or that there was a T1 Facility failure. In this case, the [post-deactivation] is reported.

**NOTE:** Whenever the Post-deactivation message . . . :LB'S DEACT'D CK INC is reported, the OSWF/tester should use the OP:T1M, ST . . . ;RAW input message to verify the loopback status of in the NE ULN (and in the FE ULN when possible) to verify the activated vs. deactivated status of any loopback(s).

In contrast, if the NE ULN gets back the same request message it sends out, it then knows that a LLB is still activated at a remote point on the T1 facility, and reports this as a failure to deactivate successfully, that is, . . . ; LB'S DEACT'D CK FLD. (This "Post-deactivation Loopbacks Released Check" takes from a fractional part of a second up to 20 seconds).

8. NE ULN reports back via OMAP in 3B to the originator of the DEACT FE LLB request the results of the DEACT FE LLB sequence. (This takes from a fractional part of second to several seconds until the report starts to appear).

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**Part 3 - Description of Differences Between Data/Payload Loopback and Line Loopback**

The following Table Highlights the differences between the Data / Payload Loopback (PLB) and the Line Loopback (LLB) operation from the T1 Maintenance perspective.

| Description                                                                                                                                                                                                                                                                                             | PLB<br>Activated | LLB<br>Activated |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| The ULN with the Loopback activated:                                                                                                                                                                                                                                                                    |                  |                  |
| A) For the receive side signal / path                                                                                                                                                                                                                                                                   |                  |                  |
| Continues to sense T1 signal alarm conditions                                                                                                                                                                                                                                                           | Yes              | Yes              |
| Continues to note T1 status and to record T1 performance data counts associated with the received T1 signal                                                                                                                                                                                             | Yes              | Yes              |
| Continues to be able to receive ESF-DL (TABS) maintenance messages                                                                                                                                                                                                                                      | Yes              | Yes              |
| B) For the transmit side signal / path                                                                                                                                                                                                                                                                  |                  |                  |
| Returns the T1 Signal Data / Payload bits exactly as they are received in the received T1 Signal without repairing any Payload bit errors                                                                                                                                                               | Yes              | Yes              |
| Returns the entire received T1 signal including the T1 Signal Data / Payload bits (1.536 Mb / s) and the T1 Signal Control bits (8 Kb / s)) without repairing any errors detected in the entire received T1 signal.                                                                                     | No               | Yes              |
| Regenerates and Repairs T1 Signal Control bits (consisting of Framing bits, CRC bits, and ESF-DL bits) before transmitting / returning the received T1 signal. This corrects any Signal Control bit errors that were detected in the received T1 signal before the T1 signal is transmitted / returned. | Yes              | No               |
| Continues to be able to transmit ESF-DL Maintenance Messages.                                                                                                                                                                                                                                           | Yes              | No               |

**NOTE:** This implies that ESF-DL maintenance message exchanges CANNOT occur through a LLB, implying that no T1 status, T1 Performance Data collection, or intrusive test signal activation can take place across the T1 facility through and established LLB. Special full bandwidth signaling (1.544 Mb / s signal) is used to activate / deactivate a far-end LLB itself, instead of using ESF-DL Maintenance messages.

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ID ..... APP:AUD-A  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

Audit Parsing Errors Following ?D

| Explanation                | Reason for Failure                                                                                                               |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| EXTRA KEYWORD              | Too many keywords in data field.                                                                                                 |
| INVALID CHARACTER          | Member number given was not numeric.                                                                                             |
| INVALID DATA, ERROR 101    | Cannot specify a range of member numbers.                                                                                        |
| INVALID DATA, ERROR 102    | Only one member number allowed.                                                                                                  |
| INVALID DATA, ERROR 103    | The record for the specified audit name and member number is not found in the Equipment Configuration Database.                  |
| INVALID DATA, ERROR 105    | An instance can be associated with one and only one audit name and member number.                                                |
| INVALID DATA, ERROR 201    | The data field must be empty.                                                                                                    |
| INVALID DATA, ERROR 202    | Only one instance can be specified.                                                                                              |
| INVALID DATA, ERROR 203    | The record for the specified instance is not in the Equipment Configuration Database for the given audit name and member number. |
| INVALID DATA, ERROR 204    | No additional data can be entered when ALL is used in an input or RUN is used with the OP:AUD input message.                     |
| INVALID DATA, ERROR 501    | Data string to AUD command too long.                                                                                             |
| INVALID DATA, ERROR 502    | Only one additional parameter string can be specified.                                                                           |
| INVALID KEYWORD, ERROR 101 | The audit name is too long.                                                                                                      |
| INVALID KEYWORD, ERROR 102 | No records for specified audit name were found in the Equipment Configuration Database.                                          |

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Audit Parsing Errors Following ?D (continued)

| Explanation                | Reason for Failure                                                              |
|----------------------------|---------------------------------------------------------------------------------|
| INVALID KEYWORD, ERROR 201 | The keyword is not INS.                                                         |
| INVALID KEYWORD, ERROR 501 | Keyword is not PARAM.                                                           |
| MISSING DATA, ERROR 101    | No member number was given.                                                     |
| MISSING DATA, ERROR 201    | The INS keyword was entered but no instance name was specified.                 |
| MISSING DATA, ERROR 501    | The PARAM keyword was entered but no additional parameter string was specified. |
| RANGE ERROR                | Member number out of range.                                                     |

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ID ..... APP:AUD-B  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

Audit Parsing Errors Following ?I

| Explanation                | Reason for Failure                                                                                                               |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| INCONSISTENT KEYWORDS      | Conflicting action items.                                                                                                        |
| INVALID DATA, ERROR 101    | Cannot specify a range.                                                                                                          |
| INVALID DATA, ERROR 102    | Only one member number allowed.                                                                                                  |
| INVALID DATA, ERROR 103    | The record for the specified audit name and member number is not found in the Equipment Configuration Database.                  |
| INVALID DATA, ERROR 201    | The instance name is too long.                                                                                                   |
| INVALID DATA, ERROR 202    | Only one instance can be specified.                                                                                              |
| INVALID DATA, ERROR 203    | The record for the specified instance is not in the Equipment Configuration Database for the given audit name and member number. |
| INVALID DATA, ERROR 301    | First action option keyword must not have a keyword data field.                                                                  |
| INVALID DATA, ERROR 302    | Second action option keyword must not have a keyword data field.                                                                 |
| INVALID DATA, ERROR 401    | Keyword data cannot follow keyword AUD.                                                                                          |
| EXTRA KEYWORD, ERROR 1     | Too many action options.                                                                                                         |
| EXTRA KEYWORD, ERROR 2     | The third identification field subfield must be empty.                                                                           |
| INVALID KEYWORD, ERROR 101 | The audit name is too long.                                                                                                      |
| INVALID KEYWORD, ERROR 201 | The keyword is not INS.                                                                                                          |

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Audit Parsing Errors Following ?I (continued)

| Explanation                | Reason for Failure                                              |
|----------------------------|-----------------------------------------------------------------|
| INVALID KEYWORD, ERROR 202 | The keyword is invalid.                                         |
| INVALID KEYWORD, ERROR 203 | The keyword RUN is valid only with the OP:AUD input message.    |
| INVALID KEYWORD, ERROR 301 | The first action option is not valid.                           |
| INVALID KEYWORD, ERROR 401 | The second action option is not valid.                          |
| INVALID KEYWORD, ERROR 501 | ID keywords cannot follow AUD keyword.                          |
| MISSING DATA, ERROR 101    | No member number was given.                                     |
| MISSING DATA, ERROR 201    | The INS keyword was entered but no instance name was specified. |
| MISSING KEYWORD, ERROR 1   | No audit name was given.                                        |
| MISSING KEYWORD, ERROR 2   | The INS keyword (and its data) is missing.                      |
| RANGE ERROR                | Member number out of range.                                     |

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ID ..... APP:AUD-C  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

Audit Errors Resulting from a Conflict with System States

| Explanation                | Reason for Failure                                                                                                                                                                       |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALREADY ALLOWED, ERROR 1   | All member numbers associated with the audit name are already allowed. At least one member must not be currently allowed for the ALW:AUD input message to be executed.                   |
| ALREADY ALLOWED, ERROR 2   | At least one of the specified members is already allowed. Use the OP:AUD input message to determine which members associated with the audit are currently allowed and which are not.     |
| ALREADY ALLOWED, ERROR 3   | The instance of the audit is already allowed.                                                                                                                                            |
| ALREADY INHIBITED, ERROR 1 | All the member numbers associated with the audit name are already inhibited. There must be at least one member number which is not inhibited.                                            |
| ALREADY INHIBITED, ERROR 2 | At least one of the specified members is already inhibited. Use the OP:AUD input message to determine which members associated with the audit are currently inhibited and which are not. |
| ALREADY INHIBITED, ERROR 3 | The instance of the audit is already inhibited.                                                                                                                                          |
| NO CHANGE                  |                                                                                                                                                                                          |
| NOT MANUAL AUDIT           |                                                                                                                                                                                          |
| NOT RUNNING                | The audit specified to be stopped is not running.                                                                                                                                        |

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ID ..... APP:AUD-D  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

Explanation for Retry Later Audit Errors

| Explanation                               | Reason for Failure                                                                                                                                                                                                                                                                               |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALREADY RUNNING                           | The requested audit is already running.                                                                                                                                                                                                                                                          |
| AUDIT BLOCKED                             | Audit blocked.                                                                                                                                                                                                                                                                                   |
| AUDIT PROCESS NOT FULLY<br>CREATED        | Audit has not been dispatched yet, retry STOP : AUD later.                                                                                                                                                                                                                                       |
| DIFFERENT MEMBER OF THIS<br>AUDIT RUNNING | Another audit with the same name is already running. Only uniquely named audits are permitted to run at the same time.<br><br>The OP : AUD input message may be used to obtain further information about currently running audits which may be preventing the initiation of the requested audit. |
| ECD INTERFACE ERROR 1                     | Cannot attach the segments of the equipment configuration database to the command.                                                                                                                                                                                                               |
| ECD INTERFACE ERROR 2                     | Cannot connect to the equipment configuration database.                                                                                                                                                                                                                                          |
| ECD INTERFACE ERROR 3                     | Cannot read the equipment configuration database control record.                                                                                                                                                                                                                                 |
| ECD INTERFACE ERROR 4                     | Cannot open a sequence for all audits with the specified name.                                                                                                                                                                                                                                   |
| ECD INTERFACE ERROR 5                     | Error occurred while obtaining an audit record sequentially.                                                                                                                                                                                                                                     |
| ECD INTERFACE ERROR 6                     | Error occurred while obtaining an audit record by key.                                                                                                                                                                                                                                           |
| ECD INTERFACE ERROR 7                     | Error occurred while obtaining an instance record.                                                                                                                                                                                                                                               |

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Explanation for Retry Later Audit Errors (continued)

| Explanation                       | Reason for Failure                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ECD INTERFACE ERROR 8             | <p>Cannot read SIM control record.</p> <p>If these equipment configuration database error conditions continue, obtain technical assistance.</p>                                                                                                                                                                                                                                                                             |
| MAXIMUM KERNEL AUDITS RUNNING     | <p>A kernel process audit is already running, and only one kernel process audit may run at one time. (It may have been initiated manually, or by a system process.)</p> <p>The OP:AUD input message may be used to obtain further information about currently running audits which may be preventing the initiation of the requested audit.</p>                                                                             |
| MAXIMUM SUPERVISOR AUDITS RUNNING | <p>The maximum number of supervisor process audits is already running. (They may have been initiated manually, or by a system process.) This number is controlled by a parameter in the SIMCNTL record in the equipment configuration database.</p> <p>The OP:AUD input message may be used to obtain further information about currently running audits which may be preventing the initiation of the requested audit.</p> |
| RUNNING AUDIT, ERROR 6            | <p>The requested audit is already running.</p>                                                                                                                                                                                                                                                                                                                                                                              |
| RUNNING AUDIT, ERROR 7            | <p>A kernel process audit is already running, and only one kernel process audit may run at one time. (It may have been initiated manually, or by a system process.)</p> <p>The OP:AUD input message may be used to obtain further information about currently running audits which may be preventing the initiation of the requested audit.</p>                                                                             |
| RUNNING AUDIT, ERROR 8            | <p>The maximum number of supervisor process audits is already running. (They may have been initiated manually, or by a system process.) This number is controlled by a parameter in the SIMCNTL record in the equipment configuration database.</p> <p>The OP:AUD input message may be used to obtain further information about currently running audits which may be preventing the initiation of the requested audit.</p> |

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Explanation for Retry Later Audit Errors (continued)

| Explanation             | Reason for Failure                                                                                                                                               |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RUNNING AUDIT, ERROR 11 | Another audit with the same name is already running. Only uniquely named audits are permitted to run at the same time.                                           |
|                         | The OP:AUD input message may be used to obtain further information about currently running audits which may be preventing the initiation of the requested audit. |
| SIM INTERFACE ERROR 3   | Audit system initialization is in progress.                                                                                                                      |
| SIM INTERFACE ERROR 4   | Audit system initialization failed.                                                                                                                              |
| SIM INTERFACE ERROR 5   | SIM was unable to access an equipment configuration database record using a record identifier (RID) passed to it by the command program.                         |
| SIM INTERFACE ERROR 10  | SIM failed to start the audit.                                                                                                                                   |
| SIM INTERFACE ERROR 15  | System integrity output formatter is dead.                                                                                                                       |
| SIM INTERFACE ERROR 19  | An invalid RID was passed to SIM by the command program.                                                                                                         |
| SIM INTERFACE ERROR 20  | An invalid instance RID was passed to SIM by the command program.                                                                                                |
| SIM INTERFACE ERROR 23  | Cannot stop a non-segmented audit.                                                                                                                               |

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ID ..... APP:AUTH-CODE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## AUTHORITY CODE APPENDIX

The authority group code was implemented with the introduction of the Dialogue Shell in Release 1.5 (see System Maintenance Manual). This code is used by the Dialogue Shell to determine whether a person or terminal has the proper authority to execute the requested input command. Each input message in Release 1.5 will belong to only one authority group. The valid authority group code are:

| Group   | Description                                    |
|---------|------------------------------------------------|
| ALARM   | Alarm Manipulation                             |
| AUDIT   | Audits                                         |
| AUTH    | Command and Authority Administration           |
| ECCR    | Central Complex Data Retrieval                 |
| ECCSC   | Central Complex Service Condition Modification |
| ECCT    | Central Complex test and Diagnostic            |
| FHADM   | File Handling and Administration               |
| MISC    | Miscellaneous                                  |
| PASS    | Personal Password Modification                 |
| SERV    | Service Observation                            |
| SFTMGT  | Software Management                            |
| SFTUTIL | Software Utilities                             |
| SYSINH  | System Inhibits                                |
| SYSINIT | System Initialization                          |

This is a cross reference of the input message and its associated authority group code.

| Message    | Authority Code |
|------------|----------------|
| ADD: PAUTH | AUTH           |
| ADD: PCGRP | AUTH           |
| ADD: TAUTH | AUTH           |
| ADD: TCGRP | AUTH           |

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| Message            | Authority Code (continued) |
|--------------------|----------------------------|
| ALW:AUD            | AUDIT                      |
| ALW:CONFLOG        | FHADM                      |
| ALW:DMQ            | ECCT                       |
| ALW:ERRCHK         | SYSINH                     |
| ALW:ERRINH         | SYSINH                     |
| ALW:ERRSRC         | SYSINH                     |
| ALW:FILESYS:ACCESS | FHADM                      |
| ALW:FILESYS:MOUNT  | FHADM                      |
| ALW:FILESYS:OWNER  | FHADM                      |
| ALW:HDWCHK         | SYSINH                     |
| ALW:REX            | ECCT                       |
| ALW:SCSD           | ECCSC                      |
| ALW:SFTCHK         | SYSINH                     |
| ALW:UMEM           | SFTUTIL                    |
| ALW:UTIL           | SFTUTIL                    |
| ALW:UTILFLAG       | SFTUTIL                    |
| AUD:CUMEM          | AUDIT                      |
| AUD:CUSTAT         | AUDIT                      |
| AUD:ECD            | AUDIT                      |
| AUD:ECDOWN         | AUDIT                      |
| AUD:FMGR           | AUDIT                      |
| AUD:FSBLK          | AUDIT                      |
| AUD:FSLINK         | AUDIT                      |
| AUD:MMGR           | AUDIT                      |
| AUD:MSGBUF         | AUDIT                      |
| AUD:PMS            | AUDIT                      |
| AUD:PROAD          | AUDIT                      |
| CHG:PAUTH          | AUTH                       |
| CLR:EMERDMP        | SYSINIT                    |
| CLR:FANALM         | ALARM                      |
| CLR:FILESYS:DIR    | FHADM                      |
| CLR:FILESYS:FILE   | FHADM                      |
| CLR:IMCAT          | SFTMGT                     |
| CLR:IODRV          | ECCSC                      |
| CLR:PTN            | FHADM                      |
| CLR:UMEM           | SFTUTIL                    |
| CLR:UTIL           | SFTUTIL                    |
| CLR:UTILFLAG       | SFTUTIL                    |
| CMPR:DISK:CORE     | FHADM                      |
| CMPR:MHD           | FHADM                      |
| COPY:ACTDISK       | FHADM                      |
| COPY:BKDISK:ACK    | FHADM                      |
| COPY:BKDISK:START  | FHADM                      |
| COPY:DIFF:MHD      | FHADM                      |

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| Message            | Authority Code (continued) |
|--------------------|----------------------------|
| COPY:FILESYS:CFILE | FHADM                      |
| COPY:FILESYS:FILE  | FHADM                      |
| COPY:00SDISK       | FHADM                      |
| COPY:PID           | FHADM                      |
| COPY:PTN:ALL       | FHADM                      |
| COPY:REG           | FHADM                      |
| COPY:SPDISK        | FHADM                      |
| COPY:TAPE:EMERDMP  | FHADM                      |
| COPY:TAPE:IN       | FHADM                      |
| COPY:TAPE:OUT      | FHADM                      |
| COPY:TAPE:TEST     | FHADM                      |
| COPY:UID           | FHADM                      |
| COPY:UVAR          | FHADM                      |
| DEL:LOG            | FHADM                      |
| DEL:PAUTH          | AUTH                       |
| DEL:PCGRP          | AUTH                       |
| DEL:TAUTH          | AUTH                       |
| DEL:TCGRP          | AUTH                       |
| DGN:CU             | ECCT                       |
| DGN:DFC            | ECCT                       |
| DGN:DUIC           | ECCT                       |
| DGN:HSDC           | ECCT                       |
| DGN:IOP            | ECCT                       |
| DGN:MHD            | ECCT                       |
| DGN:MTC            | ECCT                       |
| DGN:MTTYC          | ECCT                       |
| DGN:SCSDC          | ECCT                       |
| DGN:SDLC           | ECCT                       |
| DGN:TTYC           | ECCT                       |
| DUMP:CACHE         | FHADM                      |
| DUMP:FILE:ALL      | FHADM                      |
| DUMP:FILE:FORMAT   | FHADM                      |
| DUMP:FILE:PARTL    | FHADM                      |
| DUMP:KERN          | SFTUTIL                    |
| DUMP:MHD:BLOCK     | FHADM                      |
| DUMP:MHD:DEFECT    | FHADM                      |
| DUMP:MHD:VTOC      | FHADM                      |
| DUMP:PID           | SFTUTIL                    |
| DUMP:PMEM          | SFTUTIL                    |
| DUMP:UID           | SFTUTIL                    |
| EX:CU              | ECCT                       |
| EX:DFC             | ECCT                       |
| EX:DUIC            | ECCT                       |
| EX:HSDC            | ECCT                       |

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| Message            | Authority Code (continued) |
|--------------------|----------------------------|
| EX:IOP             | ECCT                       |
| EX:MHD             | ECCT                       |
| EX:MTC             | ECCT                       |
| EX:MTTYC           | ECCT                       |
| EX:SCSDC           | ECCT                       |
| EX:SDLC            | ECCT                       |
| EX:TTYC            | ECCT                       |
| EXC:ENVIR:PROC     | SFTMGT                     |
| EXC:ENVIR:UPROC    | SFTMGT                     |
| IN:DTIME           | SFTUTIL                    |
| IN:FILE:APND       | FHADM                      |
| IN:FILE:DEL        | FHADM                      |
| IN:FILE:REPL       | FHADM                      |
| IN:FILESYS:DIR     | FHADM                      |
| IN:REMOTE:REPT     | SFTMGT                     |
| IN:REMOTE:START    | SFTMGT                     |
| IN:REMOTE:STOP     | SFTMGT                     |
| IN:STIME           | SFTUTIL                    |
| INH:AUD            | AUDIT                      |
| INH:CONFLOG        | FHADM                      |
| INH:DMQ            | ECCT                       |
| INH:ERRCHK         | SYSINH                     |
| INH:ERRINT         | SYSINH                     |
| INH:ERRSRC         | SYSINH                     |
| INH:FILESYS:UMOUNT | FHADM                      |
| INH:HDWCHK         | SYSINH                     |
| INH:REX            | ECCT                       |
| INH:SCSD           | ECCSC                      |
| INH:SFTCHK         | SYSINH                     |
| INH:UMEM           | SFTUTIL                    |
| INH:UTIL           | SFTUTIL                    |
| INH:UTILFLAG       | SFTUTIL                    |
| INIT:MHD           | FHADM                      |
| INIT:UC            | SFTUTIL                    |
| INIT:ULARP         | SYSINIT                    |
| INIT:UMEM          | SFTUTIL                    |
| LOAD:MHD           | FHADM                      |
| LOAD:PMEM          | SFTUTIL                    |
| LOAD:UVAR          | SFTUTIL                    |
| OP:ACT             | ECCR                       |
| OP:AUD             | AUDIT                      |
| OP:AUDERR          | AUDIT                      |
| OP:CFGSTAT         | ECCR                       |
| OP:CLK             | MISC                       |

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Message Authority Code (continued)

|                    |         |
|--------------------|---------|
| OP:DFC             | ECCSC   |
| OP:DMQ             | ECCR    |
| OP:EMERSTAT        | SYSINIT |
| OP:ERRCHK          | SYSINH  |
| OP:FNAME           | FHADM   |
| OP:GEN:READLOG     | SFTMGT  |
| OP:GROW            | ECCR    |
| OP:INIT            | ECCR    |
| OP:IODRV           | ECCSC   |
| OP:LOG             | FHADM   |
| OP:MEMERRS         | FHADM   |
| OP:MHD             | ECCSC   |
| OP:OFL             | ECCR    |
| OP:OOS             | ECCR    |
| OP:PMCR            | SERV    |
| OP:REXINH          | ECCT    |
| OP:SCSD            | ECCSC   |
| OP:STATUS:DISKUSE  | FHADM   |
| OP:STATUS:FILESYS  | FHADM   |
| OP:STATUS:FREEDISK | FHADM   |
| OP:STATUS:LISTDIR  | FHADM   |
| OP:STATUS:PORTS    | FHADM   |
| OP:STATUS:PROCESS  | FHADM   |
| OP:STATUS:SUM      | FHADM   |
| OP:STBY            | ECCR    |
| OP:ULARP:COMMAND   | ECCR    |
| OP:ULARP:EXECSEQ   | ECCR    |
| OP:ULARP:PROCESS   | ECCR    |
| OP:UMEM            | SFTUTIL |
| OP:UNAV            | ECCR    |
| OP:UNEQIP          | ECCR    |
| OP:UTIL            | SFTUTIL |
| ORD:SCSD           | ECCT    |
| RCV:DMTECD:RC      | FHADM   |
| RCV:DMTECD:VFY     | FHADM   |
| RCV:DMTSG:RC       | FHADM   |
| RCV:DMTSG:VFY      | FHADM   |
| RCV:MEMU:BROWSE    | SFTUTIL |
| RCV:MENU:COMPAREDB | FHADM   |
| RCV:MENU:CREATEECD | FHADM   |
| RCV:MENU:CREATESG  | FHADM   |
| RCV:MENU:EVOL      | FHADM   |
| RCV:MENU:FDIFF     | FHADM   |
| RCV:MENU:KEYCMP    | FHADM   |

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Message                      Authority Code (continued)

|                   |        |
|-------------------|--------|
| RCV:MENU:KEYCOMM  | FHADM  |
| RCV:MENU:KEYS     | FHADM  |
| RCV:MENU:LOADF3B  | FHADM  |
| RCV:MENU:NEWDB    | FHADM  |
| RCV:MENU:PRINTDB  | FHADM  |
| RCV:MENU:PRINTFRM | FHADM  |
| RCV:MENU:RCVECD   | FHADM  |
| RCV:MENU:RCVSG    | FHADM  |
| RCV:MENU:TRANSGEN | FHADM  |
| RCV:MENU:TREEBLD  | FHADM  |
| RFT:ABORT         | SFTMGT |
| RFT:BACKOUT       | SFTMGT |
| RFT:BEGINPOST     | SFTMGT |
| RFT:BEGINPRE      | SFTMGT |
| RFT:CHECK         | SFTMGT |
| RFT:CHGDIR        | SFTMGT |
| RFT:CLEAR         | SFTMGT |
| RFT:CONT          | SFTMGT |
| RFT:CURRENT       | SFTMGT |
| RFT:DIAGCU        | SFTMGT |
| RFT:DIAGDFC       | SFTMGT |
| RFT:DIAGIOP       | SFTMGT |
| RFT:DUMP          | SFTMGT |
| RFT:EXEC          | SFTMGT |
| RFT:FDUMP         | SFTMGT |
| RFT:NEXT          | SFTMGT |
| RFT:PERFORM       | SFTMGT |
| RFT:PREV          | SFTMGT |
| RFT:PRINT         | SFTMGT |
| RFT:RESET         | SFTMGT |
| RFT:RESTORE       | SFTMGT |
| RFT:RHASHLOG      | SFTMGT |
| RFT:STATUS        | SFTMGT |
| RFT:TESTTAPE      | SFTMGT |
| RMV:CU            | ECCSC  |
| RMV:DFC           | ECCSC  |
| RMV:DUI           | ECCSC  |
| RMV:DUIC          | ECCSC  |
| RMV:HSD           | ECCSC  |
| RMV:HSDC          | ECCSC  |
| RMV:IOP           | ECCSC  |
| RMV:MHD           | ECCSC  |
| RMV:MT            | ECCSC  |
| RMV:MTC           | ECCSC  |

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| Message        | Authority Code (continued) |
|----------------|----------------------------|
| RMV:MTTY       | ECCSC                      |
| RMV:MTTYC      | ECCSC                      |
| RMV:ROP        | ECCSC                      |
| RMV:SCC        | ECCSC                      |
| RMV:SCSDC      | ECCSC                      |
| RMV:SDL        | ECCSC                      |
| RMV:SDLC       | ECCSC                      |
| RMV:TTY        | ECCSC                      |
| RMV:TTYC       | ECCSC                      |
| RNM:PSSWD      | PASS                       |
| RST:CU         | ECCSC                      |
| RST:DFC        | ECCSC                      |
| RST:DUI        | ECCSC                      |
| RST:DUIC       | ECCSC                      |
| RST:HSD        | ECCSC                      |
| RST:HSDC       | ECCSC                      |
| RST:IOP        | ECCSC                      |
| RST:MHD        | ECCSC                      |
| RST:MT         | ECCSC                      |
| RST:MTC        | ECCSC                      |
| RST:MTTY       | ECCSC                      |
| RST:MTTYC      | ECCSC                      |
| RST:ROP        | ECCSC                      |
| RST:SCC        | ECCSC                      |
| RST:SCSDC      | ECCSC                      |
| RST:SDL        | ECCSC                      |
| RST:SDLC       | ECCSC                      |
| RST:TTY        | ECCSC                      |
| RST:TTYC       | ECCSC                      |
| SET:CLK        | ECCT                       |
| SET:IODRV      | ECCSC                      |
| STOP:AUD       | AUDIT                      |
| STOP:BKDISK    | FHADRM                     |
| STOP:CMPR:MHD  | FHADRM                     |
| STOP:COPY:DIFF | FHADRM                     |
| STOP:DMQ       | ECCT                       |
| STOP:EXC:ANY   | SFTMGT                     |
| STOP:EXC:USER  | SFTMGT                     |
| STOP:GEN       | SFTMGT                     |
| SW:CU          | ECCSC                      |
| SW:PORTSW      | ECCSC                      |
| TST:ACKU       | SFTMGT                     |
| TST:ALT        | SFTMGT                     |
| TST:SHL        | SFTMGT                     |

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| Message          | Authority Code (continued) |
|------------------|----------------------------|
| TST:SPL          | SFTMGT                     |
| UPD:APPLY:BYTER  | SFTMGT                     |
| UPD:APPLY:FILER  | SFTMGT                     |
| UPD:APPLY:FUNCR  | SFTMGT                     |
| UPD:BKOUT        | SFTMGT                     |
| UPD:BLDBOOT      | SFTMGT                     |
| UPD:CLR          | SFTMGT                     |
| UPD:DISPLAY      | SFTMGT                     |
| UPD:FTRC         | SFTMGT                     |
| UPD:GEN:BACKOUT  | SFTMGT                     |
| UPD:GEN:COMMIT   | SFTMGT                     |
| UPD:GEN:CONTINUE | SFTMGT                     |
| UPD:GEN:ENTER    | SFTMGT                     |
| UPD:GEN:PROCEED  | SFTMGT                     |
| UPD:GEN:RESTORE  | SFTMGT                     |
| UPD:OMIT         | SFTMGT                     |
| UPD:PERM         | SFTMGT                     |
| UPD:PURGE        | SFTMGT                     |
| UPD:RECLAIM      | SFTMGT                     |
| UPD:RESET        | SFTMGT                     |
| UPD:VFY          | SFTMGT                     |
| VFY:MHD          | ECCT                       |
| VFY:PAUTH        | AUTH                       |
| VFY:PCGRP        | AUTH                       |
| VFY:TAPE         | FHADMD                     |
| VFY:TAUTH        | AUTH                       |
| VFY:TCGRP        | AUTH                       |
| WHEN:PID         | SFTUTIL                    |
| WHEN:UID         | SFTUTIL                    |

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ID ..... APP:BOOTDISKCHK  
WORK CENTER.. MOC  
GENERIC ..... 4AP17 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

# BOOTDISKCHK CODE NUMBERS

| Result Code | Description                                                                      |
|-------------|----------------------------------------------------------------------------------|
| 1           | Unit Control Block (UCB) Record Identifier (RID) is set to IDNULL.               |
| 2           | Could not get UCB record using specified RID.                                    |
| 3           | Unit is marked Unequipped (UNEQIP).                                              |
| 4           | Could not get UCB record for controlling unit.                                   |
| 5           | Controlling unit is not marked Active (ACT).                                     |
| 6           | Could not reserve the unit.                                                      |
| 7           | Failed to fill in special device file name.                                      |
| 8           | Failed to open special device file.                                              |
| 9           | Could not set up physical Input/Output (I/O).                                    |
| 10          | Could not read Volume Table Of Contents (VTOC) on the unit.                      |
| 11          | No LBOOT21 partition with size greater than zero.                                |
| 12          | No BBOOT partition with size greater than zero.                                  |
| 13          | No SWAP partition with size greater than zero.                                   |
| 14          | No ROOT partition with size greater than zero.                                   |
| 15          | ROOT partition is not a file system.                                             |
| 16          | No Equipment Configuration Database (ECD) partition with size greater than zero. |
| 17          | ECD partition is not a file system.                                              |
| 18          | No ETC partition with size greater than zero.                                    |
| 19          | ETC partition is not a file system.                                              |
| 20          | Seek error while accessing root inode.                                           |
| 21          | Read error while accessing root inode.                                           |
| 22          | UCB specified by RID is not for a Moving Head Disk (MHD).                        |
| 23          | Seek error while accessing "time stamp" inode.                                   |
| 24          | Read error while accessing "time stamp" inode.                                   |
| 25          | Seek error while accessing direct data block.                                    |
| 26          | Read error while accessing direct data block.                                    |
| 27          | Seek error while accessing single indirect header block.                         |
| 28          | Read error while accessing single indirect header block.                         |
| 29          | Seek error while accessing single indirect data block.                           |
| 30          | Read error while accessing single indirect data block.                           |
| 31          | Seek error while accessing double indirect header block.                         |
| 32          | Read error while accessing double indirect header block.                         |
| 33          | Seek error while accessing single from double indirect header block.             |
| 34          | Read error while accessing single from double indirect header block.             |

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| Result Code | Description                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------------------|
| 35          | Seek error while accessing double indirect data block.                                                                          |
| 36          | Read error while accessing double indirect data block.                                                                          |
| 37          | Seek error while accessing triple indirect header block.                                                                        |
| 38          | Read error while accessing triple indirect header block.                                                                        |
| 39          | Seek error while accessing double from triple indirect header block.                                                            |
| 40          | Read error while accessing double from triple indirect header block.                                                            |
| 41          | Seek error while accessing single from triple indirect header block.                                                            |
| 42          | Read error while accessing single from triple indirect header block.                                                            |
| 43          | Seek error while accessing triple indirect data block.                                                                          |
| 44          | Read error while accessing triple indirect data block.                                                                          |
| 45          | MHD number is not in the range of 0-15 inclusive.                                                                               |
| 46          | MHDs attached to Disk File Controller (DFC) are not cabled to the expected Direct Memory Controller (DMAC), channel and device. |
| 47          | Up UCB from the Small Computer System Interface Bus (SBUS) is not a DFC.                                                        |
| 48          | Up UCB from the MHD is not a SBUS.                                                                                              |
| 49          | MHD number and internal device number do not correspond.                                                                        |
| 50          | MHD number and SBUS internal device number do not correspond.                                                                   |
| 51          | Cannot get to the DFC using up RID.                                                                                             |
| 52          | Cannot get to the channel using up RID.                                                                                         |
| 53          | Cannot get to the DMAC using up RID.                                                                                            |
| 54          | Up UCB from the DFC is not a channel.                                                                                           |
| 55          | Up UCB from the channel is not a DMAC.                                                                                          |
| 56          | No VTOC partition with size greater than zero.                                                                                  |
| 57          | VTOC partition does not start at address zero.                                                                                  |
| 58          | VTOC partition too small to hold "vtoc" data.                                                                                   |

| Exit Code | Description                                                                |
|-----------|----------------------------------------------------------------------------|
| 1         | Unable to enable messages.                                                 |
| 2         | Message returned not of size requested.                                    |
| 3         | Unable to open /dev/ecd.                                                   |
| 4         | Received message is not of expected size.                                  |
| 5         | Received message is not of expected inter-process type.                    |
| 6         | Received message is not of expected internal type.                         |
| 7         | Timed out waiting for message.                                             |
| 8         | Unable to send event - parent process gone.                                |
| 9-64      | Not used at present.                                                       |
| 65-97     | Exiting due to signal. Subtract 64 to calculate the specific signal value. |

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ID ..... APP:DCI-A  
WORK CENTER.. MOC  
GENERIC ..... 4AP18 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**NOTE:** These error codes are in hexadecimal notation.

ERROR CODES GENERATED BY DCIDRV

| CODE  | COMMENT                                   | PLAFORM       |
|-------|-------------------------------------------|---------------|
| 0x030 | Access to BIC failed                      | 3B20/21D only |
| 0x039 | IO job has no associated IO message       | 3B20/21D only |
| 0x040 | IO message "ms_to" field is invalid       | 3B20/21D only |
| 0x045 | message type not valid for IOJOB or MIJOB | 3B20/21D only |
| 0x050 | Invalid completion code returned          | 3B20/21D only |
| 0x051 | Job reported error                        | 3B20/21D only |
| 0x05a | Response contains jobid not in use        | 3B20/21D only |
| 0x070 | Mode command: base queue full             | 3B20/21D only |
| 0x073 | bhqjobid failed for MODE job              | 3B20/21D only |
| 0x098 | DCI version command base queue full       | 3B20/21D only |
| 0x09a | DCI version command bhqjobid failed       | 3B20/21D only |
| 0x0a0 | initmem1() failed                         | 3B20/21D only |
| 0x0a1 | Start I/O assist failed                   | 3B21E only    |
| 0x0a2 | atchchan() failed                         | 3B21E only    |
| 0x0a3 | DCIDRV timing index 0 already assigned    | 3B20/21D only |
| 0x0a3 | atchintr() failed                         | 3B21E only    |
| 0x0a4 | DCIDRV port attach failed                 | 3B20/21D only |
| 0x0a4 | enabintr() failed                         | 3B21E only    |
| 0x0a5 | initmem1() failed                         | 3B21E only    |
| 0x0a6 | DVIDRV timing index 0 already assigned    | 3B21E only    |
| 0x0a7 | DCIDRV port attach failed                 | 3B21E only    |
| 0x0d0 | DMA_OK flag not set in msg                | 3B20/21D only |
| 0x0d7 | Maintenance job failure                   |               |
| 0x0dd | Unknown ACK message received              |               |
| 0x0df | Unrecognizable message type               |               |
| 0x0ef | Unknown ACK message received              |               |
| 0x0f4 | Message alloc failed for DCIDIP message   |               |
| 0x0f6 | Message alloc failed for DCIDIP message   |               |
| 0x0f8 | Message alloc failed for DCIDIP message   |               |
| 0x0fc | Invalid opcode in util message            |               |
| 0x140 | Virtual addr does not map into segment no | 3B20/21D only |

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ERROR CODES GENERATED BY DCIDRV (continued)

| CODE  | COMMENT                                               | PLATFORM      |
|-------|-------------------------------------------------------|---------------|
| 0x145 | iolock() failed                                       | 3B20/21D only |
| 0x14a | uniolock() failed                                     | 3B20/21D only |
| 0x14e | Job inventory table is full                           | 3B20/21D only |
| 0x14f | Job inventory table is no longer full                 | 3B20/21D only |
| 0x160 | RID to UCB conversion failed                          |               |
| 0x162 | UCB update and release failed                         |               |
| 0x164 | Invalid inhibit administrator opcode                  |               |
| 0x1a0 | dtchintr call returned fail                           | 3B20/21D only |
| 0x1a5 | atchintr call returned fail                           | 3B20/21D only |
| 0x1aa | enabintr call returned fail                           | 3B20/21D only |
| 0x1b0 | ECD attach failed                                     |               |
| 0x1b5 | CONFIG OPEN failed                                    |               |
| 0x1b8 | atchdata call to ECD failed                           |               |
| 0x1bc | enabintr() function call failed                       | 3B20/21D only |
| 0x1be | DCI growth failed                                     |               |
| 0x1d6 | RID to UCB conversion failed                          |               |
| 0x1d8 | Invalid device type                                   |               |
| 0x1dc | RID update and release failed                         |               |
| 0x1de | device is unequipped                                  |               |
| 0x1df | Invalid DCI internal device id                        |               |
| 0x1e1 | Channel RID to UCB conversion failed                  | 3B20/21D only |
| 0x1e2 | Failed to get DCI option record                       |               |
| 0x1fc | Memory initialization failed                          |               |
| 0x203 | getpta() function failed                              | 3B20/21D only |
| 0x204 | Bad Adjunct UCB RID                                   |               |
| 0x209 | idmadev() (write to DMAC RAM) failed                  | 3B20/21D only |
| 0x20f | RID not known by DCIDRV                               |               |
| 0x213 | DCI being degrown is being used                       |               |
| 0x216 | RID to UCB conversion failed                          |               |
| 0x219 | DCI being degrown not UNEQIP                          |               |
| 0x256 | CANCEL_IO failed because job queue is full            | 3B21E only    |
| 0x257 | Job for IOCANCEL not found                            |               |
| 0x258 | CANCEL_IO job failed                                  | 3B21E only    |
| 0x259 | Bad message                                           |               |
| 0x260 | Incorrect MDCT from IO message                        |               |
| 0x263 | Unknown device                                        |               |
| 0x268 | Warning - enlarge DCIDRV's internal MDCT              |               |
| 0x270 | MDCT points to non-HA-OMP DCI unit                    |               |
| 0x272 | Cannot find adjunct device that is ACT                |               |
| 0x273 | Cannot find adjunct device that is STBY               |               |
| 0x274 | Cannot access STBY adjunct if no ACT mate             |               |
| 0x275 | Cannot access a STBY adjunct in simplex configuration |               |

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ERROR CODES GENERATED BY DCIDRV (continued)

| CODE  | COMMENT                                                                                                                                 | PLAFORM       |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 0x278 | Non HA-OMP Device using STBY Range                                                                                                      |               |
| 0x279 | DCI driver in overload - no free job table entries                                                                                      | 3B21E only    |
| 0x30  | Access to BIC failed                                                                                                                    | 3B20/21D only |
| 0x301 | Heartbeat job inconsistency, queued heartbeat not in use                                                                                | 3B20/21D only |
| 0x302 | Heartbeat job inconsistancy, queued job not heartbeat                                                                                   | 3B20/21D only |
| 0x305 | Unrecognizable DCIDRV internal job type                                                                                                 | 3B20/21D only |
| 0x308 | Failed to set unsolicited job timeout                                                                                                   |               |
| 0x310 | Failed to get DCI option record                                                                                                         | 3B20/21D only |
| 0x310 | Failed to get adjunct UCB record                                                                                                        | 3B21E only    |
| 0x315 | Failed to update DCI option record                                                                                                      | 3B20/21D only |
| 0x315 | Failed to update adjunct UCB record                                                                                                     | 3B21E only    |
| 0x320 | Changing adjunct's state, followed by the old state and the new state. The states are S_ACT through S_GROW as defined in head/lla/ecd.h |               |
| 0x325 | Unsolicited job response timeout, this message includes the timeout value in seconds                                                    | 3B20/21D only |
| 0x32a | Unexpected event                                                                                                                        |               |
| 0x32c | Driver is terminating itself                                                                                                            | 3B20/21D only |
| 0x32c | TWO OF THESE FOR EMDCIDRV & DRIVER!!                                                                                                    | 3B21E only    |
| 0x32d | Expected DCI not found and not removed                                                                                                  |               |
| 0x32e | General message for all faults                                                                                                          |               |
| 0x32f | Fault on fault, terminate driver                                                                                                        |               |
| 0x330 | Message not found                                                                                                                       |               |
| 0x345 | dtchintr call returned fail                                                                                                             | 3B20/21D only |
| 0x346 | Old nonqueued audit error message                                                                                                       |               |
| 0x347 | atchintr call returned fail                                                                                                             | 3B20/21D only |
| 0x349 | Unexpected fault code                                                                                                                   |               |
| 0x35  | Desired BIC status not obtained                                                                                                         | 3B20/21D only |
| 0x350 | Driver is processing the PIO failure fault                                                                                              | 3B20/21D only |
| 0x373 | Unknown RID faulted                                                                                                                     |               |
| 0x376 | PIO lost for a unit                                                                                                                     |               |
| 0x379 | Unknown RID faulted                                                                                                                     |               |
| 0x37c | Unexpected fault code                                                                                                                   |               |
| 0x383 | timereq() failed -dciinit                                                                                                               | 3B20/21D only |
| 0x39b | Major DCI reinitialization                                                                                                              | 3B20/21D only |
| 0x3a6 | Invalid dciinit() sequence                                                                                                              | 3B20/21D only |
| 0x3b4 | Heartbeat job inconsistency, queued heartbeat not in use                                                                                | 3B21E only    |
| 0x3b9 | Heartbeat job inconsistancy, queued job not heartbeat                                                                                   | 3B21E only    |
| 0x3ba | Failed to clear BIC INTP                                                                                                                | 3B20/21D only |
| 0x3bc | Stray interrupts detected                                                                                                               | 3B20/21D only |
| 0x3bd | Go ONLINE job returned error                                                                                                            | 3B21E only    |

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ERROR CODES GENERATED BY DCIDRV (continued)

| CODE  | COMMENT                                               | PLAFORM       |
|-------|-------------------------------------------------------|---------------|
| 0x3be | VERSION command failed                                | 3B21E only    |
| 0x3d0 | RID not known by DCIDRV                               |               |
| 0x3d3 | DCIDRV has aborted client                             |               |
| 0x3d5 | Invalid maintenance state                             |               |
| 0x3d8 | Device file not open                                  |               |
| 0x3dc | Another process has device file open                  |               |
| 0x3de | Request prohibited on S_ACT DCI                       |               |
| 0x3e1 | Maint attach interrupt failed                         | 3B20/21D only |
| 0x3e3 | Maint enable interrupt failed                         | 3B20/21D only |
| 0x3e8 | DMAC ram init failed                                  | 3B20/21D only |
| 0x3ec | Detach / attach / enable interrupt failed             | 3B20/21D only |
| 0x3ef | Detach intr function call failed                      | 3B20/21D only |
| 0x409 | CONFIG denied request to remove unit                  |               |
| 0x40c | May only restore S_OOS units                          |               |
| 0x40d | Cannot restore DCI if CU OFFLINE                      | 3B20/21D only |
| 0x40e | Cannot restore DCI if CU OFFLINE                      | 3B20/21D only |
| 0x43c | getdmaa function failed                               | 3B20/21D only |
| 0x43e | Received WSETUP0 before SPECDMA                       | 3B20/21D only |
| 0x442 | WSETUP1 received before WSETUP0                       | 3B20/21D only |
| 0x445 | uniolock failed                                       | 3B20/21D only |
| 0x448 | getdmaa function failed                               | 3B20/21D only |
| 0x4aa | Device must be non-ACT to init error msg inhibit flag | 3B20/21D only |
| 0x4ac | Invalid opcode in maintenance message                 |               |
| 0x4ae | Unexpected maint interrupt                            | 3B20/21D only |
| 0x4b3 | dtchintr() function call failed                       | 3B20/21D only |
| 0x4b6 | Maintenance work timed out                            |               |
| 0x4b8 | Unexpected timeout                                    |               |
| 0x550 | Physical device file not opened                       |               |
| 0x556 | iolock() function call failed                         | 3B20/21D only |
| 0x55b | getjobid() function call failed                       | 3B20/21D only |
| 0x573 | This physical device file already open                |               |
| 0x575 | RID to UCB conversion failed                          |               |
| 0x57a | Update of device file variables failed                |               |
| 0x585 | uniolock() function call failed                       | 3B20/21D only |
| 0x5a0 | Command to BIC failed                                 | 3B20/21D only |
| 0x5a5 | Command to PIC failed                                 | 3B20/21D only |
| 0x5aa | Clear of DDSBS failed                                 | 3B20/21D only |
| 0x5bc | Read status of BIC failed                             | 3B20/21D only |
| 0x5c5 | progio() cmdtype not defined                          | 3B20/21D only |
| 0x600 | Requested maintenance message is not a unit remove    |               |
| 0x60e | CONFIG chgstate() call failed                         |               |
| 0x613 | dtchintr() failed                                     | 3B20/21D only |
| 0x615 | Failed to get timer                                   |               |

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ERROR CODES GENERATED BY DCIDRV (continued)

| CODE  | COMMENT                                                | PLAFORM       |
|-------|--------------------------------------------------------|---------------|
| 0x678 | RID to UCB LLA call failed                             |               |
| 0x6bf | rstdcis() - invalid argument                           |               |
| 0x6c0 | RID to UCB conversion failed                           |               |
| 0x6c1 | Cannot restore from GROW state                         | 3B21E only    |
| 0x6c3 | chgstate() function call failed                        |               |
| 0x6c5 | initmem3() function call failed                        |               |
| 0x6c8 | initmem5() function call failed                        | 3B20/21D only |
| 0x6ce | progio() function call to clear DDSBS failed           | 3B20/21D only |
| 0x6d1 | progio() (BIC init and PIC reset) failed               | 3B20/21D only |
| 0x6d3 | enabintr() function call failed                        | 3B20/21D only |
| 0x6d5 | sysgen() function call failed                          | 3B20/21D only |
| 0x6d5 | Could not send "go online" command                     | 3B21E only    |
| 0x6d7 | Version numbers of 3B and Solaris drivers do not match | 3B20/21D only |
| 0x6d8 | sysgen() function returned fail                        | 3B20/21D only |
| 0x6df | dciserv() function call failed                         | 3B20/21D only |
| 0x6e2 | dciserv() function returned fail                       | 3B20/21D only |
| 0x6e2 | "go online" command failed                             | 3B21E only    |
| 0x6e3 | Could not send "version" command                       | 3B21E only    |
| 0x6e4 | "version" command failed                               | 3B21E only    |
| 0x6e5 | Call to chgstate() failed                              |               |
| 0x6ea | RID to UCB conversion failed                           |               |
| 0x6eb | Failed to get timer                                    | 3B20/21D only |
| 0x6ef | Invalid DCI restore sequence number                    |               |
| 0x760 | progio(set BIC IFEN flag) failed                       | 3B20/21D only |
| 0x761 | Job Inventory table corrupted                          | 3B20/21D only |
| 0x762 | Resume pio failed                                      | 3B20/21D only |
| 0x763 | Base queue no longer full                              | 3B20/21D only |
| 0x765 | progio(SYSGEN cmd to PIC) failed                       | 3B20/21D only |
| 0x770 | Job timed out                                          | 3B20/21D only |
| 0x771 | Failed to queue heartbeat job                          |               |
| 0x773 | VDCI job timeout                                       | 3B21E only    |
| 0x778 | Heartbeat job timed out                                |               |
| 0x77b | Too many heartbeat timeouts, DCI will be removed       |               |
| 0x77e | Removed DCI, CU OFFLINE                                | 3B20/21D only |
| 0x77f | DCI usability audit failed                             | 3B20/21D only |
| 0x790 | Timing table full                                      |               |
| 0x795 | Timeout request is out of range                        |               |
| 0x797 | ONLINE job timed out                                   | 3B21E only    |
| 0x798 | Job Timeout unable to start I/O Assist                 | 3B21E only    |
| 0x799 | Write job timed out, CANCEL_IO                         |               |
| 0x79a | Open job timed out                                     |               |
| 0x79b | Close job timed out                                    |               |

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**ERROR CODES GENERATED BY DCIDRV (continued)**

| CODE  | COMMENT                                    | PLAFORM       |
|-------|--------------------------------------------|---------------|
| 0x79c | Invalid jobtype timed out                  |               |
| 0x79d | READ job timed out, CANCEL_IO.             |               |
| 0x79e | CANCEL_IO job failed                       | 3B21E only    |
| 0x79f | CANCEL_IO failed because job queue is full | 3B21E only    |
| 0x801 | Removing job that is not in use            | 3B20/21D only |
| 0x949 | Invalid segment size requested             | 3B20/21D only |
| 0x94c | Fail to get segment index for new segment  | 3B20/21D only |
| 0x951 | Fail to allocate a message buffer          | 3B20/21D only |
| 0x953 | Fail to allocate a message buffer          | 3B20/21D only |
| 0xaca | atchintr() function call failed            | 3B20/21D only |
| 0xce2 | DCI device not online                      |               |
| 0xce4 | IO job failed because job queue is full    | 3B21E only    |
| 0xce8 | DCI sndcmd: job queue full                 | 3B20/21D only |
| 0xcea | Failed to get job id                       | 3B20/21D only |
| 0xceb | Invalid cmd type                           |               |
| 0xced | IO job failed                              | 3B21E only    |
| 0xdeb | Invalid cmd type                           | 3B20/21D only |

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ID ..... APP:DCI-B  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

This appendix contains a table describing the Dual Serial Channel/Computer Interconnect (DCI) driver special completion codes, which are applicable for autonomous response output messages.

All error codes are in hexadecimal notation.

#### Autonomous Response Special Completion Code

| Code | Definition                                                                                                                                                 |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3    | SYSGEN command completed.<br>The DCI is reporting the completion of a SYSGEN command. The job id code for the SYSGEN command is zero by design.            |
| 5    | DCI idle.<br>This is in response to a SUN driver initiated ABORT sequence, simply indicating that the DCI was idle when the SUN driver sent abort command. |
| 6    | Illegal command.<br>The DCI received a bit pattern in the command field which it could not decode.                                                         |
| 7    | DCI Autonomous Error.<br>When BIC reports software error during data transfer, the Sun driver aborts the data transfer if it is in progress.               |

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ID ..... APP:DCI-C  
 WORK CENTER.. MOC  
 GENERIC ..... 4AP12 and later  
 APPLICATION .. 4E,3B  
 TYPE ..... Output

# DSCH STATUS LAYOUT

| Bit | Description                            |               |
|-----|----------------------------------------|---------------|
| 00  | Low return code                        | *             |
| 01  | Low return code                        | * high 3 bits |
| 02  | Low return code                        | *             |
| 03  | High return code                       | *             |
| 04  | High return code                       | * high 3 bits |
| 05  | High return code                       | *             |
| 06  | Channel busy f-f                       |               |
| 07  | I/O inhibit override f-f               |               |
| 08  | Sequencer error                        |               |
| 09  | Illegal 3 out of 6 device address      |               |
| 10  | Command error                          |               |
| 11  | Channel error (or of previous command) |               |
| 12  | Maintenance f-f                        |               |

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ID ..... APP:DCI-D  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

D2SBS STATUS LAYOUT

| Bit | Description              |
|-----|--------------------------|
| 00  | Device reported error    |
| 01  | Overflow error           |
| 02  | Sequencer error          |
| 03  | Illegal D2SBS command    |
| 04  | Maintenance f-f          |
| 05  | Device interrupt request |
| 06  | Device setup request     |
| 07  | Device transfer request  |

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ID ..... APP:DCI-E  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

# BIC STATUS LAYOUT

| Bit | Description                           |
|-----|---------------------------------------|
| 00  | Unit address                          |
| 01  | Unit address                          |
| 02  | Unit address                          |
| 03  | Unit address                          |
| 04  | DMA setup overwrite *                 |
| 05  | PBI parity error - byte 0 *           |
| 06  | PBI parity error - byte 1 *           |
| 07  | PBI parity error - byte 2 *           |
| 08  | PBI parity error - byte 3 *           |
| 09  | EOD error * ERROR                     |
| 10  | PIC fatal error summary * FLAGS       |
| 11  | PIC sanity error *                    |
| 12  | PIC data bus parity error - lo byte * |
| 13  | PIC data bus parity error - hi byte * |
| 14  | Data FIFO overflow / underflow *      |
| 15  | Command register overflow *           |
| 16  | FIFO word count                       |
| 17  | FIFO word count                       |
| 18  | FIFO word count                       |
| 19  | FIFO word count                       |
| 20  | FIFO word count                       |
| 21  | Interrupt                             |
| 22  | Transfer                              |
| 23  | Setup                                 |
| 24  | EOD expected                          |
| 25  | EOD received                          |
| 26  | Transfer mode (0=WRD, 1=BLK)          |
| 27  | Enable PIC data bus parity check      |
| 28  | Interface enabled                     |
| 29  | Data flag (0=3B, 1=PIC)               |
| 30  | Command in progress (CIP)             |
| 31  | Command present flag (CP)             |

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ID ..... APP:DCI-F  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

REMOVE/RESTORE PROCESS ERROR CODES

| Code | Description                                                                                      |
|------|--------------------------------------------------------------------------------------------------|
| 1    | Cannot enable message reception                                                                  |
| 2    | recvw function error                                                                             |
| 3    | Cannot open spooler                                                                              |
| 4    | Cannot open ECD manager                                                                          |
| 5    | Cannot get UCB                                                                                   |
| 6    | UCB not for requested unit                                                                       |
| 7    | Cannot get special device file                                                                   |
| 8    | Cannot open special device file                                                                  |
| 9    | Invalid command tag from DIAMON                                                                  |
| a    | Cannot reset reserve bit                                                                         |
| b    | sendw function error                                                                             |
| c    | Cannot set u_tnum in UCB                                                                         |
| d    | Request type from DIAMON not manual or auto                                                      |
| e    | Cannot set u_manrqst in UCB                                                                      |
| f    | Cannot release special device file                                                               |
| 10   | Abort request made via DIAMON, reasons for abort request are by manual input by recovery process |

**NOTE:** These remove/restore process error codes are in hexadecimal.

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ID ..... APP:DCI-G  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

REMOVE/RESTORE STOPPED CODES

| Code | Description                                    |
|------|------------------------------------------------|
| 1    | Diagnostic had failures                        |
| 2    | ROS (power control switch) is off normal       |
| 3    | Diagnostic request only, not remove or restore |
| 4    | Unit is already active                         |
| 5    | Unit is already out of service                 |
| 6    | Unit is off-line                               |
| 7    | Unit is unavailable (forced)                   |
| 8    | Unit is in the INIT state                      |
| 9    | Unit is in the GROWTH state                    |
| a    | Diagnostic abort, request denied               |
| b    | Unit is essential                              |

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ID ..... APP:DCI-H  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### FAULT CODES

**NOTE:** These fault codes are in hexadecimal notation.

#### No Fault

| Code | Description       |
|------|-------------------|
| 00   | No fault (normal) |

#### Peripheral Faults - With Accompanying Message

| Code | Description                                                                   |
|------|-------------------------------------------------------------------------------|
| b1   | Device reported error - device implicated - pio in progress                   |
| b2   | Parity divert error - device implicated - pio in progress                     |
| b3   | Channel error - device not implicated but possibly affected - pio in progress |
| b4   | Device reported error - device implicated                                     |
| b5   | DMA addressing error - device implicated                                      |
| b6   | DMA used OOR address - device implicated                                      |
| b7   | Channel error - device not implicated but possibly affected                   |

#### Peripheral Faults - Without Accompanying Message

| Code | Description                                  |
|------|----------------------------------------------|
| b8   | Device reported error - cannot identify unit |
| b9   | Parity divert error - cannot identify unit   |
| ba   | Addressing error - cannot identify unit      |

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Configuration Manager Fault Codes - With Accompanying Message

| Code | Description                                          |
|------|------------------------------------------------------|
| c3   | Informative - excessive recoverable errors           |
| c4   | Remove directive - excessive errors                  |
| c5   | Remove request - attempt restoral of oos usable unit |
| c6   | Limp mode - attempt restoral of oos unusable unit    |
| c7   | Limp mode - no replacement avail                     |
| c8   | Manual remove                                        |
| c9   | Unconditional remove                                 |
| cc   | Config. manager remove under fault conditions        |

Software Errors - No Accompanying Message

| Code | Description                                       |
|------|---------------------------------------------------|
| d1   | Memory Management - page invalid or not in memory |
| d3   | Memory Management - segment invalid               |
| d4   | Memory Management - segment index too large       |
| d5   | Illegal operating system trap (OST)               |
| d6   | Protection violation                              |
| d7   | Byte or halfword addressing violation             |
| d8   | Instruction privilege violation                   |
| d9   | Illegal op code                                   |

System Initialization - No Accompanying Message

| Code | Description                              |
|------|------------------------------------------|
| e1   | Substantial system recovery has occurred |

Message Buffer Audit Faults

| Code | Description                                              |
|------|----------------------------------------------------------|
| bc   | Message buffer audit fault for queued error messages     |
| bd   | Message buffer audit fault for non-queued error messages |

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ID ..... APP:DFC-A  
WORK CENTER.. MOC  
GENERIC ..... 4AP18 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### DKDRV Information Codes

**NOTE:** These information codes are in hexadecimal.

- 010 No inventory room - restructure DKDRV.
- 020 Report failure.
- 030 Access to BIC failed.
- 035 Desired BIC status not obtained.
- 039 IO job has no associated IO message.
- 040 IO message "ms\_to" field is invalid.
- 041 Message buffer not marked allocated.
- 045 Message type not IOREAD or IOWRITE.
- 04a No job found in inventory data.
- 050 Invalid completion code returned by DFC.
- 055 Job reported error.
- 05a Response contains job ID not in use.
- 060 Response specified an unknown device.
- 06f Drive status error.
- 070 Special queue full.
- 073 spqjobid failed.
- 076 queuejob failed for DFC change maintenance mode command.
- 07a intpwait function failed for DFC change maintenance mode.
- 07c Special queue full for SBUS change mode job.
- 07e spqjobid failed for SBUS change mode command.
- 082 queuejob for SBUS change maintenance mode failed.
- 085 intpwait function failed for SBUS change maintenance mode.
- 098 DFC version command: special queue full.
- 09a DFC version command: spqjobid failed.

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09c Version command fail.

09e dfc\_vers: intpwait function failed.

0a0 initmem1() failed.

0a2 Timeout request to get DIOP feature level failed.

0a3 DKDRV timing chain index 0 already assigned.

0a4 Failed to read btparm record.

0a5 No mate for boot device found.

0a8 DFC restore failed during boot.

0ab Fail to change the usable bit for SBUS.

0af MHD marked S\_ACT but DFC not marked S\_ACT.

0b1 MHD marked S\_ACT but SBUS not marked S\_ACT.

0b3 Simplex MHD restore failed config denied removal.

0b5 Simplex MHD restore failed config OKed removal.

0b8 MHD restore failed and no S\_ACT mate.

0c0 initkint (interrupt detach / attach) failed.

0c3 Fail to request pump after boot.

0c6 Invalid MHD to be restored during boot.

0c9 Invalid mate MHD.

0ca RID to UCB conversion failed.

0cb RID update and release failed.

0cf Duplicate fields in the message do not match.

0d5 Byte offset not on word boundary.

0d7 Maintenance job failure - see DKDRV error report.

0d9 PSM sent a bad power transition message.

0db temp message - old message returned.

0dd Unknown maintenance ACK received.

0df Unrecognizable message type.

0e2 Unrecognizable device.

0e5 Unknown FMGR ACK message received.

0e6 Segment removed failed, pump buffer retained.

0e8 Unknown MMGR ACK message received.

0ec Unknown DKDRV ACK message received.

0ef Unknown ACK message received.

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0f0 Incorrect swap LOG\_REC RID from ECDORG.  
0f1 Incorrect SWAP MDCT RID.  
0f2 Can't update the ROOT/SWAP device table.  
0f3 dlm indicator alocmsg( ) failed (to SIM).  
0f4 dlm indicator alocmsg( ) failed (to DKDIP).  
0f6 dlm indicator alocmsg( ) failed(to DKDIP).  
0f8 dlm indicator alocmsg( ) failed(to DKDIP).  
0fa Could not get a CDLM timer entry.  
0fb dlmstrt ost returned SWFAIL.  
0fd microstore limpode flag set.  
0fe Bad return from dlmstrt.  
0ff Unknown RID from DKDIP.  
100 Invalid operation code in UTIL message.  
101 Power down of an active unit.  
102 DFC power down message received - unit still usable.  
103 Device powered down - abort client.  
104 Power down message received - unit still usable.  
105 dlm indicator alocmsg( ) failed.  
106 Special priority queue full.  
107 spqjobid failed.  
108 Invalid device type for power up check.  
10a intpwait function failed.  
110 No VTOC on disk pack.  
113 VTOC too large for DKDRV to handle.  
116 Invalid partition number in VTOC entry.  
119 Invalid partition number in message.  
140 Virtual address does not map into segment number.  
145 iolock( ) failed.  
14a uniolock( ) failed.  
160 RID to UCB LLA call failed.  
165 RID update and release failed.  
16a RID unknown by DKDRV.  
170 RID to UCB LLA call failed.

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175 RID update and release failed.  
17a RID to UCB LLA call failed.  
180 RID update and release failed.  
185 RID to UCB LLA call failed.  
18a RID update and release failed.  
190 Invalid inhibit administration opcode.  
1a0 dtchintr call returned fail.  
1a5 atchintr call returned fail.  
1aa enabintr call returned fail.  
1b0 ECD attach failed.  
1b3 DLM INIT failed.  
1b5 CONFIG OPEN failed.  
1b8 atchdata call to ECD failed.  
1bc No DFCs in ECD.  
1be DFC growth failed.  
1c3 downucbs ECD call failed.  
1c6 SBUS growth failed.  
1c9 downucbs ECD call failed.  
1cc Growth of SCSI device failed.  
1cd No tape devices configured in ECD. 3B21 emulator only.  
1ce downucbs ECD call failed.  
1d1 SMD MHD growth failed.  
1d3 Too many devices.  
1d6 RID to UCB conversion failed.  
1d8 Invalid device type.  
1d9 Unable to determine DFC type.  
1dc RID update and release failed.  
1de Device is unequipped.  
1df Invalid DFC internal device ID.  
1e1 Channel RID to UCB conversion failed.  
1e3 Invalid SBUS internal device ID.  
1e5 DFC RID to UCB conversion failed.  
1e6 Attempt to grow more than one tape device. 3B21 emulator only.

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- 1e7 Invalid device ID for SCSI device.
- 1e8 DAT or SMT must have internal device ID 6. 3B21 emulator only.
- 1e9 SBUS RID to UCB conversion failed.
- 1ea Failed to get tape device's SBUS controller UCB. 3B21 emulator only.
- 1eb Invalid SBUS internal device ID.
- 1ec Invalid SBUS internal device ID. 3B21 emulator only.
- 1ed DFC RID to UCB conversion failed.
- 1ef Invalid device ID for SMD MHD.
- 1f0 Tape device is not configured on SCSI DFC. 3B21 emulator only.
- 1f1 The tape device controller is not an SBUS. 3B21 emulator only.
- 1f2 DFC RID to UCB conversion failed.
- 1f3 Failed to retrieve the tape's DFC UCB. 3B21 emulator only.
- 1f4 Incorrect device type for the device's control unit.
- 1f5 Tape device DFC must have internal ID 0. 3B21 emulator only.
- 1f6 Change state to ACT failed for tape device. 3B21 emulator only.
- 1fc Memory initialization failed.
- 1fe DKDRV port attach failed.
- 203 getpta() function failed.
- 206 RID to UCB conversion failed.
- 209 idmdev() (write to DMAC RAM) failed.
- 20c atchintr call failed.
- 20f RID not known by DKDRV.
- 213 DFC being de-grown is in use.
- 216 Update of DKDRV local DFC UCB failed.
- 219 DFC being de-grown not in UNEQIP state.
- 21c SBUS being de-grown is in use.
- 21f Update of DKDRV local SBUS UCB failed.
- 223 SBUS being de-grown not in UNEQIP state.
- 226 Unit being de-grown is in use.
- 229 Update of DKDRV local device UCB failed.
- 22c Unit being de-grown not in UNEQIP state.
- 22f RID to UCB conversion failed.
- 233 RID update and release failed.

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236 Drive type in ECD does not agree with backplane - restore aborted.  
239 RID to UCB conversion failed.  
23a RID update and release failed.  
23b RID to UCB conversion failed.  
23c Get option block for DFC failed.  
23d Invalid `airflag` field in DFC option block.  
23e Get option block for MHD failed.  
240 Delay (failed to find interrupt set in BIC).  
242 RID to UCB conversion failed.  
250 Job complete code == fail.  
252 Job request not allowed.  
254 Job request not allowed.  
258 Tape device already opened.  
25a Driver I/O error.  
25c No `S_ACT` device - open.  
260 Incorrect MDCT from IO message.  
263 Growth of device failed.  
265 No RIDs in ECD MDCT.  
268 Warning - enlarge DKDRV's internal MDCT.  
26c Disk specific write not allowed.  
270 No `S_ACT` device - read.  
275 Invalid partition number in read message.  
278 Access to DIAG partition is not allowed - read.  
27a Unable to inventory job.  
27d `bhqjobid` failed.  
280 `io_blk` exceeds partition size - read.  
290 No `S_ACT` device - write.  
295 Invalid partition number in write message.  
29a Tried to write into protected partition.  
2b1 No job IDs left.  
2ba Unable to inventory all jobs.  
2be Access to DIAG partition is not allowed - write.  
2c0 `io_blk` exceeds partition size - write.

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305 Unrecognizable DKDRV internal job type.  
307 Unexpected denial of request to remove MHD.  
308 Duplex operation compromised due to removing MHD.  
320 Boot indicator message allocation failed.  
325 INIT entry failed.  
32a Unexpected event.  
340 do\_error(0x340) FLT\_SINIT fault code.  
343 Failed to restart driver.  
346 Old non-queued audit error message.  
349 Unexpected fault code.  
34c Critical hit - S\_RSP.  
34f Critical hit - S\_MSG.  
353 Driver state error.  
355 Calling dfcinit( ) for lack of "warm" restart.  
356 ss32b( ) failed.  
359 PIC never reset CMD IN PROG flag.  
35f progio (D2SBS clear) failed.  
363 progio (BIC initialization and PIC reset) failed.  
366 initmem5 (DMAC RAM initialization) failed.  
369 enabintr function failed.  
36c progio (send ABORT command to PIC) failed.  
36f progio (set BIC IFEN flag) failed.  
373 Unknown RID faulted.  
376 PIO lost for a unit.  
379 Unknown RID faulted.  
37c Unexpected fault code.  
37f Message buffer audit error - abort maintenance on this unit.  
383 timereq( ) failed - dfcinit( ).  
391 invalid pdfptr.  
392 invalid pdfptr.  
395 RID to UCB LLA call failed.  
397 Message alloc failed (to FMGR).  
398 Could not get a timer entry for FMGR.

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- 39b Major DFC reinitialization due to either operational problems or manual request.
- 39c Tape operations aborted.
- 39e Warning - queue full detected.
- 3a6 Invalid dfcinit( ) sequence.
- 3a9 Can't identify panic dump device.
- 3ac Incorrect PANIC DUMP RID.
- 3af ss32b( ) failed.
- 3b3 PIC never reset CMD IN PROG flag.
- 3b6 progio (D2SBS clear) failed.
- 3b9 progio (BIC initialization and PIC reset) failed.
- 3ba Failed to clear BIC INTP.
- 3bc kint( ) - stray interrupts detected.
- 3be kint( ) entered before kfault( ) after panic dump.
- 3d0 RID not known by DKDRV.
- 3d3 DKDRV has aborted client.
- 3d5 Invalid maintenance state.
- 3d8 Device file not open.
- 3dc Another process has device file open.
- 3dd Tape device is already open.
- 3de Request prohibited on S\_ACT DFC.
- 3e1 maint( ) attach interrupt failed.
- 3e3 maint( ) enable interrupt failed.
- 3e5 UCB is not a DFC.
- 3e8 DMAC RAM initialization failed.
- 3ec Detach/attach/enable interrupt failed.
- 3ef Detach interrupt failed.
- 401 Device type is not SCSI.
- 402 FORMAT - unit is not a disk.
- 403 Device type is not SCSI for explicit SCSI command.
- 404 DFC must be active.
- 405 DFC is not ACTIVE for SCSI command.
- 406 SBUS must be active.
- 407 SBUS is not ACTIVE for SCSI command.

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409 CONFIG denied request to remove unit.  
40a Base queue full.  
40b Time limit exceeds capability.  
40c May only restore S\_00S units.  
40d Failed to get job ID.  
40e Restore request no good - DFC not S\_ACT.  
40f queuejob failed.  
412 Restore request no good - SBUS not S\_ACT.  
415 Compare/correct - unit not a disk.  
418 Compare/correct - DFC not S\_ACT.  
41b Compare/correct - SBUS not ACTIVE.  
41d May not compare/correct a S\_INIT unit.  
41f Only one compare/correct is allowed to run at one time.  
422 May only restore S\_00S units.  
425 SBUS restore - DFC is not ACTIVE.  
426 MHD or MT restore - SBUS is not ACTIVE.  
427 MHD restore - DFC is not ACTIVE.  
428 DIAG SYSGEN PIO failed.  
429 Restore not allowed - device not supported.  
42a UCB is not a DFC UCB.  
42c Not allowed to DGN an S\_ACT unit.  
42e Special queue full.  
432 Invalid device to be diagnosed.  
435 spqjobid failed.  
438 queuejob failed.  
43c getdmaa function failed.  
43e Received WSETUP0 before SPECDMA.  
442 WSETUP1 received before WSETUP0.  
445 unlock failed.  
448 getdmaa function failed.  
44c Invalid disk lock process.  
44f Base queue full.  
452 bhqjobid failed.

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455     queuejob failed.  
458     Version job failed.  
460     FORMAT requires non-S\_ACT MHD.  
462     FORMAT/VERIFY - unit is not a disk.  
465     FORMAT/VERIFY requires S\_ACT DFC.  
468     INIT/VFY MHD - SBUS not S\_ACT.  
46a     VERIFY in progress - retry later.  
470     Start track/block greater than last track/block.  
473     Base queue full.  
476     bhqjobid failed.  
479     MHD usability changed because of INIT operation.  
47c     queuejob failed.  
480     Invalid when MHD is S\_ACT.  
483     DFC must be S\_ACT.  
486     Invalid when MHD is S\_ACT.  
489     DFC must be S\_ACT.  
48b     REMAP devserv( ) failed.  
48d     Device major status update failed.  
48f     Failed to initialize device status.  
492     Base queue full.  
494     Unable to queue LM job.  
496     Invalid DFC type for DFC reset request.  
498     DFC is not ACTIVE to be reset.  
49a     Firmware is running - cannot reset DFC.  
49f     DFC type does not support pump.  
4a3     DFC is not ACTIVE for pumpcode downloading.  
4a6     Other pump in progress - retry later.  
4a9     Unable to queue pump job.  
4aa     Device must be non-ACT to initialize error message inhibit flag.  
4ab     CLRMAEC - unit is not a disk.  
4ac     Invalid opcode in maintenance message.  
4ae     Unexpected maintenance interrupt.  
4b3     dtchintr call failed.

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- 4b6 Maintenance work timed out.
- 4b9 No base or high job IDs left.
- 4bc Failed to get page table address.
- 4be No job IDs left for base or high queue.
- 4c2 Offset of the SCSI command is not on word boundary.
- 4c5 Explicit SCSI command, response and data are not on the same segment.
- 4c8 Base queue full for SCSI command.
- 4ca Request exceeds DFC capability.
- 4cb Invalid second device for SCSI command.
- 4cc Request exceeds expscsi capability.
- 4cd Unable to queue the SCSI command.
- 4d0 readvtoc( ) function failed.
- 4d1 Another pump in progress, retry later.
- 4d2 Flash reprogram not started.
- 4d3 Unable to program flash memory on S\_ACT unit.
- 4d5 readvtoc( ) job failed.
- 4d6 Unable to clear DDSBS.
- 4d8 Unable to send command to BIC.
- 4d9 getpta( ) function failed.
- 4da VTOC sort function failed.
- 4db initmem5( ) DMAC init failed.
- 4dc Unable to send command to BIC.
- 4dd dtchintr call returned fail.
- 4de atchintr call returned fail.
- 4df DFC pump: getjobid failed.
- 4e0 Invalid newvtoc( ) sequence.
- 4e1 Failed to write word in BIC FIFO.
- 4e2 enabintr call returned fail.
- 4e3 Failed to write word in BIC FIFO.
- 4e5 Partition number out of range for DKDRV.
- 4e6 Failed to write word in BIC FIFO.
- 4e7 Failed to write word in BIC FIFO.
- 4e8 Partition number out of range for VTOC.

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4e9    wakeup PIO failed.

4eb    Unable to get firmware versions.

4f1    Flash reprogram not started.

4f2    Unable to clear DDSBS.

4f3    Unable to send command to BIC.

4f5    DFC pump: getjobid failed.

4f7    Failed to write word in BIC FIFO.

4f9    Failed to write word in BIC FIFO.

4fa    Failed to write word in BIC FIFO.

4fb    Failed to write word in BIC FIFO.

4fc    wakeup PIO failed.

500    Base queue full for maintenance read.

503    Tried to use invalid VTOC for maintenance read.

505    Invalid partition number in message.

508    Invalid block in partition.

50c    bhqjobid failed for maintenance read.

50e    Unable to inventory job for maintenance read.

520    Base queue full for maintenance write.

523    Tried to use invalid VTOC for maintenance write.

526    Invalid partition number in message.

529    Tried to write into protected partition.

52c    Invalid block in partition.

537    MHD usability changed because of pdfwrite job.

539    bhqjobid failed for maintenance write.

53b    Unable to inventory job for maintenance write.

550    Physical device file not opened.

553    Incorrect READ/ WRITE access permissions.

556    iolock failed.

55b    getjobid failed.

55f    Maintenance I/O request to a non-disk device.

56a    DISK read or write requires active DFC.

56f    DISK read or write requires active SBUS.

573    This physical device file already open.

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575 Device major status update failed.  
57a Update of device file variables failed.  
580 May not maintenance write ACT device.  
583 SDF prematurely closed during a restore.  
585 unlock failed.  
5a0 Command to BIC failed.  
5a5 Command to PIC failed.  
5aa Clear of DDSBS failed.  
5b0 Read status of DDSBS failed.  
5b5 Read of BIC FIFO failed.  
5ba Write of BIC FIFO failed.  
5bc Read status of BIC failed.  
5bf BIC command to read HA shadow register failed.  
5c3 Read status of SCSI HA shadow register failed.  
5c5 progio cmdtype not defined.  
5e0 queuejob failed.  
5e1 Base queue full.  
5e2 getjobid failed.  
5ec intpwait function failed.  
5f0 Readdisk queuejob failed.  
5f1 Readdisk base queue full.  
5f2 Readdisk getjobid failed.  
5fc Readdisk intpwait function failed.  
600 Excessive errors - device being reset.  
601 Excessive errors - device being reset.  
603 SBUS work terminated - DFC going S\_00S.  
609 DFC sub-device work terminated - DFC going S\_00S.  
60a Tape work terminated - DFC going S\_00S.  
60c SBUS sub-device work terminated - SBUS going S\_00S.  
60d Tape work terminated - SBUS going S\_00S.  
60e CONFIG chgstate( ) call failed.  
613 dtchintr( ) failed.  
615 devserv(OFFLINE) function failed.

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618     devserv(OFFLINE) job failed.  
61c     sbuser(OFFLINE) function failed.  
61f     sbuser(OFFLINE) job failed.  
650     RID to UCB LLA call failed.  
653     RID to UCB LLA call failed.  
655     RID to UCB LLA call failed.  
658     RID to UCB LLA call failed.  
65c     RID to UCB LLA call failed.  
65e     RID to UCB LLA call failed.  
661     RID to UCB LLA call failed.  
663     RID to UCB LLA call failed.  
666     RID to UCB LLA call failed.  
667     RID to UCB LLA call failed.  
669     RID to UCB LLA call failed.  
673     RID to UCB LLA call failed.  
678     RID to UCB LLA call failed.  
67a     EIR contains job ID not in use.  
67b     RID to UCB LLA call failed.  
67c     RID to UCB LLA call failed.  
67d     RID to UCB LLA call failed.  
67e     RID to UCB LLA call failed.  
682     RID to UCB LLA call failed.  
6a9     Retry PIO failed.  
6aa     Failed to requeue job.  
6b0     Remake: job ID not in use.  
6b5     Remake: bad message type.  
6be     Restore - invalid device type.  
6c0     Unable to change usable bit for DFC.  
6c3     CONFIG chgstate call failed.  
6c5     DKDRV DFC memory init failed.  
6c8     initmem5( ) (DMAC init) failed.  
6ca     initmem6( ) (atchintr) failed.  
6ce     progio (D2SBS clear) failed.

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6d1 progio (BIC initialization and PIC reset) failed.  
6d3 enabintr() failed.  
6d5 SYSGEN function failed.  
6d8 sysgen job failed.  
6d9 dfc\_vers request function failed.  
6da dfc\_vers job failed.  
6db dfc\_vers request function failed.  
6dd dfc\_vers job failed.  
6df dfcserv(ONLINE) function failed.  
6e2 dfcserv(ONLINE) job failed.  
6e5 CONFIG chgstate call failed.  
6e8 Unable to change usable bit for DFC.  
6eb Cannot request a timer for pump after DFC restore.  
6ef Invalid DFC restore sequence number.  
6f2 Unit is in FULL DLM - abort restore.  
6f5 Mate unit is in FULL DLM - abort restore.  
6f8 Unable to change usable bit for MHD.  
6fb CONFIG chgstate call failed.  
6fe DKDRV MHD memory initialization failed.  
6ff dlm\_chks() denied restore request.  
701 readdisk() function failed.  
703 Disk job (readdisk) failed.  
706 devserv(ONLINE, RSTJOB) function failed.  
709 DFC failed to put MHD on-line.  
70c readvtoc() function failed.  
70e Disk job (readvtoc) failed.  
711 VTOC integrity check failed.  
713 CONFIG chgstate call failed.  
715 Unable to change usable bit for MHD.  
718 Invalid MHD restore sequence number.  
71c CONFIG chgstate call failed.  
71e sbuserv(ONLINE) function failed.  
722 sbuserv(ONLINE) job failed.

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725 CONFIG chgstate call failed.  
728 Unable to change usable bit for SBUS.  
72c Invalid SBUS restore sequence number.  
730 Maintenance state audit requested.  
732 Invalid MHD "compcor" sequence number.  
741 Unit is in FULL DLM - abort restore.  
742 Failed to change usable bit for tape.  
745 CONFIG chgstate call failed.  
748 DKDRV tape memory initialization failed.  
74b devserv(ONLINE) function failed.  
74e Failed to put tape device ONLINE.  
752 CONFIG chgstate call failed.  
755 Failed to change usable bit for tape.  
758 Invalid tape restore sequence number.  
75b DIOP restore not allowed - mate MHD is active.  
75e DIOP restore not allowed - MHD is marked essential.  
760 progio (set BIC IFEN flag) failed.  
761 Wakeup PIO failed.  
762 Resume PIO failed.  
765 progio (send SYSGEN command to PIC) failed.  
76a intpwait function failed.  
770 Job timed out.  
775 DFC timed out.  
776 Invalid pump state.  
778 Cannot request timer for DFC pump.  
77a DFC entering overload.  
77c DFC leaving overload.  
77f DFC usability audit failed.  
790 Timing table full.  
795 Timeout request is out of range.  
7c0 No base or high job IDs left.  
7c3 No job IDs left for base or high queue.  
7c5 No job IDs left for special queue.

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7c7     Failed to get page table address.  
7c9     No job IDs left for PIO jobs.  
800     prc/s\_update terminated abnormally.  
801     prc/s\_dskutil terminated abnormally.  
825     Could not alloc msg buf.  
830     Could not pcreat process.  
835     Could not alloc msg buf.  
900     DKDIP pid is null.  
903     allocmsg failed.  
906     Failed to remove the segment.  
909     Cannot pump - other pump in progress.  
90c     Invalid DFC state for pump.  
90e     Cannot perform pump at this time.  
911     DFC is not S\_ACT for pump.  
913     Invalid global pump state.  
916     DFC is scheduled for major reinitialization - can't pump.  
919     Pump not started - DFC is reserved.  
91b     Firmware version not known.  
91c     Failed to allocate message for FMGR.  
91d     Cannot alloc message for FMGR.  
91e     File stat error.  
91f     Pump-file is zero byte in size.  
921     Pump-file is not a contiguous single extent file.  
923     Can't get segnum.  
926     Fail to queue the pump request.  
929     Can't get segnum.  
92c     Fail to determine pump type.  
92d     Can't get segnum for DKDRV's internal pump buffer.  
92e     Failed to download the pumpcode.  
931     Request to read pump-file failed.  
933     Failed to read pump-file.  
936     Failed to send the pump request.  
939     Pump failed at last pump.

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93c Failed to queue a version command in pump procedure.  
93e Pumpcode version command failed.  
93f Failed to start new pump.  
943 Invalid pump sequence.  
946 Invalid MDCT RID for pump file.  
949 Invalid segment size requested.  
94c Failed to get a segment index for new segment.  
94e Failed to get a segment number for new segment.  
951 Failed to allocate a message buffer.  
953 Failed to allocate a message buffer.  
956 Can't io lock the buffer.  
959 Can't allocate the message buffer for reading pumpfile.  
95c Can't send the I/O message.  
95f DFC pump: high priority queue full.  
963 DFC pump: base priority queue full.  
966 DFC pump: getjobid failed.  
969 DFC pump: queuejob failed.  
96c Can't remove the segment used for pump buffer.  
96f Invalid time out for pump procedure.  
971 Pump timeout - abort pump.  
980 Incorrect root LOG\_REC RID from ECDORG.  
981 Incorrect root MDCT RID.  
990 The UCB RID for the "alternate" device is invalid.  
992 Update of DKDRV local device UCB failed.  
994 Invalid MDCT RID.  
996 Failed to get MDCT record.  
998 Update of DKDRV local device UCB failed.  
a01 s\_update started.  
a0a Bad MAINT message opcode.  
a15 Can't open ECD.  
a1a Cannot get specified unit UCB.  
a20 Specified unit UCB not reserved.  
a25 Failed to get "to" unit SDF.

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a2a Open of "to" SDF failed.  
a30 ugucbm( ) failed.  
a35 No active mate found.  
a3a Failed to reserve active mate UCB.  
a40 Failed to get "from" unit SDF.  
a45 Open of "from" SDF failed.  
a48 Can't read VTOC on active disk.  
a4a Invalid VTOC on active disk.  
a55 Asynchronous write failure.  
a5a Asynchronous write failure.  
a60 VTOC read (source disk) failed.  
a65 VTOC write (destination disk) failed.  
a6a Too many partitions.  
a70 Block number not within VTOC.  
a75 Primary BBOOT partition is INVALID.  
a7a Backup BBOOT partition is INVALID.  
a80 Tried to access unopened file.  
a85 segoff failure.  
a8a movetrap failure.  
a90 Disk read error.  
a95 Disk read error - correctly reread.  
a9a Invalid file descriptor.  
aa0 IOQUEUEM failure.  
aa5 Maintenance job to DKDRV failed.  
aaa Received application abort restore request.  
ab5 Invalid argument.  
aba segname already exists.  
ac0 Segment exists.  
ac5 No segments available.  
aca Not enough space.  
ad0 Bad segndx.  
ad3 Can't find a free segindex.  
ad5 segoff failure.

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ada Driver startup message not received.  
ae0 Terminated externally.  
ae5 Invalid U\_ABRTRST message.  
aea Invalid maintenance message.  
af0 Unknown ACK message.  
af5 Process was faulted.  
b01 s\_dskutil started.  
b06 Cannot connect to port PT\_DSKUTL.  
b09 Bad MAINT message opercode.  
b10 Can't open ECD.  
b13 "DEST" unit not specified.  
b16 ugucbm( ) failed for "DEST" unit.  
b19 Cannot get "DEST" unit UCB.  
b1c "DEST" unit UCB not reserved.  
b20 Failed to get "TO" unit SDF.  
b23 Open of "TO" SDF failed.  
b26 Dup of "TO" SDF failed.  
b29 ugetucb( ) failed for "FROM" unit.  
b36 Failed to reserve "FROM" unit UCB.  
b39 Failed to get "FROM" unit SDF.  
b3c Open of "FROM" SDF failed.  
b40 Remove mate of "DEST" unit and reenter command.  
b46 Dup of "FROM" SDF failed.  
b48 Failed to read VTOC on "TO" disk.  
b49 Invalid VTOC on "TO" disk.  
b4b Failed to read VTOC on "FROM" disk.  
b4c Invalid VTOC on "FROM" disk.  
b50 Both VTOCs do not match.  
b5c Read failure (DEST disk).  
b60 Read failure (SRC disk).  
b63 Too many partitions.  
b66 VTOCs do not match in size.  
b69 Sync write failure (DEST disk).

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b6c     Block number not within VTOC.  
b70     Block number not within VTOC.  
b73     Block number not within VTOC.  
b80     Tried to access unopened file.  
b85     segoff failure.  
b8a     movetrap failure.  
b90     Disk read error.  
b95     Disk read error - correctly reread.  
b9a     Invalid file descriptor.  
ba0     IOQUEUEM failure.  
ba5     Maintenance job to DKDRV failed.  
baa     Received application abort restore request.  
bb5     Invalid argument.  
bba     segname already exists.  
bc0     segment exists.  
bc5     No segments available.  
bca     Not enough space.  
bd0     Bad segndx.  
bd3     Can't find a free segindex.  
bd5     segoff failure.  
bda     Driver startup message not received.  
be0     Terminated externally.  
be5     Invalid U\_ABRTRST message.  
bea     Invalid maintenance message.  
bf0     Unknown ACK message.  
bf5     Process was faulted.  
c02     Tape device already open.  
c0b     Device not active.  
c12     Open for both read and write.  
c15     Incorrect read / write access permissions.  
c18     Failed to send test unit ready command.  
c1b     Test unit ready command failed.  
c1e     Test unit ready command failed.

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c22    Failed to send test unit ready command.  
c25    Test unit ready command failed.  
c28    Test unit ready command failed.  
c2b    Failed to send test unit ready command.  
c2e    Test unit ready command failed.  
c32    Test unit ready command failed.  
c35    Failed to send inquiry command.  
c38    Inquiry command failed.  
c3b    Inquiry command failed.  
c3e    Insufficient inquiry data.  
c42    Failed to send inquiry command.  
c45    Inquiry command failed.  
c48    Inquiry command failed.  
c4b    Unknown device.  
c4e    Failed to send read block limits command.  
c52    Read block limits command failed.  
c55    Read block limits command failed.  
c58    Partition information is invalid.  
c5b    Not a supported tape device.  
c5e    Invalid tape I/O open sequence number.  
c62    Reserved field in partition used.  
c65    Device does not support variable record sizes.  
c68    Device does not support fixed records.  
c69    Fixed record size is invalid.  
c6a    Invalid record type specified.  
c6b    Record size greater than device capability.  
c6e    Record size less than device capability.  
c72    Failed to send tape setup command to DFC.  
c75    Tape setup command failed.  
c78    Invalid sequence number.  
c82    Base queue full.  
c85    Failed to get job ID.  
c88    Request exceeds DFC capability.

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c89 Request exceeds expscsi capability.  
c8b No base/ high job IDs left.  
c8e No job IDs left for base/ high queue.  
c92 Base queue full.  
c95 Failed to get job ID.  
c9b Base queue full.  
c9e Failed to get job ID.  
ca2 Entity type to space over is invalid.  
ca5 Base queue full.  
ca8 Failed to get job ID.  
cab Base queue full.  
cae Failed to get job ID.  
cb1 Device not active.  
cb2 Invalid state for closing device.  
cb7 Invalid state for closing device.  
cb8 Failed to send tape rewind command to DFC.  
cbb Tape rewind failed.  
cbe Invalid sequence number.  
cc2 Failed to send tape space command to DFC.  
cc5 Tape space command failed.  
cc8 Invalid sequence number.  
ccb Failed to send write filemarks command to DFC.  
cce Write filemarks command failed.  
cd2 Failed to send tape space command to DFC.  
cd5 Tape space command failed.  
cd8 Invalid sequence number.  
ce2 Device not active.  
ce4 Device not open.  
ce6 Incorrect read / write permissions.  
ce8 Base queue full.  
cea Failed to get job ID.  
cec Unable to inventory job.  
cf2 Device not active.

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cf4 Device not open.

cf6 Incorrect read / write permissions.

cf8 Base queue full.

cfa Failed to get job ID.

cfc Unable to inventory job.

d01 Wrong device type specified.

d02 Failed to send mode sense command.

d05 Mode sense command failed.

d08 Mode sense command failed.

d0b Failed to send mode sense command.

d0e Mode sense command failed.

d12 Mode sense command failed.

d15 Not enough data returned from mode sense command.

d18 Unexpected amount of data returned from mode sense command.

d1b Device is write protected.

d1e Failed to obtain expected mode pages.

d22 Failed to send mode select command.

d25 Mode select command failed.

d28 Mode select command failed.

d2b Invalid tape sequence number.

d2e Multi-partition tape is not supported.

d31 Wrong device type specified.

d32 Failed to send mode sense command.

d35 Mode sense command failed.

d38 Mode sense command failed.

d3b Failed to send mode sense command.

d3e Mode sense command failed.

d42 Mode sense command failed.

d45 Not enough data returned from mode sense command.

d48 Unexpected amount of data returned from mode sense command.

d4b Device is write protected.

d4c 120 meter tapes are not supported.

d4e Failed to obtain expected mode pages.

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d52     Failed to send mode select command.  
d55     Mode select command failed.  
d58     Mode select command failed.  
d5b     Invalid tape sequence number.  
d5e     Multi-partition tape is not supported.  
d61     Wrong device type specified.  
d62     Invalid density specified.  
d65     Failed to send mode sense command.  
d68     Mode sense command failed.  
d6b     Mode sense command failed.  
d6e     Failed to send mode sense command.  
d72     Mode sense command failed.  
d75     Mode sense command failed.  
d78     Not enough data returned from mode sense command.  
d7b     Unexpected amount of data returned from mode sense command.  
d7e     Device is write protected.  
d82     Requested density does not match set device density.  
d85     Failed to obtain expected mode pages.  
d88     Failed to send mode select command.  
d8e     Mode select command failed.  
d92     Mode select command failed.  
d95     Invalid tape sequence number.  
da1     Wrong device type specified.  
da2     Invalid density specified.  
da5     Failed to send mode sense command.  
da8     Mode sense command failed.  
dab     Mode sense command failed.  
dae     Failed to send mode sense command.  
db2     Mode sense command failed.  
db5     Mode sense command failed.  
db8     Not enough data returned from mode sense command.  
dbb     Unexpected amount of data returned from mode sense command.  
dbe     Device is write protected.

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dc2     Requested density does not match set device density.

dc5     Failed to obtain expected mode pages.

dc8     Failed to send mode select command.

dce     Mode select command failed.

dd2     Mode select command failed.

dd5     Invalid tape sequence number.

e01     Not SCSI dfc.

e03     Invalid DFC state for pump.

e05     dtchintr call returned fail.

e07     Unable to clear DDSBS.

e09     Unable to send command to BIC.

e0a     Unable to send command to BIC.

e0b     atchintr call returned fail.

e0d     enabintr call returned fail.

e0f     getjobid failed.

e11     Failed to write word in BIC FIFO.

e13     wakeup PIO failed.

e15     version command failed.

e17     getjobid failed.

e19     Failed to write word in BIC FIFO.

e1a     wakeup PIO failed.

e1b     version command failed.

e1c     Unable to allocate message for FMGR.

e1d     1-byte wide firmware version not known.

e1f     Unable to allocate message for FMGR.

e20     Unable to do a stat( ) on the pumpfile.

e22     Pumpfile invalid size.

e24     Pumpfile is not a single extent contiguous file.

e26     Unable to get segnum.

e28     Unable to iolock the buffer.

e2a     Unable to allocate the message buffer for reading pumpfile.

e2c     Unable to send the I/O message.

e2e     Unable to read pumpfile header.

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- e2f Pumpfile has invalid size.
- e30 4-wide firmware needs to be reprogrammed, retry later.
- e32 Unable to get segnum.
- e33 Unable to get segnum for DKDRV's internal pump buffer.
- e35 Unable to download the pumpcode.
- e37 Unable to request reading pumpfile.
- e39 Unable to read pumpfile.
- e3a DFC pump: getjobid failed.
- e3b Failed to write word in BIC FIFO.
- e3d Failed to write word in BIC FIFO.
- e3f Failed to write word in BIC FIFO.
- e41 Failed to write word in BIC FIFO.
- e43 wakeup PIO failed.
- e45 Pump failed at last pump.
- e46 Cannot remove the segment.
- e47 dtchintr call returned fail.
- e48 Unable to send command to BIC.
- e49 Invalid pump sequence.
- e4a dtchintr call returned fail.
- e4b Cannot remove the segment.
- e4c Unable to send command to BIC.
- e50 Invalid header magic number.
- e53 1-byte wide firmware and pumpfile are incompatible - issue.
- e55 1-byte wide firmware and pumpfile are incompatible - generic.
- e57 4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
- e59 Pumpfile has different revision level.
- e5a 1-byte wide firmware and pumpfile are incompatible.
- e5c Unable to determine revision levels.
- e60 Unable to send command to BIC.
- e62 jcistat command failed.
- e64 Read status of BIC failed.
- e66 Failed to read BIC FIFO.
- e68 Failed to read BIC FIFO.

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- e69 Received interrupt but no response.
- e6a Failed to clear BIC interrupt.
- e6b dtchintr call returned fail.
- e6c Unable to send command to BIC.
- e6d dtchintr call returned fail.
- e6e atchintr call returned fail.
- e6f enabintr call returned fail.
- e70 DFC flash programming timed out.
- e71 Unable to clear DDSBS.
- e72 Unable to send command to BIC.
- e73 DFC version command failed.
- e74 Unable to send command to BIC.
- e78 initmem5( ) DMAC initialization failed.
- e7a dtchintr call returned fail.
- e7b atchintr call returned fail.
- e7c enabintr call returned fail.
- e7d getjobid failed.
- e7f Unable to send version command failed.
- e80 Unrecognizable DKDRV internal job type.
- e85 Response contains jobid not in use.
- e86 IO job has no associated IO message.
- e88 IO message "ms\_to" field is invalid.
- e8a Message type not IOREAD or IOWRITE.
- e8c No job found in inventory data.
- e8d Invalid completion code returned by DFC.
- e8f Job reported error.
- e95 NULL message buffer pointer.
- e96 Invalid "ms\_to" field in message.
- e97 Message buffer not marked allocated.

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ID ..... APP:DFC-B  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

This appendix contains the tables:

- Table 1 - DFC Error Codes
- Table 2 - Conditional Success Codes
- Table 3 - Autonomous Response Special Completion Codes
- Table 4 - Enhanced Completion Codes
- Table 5 - Firmware Driver Communications Register (FW/PC versions 7.0 and 8.0)
- Table 5a - Firmware Driver Communications Register (FW/PC version 9.0)
- Table 6 - Job Types Pending

The data in Tables 2 and 3 are seen only by the disk file controller (DFC) driver. They are included here only to provide complete documentation on the DFC error codes.

Table 1 lists the errors which can be detected by the DFC, explains the cause of the error, and shows any corrective actions which may be required. The DFC responds to all system-requested work with job completion codes. When the DFC detects errors on those jobs, it reports with the error information shown in Table 1. In addition to running those jobs, the DFC can create its own internal work and can handle requests which do not have unique job identification codes.

All error codes are in hexadecimal.

Table 1 - DFC Error Codes

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                         |
|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCOK     | 00     | Job completed okay.<br><br>This code implies successful completion, except in some autonomous responses. In the case of autonomous responses, the special completion code takes precedence over this code.                   |
| CCRAMWE  | 80, 81 | PIC RAM read / write boundary error.<br><br>If the DFC is a SMD-DFC.<br><br>The DFC was requested to write outside the address range of E00 to FFF (hexadecimal). This area is reserved for the diagnostics group and may be |

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Table 1 - DFC Error Codes (continued)

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |        | <p>read and/or written by them. Addresses outside this range are reserved for the operational portion of the firmware and may not be written by anyone.</p> <p><b>ACTION</b> - This error should never occur since only the diagnostics group uses the WRITERAM command.</p> <p>If the DFC is a SCSI-DFC.</p> <p>The DFC was requested to write to write-protected RAM.<br/>The DFC was requested to write to outside of allowed area of DFC RAM.<br/>The DFC was requested to read non-existent memory.</p> <p><b>ACTION</b> - This error should never occur since only the diagnostics groups uses the READRAM and WRITERAM commands.</p> |
| CCSEEKER | 82, 83 | <p>Seek error on disk.</p> <p>The DFC issued a seek to an MHD and then detected an error in the MHD. The error from the MHD indicates either that the seek did not complete within 75 milliseconds, or that the drive interpreted the address seek as beyond the last available cylinder on the disk.</p> <p><b>ACTION</b> - Check the cables to the MHDs for loose connections or perform preventive maintenance.</p>                                                                                                                                                                                                                      |
| CCNOINDX | 84, 85 | <p>No index detected on disk.</p> <p>The DFC could not find an 'index' mark from the disk after counting 33 sector marks.</p> <p><b>ACTION</b> - Replace either the disk pack or the MHD in question.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| CCERRCMD | 86, 87 | <p>Invalid command from the 3B.</p> <p>The DFC received a command that was not valid for the state of the DFC.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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Table 1 - DFC Error Codes (continued)

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCSTATER | 88, 89 | <p>Device status error.</p> <p>There is a problem with the drive which the DFC tried to access:</p> <p>No unit ready - The drive is not powered up or the ID plug is missing.</p> <p>No on-cylinder indication - The disk drive has not been powered up or the disk pack is not spinning.</p> <p>Fault - There is a hard fault on the drive, not the disk pack, which the firmware cannot correct.</p> <p><b>ACTION</b> - Correct the problem and try again.</p>                                                                                                                                                                                                                                                                                                                                                 |
| CCUCDE   | 8A, 8B | <p>Uncorrectable data error.</p> <p>If the DFC is a SMD-DFC, the DFC detected an error in the data on the disk which is beyond 11 bits long. The data which has been read cannot be used.</p> <p><b>ACTION</b> - Use the VERIFY command to determine the location of the error and re-format the track on which the error is located. The data on that track is lost forever, and the whole disk pack may have to be re-populated with data from a mate disk.</p> <p>If the DFC is a SCSI-DFC, the target controller was not able to read a block of data from the disk.</p> <p><b>ACTION</b> - Use the VERIFY command to determine the location of the error. Place the location of the error in a defect list and re-format the disk. The whole disk pack must be re-populated with data from a mate disk.</p> |
| CCDBO    | 8C, 8D | <p>Disk boundary overflow.</p> <p>An attempt to read or write beyond the last block on a disk was made.</p> <p><b>ACTION</b> - Run MHD diagnostics, and check the data cables. Another possibility is that the VTOC on the disk specifies a partition which exceeds the last available cylinder on the disk pack.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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Table 1 - DFC Error Codes (continued)

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCUHSM   | 8E, 8F | <p>Head - sector mismatch error.</p> <p>The DFC read a sector off the disk and the header information, which contains the cylinder, head and sector number, did not agree with the value the DFC calculated for the head-sector number.</p> <p><b>ACTION</b> - Try the job again and if it fails, reformat that area of the disk.</p>                                                                                  |
| CCUWD    | 90, 91 | <p>Wrong device selected.</p> <p>A device which the controller did not try to select answered to the poll of the devices.</p> <p><b>ACTION</b> - Check the ID of the drive. For SMD, make sure that the data cable to the drive is properly placed on the backplane of the DFC. For SCSI, make sure the device is connected to the bus and the backplane of the DFC correctly.</p>                                     |
| CCUND    | 92, 93 | <p>No device selected.</p> <p>There was no answer to the polling of the devices, but the DFC expected an answer.</p> <p><b>ACTION</b> - Ensure that the device to be selected is powered up. For SMD, make sure that its data cable is in the right place on the DFC backplane and verify the drive has an ID plug. For SCSI, make sure the device is connected correctly to the bus and the backplane of the DFC.</p> |
| CCUHP    | 94, 95 | <p>Head positioning error.</p> <p>The drive was requested to go to a given cylinder, but upon reading the header from the cylinder, the cylinder number there did not match the number that the DFC had calculated it should be. There was no seek error (82, 83) detected.</p> <p><b>ACTION</b> - Try the job again or reformat that area of the disk pack where the error occurred.</p>                              |

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Table 1 - DFC Error Codes (continued)

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                                                 |
|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCUHSE   | 96, 97 | <p>Head selection error.</p> <p>The head number read from the disk did not agree with what the DFC had calculated it should be.</p> <p><b>ACTION</b> - Retry the job, or reformat the area of the disk pack where the error occurred, or check the control cable to the MHD.</p>     |
| CCUBPE   | 98, 99 | <p>BIC parity error.</p> <p>There was a data parity error on a data transfer either to or from the BIC when the BIC was communicating with the processor.</p> <p><b>ACTION</b> - The DFC cannot cause this error, only report it. The BIC and /or the DDSBS should be diagnosed.</p> |
| CCUBPSE  | 9A, 9B | <p>BIC-PIC Soft Error.</p> <p><b>ACTION</b> - Run DFC diagnostics.</p>                                                                                                                                                                                                               |
| CCPICE   | 9C, 9D | <p>PIC error.</p> <p>The DFC software encountered a condition which prevented it from continuing to execute. This is usually due to faulty hardware which provides incorrect information to the software.</p> <p><b>ACTION</b> - Run DFC diagnostics.</p>                            |
| CCU3BE   | 9E, 9F | <p>DMA setup overwrite.</p> <p>The BIC detects that the DMA has attempted to write to the BIC data FIFO while a setup request is pending.</p> <p><b>ACTION</b> - Run DFC and DMA diagnostics.</p>                                                                                    |
| CCUJTE   | A0, A1 | <p>Early EOT from DMA.</p> <p>The error is detected in the BIC when the BIC receives an EOT signal from the DMA and the DFC has not set the EOT EXPECT flag in the BIC.</p> <p><b>ACTION</b> - Run BIC and DMA diagnostics.</p>                                                      |

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Table 1 - DFC Error Codes (continued)

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                                                                                           |
|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCUNET   | A2, A3 | <p>No EOT from DMA.</p> <p>The error is detected in the BIC when the DFC has set the EOT EXPECT flag in the BIC and the DMA has responded to a transfer request with data rather than an EOT.</p> <p><b>ACTION</b> - Run BIC and /or DMA diagnostics.</p>                                                                      |
| CCPUMPER | A4, A5 | <p>Error detected in pumped data.</p> <p>The file containing the data to be pumped is not compatible with the firmware on the SCSI-DFC or there is an error in the contents of the pump file.</p> <p><b>ACTION</b> - Check that the UCB associated with the SCSI-DFC points to the pump file compatible with the SCSI-DFC.</p> |
| CCUFPE   | A6, A7 | <p>PSDI FIFO parity error.</p> <p>The parallel to serial data interface in the DFC has detected a parity error in the data stream which has been written on the disk.</p> <p><b>ACTION</b> - Run DFC diagnostics.</p>                                                                                                          |
| CCUFUF   | A8, A9 | <p>PSDI FIFO underflow.</p> <p>The PSDI has run out of data while trying to write data on the disk. This will cause a single sector on the disk to be scrambled, and a reformat of the track must be initiated.</p> <p><b>ACTION</b> - Reformat the track where the error occurred and run DFC /MHD diagnostics.</p>           |
| CCUF0V   | AA, AB | <p>PSDI FIFO overflow.</p> <p>The PSDI FIFO received more data than it could hold while reading the disk.</p> <p><b>ACTION</b> - Run DFC /MHD diagnostics.</p>                                                                                                                                                                 |

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Table 1 - DFC Error Codes (continued)

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                  |
|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCUPAK   | AC, AD | <p>PSDI acknowledge failure.</p> <p>The DFC tried to start the PSDI in a read or write mode but the PSDI failed to respond.</p> <p><b>ACTION</b> - Run DFC /MHD diagnostics.</p>                                                                      |
| CCUFED   | AE, AF | <p>Extra data in PSDI.</p> <p>The DFC has finished reading what it thought was 512 data bytes from the disk, but data continued to arrive.</p> <p><b>ACTION</b> - The data format on the disk is not correct and must be reformatted.</p>             |
| CCUDBE   | B0, B1 | <p>Disk data buffer error.</p> <p>The DFC could not find any internal data buffers into which it could put data. This is a DFC internal error code.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>       |
| CCMASADR | B2, B3 | <p>Main store address error.</p> <p>The DFC has calculated a setup of an address in 3B mainstore which will cross a page table (segment) boundary.</p> <p><b>ACTION</b> - Check the coding of the program in the 3B which causes this to occur.</p>   |
| CCDEVTO  | B4, B5 | <p>Device timed out.</p> <p>The DFC has tried to access a device, and the device has failed to respond in a reasonable amount of time.</p> <p><b>ACTION</b> - Check for DKDRV error(s) on the ROP for the device status to determine the failure.</p> |

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Table 1 - DFC Error Codes (continued)

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                                                      |
|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCFAIL   | B8, B9 | <p>Generic failure response.</p> <p>An error has occurred which does not fall into any other category. Check the enhanced completion code in the "Enhanced Information Report" for more data.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p> |
| CCUDD    | BA, BB | <p>Uncorrectable data error in manufacturer defect table.</p> <p><b>ACTION</b> - Rebuild manufacturer default table. If error persists, replace disk drive.</p>                                                                                                                           |
| CCUTOV   | BC, BD | <p>Defect table overflow.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                                                     |
| CCDMUNDD | BE, BF | <p>Inappropriate command for disks that use defect management.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                |
| CCDMUCDT | C0, C1 | <p>Unable to create user defect table on disk.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                                |
| CCDMTMD  | C2, C3 | <p>Too many defects in the manufacturer's table.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                              |
| CCDMEPA  | C4, C5 | <p>Uncorrectable data error on area supposedly error-free.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                    |
| CCDMIDDT | C6, C7 | <p>Invalid data in defect table.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                                              |

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Table 1 - DFC Error Codes (continued)

| DFC Name | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                                                                                                                        |
|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCDMIDR  | C8, C9 | Invalid data in RAM.<br><br><b>ACTION</b> - There is no user response for this error. Contact support group.                                                                                                                                                                                                                                                |
| CCDMTNG  | CA, CB | Invalid manufacturer defect table.<br><br><b>ACTION</b> - There is no user response for this error. Contact support group.                                                                                                                                                                                                                                  |
| CCDMEMA  | CC, CD | Uncorrectable data error in manufacturer's defect table.<br><br><b>ACTION</b> - There is no user response for this error. Contact support group.                                                                                                                                                                                                            |
| CCDMURDT | CE, CF | Unable to read defect table.<br><br><b>ACTION</b> - There is no user response for this error. Contact support group.                                                                                                                                                                                                                                        |
| CCDMURMT | D0, D1 | Unable to read manufacturer's defect table.<br><br><b>ACTION</b> - There is no user response for this error. Contact support group.                                                                                                                                                                                                                         |
| CCDMUWDT | D2, D3 | Unable to write defect table.<br><br><b>ACTION</b> - There is no user response for this error. Contact support group.                                                                                                                                                                                                                                       |
| CCUBPR   | D4, D5 | Mismatch between RAM and expected value.<br><br><b>ACTION</b> - There is no user response for this error. Contact support group.                                                                                                                                                                                                                            |
| CCBUSOFF | D6, D7 | Bus drivers for selected SCSI bus turned off.<br><br>The bus drivers for a SCSI bus have been turned off. A command using a device on that SCSI bus was sent to the SCSI-DFC.<br><br><b>ACTION</b> - Turn on the bus drivers before sending commands to devices on the bus. See user command RST SBUS. Verify that bus terminators were installed properly. |

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Table 1 - DFC Error Codes (continued)

| DFC Name  | Code   | Probable Cause and Corrective Action                                                                                                                                                                                                                                                                                                                                          |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CCINCONC  | D8, D9 | <p>Command arguments are inconsistent.</p> <p>The arguments passed in a command to the SCSI-DFC are not consistent. The command fails error checks.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                               |
| CCUSTL    | DA, DB | <p>Uncorrectable data error and attempt to write temp list failed.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                                                                                                |
| CCBVD     | E0, E1 | <p>Mismatch between Firmware and Pumpcode versions.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                                                                                                               |
| CCPT0     | E4, E5 | <p>Pump job timed out.</p> <p><b>ACTION</b> - There is no user response for this error. Contact support group.</p>                                                                                                                                                                                                                                                            |
| CCDEVERR  | FA, FB | <p>Job failed due to medium error.</p> <p>An error condition associated with the medium. At or beyond end of partition / medium (EOP / M). A check condition status was encountered by the DFC and the sense key indicated an error such as volume overflow or medium error.</p> <p><b>ACTION</b> - Try a different medium if possible; otherwise, contact support group.</p> |
| CCDEVFAIL | FC, FD | <p>Device hardware error. Job failed due to hardware error.</p> <p><b>ACTION</b> - Run diagnostics on the device.</p>                                                                                                                                                                                                                                                         |
| CCDKDRV   | FE, FF | <p>Reserved for DFC driver use.</p>                                                                                                                                                                                                                                                                                                                                           |

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Table 2 describes the conditional success codes which are seen only by the DFC driver.

Table 2 - Conditional Success Codes

| Code | Definition                                                                                                                                                                                                                         |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 02   | The read disk job completed successfully but the DFC had to perform error correction to complete the job. This is an indication that the data are becoming somewhat marginal and that the disk pack may soon require reformatting. |
| 04   | In response to a VERIFY command, the DFC found that one or more sectors were not usable. The header information was incorrect or the data could not be corrected using ECC. The disk pack must be reformatted.                     |
| 07   | During a system phase one, the DFC was reset and could not continue a job that was in progress. This success code indicates that the job was reported to the DFC driver for appropriate recovery actions.                          |
| 08   | There was a fault condition detected on the disk drive, the DFC was able to correct it and proceed to successful completion.                                                                                                       |
| 0A   | The DFC detected a seek error on the disk, but was able to correct it and complete the job successfully.                                                                                                                           |
| 0C   | Job was early terminated by the DFC because a subsequent command was received for the same target device.                                                                                                                          |
| 0E   | The pump job was successful, but the DFC is expecting more data before the pump can be completed.                                                                                                                                  |
| 12   | A "check condition" status was encountered by the DFC, but the sense key did not indicate a medium or hardware error. An early warning or a filemark may have been encountered.                                                    |

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Table 3 explains the special completion codes, which are only applicable for autonomous response output messages. The description of an error code in Table 1 may be used to supplement Table 3 code descriptions to give a more detailed reason for job failure.

Table 3 - Autonomous Response Special Completion Code

| Code | Definition                                                                                                                                                                                                                                 |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0    | Special job.<br>DFC information report. The DFC is letting the DFC driver know there is some EIR information to report.                                                                                                                    |
| 1    | On-board diagnostic error.<br>The on-board diagnostic of the DFC has detected an error, and the DFC should be removed and diagnosed as soon as possible.                                                                                   |
| 2    | On-board exerciser error.<br>The disk exerciser has detected an error. The error may be an uncorrectable data error, or a head /sector mismatch, the error should be analyzed using the DFC enhanced error data (REPT DFCE), if available. |
| 3    | SYSGEN command completed.<br>The DFC is reporting the completion of a SYSGEN command. The job ID code for the SYSGEN command is zero by design.                                                                                            |
| 4    | BOOT command completed.<br>The DFC is reporting the completion of a BOOT command. The job ID code for the BOOT command is zero by design. Since the DFC driver does not issue a BOOT command, this is regarded as an error.                |
| 5    | DFC idle.<br>This is in response to a DFC driver initiated ABORT sequence, simply indicating that the DFC was not sending any data for a particular job to the 3B using the 3B DMAC.                                                       |
| 6    | Illegal command.<br>The DFC received a bit pattern in the command field which it could not decode.                                                                                                                                         |
| 7    | Hitemp warning.<br>The disk exerciser has detected a high temperature condition in a disk drive and is giving warning that the air flow may be becoming insufficient to continue to allow the heads to fly over the disk pack.             |

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Table 4 - Enhanced Completion Codes

| DFC Name      | Code   | Definition                                                         |
|---------------|--------|--------------------------------------------------------------------|
| NOERROR       | 0x0000 | Nothing is wrong.                                                  |
| ERROR_ICS     | 0x1001 | Command from invalid source.                                       |
| ERROR_IDHA    | 0x1002 | Device ID code belongs to HA.                                      |
| ERROR_INVCMD  | 0x1003 | Invalid command received from the 3B.                              |
| ERROR_CMDNEX  | 0x1004 | Command from the 3B not expected.                                  |
| ERROR_NUMWRD  | 0x1005 | Invalid number of words to transfer.                               |
| ERROR_NUMBLK  | 0x1006 | Invalid number of blocks specified.                                |
| ERROR_NOTFIT  | 0x1007 | The data transfer will exceed the boundary of a 3B memory segment. |
| ERROR_NOTRAM  | 0x1008 | The data to be transferred from HA is not RAM or EPROM.            |
| ERROR_WRTPRO  | 0x1009 | The destination location in RAM is write-protected.                |
| ERROR_INVMPMP | 0x100a | Invalid pump option in pump command.                               |
| ERROR_PMPNGO  | 0x100b | A pump continue was received but a pump was not in progress.       |
| ERROR_NODEV   | 0x100c | There is no working device with the specified device ID.           |
| ERROR_INVBLK  | 0x100d | The block number(s) specified do not fit on specified device.      |
| ERROR_BDMGC   | 0x100e | Bad MAGIC number for pumpfile.                                     |
| ERROR_HDHS    | 0x100f | Hash check over pumpfile header failed.                            |
| ERROR_UNNZR   | 0x1010 | Unused area of pumpfile header not zero.                           |
| ERROR_INVADR  | 0x1011 | Data to be pumped not in valid areas.                              |
| ERROR_DTHSH   | 0x1012 | Hash check over pumpfile data failed.                              |
| ERROR_PFNST   | 0x1013 | Pump file did not start.                                           |
| ERROR_PABRT   | 0x1014 | Pump file restart did not succeed.                                 |
| ERROR_INVTV   | 0x1015 | Invalid transfer vector address in pumpfile header.                |
| ERROR_INVFMT  | 0x1016 | Invalid format option in format command.                           |
| ERROR_DFCTBIG | 0x1017 | User defect list in format command too big.                        |
| ERROR_INVEXPS | 0x1018 | Invalid SCSI option in explicit SCSI command.                      |
| ERROR_EXCMDTB | 0x1019 | Size of SCSI command in explicit SCSI command too big.             |
| ERROR_EXCMDTS | 0x101a | Size of SCSI command in explicit SCSI command too small.           |
| ERROR_OPTNOT2 | 0x101b | SCSI option in explicit SCSI command does not allow two devices.   |
| ERROR_DIFBUS  | 0x101c | Explicit SCSI command has two devices on different busses.         |
| ERROR_RETCODE | 0x101d | Unexpected return code from a function call.                       |
| ERROR_DEFCASE | 0x101e | Default case reached in a switch( ) statement.                     |
| ERROR_VERSION | 0x101f | Version in pumpfile does not match firmware.                       |
| ERROR_ETERM   | 0x1020 | Unable to early terminate job in progress.                         |
| ERROR_OKCR    | 0x1021 | Job completed OK, but ECC was required.                            |
| ERROR_UCDE    | 0x1022 | Job failed; uncorrectable data (media error).                      |
| ERROR_DBO     | 0x1023 | Disk boundary overflow (end of disk reached).                      |
| ERROR_RETRIES | 0x1024 | Too many retries.                                                  |
| ERROR_BSYTMO  | 0x1025 | Device returned BUSY status for too long.                          |

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Table 4 - Enhanced Completion Codes (continued)

| DFC Name           | Code   | Definition                                                                                                             |
|--------------------|--------|------------------------------------------------------------------------------------------------------------------------|
| ERROR_NOBUF        | 0x1026 | Unable to obtain an HA data buffer.                                                                                    |
| ERROR_TAPEOP       | 0x1027 | Invalid tape operation specified.                                                                                      |
| ERROR_OPTION       | 0x1028 | Invalid option to tape operation specified.                                                                            |
| ERROR_NOFUNC       | 0x1029 | Function address expected but not found.                                                                               |
| ERROR_SEEK         | 0x102a | Seek failed to achieve desired location.                                                                               |
|                    |        | ESD SK == Extended Sense Data Sense Key                                                                                |
| ERROR_OKCS         | 0x102d | ESD SK indicated no error; check status word.                                                                          |
| ERROR_DEVERR       | 0x102e | ESD SK indicated a device (medium) error.                                                                              |
| ERROR_DEVFAIL      | 0x102f | ESD SK indicated a device failure.                                                                                     |
| ERROR_FWWFCLR      | 0x1030 | Flash word write failed - doing flash clear                                                                            |
| ERROR_FWWFERA      | 0x1031 | Flash word write failed - doing flash erase                                                                            |
| ERROR_FWWFPGM      | 0x1032 | Flash word write failed - doing flash program                                                                          |
| ERROR_CMDSIZE      | 0x1033 | Command received by 1-wide code has wrong command size                                                                 |
| ERROR_RSVFL        | 0x2001 | Reserve / unreserve failed.                                                                                            |
| ERROR_RSTFL        | 0x2002 | Reset disk failed.                                                                                                     |
| ERROR_SPCJF        | 0x2003 | spc_job failed to start.                                                                                               |
| ERROR_REXFL        | 0x2004 | Read failure during REX job.                                                                                           |
| ERROR_SJB0         | 0x3000 | Base value of SJB failures; used by the error_sjb() function.                                                          |
| ERROR_ABORT        | 0x3001 | Command was aborted.                                                                                                   |
| ERROR_BRESET       | 0x3002 | Reset was detected on the bus, and was probably not caused by this job; it may or may not have been caused by this HA. |
| ERROR_CKSTAT       | 0x3003 | Check the status byte.                                                                                                 |
| ERROR_CRESET       | 0x3004 | This HA reset the bus due to an unrecoverable error while processing this job.                                         |
| ERROR_INPROG       | 0x3005 | Job is still in progress.                                                                                              |
| ERROR_SJBERR       | 0x3006 | SJB contents error.                                                                                                    |
| ERROR_MEMERR       | 0x3007 | Memory fault.                                                                                                          |
| ERROR_BADBUS       | 0x3008 | The SCSI bus is unterminated.                                                                                          |
| ERROR_SELECT       | 0x3009 | Device select failed.                                                                                                  |
| ERROR_QFLUSH       | 0x300a | Job was flushed.                                                                                                       |
| ERROR_SHORT        | 0x300b | Target controller did not transfer all of the data.                                                                    |
| ERROR_TIMEOUT      | 0x300c | Job timed out.                                                                                                         |
| ERROR_CHAIN_LINKS  | 0x300d | Insufficient DMA Chain Links.                                                                                          |
| ERROR_LU_QNODES    | 0x300e | Insufficient LU Queue Nodes.                                                                                           |
| ERROR_BUS_OFFLINE  | 0x300f | The SCSI Bus is off-line.                                                                                              |
| ERROR_BUS_PARITY   | 0x3010 | HA detected SCSI Bus Parity Error and terminated the job.                                                              |
| ERROR_SJBDEF       | 0x301f | Unknown SJB completion code.                                                                                           |
| ERROR_NOT_READY    | 0x3020 | Target device not ready to process jobs.                                                                               |
| ERROR_REQ_SEN      | 0x3021 | Request Sense Command failed.                                                                                          |
| ERROR_BAD_STATE    | 0x3022 | Invalid SCSI Job State.                                                                                                |
| ERROR_BAD_PROTOCOL | 0x3023 | Invalid SCSI Protocol Transition.                                                                                      |
| ERROR_SJABTFL      | 0x3024 | Failed to send ABORT message to SCSI device.                                                                           |

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Table 5 - Firmware-Driver Communications Register (FW / PC versions 7.0 and 8.0)

| Code | Definition                                                   |
|------|--------------------------------------------------------------|
| 0x01 | Power-on or reset received from the 3B.                      |
| 0x02 | Invalid interrupt.                                           |
| 0x03 | Sanity timer failure.                                        |
| 0x04 | Normal exception - integer zero divide.                      |
| 0x05 | Normal exception - trace trap.                               |
| 0x06 | Normal exception - illegal opcode.                           |
| 0x07 | Normal exception - reserved opcode.                          |
| 0x08 | Normal exception - invalid descriptor.                       |
| 0x09 | Normal exception - external memory.                          |
| 0x0a | Normal exception - gate vector.                              |
| 0x0b | Normal exception - illegal level change.                     |
| 0x0c | Normal exception - reserved data type.                       |
| 0x0d | Normal exception - integer overflow.                         |
| 0x0e | Normal exception - privileged opcode.                        |
| 0x0f | Normal exception - breakpoint.                               |
| 0x10 | Normal exception - privileged register.                      |
| 0x11 | Normal exception - unknown type.                             |
| 0x12 | Stack exception - stack bound.                               |
| 0x13 | Stack exception - stack.                                     |
| 0x14 | Stack exception - interrupt ID fetch.                        |
| 0x15 | Stack exception - unknown type.                              |
| 0x16 | Process exception - old PCB.                                 |
| 0x17 | Process exception - gate PCB.                                |
| 0x18 | Process exception - new PCB.                                 |
| 0x19 | Process exception - unknown type.                            |
| 0x1a | BIC error.                                                   |
| 0x1b | Parity error.                                                |
| 0x1c | Write protect violation.                                     |
| 0x1d | BIC FIFO overflow / underflow.                               |
| 0x1e | Channel 0 of HA DMAC dead.                                   |
| 0x1f | Channel 1 of HA DMAC dead.                                   |
| 0x20 | Channel 2 of HA DMAC dead.                                   |
| 0x21 | Channel 3 of HA DMAC dead.                                   |
| 0x22 | Unexpected interrupt from DMAC (32104).                      |
| 0x23 | Unexpected interrupt from read / write word / block counter. |
| 0x24 | Unexpected interrupt from software timer 2.                  |
| 0x25 | Unexpected interrupt from software timer 1.                  |
| 0x26 | Unexpected interrupt from SCSI bus 0.                        |
| 0x27 | Unexpected interrupt from SCSI bus 1.                        |
| 0x28 | Unable to early terminate job on device.                     |
| 0x29 | Operational firmware invalid major state.                    |

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Table 5 - Firmware-Driver Communications Register (FW/PC versions 7.0 and 8.0) (continued)

| Code | Definition                                            |
|------|-------------------------------------------------------|
| 0x2a | Operational firmware invalid command source.          |
| 0x2b | An error was detected during boot command processing. |
| 0x2c | Firmware to pumpcode transition failure.              |
| 0x2d | dgn_fault() returned to SW Timer 2 interrupt handler. |
| 0x2e | dgn_fault() returned to SPC0 interrupt handler.       |
| 0x2f | dgn_fault() returned to SPC1 interrupt handler.       |
| 0x30 | No timer nodes available for timeout processing.      |
| 0x31 | Job response is using JCISTAT interface.              |
| 0x32 | Firmware to pumpcode restart failed.                  |
| 0x33 | ON RESET: all memory is being cleared.                |
| 0x34 | ON RESET: normal memory is being cleared.             |
| 0x35 | ON RESET: no memory is being cleared.                 |
| 0x36 | Invalid switch value.                                 |
| 0x37 | Buffer management error.                              |
| 0x3F | No command from the 3B is being processed.            |
| 0x40 | Invalid command received from the 3B (opcode 0x00).   |
| 0x41 | Invalid command received from the 3B (opcode 0x01).   |
| 0x42 | Invalid command received from the 3B (opcode 0x02).   |
| 0x43 | Invalid command received from the 3B (opcode 0x03).   |
| 0x44 | Invalid command received from the 3B (opcode 0x04).   |
| 0x45 | Invalid command received from the 3B (opcode 0x05).   |
| 0x46 | Invalid command received from the 3B (opcode 0x06).   |
| 0x47 | Invalid command received from the 3B (opcode 0x07).   |
| 0x48 | Invalid command received from the 3B (opcode 0x08).   |
| 0x49 | Invalid command received from the 3B (opcode 0x09).   |
| 0x4a | Invalid command received from the 3B (opcode 0x0a).   |
| 0x4b | Invalid command received from the 3B (opcode 0x0b).   |
| 0x4c | Invalid command received from the 3B (opcode 0x0c).   |
| 0x4d | Invalid command received from the 3B (opcode 0x0d).   |
| 0x4e | Invalid command received from the 3B (opcode 0x0e).   |
| 0x4f | Invalid command received from the 3B (opcode 0x0f).   |
| 0x50 | Invalid command received from the 3B (opcode 0x10).   |
| 0x51 | Invalid command received from the 3B (opcode 0x11).   |
| 0x52 | Invalid command received from the 3B (opcode 0x12).   |
| 0x53 | Invalid command received from the 3B (opcode 0x13).   |
| 0x54 | Invalid command received from the 3B (opcode 0x14).   |
| 0x55 | Invalid command received from the 3B (opcode 0x15).   |
| 0x56 | Invalid command received from the 3B (opcode 0x16).   |
| 0x57 | Invalid command received from the 3B (opcode 0x17).   |
| 0x58 | Invalid command received from the 3B (opcode 0x18).   |
| 0x59 | Invalid command received from the 3B (opcode 0x19).   |
| 0x5a | Invalid command received from the 3B (opcode 0x1a).   |

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Table 5 - Firmware-Driver Communications Register (FW / PC versions 7.0 and 8.0) (continued)

| Code | Definition                                                            |
|------|-----------------------------------------------------------------------|
| 0x5b | Invalid command received from the 3B (opcode 0x1b).                   |
| 0x5c | Invalid command received from the 3B (opcode 0x1c).                   |
| 0x5d | Invalid command received from the 3B (opcode 0x1d).                   |
| 0x5e | Invalid command received from the 3B (opcode 0x1e).                   |
| 0x5f | Invalid command received from the 3B (opcode 0x1f).                   |
| 0x60 | Operational firmware processing command 0x00 (no-op).                 |
| 0x61 | Operational firmware processing command 0x01 (spare).                 |
| 0x62 | Operational firmware processing command 0x02 (tapecmd).               |
| 0x63 | Operational firmware processing command 0x03 (version).               |
| 0x64 | Operational firmware processing command 0x04 (reserve).               |
| 0x65 | Operational firmware processing command 0x05 (retry).                 |
| 0x66 | Operational firmware processing command 0x06 (wakeup).                |
| 0x67 | Operational firmware processing command 0x07 (dfc options).           |
| 0x68 | Operational firmware processing command 0x08 (resume).                |
| 0x69 | Operational firmware processing command 0x09 (reset device).          |
| 0x6a | Operational firmware processing command 0x0a (device mode).           |
| 0x6b | Operational firmware processing command 0x0b (sysgen).                |
| 0x6c | Operational firmware processing command 0x0c (dfc mode).              |
| 0x6d | Operational firmware processing command 0x0d (boot).                  |
| 0x6e | Operational firmware processing command 0x0e (jci status).            |
| 0x6f | Operational firmware processing command 0x0f (abort).                 |
| 0x70 | Operational firmware processing command 0x10 (read ram).              |
| 0x71 | Operational firmware processing command 0x11 (read disk).             |
| 0x72 | Operational firmware processing command 0x12 (explicit scsi).         |
| 0x73 | Operational firmware processing command 0x13 (verify).                |
| 0x74 | Operational firmware processing command 0x14 (spare).                 |
| 0x75 | Operational firmware processing command 0x15 (spare).                 |
| 0x76 | Operational firmware processing command 0x16 (spare).                 |
| 0x77 | Operational firmware processing command 0x17 (spare).                 |
| 0x78 | Operational firmware processing command 0x18 (write ram).             |
| 0x79 | Operational firmware processing command 0x19 (write disk).            |
| 0x7a | Operational firmware processing command 0x1a (pump).                  |
| 0x7b | Operational firmware processing command 0x1b (format).                |
| 0x7c | Operational firmware processing command 0x1c (request device status). |
| 0x7d | Operational firmware processing command 0x1d (diag helper).           |
| 0x7e | Operational firmware processing command 0x1e (disk-to-disk copy).     |
| 0x7f | Operational firmware processing command 0x1f (diag device).           |
| 0xa0 | SPC:timeout for DMAC normal termination.                              |
| 0xa1 | SPC:timeout on DMAC flush.                                            |
| 0xa2 | SPC:bad disconnect; non-word boundary.                                |
| 0xa3 | SPC:timeout for SPC FIFO to empty.                                    |

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Table 5 - Firmware-Driver Communications Register (FW/PC versions 7.0 and 8.0) (continued)

| Code | Definition                                            |
|------|-------------------------------------------------------|
| 0xa4 | SPC:DMAC error on READ/WRITE completion.              |
| 0xa5 | SPC:DMAC error on READ flush.                         |
| 0xa6 | SPC:bad time value passed to <code>timeout()</code> . |
| 0xb0 | Timeout on DMAC normal termination (bus A).           |
| 0xb1 | Timeout on DMAC normal termination (bus B).           |
| 0xb2 | Timeout on DMAC flush (bus A).                        |
| 0xb3 | Timeout on DMAC flush (bus B).                        |
| 0xb4 | Timeout for SPC FIFO to empty (bus A).                |
| 0xb5 | Timeout for SPC FIFO to empty (bus B).                |
| 0xb6 | DMAC error on READ/WRITE completion (bus A).          |
| 0xb7 | DMAC error on READ/WRITE completion (bus B).          |
| 0xb8 | DMAC error on READ flush (bus A).                     |
| 0xb9 | DMAC error on READ flush (bus B).                     |
| 0xc0 | The pump code is running.                             |
| 0xc1 | A function returned that should not have.             |
| 0xc2 | The dispatcher is in an invalid state.                |
| 0xc3 | Invalid pump state value.                             |
| 0xc4 | Invalid return code.                                  |
| 0xc5 | Invalid task major state value.                       |
| 0xc6 | Invalid task minor state value.                       |
| 0xc7 | Invalid SCSI job state.                               |
| 0xc8 | Invalid task ID number argument.                      |
| 0xc9 | Buffer management error.                              |
| 0xca | Error occurred while initializing pump code.          |
| 0xcb | Pump state is ERROR but no error task exists.         |
| 0xcc | Task allocation failed - all tasks busy.              |
| 0xcd | 3B DMAC should not be busy but is.                    |
| 0xce | Error occurred during slow job early term.            |
| 0xcf | Error occurred during overlapped RDDSK job.           |
| 0xd0 | No free task management link-list queue nodes.        |
| 0xd1 | Pumpcode has failed to install a code patch.          |

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Table 5a - Firmware-Driver Communications Register (FW / PC versions 9.0)

| Code | Definition                                               |
|------|----------------------------------------------------------|
| 0x01 | Power-on or reset received from 3B.                      |
| 0x02 | Invalid interrupt.                                       |
| 0x03 | Sanity timer failure.                                    |
| 0x04 | 4wide state - ready.                                     |
| 0x05 | 4wide state - error.                                     |
| 0x06 | 4wide state - sleeping and slow jobs.                    |
| 0x07 | 4wide state - sleeping and no slow jobs.                 |
| 0x08 | 4wide state - awake.                                     |
| 0x09 | 4wide state - running interrupt node task.               |
| 0x0a | 4wide state - reading commands.                          |
| 0x0b | 4wide state - routing commands.                          |
| 0x0c | 4wide state - start a job on a device.                   |
| 0x0d | 4wide state - flush a job on a device.                   |
| 0x0e | 4wide state - start a job on the 3B DMA.                 |
| 0x19 | Other level 6 error.                                     |
| 0x1a | BIC error.                                               |
| 0x1b | Memory parity error.                                     |
| 0x1c | Write protect violation.                                 |
| 0x1d | BIC FIFO overflow / underflow.                           |
| 0x1e | Channel 0 of HA DMAC dead.                               |
| 0x1f | Channel 1 of HA DMAC dead.                               |
| 0x20 | Channel 2 of HA DMAC dead.                               |
| 0x21 | Channel 3 of HA DMAC dead.                               |
| 0x22 | Unexpected interrupt from DMAC (32104).                  |
| 0x23 | Unexpected interrupt from word / block transfer counter. |
| 0x24 | Unexpected interrupt from software timer 2.              |
| 0x25 | Unexpected interrupt from software timer 1.              |
| 0x26 | Unexpected interrupt from SCSI bus 0.                    |
| 0x27 | Unexpected interrupt from SCSI bus 1.                    |
| 0x28 | Unable to early terminate job on device.                 |
| 0x29 | Operational firmware invalid major state.                |
| 0x2a | Operational firmware invalid command source.             |
| 0x2b | An error was detected during boot command processing.    |
| 0x2c | Firmware to pumpcode transition failure.                 |
| 0x2d | dgn_fault() returned to SW Timer 2 interrupt handler.    |
| 0x2e | dgn_fault() returned to SPC0 interrupt handler.          |
| 0x2f | dgn_fault() returned to SPC1 interrupt handler.          |
| 0x30 | No timer nodes available for timeout processing.         |
| 0x31 | Job response is using JCISTAT interface.                 |
| 0x32 | Firmware to pumpcode restart failed.                     |
| 0x33 | ON RESET: all memory is being cleared.                   |

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Table 5a - Firmware-Driver Communications Register (FW / PC versions 9.0) (continued)

| Code | Definition                                          |
|------|-----------------------------------------------------|
| 0x34 | ON RESET: normal memory is being cleared.           |
| 0x35 | ON RESET: no memory is being cleared.               |
| 0x36 | Invalid switch value.                               |
| 0x37 | Buffer management error.                            |
| 0x38 | 1-byte wide firmware is running.                    |
| 0x39 | FPGA programming error / failure.                   |
| 0x3a | Double bus fault detected.                          |
| 0x3b | Count of jobs in HA is less than zero.              |
| 0x3F | No command from the 3B is being processed.          |
| 0x40 | Invalid command received from the 3B (opcode 0x00). |
| 0x41 | Invalid command received from the 3B (opcode 0x01). |
| 0x42 | Invalid command received from the 3B (opcode 0x02). |
| 0x43 | Invalid command received from the 3B (opcode 0x03). |
| 0x44 | Invalid command received from the 3B (opcode 0x04). |
| 0x45 | Invalid command received from the 3B (opcode 0x05). |
| 0x46 | Invalid command received from the 3B (opcode 0x06). |
| 0x47 | Invalid command received from the 3B (opcode 0x07). |
| 0x48 | Invalid command received from the 3B (opcode 0x08). |
| 0x49 | Invalid command received from the 3B (opcode 0x09). |
| 0x4a | Invalid command received from the 3B (opcode 0x0a). |
| 0x4b | Invalid command received from the 3B (opcode 0x0b). |
| 0x4c | Invalid command received from the 3B (opcode 0x0c). |
| 0x4d | Invalid command received from the 3B (opcode 0x0d). |
| 0x4e | Invalid command received from the 3B (opcode 0x0e). |
| 0x4f | Invalid command received from the 3B (opcode 0x0f). |
| 0x50 | Invalid command received from the 3B (opcode 0x10). |
| 0x51 | Invalid command received from the 3B (opcode 0x11). |
| 0x52 | Invalid command received from the 3B (opcode 0x12). |
| 0x53 | Invalid command received from the 3B (opcode 0x13). |
| 0x54 | Invalid command received from the 3B (opcode 0x14). |
| 0x55 | Invalid command received from the 3B (opcode 0x15). |
| 0x56 | Invalid command received from the 3B (opcode 0x16). |
| 0x57 | Invalid command received from the 3B (opcode 0x17). |
| 0x58 | Invalid command received from the 3B (opcode 0x18). |
| 0x59 | Invalid command received from the 3B (opcode 0x19). |
| 0x5a | Invalid command received from the 3B (opcode 0x1a). |
| 0x5b | Invalid command received from the 3B (opcode 0x1b). |
| 0x5c | Invalid command received from the 3B (opcode 0x1c). |
| 0x5d | Invalid command received from the 3B (opcode 0x1d). |
| 0x5e | Invalid command received from the 3B (opcode 0x1e). |
| 0x5f | Invalid command received from the 3B (opcode 0x1f). |

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Table 5a - Firmware-Driver Communications Register (FW / PC versions 9.0) (continued)

| Code | Definition                                                            |
|------|-----------------------------------------------------------------------|
| 0x60 | Operational firmware processing command 0x00 (no-op).                 |
| 0x61 | Operational firmware processing command 0x01 (spare).                 |
| 0x62 | Operational firmware processing command 0x02 (tapecmd).               |
| 0x63 | Operational firmware processing command 0x03 (version).               |
| 0x64 | Operational firmware processing command 0x04 (reserve).               |
| 0x65 | Operational firmware processing command 0x05 (retry).                 |
| 0x66 | Operational firmware processing command 0x06 (wakeup).                |
| 0x67 | Operational firmware processing command 0x07 (dfc options).           |
| 0x68 | Operational firmware processing command 0x08 (resume).                |
| 0x69 | Operational firmware processing command 0x09 (reset device).          |
| 0x6a | Operational firmware processing command 0x0a (device mode).           |
| 0x6b | Operational firmware processing command 0x0b (sysgen).                |
| 0x6c | Operational firmware processing command 0x0c (dfc mode).              |
| 0x6d | Operational firmware processing command 0x0d (boot).                  |
| 0x6e | Operational firmware processing command 0x0e (jci status).            |
| 0x6f | Operational firmware processing command 0x0f (abort).                 |
| 0x70 | Operational firmware processing command 0x10 (read ram).              |
| 0x71 | Operational firmware processing command 0x11 (read disk).             |
| 0x72 | Operational firmware processing command 0x12 (explicit scsi).         |
| 0x73 | Operational firmware processing command 0x13 (verify).                |
| 0x74 | Operational firmware processing command 0x14 (spare).                 |
| 0x75 | Operational firmware processing command 0x15 (spare).                 |
| 0x76 | Operational firmware processing command 0x16 (spare).                 |
| 0x77 | Operational firmware processing command 0x17 (spare).                 |
| 0x78 | Operational firmware processing command 0x18 (write ram).             |
| 0x79 | Operational firmware processing command 0x19 (write disk).            |
| 0x7a | Operational firmware processing command 0x1a (pump).                  |
| 0x7b | Operational firmware processing command 0x1b (format).                |
| 0x7c | Operational firmware processing command 0x1c (request device status). |
| 0x7d | Operational firmware processing command 0x1d (diag helper).           |
| 0x7e | Operational firmware processing command 0x1e (disk-to-disk copy).     |
| 0x7f | Operational firmware processing command 0x1f (diag device).           |
| 0xa0 | SPC:timeout for DMAC normal termination.                              |
| 0xa1 | SPC:timeout on DMAC flush.                                            |
| 0xa2 | SPC:bad disconnect; non-word boundary.                                |
| 0xa3 | SPC:timeout for SPC FIFO to empty.                                    |
| 0xa4 | SPC:DMAC error on READ/WRITE completion.                              |
| 0xa5 | SPC:DMAC error on READ flush.                                         |
| 0xa6 | SPC:bad time value passed to <code>timeout()</code> .                 |
| 0xa7 | SPC:bad function passed to <code>timeout()</code> .                   |
| 0xb0 | Timeout on DMAC normal termination (bus A).                           |
| 0xb1 | Timeout on DMAC normal termination (bus B).                           |

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Table 5a - Firmware-Driver Communications Register (FW / PC versions 9.0) (continued)

| Code | Definition                                     |
|------|------------------------------------------------|
| 0xb2 | Timeout on DMA stop (bus A).                   |
| 0xb3 | Timeout on DMA stop (bus B).                   |
| 0xb4 | Timeout for SPC FIFO to empty (bus A).         |
| 0xb5 | Timeout for SPC FIFO to empty (bus B).         |
| 0xb6 | DMAC error on READ / WRITE completion (bus A). |
| 0xb7 | DMAC error on READ / WRITE completion (bus B). |
| 0xb8 | DMAC error on READ flush (bus A).              |
| 0xb9 | DMAC error on READ flush (bus B).              |
| 0xbc | Invalid condition.                             |
| 0xc0 | The 4wide Code has started.                    |
| 0xc1 | A function returned that should not have.      |
| 0xc2 | The Dispatcher is in an invalid state.         |
| 0xc3 | Invalid Pump State value.                      |
| 0xc4 | Invalid Return Code.                           |
| 0xc5 | Invalid Task Major State value.                |
| 0xc6 | Invalid Task Minor State value.                |
| 0xc7 | Invalid SCSI Job State.                        |
| 0xc8 | Invalid Task ID Number argument.               |
| 0xc9 | Buffer Management error.                       |
| 0xca | Error occurred while initializing Pump Code.   |
| 0xcb | Pump State is ERROR but no Error Task exists.  |
| 0xcc | Task allocation failed - all tasks busy.       |
| 0xcd | 3B DMAC should not be busy but is.             |
| 0xce | Error occurred during slow job early term.     |
| 0xcf | Error occurred during overlapped RDDSK job.    |
| 0xd0 | No free task management link-list queue nodes. |
| 0xd1 | Pumpcode has failed to install a code patch.   |

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Table 6 - Job Type Pending  
FIRMWARE / PUMPCODE VERSION 7.1

| Code | Definition                           |
|------|--------------------------------------|
| 0    | No device exists.                    |
| 1    | No status received from device.      |
| 2    | Slow command active on device.       |
| 3    | Fast command active on device.       |
| 4    | Diagnostic command active on device. |
| 5    | No command active on device.         |
| 6    | Secondary device for slow command.   |
| 7    | Secondary device for fast command.   |

Table 6 - Job Type Pending  
FIRMWARE / PUMPCODE VERSION 8.0 and later

| Code | Definition                           |
|------|--------------------------------------|
| 0    | No device exists.                    |
| 1    | No status received from device.      |
| 2    | No command active on device.         |
| 3    | Slow command active on device.       |
| 4    | Fast command active on device.       |
| 5    | Diagnostic command active on device. |
| 6    | Secondary device for slow command.   |
| 7    | Secondary device for fast command.   |

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ID ..... APP:DFC-C  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## DEVICE STATUS WORD LAYOUT

The layout of the Device Status Word varies depending on the DFC firmware/ pumpcode version, the device type, and the circumstance or event that caused the Device Status Word to be printed. All the variations of the Device Status Word layout are listed in one of the tables:

- Table 1 - For SCSI DFC firmware/ pumpcode version 7.1, for all device types, under all circumstances.
- Table 2 - For SCSI DFC firmware/ pumpcode version 8.0 and later, for all device types, for failure responses.
- Table 3 - For SCSI DFC firmware/ pumpcode version 8.0 and later, for tape devices, for conditional success responses.
- Table 4 - For SCSI DFC firmware/ pumpcode version 8.0 and later, for all device types, for EIR device status.
- Table 5 - For SCSI DFC firmware/ pumpcode version 8.0 and later, for all device types, in response to RQDEVSTAT command.
- Table 6 - For SMD DFC firmware version 6.0 and earlier, for all device types, under all circumstances.

**NOTE:** Mode bit: 0 = on-line, 1 = off-line (maintenance).

Acronyms that are used in this appendix:

bdid = Bus Device ID  
DFC = Disk File Controller  
EIR = Enhanced Information Report  
LSB = Least Significant Bit  
MHD = Moving head disk  
MHSR = MHD status register  
MSB = Most Significant Bit  
SCSI = Small Computer System Interface  
SMD = Storage Module Drive

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Table 1 - For SCSI DFC firmware / pumpcode version 7.1,  
for all device types, under all circumstances

Bits 27 through 20 provide SCSI Extended Sense Data. If bits 27-24 are 0111B respectively, then bits 23-20 contain the Sense Key; otherwise, bits 27-20 contain the Additional Sense Code. The SCSI Extended Sense Data is described in the DFC Output Appendix J, APP:DFC-J.

| Bit | Description                            |
|-----|----------------------------------------|
| 31  | Mode bit of bddid                      |
| 30  | Mode bit of DFC                        |
| 29  | Incorrect disk selected (always 0)     |
| 28  | Multiple disks selected (always 0)     |
| 27  | SCSI Extended Sense Data               |
| 26  | SCSI Extended Sense Data               |
| 25  | SCSI Extended Sense Data               |
| 24  | SCSI Extended Sense Data               |
| 23  | SCSI Extended Sense Data               |
| 22  | SCSI Extended Sense Data               |
| 21  | SCSI Extended Sense Data               |
| 20  | SCSI Extended Sense Data               |
| 19  | bddid (MSB)                            |
| 18  | bddid                                  |
| 17  | bddid                                  |
| 16  | bddid (LSB)                            |
| 15  | Mode bit of bddid 15 (ID = 7; bus = 1) |
| 14  | Mode bit of bddid 14 (ID = 7; bus = 0) |
| 13  | Mode bit of bddid 13 (ID = 6; bus = 1) |
| 12  | Mode bit of bddid 12 (ID = 6; bus = 0) |
| 11  | Mode bit of bddid 11 (ID = 5; bus = 1) |
| 10  | Mode bit of bddid 10 (ID = 5; bus = 0) |
| 09  | Mode bit of bddid 9 (ID = 4; bus = 1)  |
| 08  | Mode bit of bddid 8 (ID = 4; bus = 0)  |
| 07  | Mode bit of bddid 7 (ID = 3; bus = 1)  |
| 06  | Mode bit of bddid 6 (ID = 3; bus = 0)  |
| 05  | Mode bit of bddid 5 (ID = 2; bus = 1)  |
| 04  | Mode bit of bddid 4 (ID = 2; bus = 0)  |
| 03  | Mode bit of bddid 3 (ID = 1; bus = 1)  |
| 02  | Mode bit of bddid 2 (ID = 1; bus = 0)  |
| 01  | Mode bit of bddid 1 (ID = 0; bus = 1)  |
| 00  | Mode bit of bddid 0 (ID = 0; bus = 0)  |

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Table 2 - For SCSI DFC firmware / pumpcode version 8.0 and later,  
for all device types, for failure responses

| Bits  | Description                        |
|-------|------------------------------------|
| 31-24 | SCSI Extended Sense Data - byte 0  |
| 23-16 | SCSI Extended Sense Data - byte 2  |
| 15-08 | SCSI Extended Sense Data - byte 12 |
| 07-00 | SCSI Extended Sense Data - byte 13 |

See DFC Output Appendix J, APP:DFC-J to interpret the SCSI Extended Sense Data.

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Table 3 - For SCSI DFC firmware / pumpcode version 8.0 and later,  
for tape devices, for conditional success responses

| Bit | Description                             |
|-----|-----------------------------------------|
| 31  | SCSI Extended Sense Data - byte 2 (MSB) |
| 30  | SCSI Extended Sense Data - byte 2       |
| 29  | SCSI Extended Sense Data - byte 2       |
| 28  | SCSI Extended Sense Data - byte 2       |
| 27  | SCSI Extended Sense Data - byte 2       |
| 26  | SCSI Extended Sense Data - byte 2       |
| 25  | SCSI Extended Sense Data - byte 2       |
| 24  | SCSI Extended Sense Data - byte 2 (LSB) |
| 23  | Not used                                |
| 22  | Not used                                |
| 21  | Not used                                |
| 20  | Not used                                |
| 19  | Residue field has overflowed            |
| 18  | Sign bit for residue field              |
| 17  | Residue (MSB)                           |
| 16  | Residue                                 |
| 15  | Residue                                 |
| 14  | Residue                                 |
| 13  | Residue                                 |
| 12  | Residue                                 |
| 11  | Residue                                 |
| 10  | Residue                                 |
| 09  | Residue                                 |
| 08  | Residue                                 |
| 07  | Residue                                 |
| 06  | Residue                                 |
| 05  | Residue                                 |
| 04  | Residue                                 |
| 03  | Residue                                 |
| 02  | Residue                                 |
| 01  | Residue                                 |
| 00  | Residue (LSB)                           |

**NOTE:** Residue is the difference between the requested transfer length and the actual transfer length (residue = requested - actual).

See DFC Output Appendix J, APP:DFC - J to interpret the SCSI Extended Sense Data.

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Table 4 - For SCSI DFC firmware / pumpcode version 8.0 and later,  
for all device types, for EIR device status

| Bit | Description                            |
|-----|----------------------------------------|
| 31  | Not used                               |
| 30  | Not used                               |
| 29  | Not used                               |
| 28  | Not used                               |
| 27  | Not used                               |
| 26  | Not used                               |
| 25  | Not used                               |
| 24  | Not used                               |
| 23  | Not used                               |
| 22  | Not used                               |
| 21  | Not used                               |
| 20  | Not used                               |
| 19  | Not used                               |
| 18  | Not used                               |
| 17  | Not used                               |
| 16  | Mode bit of DFC                        |
| 15  | Mode bit of bddid 15 (ID = 7; bus = 1) |
| 14  | Mode bit of bddid 14 (ID = 7; bus = 0) |
| 13  | Mode bit of bddid 13 (ID = 6; bus = 1) |
| 12  | Mode bit of bddid 12 (ID = 6; bus = 0) |
| 11  | Mode bit of bddid 11 (ID = 5; bus = 1) |
| 10  | Mode bit of bddid 10 (ID = 5; bus = 0) |
| 09  | Mode bit of bddid 9 (ID = 4; bus = 1)  |
| 08  | Mode bit of bddid 8 (ID = 4; bus = 0)  |
| 07  | Mode bit of bddid 7 (ID = 3; bus = 1)  |
| 06  | Mode bit of bddid 6 (ID = 3; bus = 0)  |
| 05  | Mode bit of bddid 5 (ID = 2; bus = 1)  |
| 04  | Mode bit of bddid 4 (ID = 2; bus = 0)  |
| 03  | Mode bit of bddid 3 (ID = 1; bus = 1)  |
| 02  | Mode bit of bddid 2 (ID = 1; bus = 0)  |
| 01  | Mode bit of bddid 1 (ID = 0; bus = 1)  |
| 00  | Mode bit of bddid 0 (ID = 0; bus = 0)  |

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Table 5 - For SCSI DFC firmware / pumpcode version 8.0 and later,  
for all device types, in response to RQDEVSTAT command

| Bit | Description                           |
|-----|---------------------------------------|
| 31  | Mode bit of bdid                      |
| 30  | Mode bit of DFC                       |
| 29  | Not used                              |
| 28  | Not used                              |
| 27  | Not used                              |
| 26  | Not used                              |
| 25  | Not used                              |
| 24  | Not used                              |
| 23  | Not used                              |
| 22  | Not used                              |
| 21  | Not used                              |
| 20  | Not used                              |
| 19  | bdid (MSB)                            |
| 18  | bdid                                  |
| 17  | bdid                                  |
| 16  | bdid (LSB)                            |
| 15  | Mode bit of bdid 15 (ID = 7; bus = 1) |
| 14  | Mode bit of bdid 14 (ID = 7; bus = 0) |
| 13  | Mode bit of bdid 13 (ID = 6; bus = 1) |
| 12  | Mode bit of bdid 12 (ID = 6; bus = 0) |
| 11  | Mode bit of bdid 11 (ID = 5; bus = 1) |
| 10  | Mode bit of bdid 10 (ID = 5; bus = 0) |
| 09  | Mode bit of bdid 9 (ID = 4; bus = 1)  |
| 08  | Mode bit of bdid 8 (ID = 4; bus = 0)  |
| 07  | Mode bit of bdid 7 (ID = 3; bus = 1)  |
| 06  | Mode bit of bdid 6 (ID = 3; bus = 0)  |
| 05  | Mode bit of bdid 5 (ID = 2; bus = 1)  |
| 04  | Mode bit of bdid 4 (ID = 2; bus = 0)  |
| 03  | Mode bit of bdid 3 (ID = 1; bus = 1)  |
| 02  | Mode bit of bdid 2 (ID = 1; bus = 0)  |
| 01  | Mode bit of bdid 1 (ID = 0; bus = 1)  |
| 00  | Mode bit of bdid 0 (ID = 0; bus = 0)  |

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Table 6 - For SMD DFC firmware version 6.0 and earlier,  
for all device types, under all circumstances

| Bit | Description             |
|-----|-------------------------|
| 31  | Mode bit of device ID   |
| 30  | Mode bit of DFC         |
| 29  | Incorrect disk selected |
| 28  | Multiple disks selected |
| 27  | MHSR - index mark       |
| 26  | MHSR - sector mark      |
| 25  | MHSR - fault            |
| 24  | MHSR - seek error       |
| 23  | MHSR - high temperature |
| 22  | MHSR - unit ready       |
| 21  | MHSR - on cylinder      |
| 20  | MHSR - heads unloaded   |
| 19  | Not used                |
| 18  | Device ID (MSB)         |
| 17  | Device ID               |
| 16  | Device ID (LSB)         |
| 15  | Not used.               |
| 14  | Not used.               |
| 13  | Not used.               |
| 12  | Not used.               |
| 11  | Not used.               |
| 10  | Not used.               |
| 09  | Not used.               |
| 08  | Not used.               |
| 07  | Mode bit of device 7    |
| 06  | Mode bit of device 6    |
| 05  | Mode bit of device 5    |
| 04  | Mode bit of device 4    |
| 03  | Mode bit of device 3    |
| 02  | Mode bit of device 2    |
| 01  | Mode bit of device 1    |
| 00  | Mode bit of device 0    |

**NOTE:** Device ID, bits 18-16, is also known as the ID plug number.

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ID ..... APP:DFC-D  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

# DSCH STATUS LAYOUT

| Bit | Description                            |               |
|-----|----------------------------------------|---------------|
| 00  | Low return code                        | *             |
| 01  | Low return code                        | * high 3 bits |
| 02  | Low return code                        | *             |
| 03  | High return code                       | *             |
| 04  | High return code                       | * high 3 bits |
| 05  | High return code                       | *             |
| 06  | Channel busy f-f                       |               |
| 07  | I/O inhibit override f-f               |               |
| 08  | Sequencer error                        |               |
| 09  | Illegal 3 out of 6 device address      |               |
| 10  | Command error                          |               |
| 11  | Channel error (or of previous command) |               |
| 12  | Maintenance f-f                        |               |

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ID ..... APP:DFC-E  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

D2SBS STATUS LAYOUT

| Bit | Description              |
|-----|--------------------------|
| 00  | Device reported error    |
| 01  | Overflow error           |
| 02  | Sequencer error          |
| 03  | Illegal D2SBS command    |
| 04  | Maintenance f-f          |
| 05  | Device interrupt request |
| 06  | Device setup request     |
| 07  | Device transfer request  |

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ID ..... APP:DFC-F  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

This appendix contains the tables:

Table 1 - BIC STATUS LAYOUT (FW / PC version 8.0 and earlier);

Table 2 - BIC STATUS LAYOUT (FW / PC version 9.0);

Table 1 - BIC STATUS LAYOUT (FW / PC versions 8.0 and earlier)

| Bit | Description                         |         |
|-----|-------------------------------------|---------|
| 31  | Command present flag (CP)           |         |
| 30  | Command in progress (CIP)           |         |
| 29  | Data flag (0=3B, 1=PIC)             |         |
| 28  | Interface enabled                   |         |
| 27  | Enable PIC data bus parity check    |         |
| 26  | Transfer mode (0=WRD, 1=BLK)        |         |
| 25  | EOD received                        |         |
| 24  | EOD expected                        |         |
| 23  | Setup                               |         |
| 22  | Transfer                            |         |
| 21  | Interrupt                           |         |
| 20  | FIFO word count                     |         |
| 19  | FIFO word count                     |         |
| 18  | FIFO word count                     |         |
| 17  | FIFO word count                     |         |
| 16  | FIFO word count                     |         |
| 15  | Command register overflow           | *       |
| 14  | Data FIFO overflow / underflow      | *       |
| 13  | PIC data bus parity error - hi byte | *       |
| 12  | PIC data bus parity error - lo byte | *       |
| 11  | PIC sanity error                    | *       |
| 10  | PIC fatal error summary             | * ERROR |
| 09  | EOD error                           | * FLAGS |
| 08  | PBI parity error - byte 3           | *       |
| 07  | PBI parity error - byte 2           | *       |
| 06  | PBI parity error - byte 1           | *       |

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Table 1 - BIC STATUS LAYOUT (FW / PC versions 8.0 and earlier) (continued)

| Bit | Description               |   |
|-----|---------------------------|---|
| 05  | PBI parity error - byte 0 | * |
| 04  | DMA setup overwrite       | * |
| 03  | Unit address              |   |
| 02  | Unit address              |   |
| 01  | Unit address              |   |
| 00  | Unit address              |   |

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Table 2 - BIC STATUS LAYOUT (FW / PC versions 9.0)

| Bit | Description                               |
|-----|-------------------------------------------|
| 31  | Command in BIC command register           |
| 30  | Command in progress                       |
| 29  | Data ready flag (0=3B; 1=DFC)             |
| 28  | Interface enabled                         |
| 27  | Data bus parity checks enabled            |
| 26  | Transfer mode (0=word; 1=block)           |
| 25  | End of data received                      |
| 24  | End of data expected                      |
| 23  | DMA setup request pending                 |
| 22  | DMA data transfer request pending         |
| 21  | 3B interrupt request pending              |
| 20  | Word-in-block count                       |
| 19  | Word-in-block count                       |
| 18  | Word-in-block count                       |
| 17  | Word-in-block count                       |
| 16  | Word-in-block count                       |
| 15  | BIC command register overflow / underflow |
| 14  | BIC FIFO overflow / underflow             |
| 13  | BIC FIFO parity error - high half         |
| 12  | BIC FIFO parity error - low half          |
| 11  | Sanity error                              |
| 10  | HA fatal error summary                    |
| 09  | End-of-data error                         |
| 08  | INF parity error - byte 3                 |
| 07  | INF parity error - byte 2                 |
| 06  | INF parity error - byte 1                 |
| 05  | INF parity error - byte 0                 |
| 04  | 3B DMA setup overwrite error              |
| 03  | Device address                            |
| 02  | Device address                            |
| 01  | Device address                            |
| 00  | Device address                            |

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ID ..... APP:DFC-G  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**NOTE:** These remove/restore process error codes are in hexadecimal.

REMOVE/RESTORE PROCESS ERROR CODES

| Code | Description                                                                                      |
|------|--------------------------------------------------------------------------------------------------|
| 1    | Cannot enable message reception.                                                                 |
| 2    | recvw function error                                                                             |
| 3    | Cannot open spooler.                                                                             |
| 4    | Cannot open ECD manager.                                                                         |
| 5    | Cannot get UCB.                                                                                  |
| 6    | UCB not for requested unit.                                                                      |
| 7    | Cannot get special device file.                                                                  |
| 8    | Cannot open special device file.                                                                 |
| 9    | Invalid command tag from DIAMON.                                                                 |
| a    | Cannot reset reserve bit.                                                                        |
| b    | sendw function error.                                                                            |
| c    | Cannot set u_tnum in UCB.                                                                        |
| d    | Request type from DIAMON not manual or auto.                                                     |
| e    | Cannot set u_manrqst in UCB.                                                                     |
| f    | Cannot release special device file.                                                              |
| 10   | Abort request made via DIAMON, reasons for abort request are by manual input by recovery process |

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ID ..... APP:DFC-H  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

REMOVE/RESTORE STOPPED CODES

| Code | Description                                     |
|------|-------------------------------------------------|
| 1    | Diagnostic had failures.                        |
| 2    | ROS (power control switch) is off normal.       |
| 3    | Diagnostic request only, not remove or restore. |
| 4    | Unit is already active.                         |
| 5    | Unit is already out of service.                 |
| 6    | Unit is off-line.                               |
| 7    | Unit is unavailable (forced).                   |
| 8    | Unit is in the INIT state.                      |
| 9    | Unit is in the GROWTH state.                    |
| a    | Diagnostic abort, request denied.               |
| b    | Unit is essential.                              |

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ID ..... APP:DFC-I  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## FAULT CODES

**NOTE:** These fault codes are in hexadecimal.

| Code           | Description       |
|----------------|-------------------|
| No Fault<br>00 | No fault (normal) |

### Peripheral Faults - With Accompanying Message

| Code | Description                                                                   |
|------|-------------------------------------------------------------------------------|
| b1   | Device reported error - device implicated - pio in progress                   |
| b2   | Parity divert error - device implicated - pio in progress                     |
| b3   | Channel error - device not implicated but possibly affected - pio in progress |
| b4   | Device reported error - device implicated                                     |
| b5   | DMA addressing error - device implicated                                      |
| b6   | DMA used OOR address - device implicated                                      |
| b7   | Channel error - device not implicated but possibly affected                   |

### Peripheral Faults - Without Accompanying Message

| Code | Description                                  |
|------|----------------------------------------------|
| b8   | Device reported error - cannot identify unit |
| b9   | Parity divert error - cannot identify unit   |
| ba   | Addressing error - cannot identify unit      |

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Configuration Manager Fault Codes - With Accompanying Message

| Code | Description                                          |
|------|------------------------------------------------------|
| c3   | Informative - excessive recoverable errors           |
| c4   | Remove directive - excessive errors                  |
| c5   | Remove request - attempt restoral of oos usable unit |
| c6   | Limp mode - attempt restoral of oos unusable unit    |
| c7   | Limp mode - no replacement avail                     |
| c8   | Manual remove                                        |
| c9   | Unconditional remove                                 |

Not Seen By DRIVER - No Accompanying Message

| Code | Description                       |
|------|-----------------------------------|
| cb   | Routine soft switch - pcpeih only |

Software Errors - No Accompanying Message

| Code | Description                                       |
|------|---------------------------------------------------|
| d1   | Memory Management - page invalid or not in memory |
| d2   | Memory Management - page index too large          |
| d3   | Memory Management - segment invalid               |
| d4   | Memory Management - segment index too large       |
| d5   | Illegal operating system trap (OST)               |
| d6   | Protection violation                              |
| d7   | Byte or halfword addressing violation             |
| d8   | Instruction privilege violation                   |
| d9   | Illegal op code                                   |

System Initialization - No Accompanying Message

| Code | Description                              |
|------|------------------------------------------|
| e1   | Substantial system recovery has occurred |
| e2   | System initialization critical           |

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ID ..... APP:DFC-J  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

# EXTENDED SENSE LAYOUT

| Extended sense data format |                                         |                    |     |   |           |   |   |   |
|----------------------------|-----------------------------------------|--------------------|-----|---|-----------|---|---|---|
| Bit<br>Byte                | 7                                       | 6                  | 5   | 4 | 3         | 2 | 1 | 0 |
| 0                          | Valid                                   | Error code         |     |   |           |   |   |   |
| 1                          | Segment number                          |                    |     |   |           |   |   |   |
| 2                          | FM                                      | EOM                | ILI | R | Sense key |   |   |   |
| 3                          | Information byte (MSB)                  |                    |     |   |           |   |   |   |
| 4                          | Information byte                        |                    |     |   |           |   |   |   |
| 5                          | Information byte                        |                    |     |   |           |   |   |   |
| 6                          | Information byte (LSB)                  |                    |     |   |           |   |   |   |
| 7                          | Additional sense length (n)             |                    |     |   |           |   |   |   |
| 8                          | Command-Specific Information byte (MSB) |                    |     |   |           |   |   |   |
| 9                          | Command-Specific Information byte       |                    |     |   |           |   |   |   |
| 10                         | Command-Specific Information byte       |                    |     |   |           |   |   |   |
| 11                         | Command-Specific Information byte (LSB) |                    |     |   |           |   |   |   |
| 12                         | Additional Sense Code                   |                    |     |   |           |   |   |   |
| 13                         | Additional Sense Code Qualifier         |                    |     |   |           |   |   |   |
| 14                         | Field Replaceable Unit Code             |                    |     |   |           |   |   |   |
| 15                         | SKSV                                    | Sense-Key Specific |     |   |           |   |   |   |

The **valid** bit indicates whether or not the information bytes contain valid data. If the valid bit is zero, the information bytes are not defined. If the valid bit is one, the information bytes contain valid information.

An **error code** value of 70 (hex) specifies that the sense data is for a current condition. An error code value of 71 (hex) specifies that the sense data is for a deferred condition. Error code values 72 (hex) to 7E (hex) are reserved. Error code value 7F (hex) is for vendor-specific sense data formats. All other error code values are undefined.

The **segment number** contains the number of the current segment descriptor if extended sense is in response to a COPY, COMPARE, or COPY and VERIFY command. Up to 256 segments are supported beginning with segment zero.

The **filemark (FM)** bit indicates that the current command has read a filemark. This bit is only used for sequential-access devices.

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The end-of-medium (EOM) bit indicates that an end-of-medium condition (end-of-tape, beginning-of-tape, out-of-paper, etc.,) exists on a sequential-access device or printer device. For sequential access devices, this bit indicates that the unit is at or past the early-warning end-of-tape if the direction was forward or that the command could not be completed because beginning-of-tape was encountered if the direction was reverse. Direct-access devices do not use this bit; instead, these devices report attempts to access beyond the end-of-medium as ILLEGAL REQUEST sense key [see Sense keys 0 - 7 (hex) in the sense key listing].

The incorrect length indicator (ILI) bit indicates that the requested logical block length did not match the logical block length of the data on the medium.

R indicates reserved.

The sense key field is used to describe an error or exception condition. The sense keys are described in the listing.

| Sense key | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0x0       | NO SENSE. Indicates that there is no specific sense key information to be reported for the designated logical unit. This is the case for a successful command or a command that received a CHECK CONDITION status because one of the FM, EOM, or ILI bits is set to one.                                                                                                                                                                                                                                                    |
| 0x1       | RECOVERED ERROR. Indicates that the last command completed successfully with some recovery action performed by the target controller. Details may be determined by examining the additional sense bytes and the information bytes.                                                                                                                                                                                                                                                                                          |
| 0x2       | NOT READY. Indicates that the logical unit addressed cannot be accessed. Operator intervention may be required to correct this condition.                                                                                                                                                                                                                                                                                                                                                                                   |
| 0x3       | MEDIUM ERROR. Indicates that the command terminated with a nonrecovered error condition that was probably caused by a flaw in the medium or an error in the recorded data.                                                                                                                                                                                                                                                                                                                                                  |
| 0x4       | HARDWARE ERROR. Indicates that the target controller detected a nonrecoverable hardware failure (for example, controller failure, device failure, parity error, etc.,) while performing the command or during a self-test.                                                                                                                                                                                                                                                                                                  |
| 0x5       | ILLEGAL REQUEST. Indicates that there was an illegal parameter in the command descriptor block or in the additional parameters supplied as data for some commands (FORMAT UNIT, SEARCH DATA, etc.). If the target controller detects an invalid parameter in the command descriptor block, then it terminates the command without altering the medium. If the target controller detects an invalid parameter in the additional parameters supplied as data, then the target controller may have already altered the medium. |

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| Sense key | Description                                                                                                                                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0x6       | UNIT ATTENTION. Indicates that the removable medium may have been changed or the target controller has been reset.                                                                                                                                              |
| 0x7       | DATA PROTECT. Indicates that a command that reads or writes the medium was attempted on a block that is protected from this operation. The read or write operation is not performed.                                                                            |
| 0x8       | BLANK CHECK. Indicates that a write-once read-multiple device or a sequential-access device encountered a blank block while reading or a write-once read-multiple device encountered a nonblank block while writing.                                            |
| 0x9       | Vendor specific. This sense key is available for reporting vendor specific conditions.                                                                                                                                                                          |
| 0xa       | COPY ABORTED. Indicates a COPY, COMPARE, or COPY and VERIFY command was aborted due to an error condition on the source device, the destination device, or both. (See COPY command for additional information about this sense key.)                            |
| 0xb       | ABORTED COMMAND. Indicates that the target controller aborted the command. The initiator may be able to recover by trying the command again.                                                                                                                    |
| 0xc       | EQUAL. Indicates a SEARCH DATA command has satisfied an equal comparison.                                                                                                                                                                                       |
| 0xd       | VOLUME OVERFLOW. Indicates that a buffered peripheral device has reached the end-of-medium and data remains in the buffer that has not been written to the medium. A RECOVER BUFFERED DATA command(s) may be issued to read the unwritten data from the buffer. |
| 0xe       | MISCOMPARE. Indicates that the source data did not match the data read from the medium.                                                                                                                                                                         |
| 0xf       | This sense key is reserved.                                                                                                                                                                                                                                     |

The information bytes are device-type or command specific. If the valid bit is one, the information bytes contain information:

1. The unsigned logical block address associated with the sense key for direct-access devices (Type 0), write-once read-multiple devices (Type 4), and read-only direct-access devices (Type 5).
2. The difference (residue) of the requested length minus the actual length in either bytes or blocks, as determined by the command for sequential-access devices (Type 1), printer devices (Type 2), and processor devices (Type 3). (Negative values are indicated by two's complement notation.)

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3. The difference (residue) of the requested number of blocks minus the actual number of blocks copied or compared for the current segment descriptor of a **COPY**, **COMPARE**, or **COPY** and **VERIFY** command.
4. For sequential-access devices operating in buffered modes 1 or 2 that detect unrecoverable write errors when unwritten data blocks, filemarks, or setmarks remain in the buffer, the value of the information field for all commands shall be:
  - a. the total number of data blocks, filemarks, and setmarks in the buffer if the device is in fixed block mode (block length field of the **MODE SENSE** block descriptor is non-zero and the fixed bit of the **WRITE** command is one).
  - b. the number of bytes in the buffer, including filemarks and setmarks, if the device is in variable mode (the fixed bit of the **WRITE** command is zero).

The **additional sense length** specifies the number of additional sense bytes to follow. If the allocation length of the command descriptor block is too small to transfer all of the additional sense bytes, the additional sense length is not adjusted to reflect the truncation.

The **command-specific information bytes** contain command specific data, peripheral device specific data, or both kinds of data that further define the nature of the **CHECK CONDITION** status. The **COPY**, **COMPARE**, **COPY** and **VERIFY**, and **SEARCH DATA** commands define a standard purpose for some of these bytes. Except as described in these commands, the additional sense bytes are vendor unique.

The **additional sense code** (byte 12) may be applied with the same code by the target controller to extended and nonextended sense formats. The additional sense code 00 (hex) indicates that the target controller does not support any additional sense code for the related sense key or does not have any appropriate additional sense to return for the **CHECK CONDITION** status that it created. The additional sense codes are either defined, reserved, or vendor unique. The codes are allocated to the peripheral device type returned by the **INQUIRY** command. Some additional sense codes may be shared among various device types.

The **additional sense code qualifier** (byte 13) indicates detailed information related to the additional sense code. The additional sense code qualifier is optional.

**Field replaceable unit code** is used to define a device-specific mechanism or unit that has failed. A value of zero indicates that no specific mechanism or unit has been identified to have failed or that the data is not available. The field replaceable unit code field is optional.

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ASC and ASCQ Assignments Legend

|   |   |                                 |
|---|---|---------------------------------|
| D | = | Direct Access Device            |
| T | = | Sequential Access Device        |
| L | = | Printer Device                  |
| P | = | Processor Device                |
| W | = | Write Once Read Multiple Device |
| R | = | Read Only (CD-ROM) Device       |
| S | = | Scanner Device                  |
| O | = | Optical Memory Device           |
| M | = | Media Changer Device            |
| C | = | Communication Device            |

**Table**  
**Additional Sense Code (ASC) and**  
**Additional Sense Code Qualifier (ASCQ) Assignments**

| BYTE |    |            |        | Description                                           |
|------|----|------------|--------|-------------------------------------------------------|
| 12   | 13 | DTLPWRSOMC |        |                                                       |
| 00   | 00 | DTLPWRSOMC |        | No additional sense information                       |
| 00   | 01 | T          |        | Filemark detected                                     |
| 00   | 02 | T          | S      | End-of-partition / medium detected                    |
| 00   | 03 | T          |        | Setmark detected                                      |
| 00   | 04 | T          | S      | Beginning-of-partition / medium detected              |
| 00   | 05 | T          | S      | End-of-data detected                                  |
| 00   | 06 | DTLPWRSOMC |        | I/O process terminated                                |
| 00   | 11 | R          |        | Audio play operation in progress                      |
| 00   | 12 | R          |        | Audio play operation paused                           |
| 00   | 13 | R          |        | Audio play operation successfully completed           |
| 00   | 14 | R          |        | Audio play operation stopped due to error             |
| 00   | 15 | R          |        | No current audio status to return                     |
| 01   | 00 | D          | W O    | No index / sector signal                              |
| 02   | 00 | D          | WR OM  | No seek complete                                      |
| 03   | 00 | DTL        | W SO   | Peripheral device write fault                         |
| 03   | 01 | T          |        | No write current                                      |
| 03   | 02 | T          |        | Excessive write errors                                |
| 04   | 00 | DTLPWRSOMC |        | Logical unit not ready, cause not reportable          |
| 04   | 01 | DTLPWRSOMC |        | Logical unit is in process of becoming ready          |
| 04   | 02 | DTLPWRSOMC |        | Logical unit not ready, initializing command required |
| 04   | 03 | DTLPWRSOMC |        | Logical unit not ready, manual intervention required  |
| 04   | 04 | DTL        | O      | Logical unit not ready, format in progress            |
| 05   | 00 | DTL        | WRSOMC | Logical unit does not respond to selection            |
| 06   | 00 | D          | WR OM  | No reference position found                           |

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**Table**  
**Additional Sense Code (ASC) and**  
**Additional Sense Code Qualifier (ASCQ) Assignments (continued)**

| BYTE |    |            |        | Description                                         |
|------|----|------------|--------|-----------------------------------------------------|
| 12   | 13 | DTLPWRSOMC |        |                                                     |
| 07   | 00 | DTL        | WRSOM  | Multiple peripheral devices selected                |
| 08   | 00 | DTL        | WRSOMC | Logical unit communication failure                  |
| 08   | 01 | DTL        | WRSOMC | Logical unit communication time-out                 |
| 08   | 02 | DTL        | WRSOMC | Logical unit communication parity error             |
| 09   | 00 | DT         | WR 0   | Track following error                               |
| 09   | 01 |            | WR 0   | Tracking servo failure                              |
| 09   | 02 |            | WR 0   | Focus servo failure                                 |
| 09   | 03 |            | WR 0   | Spindle servo failure                               |
| 0A   | 00 | DTLPWRSOMC |        | Error log overflow                                  |
| 0B   | 00 |            |        |                                                     |
| 0C   | 00 | T          | S      | Write error                                         |
| 0C   | 01 | D          | W 0    | Write error recovered with auto reallocation        |
| 0C   | 02 | D          | W 0    | Write error - auto reallocation failed              |
| 0D   | 00 |            |        |                                                     |
| 0E   | 00 |            |        |                                                     |
| 0F   | 00 |            |        |                                                     |
| 10   | 00 | D          | W 0    | ID CRC or ECC error                                 |
| 11   | 00 | DT         | WRSO   | Unrecovered read error                              |
| 11   | 01 | DT         | W SO   | Read retries exhausted                              |
| 11   | 02 | DT         | W SO   | Error too long to correct                           |
| 11   | 03 | DT         | W SO   | Multiple read errors                                |
| 11   | 04 | D          | W 0    | Unrecovered read error - auto reallocate failed     |
| 11   | 05 |            | WR 0   | L-EC uncorrectable error                            |
| 11   | 06 |            | WR 0   | CIRC unrecovered error                              |
| 11   | 07 |            | W 0    | Data resynchronization error                        |
| 11   | 08 | T          |        | Incomplete block read                               |
| 11   | 09 | T          |        | No gap found                                        |
| 11   | 0A | DT         | 0      | Miscorrected error                                  |
| 11   | 0B | D          | W 0    | Unrecovered read error - recommend reassignment     |
| 11   | 0C | D          | W 0    | Unrecovered read error - recommend rewrite the data |
| 12   | 00 | D          | W 0    | Address mark not found for ID field                 |
| 13   | 00 | D          | W 0    | Address mark not found for data field               |
| 14   | 00 | DTL        | WRSO   | Recorded entity not found                           |
| 14   | 01 | DT         | WR 0   | Record not found                                    |
| 14   | 02 | T          |        | Filemark or setmark not found                       |
| 14   | 03 | T          |        | End-of-data not found                               |
| 14   | 04 | T          |        | Block sequence error                                |
| 15   | 00 | DTL        | WRSOM  | Random positioning error                            |
| 15   | 01 | DTL        | WRSOM  | Mechanical positioning error                        |

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**Table**  
**Additional Sense Code (ASC) and**  
**Additional Sense Code Qualifier (ASCQ) Assignments (continued)**

| BYTE |    | DTLPWRSOMC |      |    | Description                                              |
|------|----|------------|------|----|----------------------------------------------------------|
| 12   | 13 |            |      |    |                                                          |
| 15   | 02 | DT         | WR   | 0  | Positioning error detected by read of medium             |
| 16   | 00 | D          | W    | 0  | Data synchronization mark error                          |
| 17   | 00 | DT         | WRSO |    | Recovered data with no error correction applied          |
| 17   | 01 | DT         | WRSO |    | Recovered data with retries                              |
| 17   | 02 | DT         | WR   | 0  | Recovered data with positive head offset                 |
| 17   | 03 | DT         | WR   | 0  | Recovered data with negative head offset                 |
| 17   | 04 |            | WR   | 0  | Recovered data with retries and /or CIRC applied         |
| 17   | 05 | D          | WR   | 0  | Recovered data using previous sector ID                  |
| 17   | 06 | D          | W    | 0  | Recovered data without ECC – data auto-reallocated       |
| 17   | 07 | D          | W    | 0  | Recovered data without ECC – recommend reassignment      |
| 17   | 08 | D          | W    | 0  | Recovered data without ECC – recommend rewrite           |
| 18   | 00 | DT         | WR   | 0  | Recovered data with error correction applied             |
| 18   | 01 | D          | WR   | 0  | Recovered data with error correction and retries applied |
| 18   | 02 | D          | WR   | 0  | Recovered data – data auto reallocated                   |
| 18   | 03 |            | R    |    | Recovered data with CIRC                                 |
| 18   | 04 |            | R    |    | Recovered data with LEC                                  |
| 18   | 05 | D          | WR   | 0  | Recovered data – recommend reassignment                  |
| 18   | 06 | D          | WR   | 0  | Recovered data – recommend rewrite                       |
| 19   | 00 | D          |      | 0  | Defect list error                                        |
| 19   | 01 | D          |      | 0  | Defect list not available                                |
| 19   | 02 | D          |      | 0  | Defect list error in primary list                        |
| 19   | 03 | D          |      | 0  | Defect list error in grown list                          |
| 1A   | 00 | DTLPWRSOMC |      |    | Parameter list length error                              |
| 1B   | 00 | DTLPWRSOMC |      |    | Synchronous data transfer error                          |
| 1C   | 00 | D          |      | 0  | Defect list not found                                    |
| 1C   | 01 | D          |      | 0  | Primary defect list not found                            |
| 1C   | 02 | D          |      | 0  | Grown defect list not found                              |
| 1D   | 00 | D          | W    | 0  | Miscompare during verify operation                       |
| 1E   | 00 | D          | W    | 0  | Recovered ID with ECC correction                         |
| 1F   | 00 |            |      |    |                                                          |
| 20   | 00 | DTLPWRSOMC |      |    | Invalid command operation code                           |
| 21   | 00 | DT         | WR   | OM | Logical block address out of range                       |
| 21   | 01 |            |      | M  | Invalid element address                                  |
| 22   | 00 | D          |      |    | Illegal function (should use 20 00, 24 00, or 26 00)     |
| 23   | 00 |            |      |    |                                                          |
| 24   | 00 | DTLPWRSOMC |      |    | Invalid field in CDB                                     |
| 25   | 00 | DTLPWRSOMC |      |    | Logical unit not supported                               |
| 26   | 00 | DTLPWRSOMC |      |    | Invalid field in parameter list                          |
| 26   | 01 | DTLPWRSOMC |      |    | Parameter not supported                                  |
| 26   | 02 | DTLPWRSOMC |      |    | Parameter value invalid                                  |

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**Table**  
**Additional Sense Code (ASC) and**  
**Additional Sense Code Qualifier (ASCQ) Assignments (continued)**

| BYTE |    |            | Description                                             |
|------|----|------------|---------------------------------------------------------|
| 12   | 13 | DTLPWRSOMC |                                                         |
| 26   | 03 | DTLPWRSOMC | Threshold parameters not supported                      |
| 27   | 00 | DT W O     | Write protected                                         |
| 28   | 00 | DTLPWRSOMC | Not ready to ready transition (medium may have changed) |
| 28   | 01 | M          | Import or export element accessed                       |
| 29   | 00 | DTLPWRSOMC | Power on, reset, or bus device reset occurred           |
| 2A   | 00 | DTL WRSOMC | Parameters changed                                      |
| 2A   | 01 | DTL WRSOMC | Mode parameters changed                                 |
| 2A   | 02 | DTL WRSOMC | Log parameters changed                                  |
| 2B   | 00 | DTLPWRSO C | Copy cannot execute since host cannot disconnect        |
| 2C   | 00 | DTLPWRSOMC | Command sequence error                                  |
| 2C   | 01 | S          | Too many windows specified                              |
| 2C   | 02 | S          | Invalid combination of windows specified                |
| 2D   | 00 | T          | Overwrite error on update in place                      |
| 2E   | 00 |            |                                                         |
| 2F   | 00 | DTLPWRSOMC | Commands cleared by another initiator                   |
| 30   | 00 | DT WR OM   | Incompatible medium installed                           |
| 30   | 01 | DT WR O    | Cannot read medium – unknown format                     |
| 30   | 02 | DT WR O    | Cannot read medium – incompatible format                |
| 30   | 03 | DT         | Cleaning cartridge installed                            |
| 31   | 00 | DT W O     | Medium format corrupted                                 |
| 31   | 01 | D L O      | Format command failed                                   |
| 32   | 00 | D W O      | No defect spare location available                      |
| 32   | 01 | D W O      | Defect list update failure                              |
| 33   | 00 | T          | Tape length error                                       |
| 34   | 00 |            |                                                         |
| 35   | 00 |            |                                                         |
| 36   | 00 | L          | Ribbon, ink, or toner failure                           |
| 37   | 00 | DTL WRSOMC | Rounded parameter                                       |
| 38   | 00 |            |                                                         |
| 39   | 00 | DTL WRSOMC | Saving parameters not supported                         |
| 3A   | 00 | DTL WRSOM  | Medium not present                                      |
| 3B   | 00 | TL         | Sequential positioning error                            |
| 3B   | 01 | T          | Tape position error at beginning-of-medium              |
| 3B   | 02 | T          | Tape position error at end-of-medium                    |
| 3B   | 03 | L          | Tape or electronic vertical forms unit not ready        |
| 3B   | 04 | L          | Slew failure                                            |
| 3B   | 05 | L          | Paper jam                                               |
| 3B   | 06 | L          | Failed to sense top-of-form                             |
| 3B   | 07 | L          | Failed to sense bottom-of-form                          |
| 3B   | 08 | T          | Reposition error                                        |

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**Table**  
**Additional Sense Code (ASC) and**  
**Additional Sense Code Qualifier (ASCQ) Assignments (continued)**

| BYTE |    | DTLPWRSOMC | Description                                      |
|------|----|------------|--------------------------------------------------|
| 12   | 13 |            |                                                  |
| 3B   | 09 | S          | Read past end-of-medium                          |
| 3B   | 0A | S          | Read past beginning-of-medium                    |
| 3B   | 0B | S          | Position past end-of-medium                      |
| 3B   | 0C | S          | Position past beginning-of-medium                |
| 3B   | 0D | M          | Medium destination element full                  |
| 3B   | 0E | M          | Medium source element empty                      |
| 3C   | 00 |            |                                                  |
| 3D   | 00 | DTLPWRSOMC | Invalid bits in identify message                 |
| 3E   | 00 | DTLPWRSOMC | Logical unit has not self-configured yet         |
| 3F   | 00 | DTLPWRSOMC | Target operating conditions have changed         |
| 3F   | 01 | DTLPWRSOMC | Microcode has been changed                       |
| 3F   | 02 | DTLPWRSOMC | Changed operating definition                     |
| 3F   | 03 | DTLPWRSOMC | Inquiry data has changed                         |
| 40   | 00 | D          | RAM failure (should use 40 NN)                   |
| 40   | NN | DTLPWRSOMC | Diagnostic failure on component NN (0x80-0xff)   |
| 41   | 00 | D          | Data path failure (should use 40 NN)             |
| 42   | 00 | D          | Power-on or self-test failure (should use 40 NN) |
| 43   | 00 | DTLPWRSOMC | Message error                                    |
| 44   | 00 | DTLPWRSOMC | Internal target failure                          |
| 45   | 00 | DTLPWRSOMC | Select or reselect failure                       |
| 46   | 00 | DTLPWRSOMC | Unsuccessful soft reset                          |
| 47   | 00 | DTLPWRSOMC | SCSI parity error                                |
| 48   | 00 | DTLPWRSOMC | Initiator detected error message received        |
| 49   | 00 | DTLPWRSOMC | Invalid message error                            |
| 4A   | 00 | DTLPWRSOMC | Command phase error                              |
| 4B   | 00 | DTLPWRSOMC | Data phase error                                 |
| 4C   | 00 | DTLPWRSOMC | Logical unit failed self-configuration           |
| 4D   | 00 |            |                                                  |
| 4E   | 00 | DTLPWRSOMC | Overlapped commands attempted                    |
| 4F   | 00 |            |                                                  |
| 50   | 00 | T          | Write append error                               |
| 50   | 01 | T          | Write append position error                      |
| 50   | 02 | T          | Position error related to timing                 |
| 51   | 00 | T 0        | Erase failure                                    |
| 52   | 00 | T          | Cartridge fault                                  |
| 53   | 00 | DTL WRSOM  | Media load or eject failed                       |
| 53   | 01 | T          | Unload tape failure                              |
| 53   | 02 | DT WR OM   | Medium removal prevented                         |
| 54   | 00 | P          | SCSI to host system interface failure            |
| 55   | 00 | P          | System resource failure                          |

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**Table**  
**Additional Sense Code (ASC) and**  
**Additional Sense Code Qualifier (ASCQ) Assignments (continued)**

| BYTE |    |            |       | Description                                          |
|------|----|------------|-------|------------------------------------------------------|
| 12   | 13 | DTLPWRSOMC |       |                                                      |
| 56   | 00 |            |       |                                                      |
| 57   | 00 |            | R     | Unable to recover table-of-contents                  |
| 58   | 00 |            | 0     | Generation does not exist                            |
| 59   | 00 |            | 0     | Updated block read                                   |
| 5A   | 00 | DTLPWRSOM  |       | Operator request or state change input (unspecified) |
| 5A   | 01 | DT         | WR OM | Operator medium removal request                      |
| 5A   | 02 | DT         | W 0   | Operator selected write protect                      |
| 5A   | 03 | DT         | W 0   | Operator selected write permit                       |
| 5B   | 00 | DTLPWRSOM  |       | Log exception                                        |
| 5B   | 01 | DTLPWRSOM  |       | Threshold condition met                              |
| 5B   | 02 | DTLPWRSOM  |       | Log counter at maximum                               |
| 5B   | 03 | DTLPWRSOM  |       | Log list codes exhausted                             |
| 5C   | 00 | D          | 0     | RPL status change                                    |
| 5C   | 01 | D          | 0     | Spindles synchronized                                |
| 5C   | 02 | D          | 0     | Spindles not synchronized                            |
| 5D   | 00 |            |       |                                                      |
| 5E   | 00 |            |       |                                                      |
| 5F   | 00 |            |       |                                                      |
| 60   | 00 |            | S     | Lamp failure                                         |
| 61   | 00 |            | S     | Video acquisition error                              |
| 61   | 01 |            | S     | Unable to acquire video                              |
| 61   | 02 |            | S     | Out of focus                                         |
| 62   | 00 |            | S     | Scan head positioning error                          |
| 63   | 00 |            | R     | End of user area encountered on this track           |
| 64   | 00 |            | R     | Illegal mode for this track                          |
| 65   | 00 |            |       |                                                      |
| 66   | 00 |            |       |                                                      |
| 67   | 00 |            |       |                                                      |
| 68   | 00 |            |       |                                                      |
| 69   | 00 |            |       |                                                      |
| 6A   | 00 |            |       |                                                      |
| 6B   | 00 |            |       |                                                      |
| 6C   | 00 |            |       |                                                      |
| 6D   | 00 |            |       |                                                      |
| 6E   | 00 |            |       |                                                      |
| 6F   | 00 |            |       |                                                      |
| 70   | 00 |            |       |                                                      |
| 71   | 00 |            |       |                                                      |
| 72   | 00 |            |       |                                                      |
| 73   | 00 |            |       |                                                      |

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**Table**  
**Additional Sense Code (ASC) and**  
**Additional Sense Code Qualifier (ASCQ) Assignments (continued)**

| BYTE |    | DTLPWRSOMC | Description                                                      |
|------|----|------------|------------------------------------------------------------------|
| 12   | 13 |            |                                                                  |
| 74   | 00 |            |                                                                  |
| 75   | 00 |            |                                                                  |
| 76   | 00 |            |                                                                  |
| 77   | 00 |            |                                                                  |
| 78   | 00 |            |                                                                  |
| 79   | 00 |            |                                                                  |
| 7A   | 00 |            |                                                                  |
| 7B   | 00 |            |                                                                  |
| 7C   | 00 |            |                                                                  |
| 7D   | 00 |            |                                                                  |
| 7E   | 00 |            |                                                                  |
| 7F   | 00 |            |                                                                  |
| --   | -- | -----      | -----                                                            |
| 80   | xx |            | through FF xx are vendor specific                                |
| xx   | 80 |            | through xx FF are vendor specific qualification of standard ASC. |

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ID ..... APP:DFC-K  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### SCSI JOB BLOCK STRUCTURE LAYOUT

AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG HHHHHHHH IIIIIIIIII JJJJJJJJ KK--LLLL  
MMMMMMMM NNNNNNNN 00000000 PPPPPPPP

General notations:

**in** — Input, that is, provided by firmware/pumpcode.

**out**— Output, that is, returned by Small Computer System Interface (SCSI) Protocol Controller (SPC) code.

**res**— Reserved for SPC code usage.

Device ID information:

**A** — SCSI bus number (0-1).

**B** — SCSI target controller number (0-7).

General job information:

**C in** — Job state - initialized by `spc_job()`, but updated by firmware/pumpcode.

- 0** Initial state of job when `spc_job()` returns.
- 1** Job has been retried once.
- 2** SCSI Request Sense command has been issued.
- 3** Job has been retried twice.
- 4** Job has completed successfully.
- 5** Job has failed.

**D out**— Miscellaneous flags - used by the SPC to convey additional information to firmware/pumpcode.

- 1** One or more RESTORE POINTERS messages received after Host Adapter (HA) Direct Memory Access (DMA) was begun for this job.

**E in** — Job ID code (optional).

**F in** — Function to be performed:

- 0** SCSI command.
- !0** Function code.

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**G in** — Time limit for job, in milliseconds:

- 0** No time limit.
- !0** Time limit.

**H out**— Job completion code:

- 0x00** Job completed normally.
- 0x01** Command was aborted.
- 0x02** Reset was detected on the bus and was probably not caused by this job; it may or may not have been caused by this HA.
- 0x03** Check the status byte.
- 0x04** This HA reset the bus due to an unrecoverable error while processing this job.
- 0x05** Job in progress.
- 0x06** SCSI Job Block (SJB) contents error.
- 0x07** Memory fault.
- 0x08** The bus appears to be unterminated.
- 0x09** The SCSI bus device select failed.
- 0x0a** Job was flushed.
- 0x0b** Target controller did not transfer all of the data.
- 0x0c** Job timed out.
- 0x0d** Insufficient DMA chain links.
- 0x0e** Insufficient Logical Unit (LU) queue nodes.
- 0x0f** The SCSI bus is off-line.
- 0x10** HA detected SCSI bus parity error and terminated the job.

**I res**— Value returned from function timeout().

SCSI command information:

**J out**— Bytes of data not transferred.

**K out**— Target SCSI status byte.

- 0x00** Successful command completion.
- 0x02** Check condition.
- 0x04** Condition met good status.
- 0x08** Busy.
- 0x10** Intermediate good status.
- 0x14** Intermediate condition met good.

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0x18    Reservation conflict.  
0x22    Command terminated.  
0x28    Queue full.  
0xff    Status not available.

**L in** — Mode flags for current job.

0x00    Non-read command.  
0x01    Read command.  
0x02    External chaining.  
0x04    Read overlap is active.  
0x80    Immediate command.

**M in** — Pointer to SCSI Command Descriptor Block (CDB).

**N in** — Size of SCSI CDB in bytes.

**O in** — Pointer to HA data buffer, or pointer to memory or pointer to 32104 DMA chain control node.

**P in** — Byte count of data to transfer over the SCSI bus.

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ID ..... APP:DFC-L  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### INQUIRY LAYOUT

| Standard INQUIRY Data Format |                                   |                       |              |                        |                      |              |        |       |
|------------------------------|-----------------------------------|-----------------------|--------------|------------------------|----------------------|--------------|--------|-------|
| Bit<br>Byte                  | 7                                 | 6                     | 5            | 4                      | 3                    | 2            | 1      | 0     |
| 0                            | Peripheral Qualifier              |                       |              | Peripheral device type |                      |              |        |       |
| 1                            | RMB                               | Device-type qualifier |              |                        |                      |              |        |       |
| 2                            | ISO version                       |                       | ECMA version |                        |                      | ANSI version |        |       |
| 3                            | AENC                              | TrmIOP                | Reserved     |                        | Response data format |              |        |       |
| 4                            | Additional length (n - 4)         |                       |              |                        |                      |              |        |       |
| 5                            | Reserved                          |                       |              |                        |                      |              |        |       |
| 6                            | Reserved                          |                       |              |                        |                      |              |        |       |
| 7                            | RelAdr                            | WBus32                | WBus16       | Sync                   | Linked               | Reserved     | CmdQue | SftRe |
| 8 - 15                       | Vendor identification (in ASCII)  |                       |              |                        |                      |              |        |       |
| 16 - 31                      | Product identification (in ASCII) |                       |              |                        |                      |              |        |       |
| 32 - 35                      | Product revision level (in ASCII) |                       |              |                        |                      |              |        |       |
| 36 - 55                      | Vendor Specific                   |                       |              |                        |                      |              |        |       |
| 56 - 95                      | Reserved                          |                       |              |                        |                      |              |        |       |
| Vendor-Specific Parameters   |                                   |                       |              |                        |                      |              |        |       |
| 96 - n                       | Vendor Specific                   |                       |              |                        |                      |              |        |       |

The peripheral qualifier and peripheral device-type fields identify the device currently connected to the logical unit. If the target is not capable of supporting a device on this logical unit, this field will be set to 7F hex (peripheral qualifier set to 011 binary and peripheral device type set to 1F hex).

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The peripheral qualifier is defined in the table.

| Peripheral Qualifier |                                                                                                                                                                                                                                                                                                                                                          |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Qualifier (binary)   | Description                                                                                                                                                                                                                                                                                                                                              |
| 000                  | The specified peripheral device is currently connected to this logical unit. If the target cannot determine whether or not a physical device is currently connected, it will also use this peripheral qualifier when returning the INQUIRY data.<br>Note: This peripheral qualifier does not imply that the device is ready for access by the initiator. |
| 001                  | The target is capable of supporting the specified peripheral device type on this logical unit; however, the physical device is not currently connected to this logical unit.                                                                                                                                                                             |
| 010                  | Reserved                                                                                                                                                                                                                                                                                                                                                 |
| 011                  | The target is not capable of supporting a physical device on this logical unit. For this peripheral qualifier, the peripheral device type will be set to 1Fh to provide compatibility with previous versions of SCSI. All other peripheral device type values are reserved for this peripheral qualifier.                                                |
| 1XX                  | Vendor Specific                                                                                                                                                                                                                                                                                                                                          |

The peripheral device types are shown in the table.

| Peripheral Device Type Table |                                                     |
|------------------------------|-----------------------------------------------------|
| Code (hex)                   | Description                                         |
| 00                           | Direct-access device (e.g., magnetic disk)          |
| 01                           | Sequential-access device (e.g., magnetic tape)      |
| 02                           | Printer device                                      |
| 03                           | Processor device                                    |
| 04                           | Write-once device (e.g., some optical disks)        |
| 05                           | CD-ROM device                                       |
| 06                           | Scanner device                                      |
| 07                           | Optical memory device (e.g., some optical disks)    |
| 08                           | Medium Changer device (e.g., jukeboxes)             |
| 09                           | Communications device                               |
| 0A - 0B                      | Defined by ASC IT8 (Graphic Arts Pre-Press Devices) |
| 0C - 1E                      | Reserved                                            |
| 1F                           | Unknown or no device type                           |

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A removable medium (RMB) bit of zero indicates that the medium is not removable. An RMB bit of one indicates that the medium is removable.

The device-type modifier field was defined in SCSI-1 to permit vendor-specific qualification codes of the device type. This field contains a 7-bit user-specified code, which may be set with switches or by some other means by the target controller or peripheral device. SCSI controllers that do not support this feature return all zero bits. This feature allows each user to assign unique codes to each specific type of peripheral device that is supported on the system being used. These codes may then be used by self-configuring software to determine what specific peripheral device is at each logical unit number. This is especially valuable for systems that support multiple types of removable medium.

The usage of nonzero code values in the international standards organization (ISO) version and European computer manufacturers (ECMA) version fields are defined by the ISO and the ECMA, respectively. A zero code value in these fields indicates that the target controller does not claim compliance to the ISO or ECMA versions of SCSI. Note that it is possible to claim compliance to more than one of these SCSI standards.

The ANSI version indicates the implemented version of the ANSI standard and is defined in the ANSI version listing.

| ANSI-Approved Version |                                                                               |
|-----------------------|-------------------------------------------------------------------------------|
| Code (hex)            | Description                                                                   |
| 0                     | The device might or might not comply to an ANSI-approved standard.            |
| 1                     | The device complies to ANSI X3.131-1986 (SCSI-1).                             |
| 2                     | This code is reserved to designate the SCSI-2 standard upon approval by ANSI. |
| 3 - 7                 | Reserved.                                                                     |

The asynchronous event notification capability (AENC) bit indicates that the device supports the asynchronous event notification capability:

1. Processor device-type definition: An AENC bit of one indicates that the processor device is capable of accepting asynchronous event notifications. An AENC bit of zero indicates that the processor device does not support asynchronous event notifications.
2. All other device types: This bit is reserved.

A terminate I/O process (TrmIOP) bit of one indicates that the device supports the TERMINATE I/O PROCESS message. A value of zero indicates that the device does not support the TERMINATE I/O PROCESS message.

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The response data formats are given in the response data format table. Target controllers conforming to at least conformance level 2 and conforming to ANSI X3.131-1986 (SCSI-1) set the common command set code (1 hex) in the response data format field.

| Response Data Format Table |                          |
|----------------------------|--------------------------|
| Code (hex)                 | Description              |
| 0                          | SCSI-1                   |
| 1                          | Common Command Set (CCS) |
| 2                          | SCSI-2                   |
| 3 - F                      | Reserved                 |

The `additional length` byte specifies the length in bytes of the parameters. If the allocation length of the command descriptor block is too small to transfer all of the parameters, the additional length is not adjusted to reflect the truncation.

A `relative addressing` (RelAdr) bit of one indicates that the device supports the relative addressing mode for this logical unit. If this bit is set to one, the `linked command` (Linked) bit will also be set to one since relative addressing can only be used with linked commands. A Rel Adr bit of zero indicates the device does not support relative addressing for this logical unit.

A `wide bus 32` (WBus32) bit of one indicates that the device supports 32-bit wide data transfers. A value of zero indicates that the device does not support 32-bit wide data transfers.

A `wide bus 16` (WBus16) bit of one indicates that the device supports 16-bit wide data transfers. A value of zero indicates that the device does not support 16-bit wide data transfers.

If the values of both the WBus16 and WBus32 bits are zero, the device only supports 8-bit wide data transfers.

A `synchronous transfer` (Sync) bit of one indicates that the device supports synchronous data transfer. A value of zero indicates that the device does not support synchronous data transfer.

A `linked command` (Linked) bit of one indicates that the device supports linked commands for this logical unit. A value of zero indicates the device does not support linked commands for this logical unit.

A `command queuing` (CmdQue) bit of one indicates that the device supports tagged command queuing for this logical unit. A value of zero indicates the device does not support tagged command queuing for this logical unit.

A `soft reset` (SftRe) bit of zero indicates that the device responds to the RESET condition with the hard RESET alternative. A SftRe bit of one indicates that the device responds to the RESET condition with the soft RESET alternative.

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SCSI devices that implement the hard reset alternative, upon detection of the reset condition, will:

1. Clear all I/O processes including queued I/O processes.
2. Release all SCSI device reservations.
3. Return any SCSI device operating modes to their appropriate initial conditions, similar to those conditions that would be found after a normal power-on reset. MODE SELECT conditions will be restored to their last saved values if saved values have been established. MODE SELECT conditions for which no values have been saved will be returned to their default values.

SCSI devices that implement the soft reset alternative, upon detection of the reset condition, will:

1. Attempt to complete any I/O processes which have not completed and that were fully identified.
2. Preserve all SCSI device reservations.
3. Preserve any SCSI device operating modes (MODE SELECT, PREVENT/ALLOW MEDIUM REMOVAL commands, etc.).
4. Preserve all the information required to continue normal dispatching of I/O processes queued prior to the reset condition.

ASCII data fields contain only graphic codes (i.e., code values 20 hex through 7E hex). Left-aligned fields will place any unused bytes at the end of the field (highest offset) and the unused bytes are filled with the space characters (20 hex). Right-aligned fields will place any unused bytes at the start of the field (lowest offset) and the unused bytes will be filled with space characters (20 hex).

The `vendor identification` field contains eight bytes of ASCII data identifying the vendor of the product. The data is left-aligned within this field.

The `product identification` field contains sixteen bytes of ASCII data as defined by the vendor. The data is left-aligned within this field.

The `product revision level` field contains four bytes of ASCII data as defined by the vendor. The data is left-aligned within this field.

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ID ..... APP:DFC-M  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## HOST ADAPTER COMMAND DEFINITIONS

This appendix provides the definitions of the commands sent from the 3B computer to the host adapter (HA). The commands are either one word or four words in size. If the command is a one-word command, the last three words in the output are unknown and undefined. Only those words which are used are defined in this document.

The leftmost five bits of the first word of each command is the command operation code (opcode). Apply the bit-field template to the first word of the command to determine the command opcode, then find that opcode in the listing to decipher the remainder of the command.

aaaa axxx xxxx xxxx xxxx xxxx xxxx xxxx

a = Operation code (Opcode).

x = Command specific.

0x0 (0) — no-op command.

aaaa abbb bbbb bbbb bbbb bbbb bbbb bccc

a = Opcode.

b = Must be all zeros.

c = Programmed Input/Output (PIO) destination bits.

0x1 (1) — invalid command.

0x2 (2) — tape command.

aaaa abbb bbbb cccc dddd deee eeee exxx  
ffff ffff ffff ffff ffff ffff ffff ffff  
gghh hhhh hhhh hhhh iiii iiii iiii iiii  
jjjj jjjj jjjj jjjj jjjj jjjj jjjj jjjj

a = Opcode.

b = Tape command operation.

0x1 — Erase medium.

0x2 — Load - enable tape unit.

0x3 — Locate.

0x4 — Read position.

0x5 — Read reverse.

0x6 — Read forward.

0x7 — Rewind.

0x8 — Space forward.

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0x9 — Space reverse.  
 0xa — Tape setup options.  
 0xb — Set tape speed.  
 0xc — Unload - disable tape unit.  
 0xd — Verify.  
 0xe — Write.  
 0xf — Write filemarks.  
 0x10 — Set variable record mode.  
 0x11 — Set fixed record mode.

c = Small computer system interface (SCSI) bus and device ID.  
 d = Tape options (depends on the tape operation).  
 e = Job ID assigned by the 3B.  
 x = Not used and undefined.  
 f = Block number (depends on the tape operation).

|                 |                                   |
|-----------------|-----------------------------------|
| Read            | Tape block number.                |
| Write           | Tape block number.                |
| Write filemarks | Number of filemarks.              |
| Tape setup      | Tape blocking factor.             |
| Space           | Number of entities to space over. |

g = Number of bytes to ignore.  
 h = Job time limit in seconds.  
 i = Byte offset into the 3B segment.  
 j = 3B transfer length in words for read or write.

0x3 (3) — version command.

aaaa abbb bbbb bbbb bbbb cddd dddd deee

a = Opcode.  
 b = Data address in 3B mainstore.  
 c = Version requested.  
     0 — Request for firmware version number.  
     1 — Request for pumpcode version number.  
 d = Job ID assigned by the 3B.  
 e = PIO destination bits.

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0x4 (4) — reserve/unreserve command.

aaaa abxx xxxx cccc xxxx xddd dddd deee

a = Opcode.

b = Type of command.

0 — Unreserve.

1 — Reserve.

x = Not used and undefined.

c = SCSI bus and device ID.

d = Job ID assigned by the 3B.

e = PIO destination bits.

0x5 (5) — retry command.

aaaa axxx xxxx xxxx xxxx xxxx xxxx xbbb

a = Opcode.

x = Not used and undefined.

b = PIO destination bits.

0x6 (6) — wakeup command.

aaaa axxx xxxx xxxx xxxx xxxx xxxx xbbb

a = Opcode.

x = Not used and undefined.

b = PIO destination bits.

0x7 (7) — change DFC options command.

aaaa axxx xxxx bbbb xxxx xccc cccc cddd

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the 3B.

d = PIO destination bits.

0x8 (8) — resume command.

aaaa axxx xxxx xxxx xxxx xxxx xxxx xbbb

a = Opcode.

x = Not used and undefined.

b = PIO destination bits.

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0x9 (9) — reset device command.

aaaa axxx xxxx bbbb xxxx xccc cccc cddd

- a = Opcode.
- x = Not used and undefined.
- b = SCSI bus and device ID.
- c = Job ID assigned by the 3B.
- d = PIO destination bits.

0xa (10) — change device mode command.

aaaa abxx xxxx cccc xxxx xddd dddd deee

- a = Opcode.
- b = New maintenance mode.
  - 0 — Device is ONLINE.
  - 1 — Device is OFFLINE.
- x = Not used and undefined.
- c = SCSI bus and device ID.
- d = Job ID assigned by the 3B.
- e = PIO destination bits.

0xb (11) — sysgen command.

aaaa axxx xxxx bbbb bbbb bbbb bbbb bccc

- a = Opcode.
- x = Not used and undefined.
- b = Sysgen data block addr.
- c = PIO destination bits.

0xc (12) — change DFC mode command.

aaaa abxx xcde ffff xxxx xggg gggg ghhh

- a = Opcode.
- b = New maintenance mode.
  - 0 — Device is ONLINE.
  - 1 — Device is OFFLINE.
- x = Not used and undefined.
- c = Select DFC.
  - 0 — Device is not selected.
  - 1 — Device is selected.

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- d = Select SCSI bus 1.
  - 0 — Bus is not selected.
  - 1 — Bus is selected.
- e = Select SCSI bus 0.
  - 0 — Bus is not selected.
  - 1 — Bus is selected.
- f = SCSI bus and device ID.
- g = Job ID assigned by the 3B.
- h = PIO destination bits.

**NOTE:** If c, d, and e are all zero, all three are selected.

0xd (13) — boot command.

aaaa abcc cccc dddd eeee eeee eeee efff

- a = Opcode.
- b = Retry boot job.
- c = Number of disk blocks to read.
- d = SCSI bus and device ID.
- e = Starting disk block number.
- f = PIO destination bits.

0xe (14) — jcistat command.

aaaa axxx xxxx xxxx bxxx xxxx xxxx xccc

- a = Opcode.
- x = Not used and undefined.
- b = More jobs in submit queue.
  - 0 — No jobs in submit queue.
  - 1 — At least one job in submit queue.
- c = PIO destination bits.

0xf (15) — abort command.

aaaa abxx xxxx xxxx xxxx xxxx xxxx xccc

- a = Opcode.
- b = Option.
- x = Not used and undefined.
- c = PIO destination bits.

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0x10 (16) — read DFC RAM command.

```
aaaa abxx xxxx bbbb xxxx xccc cccc cxxx
dddd dddd dddd dddd dddd dddd dddd dddd
xxxx xxxx xxxx xxxe eeee eeee eeee eeee
ffff ffff ffff ffff ffff ffff ffff ffff
```

- a = Opcode.
- x = Not used and undefined.
- b = SCSI bus and device ID.
- c = Job ID assigned by the 3B.
- d = HA Random Access Memory (RAM) address.
- e = Data address in 3B mainstore.
- f = Number of words to be transferred.

0x11 (17) — read disk command.

```
aaaa abxx xxxx cccc xxxx xddd dddd dxxx
eeee eeee eeee eeee eeee eeee eeee eeee
xxxx xxxx xxxx xxxf ffff ffff ffff ffff
gggg gggg gggg gggg gggg gggg gggg gggg
```

- a = Opcode.
- b = Retry on job failure.
- x = Not used and undefined.
- c = SCSI bus and device ID.
- d = Job ID assigned by the 3B.
- e = Starting disk block number.
- f = Data address in 3B mainstore.
- g = Number of words to be transferred.

0x12 (18) — explicit SCSI command.

```
aaaa abcd dddd eeee fggh ghgh hhhh hiii
jjjj jjjj jjjj jjjk kkkk kkkk kkkk kkkk
llll llll llll lllm mmmm mmmm mmmm mmmm
nnnn nnnn nnnn nnno oooo oooo oooo oooo
```

- a = Opcode.
- b = Indicates a slow SCSI command.
- c = Command is done with minimum error checks and no recovery.

0 — Do not just do the command.  
1 — Just do the command.

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- d = SCSI command options.
- 0 — No data to transfer to or from SCSI device.
  - 1 — Data is transferred to SCSI device.
  - 2 — Data is transferred from SCSI device.
  - 3 — Send message to reset SCSI bus 0.
  - 4 — Send message to reset SCSI bus 1.
  - 5 — Send "abort" message to device.
  - 6 — Send "reset device" message to device.
- e = SCSI bus and device ID.
- f = Device may use two SCSI devices.
- 0 — Command does not use two devices.
  - 1 — Command uses two devices.
- g = Second SCSI bus and device ID.
- h = Job ID assigned by the 3B.
- i = Job time limit in minutes for slow jobs.
- j = Size of SCSI command in bytes.
- k = 3B memory address of SCSI command.
- l = Size of response in bytes.
- m = 3B memory address of response to SCSI command.
- n = Number of bytes of data to be transferred.
- o = 3B memory address of data to be transferred.

0x13 (19) — verify disk command.

```
aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
dddd dddd dddd dddd dddd dddd dddd dddd
xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
xxxx xxxx xxxx xxxx ffff ffff ffff ffff
```

- a = Opcode.
- x = Not used and undefined.
- b = SCSI bus and device ID.
- c = Job ID assigned by the 3B.
- d = Starting disk block number.
- f = Number of disk blocks to be verified.

0x14 (20) — invalid command.

0x15 (21) — invalid command.

0x16 (22) — invalid command.

0x17 (23) — invalid command.

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0x18 (24) — write DFC RAM command.

```
aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
dddd dddd dddd dddd dddd dddd dddd dddd
xxxx xxxx xxxx xxxe eeee eeee eeee eeee
ffff ffff ffff ffff ffff ffff ffff ffff
```

- a = Opcode.
- x = Not used and undefined.
- b = SCSI bus and device ID.
- c = Job ID assigned by the 3B.
- d = HA RAM address.
- e = Data address in 3B mainstore.
- f = Number of words to be transferred.

0x19 (25) — write disk command.

```
aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
dddd dddd dddd dddd dddd dddd dddd dddd
xxxx xxxx xxxx xxxe eeee eeee eeee eeee
ffff ffff ffff ffff ffff ffff ffff ffff
```

- a = Opcode.
- x = Not used and undefined.
- b = SCSI bus and device ID.
- c = Job ID assigned by the 3B.
- d = Starting disk block number.
- e = Data address in 3B mainstore.
- f = Number of words to be transferred.

0x1a (26) — pump command.

```
aaaa axxx xxxx bbbb cddd deee eeee exxx
ffff ffff ffff ffff ffff ffff ffff ffff
xxxx xxxx xxxx xxxg gggg gggg gggg gggg
hhhh hhhh hhhh hhhh hhhh hhhh hhhh hhhh
```

- a = Opcode.
- x = Not used and undefined.
- b = SCSI bus and device ID.
- c = Auto-vector at end of pump.
  - 0 — Do not auto-vector.
  - 1 — Auto-vector.

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- d = DFC pump options.
- 1 — Pump from disk.
  - 2 — Begin pump from RAM.
  - 6 — Continue pump from RAM.
- e = Job ID assigned by the 3B.
- f = Starting disk block number.
- g = Data address in 3B mainstore.
- h = Number of words to be pumped.

0x1b (27) — format command.

```
aaaa abbx xxxx cccc xxxx xddd dddd dxxx
eeee eeee xxxx xxxx xfgh hhhh jjjj jjjj
kkkk kkkk kkkk kkkk llll llll llll llll
mmmm mmmm nnnn nnnn oooo oooo pppp pppp
```

- a = Opcode.
- b = Format options.
- 1 — No header or defect list provided by the 3B.
  - 2 — Header only provided by the 3B.
  - 3 — Both header and defect list provided by the 3B.
- x = Not used and undefined.
- c = SCSI bus and device ID.
- d = Job ID assigned by the 3B.
- e = Time limit for format commands.
- f = Format data.
- g = Complete list.
- h = Defect list format.
- i = Vendor unique data 2.
- j = Vendor unique data 1.
- k = Flaw data length in bytes.
- l = Flaw data 3B mainstore address.
- m = Format header byte 0.
- n = Format header byte 1.
- o = Format header byte 2.
- p = Format header byte 3.

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0x1c (28) — request device status command.

aaaa axxx xxxx bbbb xxxx xccc cccc cxxx  
xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
xxxx xxxx xxxx xxxd dddd dddd dddd dddd  
eeee eeee eeee eeee eeee eeee eeee eeee

- a = Opcode.
- x = Not used and undefined.
- b = SCSI bus and device ID.
- c = Job ID assigned by the 3B.
- d = Data address in 3B mainstore.
- e = Number of words to be transferred.

0x1d (29) — diagnostic helper command.

aaaa abbb bbbb bbbb bbbb bbbb bbbb bccc

- a = Opcode.
- b = Diagnostic control data.
- c = PIO destination bits.

0x1e (30) — disk-to-disk copy command.

aaaa axxx xxxx bbbb xccc cddd dddd dxxx  
eeee eeee eeee eeee eeee eeee eeee eeee  
ffff ffff ffff ffff ffff ffff ffff ffff  
gggg gggg gggg gggg gggg gggg gggg gggg

- a = Opcode.
- x = Not used and undefined.
- b = Source SCSI bus and device ID.
- c = Destination SCSI bus and device ID.
- d = Job ID assigned by the 3B.
- e = Starting source disk block number.
- f = Starting destination disk block number.
- g = Number of disk blocks to be copied.

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0x1f (31) — diagnose DFC/device command.

aaaa abbb bbbb cccc dddd deee eeee efff

a = Opcode.

b = Diagnostic control data.

c = SCSI bus and device ID.

d = Device type selected.

0 — Device.

1 — DFC.

e = Job ID assigned by the 3B.

f = PIO destination bits.

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ID ..... APP:DFC-N  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

This appendix contains the tables:

Table 1 - Host Adapter Status Register (FW / PC versions 7.0 and 8.0);

Table 2 - Host Adapter Status Register (FW / PC versions 9.0).

Table 1 - Host Adapter Status Register (FW / PC versions 7.0 and 8.0)

| Bit | Description                                           |
|-----|-------------------------------------------------------|
| 31  | Power on reset                                        |
| 30  | Waiting for 3B Direct Memory Access Controller (DMAC) |
| 29  | Power disconnect one                                  |
| 28  | Power disconnect zero                                 |
| 27  | Over temperature bus 1                                |
| 26  | Over temperature bus 0                                |
| 25  | Mask interrupt level 9                                |
| 24  | Mask interrupt level 10                               |
| 23  | Host Adapter (HA) DMAC channel 1 flush                |
| 22  | SCSI bus 1 enable                                     |
| 21  | SCSI bus 1 receive bad parity                         |
| 20  | SCSI bus 1 send bad parity                            |
| 19  | HA DMAC channel 0 flush                               |
| 18  | SCSI bus 0 enable                                     |
| 17  | SCSI bus 0 receive bad parity                         |
| 16  | SCSI bus 0 send bad parity                            |
| 15  | Address overlap inactive                              |
| 14  | Mask interrupt level 11                               |
| 13  | Mask interrupt level 13                               |
| 12  | HA DMAC channel 1 high priority                       |
| 11  | Diagnostics passed                                    |
| 10  | Fault caused by diagnostics                           |
| 09  | Spare                                                 |
| 08  | Diagnostics in progress                               |
| 07  | Force bad parity byte 3                               |
| 06  | Force bad parity byte 2                               |
| 05  | Force bad parity byte 1                               |
| 04  | Force bad parity byte 0                               |
| 03  | Bus Interface Controller (BIC) access error           |

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Table 1 - Host Adapter Status Register (FW/PC versions 7.0 and 8.0) (continued)

| Bit | Description                                           |
|-----|-------------------------------------------------------|
| 02  | Parity error on HA Static Random Access Memory (SRAM) |
| 01  | Write protect violation                               |
| 00  | Sanity failure                                        |

The HA Central Processing Unit (CPU) can read this register a byte at a time and write to each bit individually with each bit having a unique address. The HA status register bits are also controlled by individual jam sets derived from asynchronous events on the HA board. All the bits are cleared on the "Power On" reset or the "HA Reset". The detailed description of each bit is given:

- Bit 31—(Power on reset) This bit is set after the power on reset. This bit differentiates between the two resets, the power on reset and the HA reset.
- Bit 30—(HA waiting for 3B DMAC) This bit is set via software when the HA is waiting for the 3B DMAC to complete a transfer of data between the 3B and the HA. After the HA detects completion of the transfer, the bit is cleared via software.
- Bit 29—(Power disconnect one) This bit is reserved for use by the HA CPU to disconnect SCSI bus 1.
- Bit 28—(Power disconnect zero) This bit is reserved for use by the HA CPU to disconnect SCSI bus 0.
- Bit 27—(Over temperature 1) This bit is reserved for a possible future application.
- Bit 26—(Over temperature 0) This bit is reserved for a possible future application.
- Bit 25—(Mask interrupt level 9) When this bit is set by the software control, level 9 interrupt to the HA CPU is selectively masked regardless of the Interrupt Priority Level (IPL) of the HA CPU in the Processor Status Word (PSW). In a special case, when this bit is set after the interrupt occurs but before it is recognized by the HA CPU, the interrupt will be negated and will not be recognized by the HA CPU (unless the interrupt is still present after the mask bit is cleared).
- Bit 24—(Mask interrupt level 10) Same as bit 25 except the interrupt level is 10.
- Bit 23—(HA DMAC channel 1 flush) When '0', the HA DMAC channel operates normally. When '1', any incoming bytes from SCSI bus that are buffered in the HA DMAC are flushed and channel operation is terminated.
- Bit 22—(SCSI bus 1 enable) Enables SCSI bus 1. When '0', SCSI bus drivers and receivers are disabled. When '1', drivers and receivers are enabled.
- Bit 21—(SCSI bus 1 receive bad parity) When this bit is set, bad parity is received on SCSI bus 1. This bit is cleared on a RESET.
- Bit 20—(SCSI bus 1 send bad parity) When this bit is set, bad parity is sent to SCSI bus 1. This bit is cleared on a RESET.
- Bit 19—(HA DMAC channel 0 flush) Same as bit 23 but for SCSI bus 0.

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- Bit 18—(SCSI bus 0 enable) Same as bit 22 but for SCSI bus 0.
- Bit 17—(SCSI bus 0 receive bad parity) Same as bit 21 but for SCSI bus 0.
- Bit 16—(SCSI bus 0 send bad parity) Same as bit 20 but for SCSI bus 0.
- Bit 15—(Address overlap inactive) This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 15. When this bit is set, address overlap is inactive. This bit is cleared on the RESET or after interrupt 15 to the HA CPU, so that just after the HA reset or memory fault, the address overlap is active and the system operates through EPROM.
- Bit 14—(Mask interrupt level 11) When this bit is set by the software, level 11 interrupt (information present in BIC command register) is selectively masked regardless of the IPL value of the PSW in the HA CPU. This bit functions similar to the bit 25 in the HASR.
- Bit 13—(Mask interrupt level 13) Same as bit 25 except the interrupt level is 13.
- Bit 12—(HA DMAC channel 1 high priority) This bit selects which SCSI bus has higher HA DMAC priority.
- Bit 11—(Diagnostics passed) This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 11. When this bit is set, it indicates that the diagnostics have passed. This bit is cleared on a RESET.
- Bit 10—(Fault caused by diagnostics) This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 10. Diagnostics set this bit before initiating an error on the board to distinguish between an actual error and an error caused by the diagnostic test.
- Bit 9— (Spare) Spare bit.
- Bit 8— (Diagnostics in progress) This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 8. When this bit is set, it indicates that the diagnostics are in progress.
- Bit 7— (Force bad parity on byte 3) When this bit is set, bad parity is generated on byte 3 of HA SRAM during a write operation. This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 7. This bit is cleared on a RESET.
- Bit 6— (Force bad parity on byte 2) When this bit is set, in the HASR, a bad parity is generated on byte 2 of HA SRAM during the write operation. This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 6. This bit is cleared on a RESET.
- Bit 5— (Force bad parity on byte 1) When this bit is set, bad parity is generated on byte 1 of HA SRAM during a write operation. This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 5. This bit is cleared on a RESET.
- Bit 4— (Force bad parity on byte 0) When this bit is set, bad parity is forced on byte 0 of the HA SRAM during a write operation. This bit is set or cleared by the software writing a '1' or '0' respectively, in the HASR bit 4. This bit is cleared on a RESET.
- Bit 3— (BIC access error) This bit is set when the HA CPU or the HA DMAC tries to access the FIFO or BIC registers when the access is inhibited (the status bit "BIC - HA CPU interface enabled" in the BIC status register not set). It also generates an interrupt (level 13) to the HA CPU if it is not masked.

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- Bit 2— (Parity error) This bit is set by the parity checker / generator when the parity error is detected while reading the HA SRAM. This bit can also be set or cleared by the software. It is cleared on RESET. A level 15 interrupt is also generated when the parity error is detected on the read operation on the HA SRAM.
- Bit 1— (Write protect violation) This bit is set when the microbus master tries to write in to the write protected area of the HA SRAM. A level 15 interrupt is generated to the HA CPU when this bit is set. This bit can also be set or cleared by the software.
- Bit 0 (Sanity failure) - This bit is set when the sanity timer times out. A non-maskable interrupt is generated when the sanity failure occurs. This bit can also be set or cleared by the software.

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Table 2 - Host Adapter Status Register (FW / PC versions 9.0)

| Bit | Description                                          |
|-----|------------------------------------------------------|
| 31  | Spare                                                |
| 30  | 3B DMA Transfer in Progress                          |
| 29  | Spare                                                |
| 28  | Spare                                                |
| 27  | Spare                                                |
| 26  | Spare                                                |
| 25  | Mask (hide) SPC-B interrupt                          |
| 24  | Mask (hide) SPC-A interrupt                          |
| 23  | Spare                                                |
| 22  | Enable SCSI Bus-B bus drivers                        |
| 21  | Spare                                                |
| 20  | Spare                                                |
| 19  | Spare                                                |
| 18  | Enable SCSI Bus-A bus drivers                        |
| 17  | Spare                                                |
| 16  | Mask (inhibit) setting the QUICC Bus Clear (QBC) bit |
| 15  | Write Protect Violation                              |
| 14  | Mask (hide) Command Present interrupt (4)            |
| 13  | Swap QUICC-1 and SPC interrupt levels (3/2 to 2/3)   |
| 12  | QUICC-0 IDMA's have higher priority than QUICC-1     |
| 11  | Diagnostics passed                                   |
| 10  | Fault caused by diagnostics                          |
| 09  | Enable EOT signal as interrupt source                |
| 08  | Diagnostics in progress                              |
| 07  | Force bad parity - Microbus Byte 3 (07-00)           |
| 06  | Force bad parity - Microbus Byte 2 (15-08)           |
| 05  | Force bad parity - Microbus Byte 1 (23-16)           |
| 04  | Force bad parity - Microbus Byte 0 (31-24)           |
| 03  | BIC access error                                     |
| 02  | Parity error on SRAM                                 |
| 01  | QUICC bus clear                                      |
| 00  | Sanity failure                                       |

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The HA Central Processing Unit (CPU) can read this register a byte at a time and write to each bit individually with each bit having a unique address. The HA status register bits are also controlled by individual jam sets derived from asynchronous events on the HA board. All the bits are cleared on the "Power On" reset or the "HA Reset". The detailed description of each bit is given:

Bit 31— Spare bit.

Bit 30—(3B DMA transfer in progress) This bit is set to '1' by HA software to indicate that a 3B21D DMA transfer is in progress.

**NOTE:** There are cases when 3B DMA is in progress and the bit is not set.

Bit 29— Spare bit.

Bit 28— Spare bit.

Bit 27— Spare bit.

Bit 26— Spare bit.

Bit 25—(Mask (hide) SPC-B interrupt) This bit is set to '1' by software to block interrupts from SPC-B. The output from this bit is used by the interrupt logic inside the FPGA.

Bit 24—(Mask (hide) SPC-A interrupt) This bit is set to '1' by software to inhibit interrupts from SPC-A. The output from this bit is used by the interrupt logic inside the FPGA.

Bit 23— Spare bit.

Bit 22—(Enable SCSI Bus-B drivers) The SCSI bus drivers are enabled when this bit is set to '1' and disabled when this bit is '0' (ie. tri-stated).

Bit 21— Spare bit.

Bit 20— Spare bit.

Bit 19— Spare bit.

Bit 18—(Enable SCSI Bus-A drivers) The SCSI bus drivers are enabled when this bit is set to '1' and disabled when this bit is inactive '0' (ie. tri-stated).

Bit 17— Spare bit.

Bit 16—(Mask (inhibit) setting the QUICC bus clear bit) This bit is always set to '1' by HA software to prevent the HA CPU interrupt pending output from setting QUICC bus clear HASR bit.

Bit 15—(Write Protect Violation) This bit is set to '1' by software when the bus master attempts to write into a protected area of SRAM.

Bit 14—(Mask (hide) command present interrupt level 4) This bit is set to '1' by HA software to inhibit the BIC command interrupt. This masking is independent of the interrupt priority mask in the HA CPU's status register.

Bit 13—(Swap QUICC-1 and SPC interrupt levels (3/2 to 2/3)) This bit is set to '1' by HA software to make the QUICC-1 interrupt a level 2 interrupt and the SPC interrupt a level 3 interrupt. When this bit is not set '0', the QUICC-1 interrupt is level 3 and the SPC interrupt is level 2.

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- Bit 12—(QUICC-0 IDMA's have high priority than QUICC-1) This bit is set to '1' by HA software to give bus requests from the QUICC-0 IDMA channels higher priority than the request from the QUICC-1 IDMA channels. HA software can only change the state for this bit when the IDMA's are idle.
- Bit 11—(Diagnostics passed) This bit is set to '1' by HA diagnostic software to indicate that diagnostics have passed.
- Bit 10—(Fault caused by diagnostics) This bit is set to '1' by HA diagnostics software before it causes an error to distinguish between an operational error and an error caused by a diagnostic test.
- Bit 9— (Enable EOT Signal as interrupt source) . This bit is set to '1' by HA software to enable the EOT signal as level 3 interrupt source in place of the 3B read / write complete interrupt source from QUICC-1 timer 4. Note that software must disable the 3B read / write complete interrupt as a separate operation. This bit is used in the interrupt logic inside the FPGA.
- Bit 8— (Diagnostics in progress) This bit is set to '1' by HA diagnostic software to indicate when diagnostic execution is in progress.
- Bit 7— (Force bad parity - microbus byte 3 (07-00)) This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.
- Bit 6— (Force bad parity - microbus byte 2 (15-08)) This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.
- Bit 5— (Force bad parity - microbus byte 1 (23-16)) This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.
- Bit 4— (Force bad parity - microbus byte 0 (31-24)) This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.
- Bit 3— (BIC access error) This bit is set to '1' via hardware when the bus master attempts to access the BIC FIFO when the access is inhibited. The output of this bit triggers a level 6 interrupt to the HA CPU.
- Bit 2— (Parity error on SRAM) This bit is set to '1' via hardware when a parity error is detected during an SRAM read. The output of this bit triggers a level 6 interrupt to the HA CPU.
- Bit 1— (QUICC bus clear) This bit is set to '1' via hardware by the interrupt pending output from the HA CPU. Can also be set to '1' and cleared '0' by HA software. The output from this register bit goes to the bus clear inputs of QUICC-0 and QUICC-1.
- Bit 0 (Sanity failure) - This bit is set to '1' via hardware when the HA sanity timer times out.

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ID ..... APP:DFC-O  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

#### VERSION STRUCTURE BIT LAYOUT

AAAA BBBB BBCC CCCC DDDD EEEE FFFF FFFF

- A Host Adapter (HA) software version number.
- B HA software issue number.
- C HA software point issue number.
- D HA software Engineering Design Information (EDI) tens digit number.
- E HA software EDI units digit number.
- F HA software EDI character in American Standard Code for Information Interchange (ASCII).

**NOTE:** If all of the bits in the version structure layout are "1", the information is not obtainable.

For firmware version 7.1.0-04A: the values in the version number, issue number, and EDI fields must be identical to the values in the same fields in the pumpcode version in order for the firmware and pumpcode to be compatible.

For all other firmware versions: the values in the version number and issue number fields must be identical to the values in the same fields in the pumpcode version in order for the firmware and pumpcode to be compatible.

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ID ..... APP:DFC-P  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### HOST ADAPTER SHADOW REGISTER

The Host Adapter (HA) shadow register provides information about the HA status at the time of the HA's last reset. All fields except the last field provide a snapshot of HA status immediately prior to the last HA reset. The last field provides a snapshot of HA status immediately after the last HA reset. The HA status register is known as the HASR.

HA Shadow Register layout: abcd efgh ijkl mnop :q qq qq rrrr rrrr

| Field | Description                                                                                                               | HASR bit |
|-------|---------------------------------------------------------------------------------------------------------------------------|----------|
| a     | Not used                                                                                                                  | -        |
| b     | Not used                                                                                                                  | -        |
| c     | Bus 0 differential sense                                                                                                  | 03       |
| d     | Bus 1 differential sense                                                                                                  | 07       |
| e     | Power on reset                                                                                                            | 31       |
| f     | HA waiting for 3B Direct Memory Access (DMA) to complete                                                                  | 30       |
| g     | Small Computer System Interface (SCSI) bus 1 enable                                                                       | 22       |
| h     | SCSI bus 0 enable                                                                                                         | 18       |
| i     | Address overlap inactive                                                                                                  | 15       |
| j     | HA DMA Controller (DMAC) channel 1 high priority                                                                          | 12       |
| k     | Diagnostics passed                                                                                                        | 11       |
| l     | Fault caused by diagnostics                                                                                               | 10       |
| m     | Diagnostics in progress                                                                                                   | 08       |
| n     | Bus Interface Controller (BIC) access error                                                                               | 03       |
| o     | Parity error on Static Random Access Memory (SRAM)                                                                        | 02       |
| p     | Write protect violation                                                                                                   | 01       |
| q     | The value of the firmware / driver communications register.<br>(See DFC Output Appendix B, APP : DFC-B, Table 5.)         | -        |
| r     | The current value of the firmware / driver communications<br>register. (See DFC Output Appendix B, APP : DFC-B, Table 5.) | -        |

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ID ..... APP:DLNCM-01  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLN Application / Stream Error Codes

| Code   | Description                                                    |
|--------|----------------------------------------------------------------|
| 0x0    | - No error, DLN is on-line                                     |
| 0x1    | - 1B to ring message block is bad, invalid message length      |
| 0x02   | - CNI USER field is invalid                                    |
| 0x03   | - 1B to ring bad DMA buffer state                              |
| 0x04   | - 1B to ring copy buffer ptr not mod4, retry DMA read of block |
| 0x07   | - Ring receive msg length is greater than block length         |
| 0x08   | - Ring receive block length bad. Not modulo 4 bytes            |
| 0x09   | - Ring receive bad block - msg length out of range             |
| 0x10   | - Fail code from imsbfree order                                |
| 0x11   | - Bad return code from IMS                                     |
| 0x12   | - Free buffer retry queue full                                 |
| 0x13   | - Bad ring receive block adr or size                           |
| 0x14   | - Bad ring receive copy buffer pointer part of block killed    |
| 0x15   | - Not HOME DLN receiving incoming messages                     |
| 0x2001 | - TSN to ALL subtrans unequip, output                          |
| 0x2011 | - TSN to ALL wrong trunk type, output                          |
| 0x2021 | - Trans table range exceeded                                   |
| 0x2031 | - TSN to ALL head table unequip, output                        |
| 0x2041 | - TSN to ALL TSN=0, output                                     |
| 0x2042 | - Invalid ISUP message type, output                            |
| 0x2052 | - Invalid Q931 message type, output                            |
| 0x2062 | - Invalid parameter length, output                             |
| 0x2072 | - Invalid TCAP message format, output                          |
| 0x2082 | - Invalid TUP message format, output                           |
| 0x2092 | - Invalid INUP message format, output                          |
| 0x2093 | - Invalid number value in a parameter, output                  |
| 0x2003 | - CNI message type invalid, output                             |
| 0x2100 | - PCP bad input parameters                                     |
| 0x2101 | - PCP invalid abcid of 0                                       |
| 0x2110 | - PCP unequipped HT4PCPGH HT entry                             |
| 0x2111 | - PCP invalid cidx of 0                                        |
| 0x2112 | - PCP invalid coli of 0                                        |
| 0x2113 | - PCP entry not found in U SUBX                                |

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| Code   | Description                                                                                                    |
|--------|----------------------------------------------------------------------------------------------------------------|
| 0x2120 | - PCP unequipped HT4PCPCOL1 HT entry                                                                           |
| 0x2121 | - PCP entry not found in COL tbl                                                                               |
| 0x2130 | - PCP unequipped HT4PCPCOL2 HT entry                                                                           |
| 0x2131 | - PCP invalid cidx of 0 in COL tbl                                                                             |
| 0x2140 | - PCP unequipped HT4PCPDB HT entry                                                                             |
| 0x2141 | - PCP invalid numpv in PCPDB                                                                                   |
| 0x2142 | - PCP invalid entry of 0 in PCPDB                                                                              |
| 0x2201 | - bad ABC in 6 DIG GTT message                                                                                 |
| 0x2202 | - bad DEF in 6 DIG GTT message                                                                                 |
| 0x2203 | - bad TT in 6 DIG GTT message                                                                                  |
| 0x2204 | - bad MODE in 6 DIG GTT message                                                                                |
| 0x2210 | - 6 DIG GTT database corrupt                                                                                   |
| 0x2220 | - 6 DIG GTT ABC HT unequipped                                                                                  |
| 0x2221 | - 6 DIG GTT ABC entry unequipped                                                                               |
| 0x2222 | - 6 DIG GTT DEF entry unequipped                                                                               |
| 0x2223 | - 6 DIG GTT NCP DB HT unequipped                                                                               |
| 0x2224 | - 6 DIG GTT NCP DB entry unequipped                                                                            |
| 0x3000 | - Head table (Q9/SADC-TSN) unequip input                                                                       |
| 0x3010 | - Subtrans (Q9/SADC to TSN) unequip input                                                                      |
| 0x3020 | - Final subtrans (Q9/SADC-TSN) unequip input                                                                   |
| 0x3030 | - DPC_CIC-TSN head table unequip input                                                                         |
| 0x3040 | - DPC (to TSN) conflict table unequip input                                                                    |
| 0x3050 | - CIC (to TSN) subtranslator head unequip input                                                                |
| 0x3060 | - CIC (to TSN) subtranslator table unequip input                                                               |
| 0x3305 | - Ring receive msg unknown CNI channel                                                                         |
| 0x4001 | - DMA write in progress & timer not running                                                                    |
| 0x4002 | - DMA write status ABdmawst invalid                                                                            |
| 0x4003 | - DMA read in progress and timer not running                                                                   |
| 0x4004 | - DMA write status ABdmarst invalid                                                                            |
| 0x4005 | - IMS write ring retry stuck                                                                                   |
| 0x4006 | - IMS write ring retry work flag lost                                                                          |
| 0x4007 | - IMS write ring retry bad state in ABretry                                                                    |
| 0x4008 | - ABdmard idle, no 1B to ring copy buffers waiting for IMS to free buffers                                     |
| 0x4009 | - waiting for AP1armh to process msg block                                                                     |
| 0x400a | - IMS write ring retry failed                                                                                  |
| 0x400b | - 3B dma read retry failed                                                                                     |
| 0x400c | - 3B dma read in progress state too long                                                                       |
| 0x400d | - 1B to ring work, bad state in ABdmard                                                                        |
| 0x400e | - ABscanout state ABS_WSTOP waiting for API to fix bad pointers and timer is not running, start timer ABt_ober |
| 0x400f | - DLN outbound ABscanout state outof range.                                                                    |
| 0x4010 | - DLN inbound ABscanin state bad. Waiting for 3b to switch DLNs.                                               |

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| Code   | Description                                                                      |
|--------|----------------------------------------------------------------------------------|
| 0x4011 | - DLN inbound ABscanin state out of range.                                       |
| 0x4012 | - Outbound copy buffer state inconsistent.                                       |
| 0x4013 | - 3B dma write retry state too long                                              |
| 0x4014 | - 3B dma in progress state. If dma read timer is stopped, start timer.           |
| 0x4015 | - Bad state in ABdmard, set it to idle.                                          |
| 0x4444 | - DLN panic in the 1B to ring direction                                          |
| 0x5555 | - DLN panic in the ring to 1B direction                                          |
| 0x6000 | - Link Set Route tfc msg to lec point code on link set 6                         |
| 0x6001 | - Link set 6 status is not normal                                                |
| 0x8c00 | - INV_SMHMSG - invalid message on the IMS SMH channel                            |
| 0x8c01 | - SMHREAD_ERR - read error on the IMS SMH channel                                |
| 0x8c02 | - MTCERead_ERR - read error on the IMS _MTCE channel                             |
| 0x8c03 | - INV_MTCEMSG - invalid message read on the DLN IMS _MTCE channel                |
| 0x8c04 | - INV_INTERPROC - invalid interprocessor message read on the DLN IMS SMH channel |
| 0x8c40 | - DLNREQ_FAIL - unable to write DLN congest message                              |
| 0x8c41 | - GOFSTAT_INVALID - DLN IMS overflow status invalid                              |
| 0x8c42 | - APPCONG_INVALID - DLN application congestion level invalid                     |
| 0x8c43 | - CONSEC_CONGEST - DLN application congestion level lasting more than 30 seconds |
| 0x8c44 | - LONG_CONGEST - DLN application congestion level greater than 75%               |
| 0x8c45 | - OUTDLN_CONGEST - inbound congestion detected in a DLN that is not inbound      |
| 0x8c46 | - BCASTCONG_FAIL - failed to broadcast congest message to other ring nodes       |
| 0x8c47 | - CONGREPT_FAIL - failed to send congestion message to SLMK                      |
| 0x8c48 | - RSRCREPT_FAIL - failed to send resource exhaustion message to SLMK             |
| 0x8c49 | - APCOPY_FULL - DLN copy buffer for IMS messages is full                         |
| 0x8c4a | - APREADQ_FULL - DLN IMS read queue is full                                      |
| 0x8c4b | - XQUE_FULL - DLN IMS transaction queue is full                                  |
| 0x8c80 | - SMH_OPEN_FAIL - DLN failed to open SMH channel                                 |
| 0x8c81 | - MTCE_OPEN_FAIL - DLN failed to open _USR_MTCE channel                          |
| 0x8c82 | - REM_OPEN_FAIL - DLN failed to open the RMNPCHAN (remacs) channel               |
| 0x20   | - 1B to ring load/end pointer out of range                                       |
| 0x21   | - 1B to ring unload pointer out of range                                         |
| 0x22   | - Ring to 1B load/end pointer out of range                                       |
| 0x23   | - Ring to 1B unload pointer out of range                                         |
| 0x24   | - Input buffer self pointer bad                                                  |

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| Code | Description                                  |
|------|----------------------------------------------|
| 0x25 | - 1B to ring load / end pointer out of range |
| 0x26 | - Ring to 1B unload pointer out of range     |
| 0x27 | - Input buffer full                          |
| 0x30 | - DMA read CNIBUF header fail                |
| 0x31 | - DMA read CNIBUF data fail                  |
| 0x32 | - DMA read recent change data                |
| 0x36 | - DMA read 1B data 3B down                   |
| 0x37 | - DMA read 1B data bad length                |
| 0x38 | - DMA read 1B data bad return code           |
| 0x39 | - DMA read 1B data fail notify               |
| 0x3a | - DMA read 1B data notify return code        |
| 0x40 | - DMA write CNIBUF data 3B down              |
| 0x41 | - DMA write CNIBUF data bad length           |
| 0x42 | - DMA write CNIBUF data bad return code      |
| 0x43 | - DMA write CNIBUF data fail notify          |
| 0x44 | - DMA write CNIBUF data notify return code   |
| 0x50 | - DMA write pointers 3B down                 |
| 0x51 | - DMA write pointer bad length               |
| 0x52 | - DMA write pointer bad return code          |
| 0x53 | - DMA write pointer fail notify              |
| 0x54 | - DMA write pointer notify return code       |
| 0x56 | - DMA read pointers 3B down                  |
| 0x57 | - DMA read pointer bad length                |
| 0x58 | - DMA read pointer bad return code           |
| 0x59 | - DMA read pointer fail notify               |
| 0x5a | - DMA read pointer notify return code        |
| 0x60 | - DMA write high priority 3B down            |
| 0x61 | - DMA write high priority bad length         |
| 0x62 | - DMA write high priority bad return code    |
| 0x63 | - DMA write high priority notify fail code   |
| 0x64 | - DMA write high priority notify return code |
| 0x66 | - DMA read high priority 3B down             |
| 0x67 | - DMA read high priority bad length          |
| 0x68 | - DMA read high priority bad return code     |
| 0x69 | - DMA read high priority notify fail code    |
| 0x6a | - DMA read high priority notify return code  |
| 0x70 | - DMA write low priority 3B down             |
| 0x71 | - DMA write low priority bad length          |
| 0x72 | - DMA write low priority bad return code     |
| 0x73 | - DMA write low priority notify fail code    |
| 0x74 | - DMA write low priority notify return code  |
| 0x76 | - DMA read low priority 3B down              |
| 0x77 | - DMA read low priority bad length           |
| 0x78 | - DMA read low priority bad return code      |

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| Code | Description                                                                          |
|------|--------------------------------------------------------------------------------------|
| 0x79 | - DMA read low priority notify fail code                                             |
| 0x7a | - DMA read low priority notify return code                                           |
| 0x80 | - DMA write com buffers 3B down                                                      |
| 0x81 | - DMA write com buffer bad length                                                    |
| 0x82 | - DMA write com buffer bad return code                                               |
| 0x83 | - DMA write com buffer fail notify                                                   |
| 0x84 | - DMA write com buffer notify return code                                            |
| 0x86 | - DMA read com buffers 3B down                                                       |
| 0x87 | - DMA read com buffer bad length                                                     |
| 0x88 | - DMA read com buffer bad return code                                                |
| 0x89 | - DMA read com buffer fail notify                                                    |
| 0x8a | - DMA read com buffer notify return code                                             |
| 0x90 | - IMS write ring bad return code                                                     |
| 0x91 | - IMS write ring fail code                                                           |
| 0x92 | - IMS write ring notify fail                                                         |
| 0x93 | - IMS write ring notify bad length                                                   |
| 0x94 | - IMS write ring notify return code                                                  |
| 0x95 | - 1B-ring CNI routing failed                                                         |
| 0x96 | - IMS write ring notify queue is empty, notify not expected                          |
| 0x97 | - IMS write ring notify trans code                                                   |
| 0xa0 | - Bad low priority jobnumber                                                         |
| 0xa1 | - Bad low priority function pointer command                                          |
| 0xa2 | - Bad low priority function pointer DMA return                                       |
| 0xa3 | - Bad high priority jobnumber                                                        |
| 0xa4 | - Bad high priority function pointer command                                         |
| 0xa5 | - Bad high priority function pointer DMA return                                      |
| 0xa6 | - Failed to open CNIUZRCHN channel, DLN-AP is dead, no polling for msgs              |
| 0xa7 | - Failed to open signaling message return channel, undelivered messages will be lost |
| 0xa8 | - DLN-AP is too busy, leaky bucket expired                                           |
| 0xa9 | - Failed to open _MEASDCAP measurements chn                                          |
| 0xb0 | - Scan task entry is not a command                                                   |
| 0xb1 | - Scan task entry is not DMA report                                                  |
| 0xb2 | - Bad scan task state                                                                |
| 0xb8 | - Buffer status task entry is not a command                                          |
| 0xb9 | - Buffer status entry is not DMA report                                              |
| 0xba | - Bad buffer status task state                                                       |
| 0xc0 | - 3B DMA read timeout                                                                |
| 0xc1 | - 3B DMA write timeout                                                               |
| 0xc2 | - 3B IMS ring write timeout                                                          |
| 0xc3 | - Sanity timeout base level not entered                                              |

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| Code  | Description                                                 |
|-------|-------------------------------------------------------------|
| 0xc4  | - Sanity timeout high priority task                         |
| 0xd0  | - IMS write ring bad return code                            |
| 0xd1  | - IMS write ring fail code                                  |
| 0xd2  | - IMS write ring notify fail                                |
| 0xd3  | - IMS write ring notify bad length                          |
| 0xd4  | - IMS write ring notify return code                         |
| 0xd5  | - IMS write ring notify queue is empty, notify not expected |
| 0xd6  | - IMS write ring notify trans code                          |
| 0xd7  | - Ring receive bad entry code                               |
| 0xd8  | - Bad channel CNI channel                                   |
| 0xd9  | - Bad msg type                                              |
| 0xe0  | - Memory protect return code invalid                        |
| 0xe1  | - Memory protect bad process id or resources unavailable    |
| 0x101 | - Bad address                                               |
| 0x102 | - Copy to DP RAM failed                                     |
| 0x103 | - Bad length                                                |
| 0x104 | - Bad data type                                             |
| 0x105 | - Header was broken incorrectly                             |
| 0x110 | - Bad DLN Read state                                        |
| 0x120 | - Bad pump state                                            |
| 0x121 | - Timed out in pump state                                   |
| 0x130 | - Bad audit state                                           |
| 0x131 | - Timed out in audit state                                  |
| 0x132 | - Hash audit error                                          |
| 0x133 | - Hash audit completed                                      |
| 0x140 | - Bad update state                                          |
| 0x141 | - Timed out in update state                                 |
| 0x150 | - Bad command buffer status                                 |

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ID ..... APP:DLNCM-02  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLN Action Codes

| Code |   | Action                                    |
|------|---|-------------------------------------------|
| 0    | - | Continue with present status              |
| 1    | - | Stop input scanning ring to 1B            |
| 2    | - | Stop output scanning 1B to ring           |
| 3    | - | Stop output scanning both directions      |
| 4    | - | Abort low priority job and clean up       |
| 5    | - | Abort high priority job and clean up      |
| 6    | - | Clean up pointer update order using retry |
| 7    | - | CNIBUF self ptr bad                       |

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ID ..... APP:DLNCM-03  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Communication Errors to CNI

| Code |   | Description                   |
|------|---|-------------------------------|
| -1   | - | Invalid address for msg data  |
| -2   | - | Invalid address for ack msg   |
| -3   | - | Invalid source channel        |
| -4   | - | Channel closed                |
| -5   | - | Unable to send msg to CNI     |
| -6   | - | Timeout waiting for ack msg   |
| -7   | - | Channel not available for use |

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ID ..... APP:DLNCM-04  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLN Map Errors

| Code | Description                                     |
|------|-------------------------------------------------|
| 41   | - Invalid ring node address                     |
| 42   | - Both IMS and CNI states are out of service    |
| 43   | - Tried to restore a DLN that is out of service |
| 44   | - Invalid CNI mode                              |
| 45   | - Invalid IMS / CNI state                       |
| 46   | - Invalid state change                          |
| 47   | - Too many occurrences of same CNI mode         |
| 48   | - There are two active DLNs with same CNI mode  |
| 49   | - No active DLN while there is a standby DLN    |

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ID ..... APP:DLNCM-05  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

1B Data Errors

| Code             | Description                                                                                                                       |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| -10              | - Unable to get device id for 1B stat file                                                                                        |
| -20 through-29   | - Disk read error for 1B stat file to identify why disk read failed, -20 is added to disk read errors in APP:DLNCM-06             |
| -30 through-39   | - Disk read error for 1B disk pident traf3bvt to identify why disk read failed, -30 is added to disk read errors in APP:DLNCM-06  |
| -40              | - Contents of traf3bvt are invalid                                                                                                |
| -50 through-59   | - Disk read error for set 4 in pident traf3bdt to identify why disk read failed, -50 is added to disk read errors in APP:DLNCM-06 |
| -60              | - Set 4 does not exist                                                                                                            |
| -70              | - Retrieved wrong set                                                                                                             |
| -80              | - Temp. buffer needs to be bigger                                                                                                 |
| -90              | - Bad set size                                                                                                                    |
| -100             | - Bad magic number                                                                                                                |
| -110             | - Bad set version                                                                                                                 |
| -120             | - Invalid address for od4numaci                                                                                                   |
| -130 through-139 | - Disk read error for contents of od4numaci to identify why disk read failed, -130 is added to disk read errors in APP:DLNCM-06   |
| -140             | - Bad od4numaci value                                                                                                             |
| -150             | - Invalid address for od4minaci                                                                                                   |
| -160 through-169 | - Disk read error for contents of od4minaci to identify why disk read failed, -160 is added to disk read errors in APP:DLNCM-06   |
| -170             | - Bad od4minaci value                                                                                                             |
| -180             | - Invalid hash head table address                                                                                                 |

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| Code              | Description                                                                                                               |
|-------------------|---------------------------------------------------------------------------------------------------------------------------|
| -190 through -199 | - Disk read error for hash head table to identify why disk read failed, -190 is added to disk read errors in APP:DLNCM-06 |
| -200              | - Cannot read entire hash head table, temp. buffer needs to be bigger                                                     |
| -210              | - No hash blocks found                                                                                                    |
| -220              | - Invalid location for hash data                                                                                          |

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ID ..... APP:DLNCM-06  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Disk Read Errors

| Code | Description                                             |
|------|---------------------------------------------------------|
| -1   | - Number of bytes requested is not a multiple of 64     |
| -2   | - Buffer to read into is in an invalid memory segment   |
| -3   | - Read is beyond physical segment size                  |
| -4   | - Segment not in physical memory                        |
| -5   | - Failed to queue disk request (funct. ioqueuem failed) |
| -6   | - Disk timeout                                          |
| -7   | - Acknowledgement not RTR message                       |
| -8   | - Acknowledgement not IOREAD message                    |
| -9   | - Too many tries                                        |

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ID ..... APP:DLNCM-07  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## APPENDIX 7

### DLN Communication Errors

| Code | Description                               |
|------|-------------------------------------------|
| -1   | - Invalid DLN id                          |
| -2   | - Invalid priority                        |
| -3   | - Invalid cmd buf address                 |
| -4   | - Invalid rsp buf address                 |
| -6   | - Time out waiting for DLN response       |
| -7   | - Not a DLN response                      |
| -8   | - Command buffer is not available for use |

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ID ..... APP:DLNCM-08  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Communication Error to RTR

| Code |   | Description                                      |
|------|---|--------------------------------------------------|
| -1   | - | Failed to queue RTR message, funct. queue failed |
| -2   | - | Timeout waiting for acknowledgment message       |
| -3   | - | Acknowledgment message is not RTR                |

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ID ..... APP:DLNCM-09  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Stop DLN Side of Stream Errors

| Code | Description                                                                                                        |
|------|--------------------------------------------------------------------------------------------------------------------|
| -1   | - Invalid stream direction                                                                                         |
| -2   | - Unable to send DLN map, found a DLN in invalid scan state                                                        |
| -3   | - Unable to send DLN map, remove previous active DLN and make standby DLN new active DLN                           |
| -4   | - Unable to send DLN map, unable to remove new active (old standby) DLN                                            |
| -5   | - Already pumping offline DLN, have no active or standby DLN                                                       |
| -6   | - Unable to send DLN map, make pumped DLN new active DLN                                                           |
| -7   | - Unable to start scan new active (old offline) DLN in opposite direction of stop scan, and unable to send DLN map |
| -8   | - Unable to send DLN map, DLN pumped failed, remove DLN                                                            |
| -9   | - Unable to send DLN map, DLNs failed to stop scanning                                                             |
| -99  | - Duplex fail DLNs                                                                                                 |

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ID ..... APP:DLNCM-10  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Start DLN Side of Stream Errors

| Code | Description                                                                              |
|------|------------------------------------------------------------------------------------------|
| -1   | - Invalid stream direction                                                               |
| -2   | - Unable to send DLN map, found a DLN in invalid scan state                              |
| -3   | - Unable to send DLN map, remove previous active DLN and make standby DLN new active DLN |
| -4   | - Unable to send DLN map, unable to remove new active (old standby) DLN                  |
| -5   | - Already pumping offline DLN, have no active or standby DLN                             |
| -6   | - Unable to send DLN map, make pumped DLN new active DLN                                 |
| -7   | - Unable to send DLN map, DLN pumped failed, remove DLN                                  |
| -8   | - Unable to send DLN map, DLNs failed to stop scanning                                   |
| -99  | - Duplex fail DLNs                                                                       |

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ID ..... APP:DLNCM-11  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

### Pump Abort Codes

| Code | Description                                                                                         |
|------|-----------------------------------------------------------------------------------------------------|
| -2   | - Unable to send DLN D_PUMP D_STRT command, see OP:LOG input message for details                    |
| -3   | - DLN response is not D_PUMP D_STRT_ACK                                                             |
| -4   | - Unable to send DLN D_READ D_STRT command (translation data), see OP:LOG input message for details |
| -5   | - DLN response is not D_READ D_STRT_ACK (translation data)                                          |
| -6   | - Disk read error (hash data), see OP:LOG input message for details                                 |
| -7   | - Unable to send DLN D_READ D_STRT command (hash data), see OP:LOG input message for details        |
| -8   | - DLN response is not D_READ D_STRT_ACK (hash data)                                                 |
| -9   | - Unable to send DLN D_PUMP D_COMP command                                                          |
| -10  | - DLN response is not D_PUMP D_COMP_ACK                                                             |

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ID ..... APP:DLNCM-12  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Stream Category

| Code | Description                        |
|------|------------------------------------|
| 0    | - Unknown stream error             |
| 1    | - Pointer corruption, 3B side      |
| 2    | - Msg corruption, 3B side          |
| 3    | - Buffer overflow, 3B side         |
| 4    | - Pointer corruption, 1B side      |
| 5    | - Msg corruption, 1B side          |
| 6    | - Buffer overflow, 1B side         |
| 7    | - 1B client request                |
| 8    | - 1B initialized CNIBUF            |
| 9    | - Lost comm with 1B                |
| 10   | - Restore comm with 1B             |
| 11   | - 1B phase over                    |
| 12   | - DLN dma error                    |
| 13   | - DLN ring error                   |
| 14   | - DLN low priority internal error  |
| 15   | - DLN med priority internal error  |
| 16   | - DLN high priority internal error |
| 17   | - DLN reformatting error           |
| 18   | - DLN translation error            |
| 19   | - DLN memory error                 |
| 20   | - DLN channel error                |
| 21   | - Excessive DLN errors             |
| 22   | - Excessive stream errors          |

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ID ..... APP:DLNCM-13  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Reason for Stream Action Failures

| Code                   | Description                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| UNABLE TO FLUSH STREAM |                                                                                                                                |
| -1                     | - DLN/stream configuration in progress                                                                                         |
| -10                    | - Invalid stream direction                                                                                                     |
| -20 through-29         | - Unable to stop DLN side of stream. Reason for failure is specified by adding -20 to stop DLN stream errors in APP:DLNCM-09   |
| -30 through-39         | - Unable to stop API side of stream. Reason for failure is specified by adding -30 to stop API stream errors in APP:DLNCM-14   |
| -40                    | - Unable to obtain stream size, segment invalid                                                                                |
| -50 through-59         | - Unable to start DLN side of stream. Reason for failure is specified by adding -50 to start DLN stream errors in APP:DLNCM-10 |
| -60                    | - Duplex fail DLNs and stream not initialized                                                                                  |
| -70 through-79         | - Unable to start API side of stream. Reason for failure is specified by adding -70 to start API stream errors in APP:DLNCM-15 |
| -80                    | - Stream not initialized                                                                                                       |
| UNABLE TO JOLT STREAM  |                                                                                                                                |
| -1                     | - DLN/stream configuration in progress                                                                                         |
| -10                    | - Invalid stream direction                                                                                                     |
| -20 through-29         | - Unable to stop DLN side of stream. Reason for failure is specified by adding -20 to stop DLN stream errors in APP:DLNCM-09   |
| -30 through-39         | - Unable to start DLN side of stream. Reason for failure is specified by adding -30 to start DLN stream errors in APP:DLNCM-10 |
| -99                    | - Duplex fail DLNs                                                                                                             |

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| Code                        | Description                                                                                                                  |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|
| UNABLE TO SWITCH DLNS       |                                                                                                                              |
| -0                          | - DLN/stream configuration in progress                                                                                       |
| -1                          | - No active DLN                                                                                                              |
| -2                          | - No standby DLN                                                                                                             |
| -3                          | - Unable to send DLN map, tried to interchange DLNs                                                                          |
| -4                          | - Unable to send DLN map, new active DLN failed to start scanning                                                            |
| -5                          | - Unable to send DLN map, tried to put map in original state                                                                 |
| -6                          | - Unable to send DLN map, possible duplex fail DLNs                                                                          |
| UNABLE TO STOP STREAM       |                                                                                                                              |
| -1                          | - DLN/stream configuration in progress                                                                                       |
| -10 through-19              | - Unable to stop API side of stream. Reason for failure is specified by adding -10 to stop API stream errors in APP:DLNCM-14 |
| -20 through-29              | - Unable to stop DLN side of stream. Reason for failure is specified by adding -20 to stop DLN stream errors in APP:DLNCM-09 |
| UNABLE TO DUPLEX FAIL DLNS  |                                                                                                                              |
| -1                          | - Either unable to send DLN map to CNI or DLN/stream configuration in progress                                               |
| UNABLE TO REMOVE FAULTY DLN |                                                                                                                              |
| -1                          | - Either unable to send DLN map to CNI or DLN/stream configuration in progress                                               |
| UNABLE TO GROW/FLUSH STREAM |                                                                                                                              |
| -1                          | - DLN/stream configuration in progress                                                                                       |
| -10                         | - Invalid stream direction                                                                                                   |
| -20 through-29              | - Unable to stop DLN side of stream. Reason for failure is specified by adding -20 to stop DLN stream errors in APP:DLNCM-09 |

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| Code                               | Description                                                                                                                    |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| -30 through-39                     | - Unable to stop API side of stream. Reason for failure is specified by adding -30 to stop API stream errors in APP:DLNCM-14   |
| -40                                | - Unable to obtain stream size, segment invalid                                                                                |
| -50 through-59                     | - Unable to start DLN side of stream. Reason for failure is specified by adding -50 to start DLN stream errors in APP:DLNCM-10 |
| -60                                | - Duplex fail DLNs and stream not initialized                                                                                  |
| -70 through-79                     | - Unable to start API side of stream. Reason for failure is specified by adding -70 to start API stream errors in APP:DLNCM-15 |
| -80                                | - Stream not initialized                                                                                                       |
| UNABLE TO UPDATE DLN MAP           |                                                                                                                                |
| -1                                 | - Either unable to send map to CNI or DLN/stream configuration in progress                                                     |
| UNABLE TO START STREAM             |                                                                                                                                |
| -1 through-10                      | - See APP:DLNCM-14                                                                                                             |
| -10 through-19                     | - Unable to start API side of stream. Reason for failure is specified by adding -10 to start API stream errors in APP:DLNCM-15 |
| -20 through-29                     | - Unable to start DLN side of stream. Reason for failure is specified by adding -20 to start DLN stream errors in APP:DLNCM-10 |
| -99                                | - Duplex failed DLNs                                                                                                           |
| UNABLE TO REQUEST DLN AUDIT 1 or 2 |                                                                                                                                |
| -1                                 | - Fail to queue audit request to SIM                                                                                           |
| -2                                 | - Timeout waiting for audit to be dispatched                                                                                   |
| -3                                 | - Unable to start audit task                                                                                                   |
| UNABLE TO INITIALIZE STREAM        |                                                                                                                                |
| -1                                 | - Illegal segment size                                                                                                         |
| -2                                 | - Invalid stream direction                                                                                                     |

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ID ..... APP:DLNCM-14  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Stop API Side of Stream Errors

| Code |   | Description                                             |
|------|---|---------------------------------------------------------|
| -1   | - | Invalid direction                                       |
| -4   | - | Unable to send rtr msg, details in OP:LOG input message |
| -5   | - | Invalid msg type, not DC_REPORT                         |
| -6   | - | Receive stop scan nak                                   |
| -7   | - | Too many tries sending msg                              |

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ID ..... APP:DLNCM-15  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

Start API Side of Stream Errors

| Code |   | Description                                             |
|------|---|---------------------------------------------------------|
| -1   | - | Invalid direction                                       |
| -5   | - | Unable to send rtr msg, details in OP:LOG input message |
| -6   | - | Invalid msg type, not DC_REPORT                         |
| -7   | - | Receive start scan nak                                  |
| -8   | - | Too many tries sending msg                              |

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ID ..... APP:DLNCM-16  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

## APPENDIX 16

### Procedure Names

| Proc. Name | Description                                           |
|------------|-------------------------------------------------------|
| Grow_strm  | - Grow API-DLN stream                                 |
| Init1      | - Initialization 1 (grow stream)                      |
| Init2      | - Initialization 2 (init DLN DMA and get 1B data)     |
| Dlnevent   | - DLN event (configure DLNs)                          |
| Dlnchnng   | - DLN change IMS (hardware) state                     |
| Dlnswitch  | - Switch DLNs                                         |
| Pump       | - Pump DLNs                                           |
| Ringstrt   | - Ring initialization started                         |
| Imsend     | - End of IMS hardware initialization                  |
| Ringend    | - Ring initialization ended                           |
| Trafstrt   | - Traffic start sequence started                      |
| Ready      | - Ready to start traffic                              |
| Audit1     | - DLN audit 1                                         |
| Audit2     | - DLN audit 2                                         |
| Audit3     | - DLN audit 3                                         |
| Rcupdate   | - RC update/DLNCM interface                           |
| Update     | - DLN update/RC                                       |
| Strmfault  | - Stream fault handler                                |
| Strmaction | - Stream action                                       |
| Switch_1A  | - 1B file switch                                      |
| Clock      | - DLNCM internal clock                                |
| Craft      | - Serve craft input request for DLNCM                 |
| Init_traps | - Initialize traps (interface to APDRV trap function) |
| Kill_traps | - Kill traps (interface to APDRV trap function)       |

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ID ..... APP:DLNCM-17  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLN Update Fail Code

| Code | Description                                                                         |
|------|-------------------------------------------------------------------------------------|
| -1   | - Failed to send DLN command D_UPDATE D_STRT (see OP:LOG input message for details) |
| -2   | - Invalid DLN response to D_UPDATE D_STRT command                                   |
| -3   | - Disk read error for entire bink (see OP:LOG input message for details)            |
| -4   | - Invalid block                                                                     |
| -5   | - Disk read error for block of data (see OP:LOG input message for details)          |
| -6   | - Unable to send DLN command D_READ D_STRT (see OP:LOG input message for details)   |
| -7   | - Invalid DLN response to D_READ D_STRT                                             |
| -8   | - Disk read error for hash data (see OP:LOG input message for details)              |
| -9   | - Unable to send DLN command D_READ D_STRT (see OP:LOG input message for details)   |
| -10  | - Invalid DLN response to D_READ D_STRT                                             |
| -11  | - Unable to send DLN command D_UPDATE D_COMP (see OP:LOG input message for details) |
| -12  | - Invalid DLN response to D_UPDATE D_COMP                                           |

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ID ..... APP:DLNCM-18  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

1B File Switch Errors (DLN re-pump errors)

| Code |   | Description                                              |
|------|---|----------------------------------------------------------|
| -1   | - | DLN pump failed                                          |
| -2   | - | DLN pump still in progress                               |
| -3   | - | Either send DLN map failed or unable to get DLN scanning |
| -4   | - | Unable to stop the stream                                |
| -5   | - | DLN pump in unknown state                                |

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ID ..... APP:DLNCM-19  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLNCM States

| Code     | Description                      |
|----------|----------------------------------|
| 0x0      | - DLN idle                       |
| 0x1      | - DLN pump in progress           |
| 0x2      | - DLN pump succeeded             |
| 0x4      | - DLN pump failed                |
| 0x8      | - DLN update in progress         |
| 0x10     | - No updates applied             |
| 0x20     | - DLN update succeeded           |
| 0x40     | - DLN update failed              |
| 0x80     | - DLN audit1 in progress         |
| 0x100    | - DLN audit1 failed              |
| 0x200    | - DLN audit1 succeeded           |
| 0x400    | - DLN audit2 in progress         |
| 0x800    | - DLN audit2 failed              |
| 0x1000   | - DLN audit2 succeeded           |
| 0x2000   | - DLN audit3 in progress         |
| 0x4000   | - DLN audit3 failed              |
| 0x8000   | - DLN audit3 succeeded           |
| 0x10000  | - Audited correction in progress |
| 0x100000 | - DLN is scanning                |

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ID ..... APP:DLNCM-20  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLN ECD Errors

| Code |   | Description                                        |
|------|---|----------------------------------------------------|
| -1   | - | Unable to attach to ECD data base                  |
| -2   | - | Unable to open ecd mdct records for sequencing     |
| -3   | - | Mdct sequence failure                              |
| -4   | - | Failed to get the ucb pointed by the mdct record   |
| -5   | - | U_name must be less than 9 bytes or DLN rna is bad |
| -6   | - | No DLN(s) found in the ECD                         |

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ID ..... APP:DLNCM-21  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLN DMA Initialization Errors

| Code |   | Description                                              |
|------|---|----------------------------------------------------------|
| -1   | - | Unable to get page table physical address of Dln dma buf |
| -2   | - | Unable to get page table physical address of stream      |
| -3   | - | Unable to get page table physical address of Expdevtabl  |

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ID ..... APP:DLNCM-22  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLNCM APPDB DS Error Codes:

| Code | Description                                                                                                                                     |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 101  | Database service did not complete successfully.                                                                                                 |
| 105  | Item to be modified was not located.                                                                                                            |
| 110  | The 10-digit dialed number / ANI could not be added to the database because the hash table was full.                                            |
| 111  | A 10-digit dialed number / ANI could not be added to the database because the 10-digit compaction table was full.                               |
| 116  | The point code sub-system information associated with the dialed digit / ANI could not be added to the database because the NCP table was full. |
| 120  | An object could not be added to the database because it already existed.                                                                        |
| 123  | The dialed digit / ANI being searched for was not found.                                                                                        |
| 124  | The specified NPA-NXX combination was not found.                                                                                                |
| 127  | The point code sub-system information associated with the dialed digit / ANI does not exist.                                                    |
| 141  | File descriptor invalid.                                                                                                                        |
| 143  | An error occurred during an attempted database read.                                                                                            |
| 144  | An error occurred during an attempted database write.                                                                                           |
| 154  | Database inconsistencies have been detected.                                                                                                    |
| 155  | Cached inconsistencies have been detected.                                                                                                      |
| 156  | The ADMINTOC or DBTOC magic number in the specified database is invalid.                                                                        |
| 157  | Invalid database type for this customer.                                                                                                        |
| 160  | Clump number is out of range for specified customer.                                                                                            |
| 176  | All file descriptors are active, none available for assignment.                                                                                 |
| 180  | The NPA-NXX value that is to replace an existing value already exists in the database.                                                          |
| 190  | The specified customer unit is invalid.                                                                                                         |
| 191  | The specified user identification number is invalid.                                                                                            |
| 192  | The specified access mode was something other than read_only or read_write.                                                                     |

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| Code | Description                                                           |
|------|-----------------------------------------------------------------------|
| 193  | The specified customer identification number is invalid.              |
| 194  | The compaction table search chain has exceeded maximum length.        |
| 195  | The dialed digit/ ANI table search chain has exceeded maximum length. |
| 196  | The DLN user buffer address is invalid.                               |

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ID ..... APP:DLNCM-23  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E  
TYPE ..... Output

DLNCM Pappcu Error Codes:

| Code | Description                                 |
|------|---------------------------------------------|
| -1   | Disk read error                             |
| -2   | Unable to send DLN command or time out      |
| -3   | Response is not D_PUMP D_STRT_ACK           |
| -4   | Unable to send command or time out          |
| -5   | Response is not D_READ D_COMP message       |
| -9   | Unable to send DLN command or time out      |
| -10  | Response is not a D_PUMP D_COMP_ACK message |

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ID ..... APP:FAULT-CODE  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### Fault Codes and Definitions

| Code | Comment                                                                                                     |
|------|-------------------------------------------------------------------------------------------------------------|
| 0x00 | No fault (normal).                                                                                          |
| 0xb0 | Disk Independent Operation (DIOP) state is FULL DISK LIMP MODE.                                             |
| 0xb1 | Device reported error for Programmed Input/ Output (PIO) (kernel process only).                             |
| 0xb2 | PIC fault for PIO (kernel process only).                                                                    |
| 0xb3 | Processor fault for PIO (kernel process only).                                                              |
| 0xb4 | Device reported error for Direct Memory Access (DMA) Input/ Output (IO).                                    |
| 0xb5 | DMA addressing fault for DMA IO (kernel process only).                                                      |
| 0xb6 | PIC fault for DMA IO (kernel process only).                                                                 |
| 0xb7 | Processor fault for DMA IO (kernel process only).                                                           |
| 0xb8 | Device reported error - PIO. No message.                                                                    |
| 0xb9 | Peripheral Interface Controller (PIC) implicated - PIO in progress. No message sent with fault.             |
| 0xba | Addressing error - PIO in progress. No message associated with fault.                                       |
| 0xbb | Data being used by the process has non-correctable parity error.                                            |
| 0xbc | Message buffer audit fault for queued error messages.                                                       |
| 0xbd | Message buffer audit fault for non-queued error messages.                                                   |
| 0xbe | DIOP state is DUPLEX.                                                                                       |
| 0xbf | DIOP state is SIMPLEX.                                                                                      |
| 0xc0 | Craft initialization fault.                                                                                 |
| 0xc1 | Recovery switch of processors is complete - sent from pcpeih to SIM to AIM.                                 |
| 0xc2 | Soft switch is complete - sent from pcpeih to SIM.                                                          |
| 0xc3 | Configuration manager initialize request (kernel process only).                                             |
| 0xc4 | Configuration manager remove request (kernel process only).                                                 |
| 0xc5 | Configuration manager remove request (kernel process only).                                                 |
| 0xc6 | Configuration manager limp mode (kernel process only).                                                      |
| 0xc7 | Configuration manager limp mode (kernel process only).                                                      |
| 0xc8 | Configuration manager manual or Automatic Diagnostic Process (ADP) or routine remove (kernel process only). |
| 0xc9 | Unconditional remove (kernel process only).                                                                 |
| 0xca | Request that soft switch be done - sent from pcpsmd to SIM.                                                 |
| 0xcb | Routine soft switch - pcpeih only. Sent from SIM to pcpeih.                                                 |

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Fault Codes and Definitions (continued)

| Code | Comment                                                                    |
|------|----------------------------------------------------------------------------|
| 0xcc | Configuration manager remove under fault conditions (kernel process only). |
| 0xcd | Non-segmented kernel-level audit has been timed out by SIM.                |
| 0xd1 | Memory management - page invalid or not in memory.                         |
| 0xd2 | Memory management - page index too large.                                  |
| 0xd3 | Memory management - segment invalid.                                       |
| 0xd4 | Memory management - segment index too large.                               |
| 0xd5 | Illegal Operating System Trap (OST).                                       |
| 0xd6 | Protection violation.                                                      |
| 0xd7 | Byte or halfword addressing violation.                                     |
| 0xd8 | Instruction privilege violation.                                           |
| 0xd9 | Illegal OP code.                                                           |
| 0xda | Illegal switch between kernel and private stack (or vice versa).           |
| 0xe0 | Phase level - initialization.                                              |
| 0xe1 | System initialization.                                                     |
| 0xe2 | System initialization - critical.                                          |

Fault codes 0xff - 0xf0 and 0x80 - 0x10 are reserved for UNIX® RTR applications.

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ID ..... APP:FMC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

FIELD MAINTENANCE CODES SYNTAX ERROR CODES

| Code | Description                                                                                                     |
|------|-----------------------------------------------------------------------------------------------------------------|
| 1    | Extra keyword(s).                                                                                               |
| 2    | Extra data. - First keyword of the data field.                                                                  |
| 3    | Second keyword of the data field missing.                                                                       |
| 4    | Second keyword of the data field invalid.                                                                       |
| 5    | Missing or invalid data. - Second keyword of the data field.                                                    |
| 6    | Third keyword of the data field missing.                                                                        |
| 7    | Third keyword of the data field invalid.                                                                        |
| 8    | Extra data. - Third keyword of the data field.                                                                  |
| 9    | Missing or invalid data. - Third keyword of the data field.                                                     |
| 10   | Optional keyword of the data field invalid.                                                                     |
| 11   | Extra data. - Optional keyword of the data field.                                                               |
| 12   | Missing or invalid data. - Optional keyword of the data field.                                                  |
| 13   | Missing second line.                                                                                            |
| 14   | Extra line(s).                                                                                                  |
| 1    | PDSOP can't FDOPEN WRFD.                                                                                        |
| 2    | PDSOPRW read error, errno is #x.<br>(System error code number; see System Error Codes Appendix,<br>APP:SYSERR.) |

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ID ..... APP:FUEC  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## FIELD UPDATE ERROR CODES

Field update error messages are categorized into one of the error types:

**Internal** — The error occurred due to incorrect processing within a field update process.

**System** — A system call [for example, `malloc()`, `realloc()`, and `fork()`] failed.

**Database** — The process failed to access or update the field update database (`/etc/bwm/fudb`), the BWM database (`/etc/bwm/bwmdb`), or the System Generation (SG) database.

**Usage** — The process was invoked with incorrect or missing arguments.

**COFF** — Common object file format errors were found.

**Filesys** — Errors occurred in file system functions [for example, `open()`, `close()`, `read()`, `lseek()`, and `fopen()`].

A number may follow the error category as in, for example, `DATABASE ERROR -1`. This error value is simply the value passed to `exit()` upon termination. It will always be non-zero to show the process's parent that an error has occurred.

The error category message is followed by additional information about the error and may contain field update error codes. Error messages of type **System** or **Filesys** sometimes contain their own error codes; the user must refer to the *UNIX® RTR Operating System/Operating System Interfaces Programmer's Manual*, Volume 3, for their meanings.

Error messages of type **Database** generally occur as a result of a function call which accesses or updates the field update database, the BWM database, or the SG database and are printed as Field Update Database Errors (FUDBERRNO or ERRNO). They are described in this appendix.

Error messages specific to the field update DUFR process are also described in this appendix, after the field update database errors.

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Field Update Error Codes

| Code | Explanation                                                                                                |
|------|------------------------------------------------------------------------------------------------------------|
| 1    | UNABLE TO ADD RID 0X%lX to SETID 0X%lX<br>The call to lla library function lla_attrid() failed.            |
| 2    | UNABLE TO ATTACH TO %s<br>The call to lla library function lla_dbatt() failed.                             |
| 3    | UNABLE TO CREATE %s<br>The call to lla library function lla_dbcrte() failed.                               |
| 4    | UNABLE TO RELEASE DATABASE<br>The call to lla library function lla_dbrel() failed.                         |
| 5    | UNABLE TO REMOVE RID 0X%lX FROM SET 0X%lX<br>The call to lla library function lla_delete() failed.         |
| 6    | UNABLE TO DUPLICATE CURSOR<br>The call to lla library function lla_dupsq() failed.                         |
| 7    | UNABLE TO GET RECORD<br>The call to lla library function lla_get() failed.                                 |
| 8    | UNABLE TO GET RID<br>The call to lla library function lla_gtrid() failed.                                  |
| 9    | UNABLE TO GET NEXT RECORD<br>The call to lla library function lla_nextseq() failed.                        |
| 10   | UNABLE TO GET NEXT RID<br>The call to lla library function lla_nsqridd() failed.                           |
| 11   | UNABLE TO GET NUMBER OF SETS CONTAINING RID 0X%lX<br>The call to lla library function lla_numset() failed. |
| 12   | UNABLE TO OPEN SEQUENCE FOR SETID 0X%lX<br>The call to lla library function lla_opensq() failed.           |
| 13   | UNABLE TO OPEN SET SEQUENCING<br>The call to lla library function lla_opnsets() failed.                    |
| 14   | UNABLE TO GET RECORD FOR RID 0X%lX<br>The call to lla library function lla_rdget() failed.                 |

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Field Update Error Codes (continued)

| Code | Explanation                                                                                                |
|------|------------------------------------------------------------------------------------------------------------|
| 15   | UNABLE TO CREATE RECORD FOR SET 0X%lX<br>The call to lla library function lla_reccrt() failed.             |
| 16   | UNABLE TO FIND RECORD INFORMATION FOR RECORD 0X%lX<br>The call to lla library function lla_rinfo() failed. |
| 17   | UNABLE TO REMOVE SET 0X%lX<br>The call to lla library function lla_rmset() failed.                         |
| 18   | UNABLE TO FIND SETS CONTAINING RID 0X%lX<br>The call to lla library function lla_rsets() failed.           |
| 19   | *UNABLE TO GET NEXT SET IDENTIFIER<br>The call to lla library function lla_seqset() failed.                |
| 20   | UNABLE TO CREATE SET<br>The call to lla library function lla_setcrt() failed.                              |
| 21   | UNABLE TO FIND INFORMATION FOR SET 0X%lX<br>The call to lla library function lla_sinfo() failed.           |
| 22   | UNABLE TO CLOSE SEQUENCE<br>The call to lla library function lla_sqcl() failed.                            |
| 23   | UNABLE TO SYNC DISK AND CORE<br>The call to lla library function lla_sync() failed.                        |
| 24   | UNABLE TO ABORT TRANSACTION BLOCKS<br>The call to lla library function tb_abort() failed.                  |
| 25   | UNABLE TO COMMIT TRANSACTION BLOCKS<br>The call to lla library function tb_commit() failed.                |
| 26   | UNABLE TO PUMP CHANGES FOR %s<br>The call to lla library function tb_cleanup() failed.                     |
| 27   | UNABLE TO GET SPACE INFORMATION<br>The call to lla library function tb_get_sp() failed.                    |
| 28   | UNABLE TO UPDATE RID 0X%lX<br>The call to lla library function lla_uprid() failed.                         |

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Field Update Error Codes (continued)

| Code | Explanation                                                                                                                                                                                                            |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29   | Attempt to continue with no pending BWM<br>An update process must be in a pending temp state before CONT can be used to continue an operation.                                                                         |
| 30   | Cannot find record for %s<br>No record exists for the update.                                                                                                                                                          |
| 31   | Do not recognize action (%d)<br>An attempt was made to perform some action that is not known to field update.                                                                                                          |
| 32   | *Head of queue (0x%lx) does not match pending (0x%lx)<br>There is a mismatch between the head of the queue and the pending update.                                                                                     |
| 33   | For %s, expected status (%s) does not match status (%s)<br>There is a mismatch between the status of update files.                                                                                                     |
| 34   | Cannot perform action when BWM is pending<br>A BWM is in a pending state and the user is still trying to perform updates. The user should perform an APPLY:CONT, BKOUT:CONT, RESET, or OMIT before doing more updates. |
| 35   | BWM is out of order<br>An attempt was made to update a BWM with a lower number than one that has already been updated. BWMs must be applied in increasing numerical order.                                             |
| 36   | Attempt to apply official BWM<br>The user is trying to update a BWM that has already been PERMED.                                                                                                                      |
| 37   | %s exists and is not the last BWM applied<br>When backing out BWMs, the last one applied has to be the first one backed out.                                                                                           |
| 38   | Cannot %s a BWM which is not temporary<br>A BWM has to be in a temporary state before it can be PERMED.                                                                                                                |
| 39   | *Expecting RID 0x%lx for %s to be in queue<br>The record ID for a particular record cannot be found in the queue.                                                                                                      |
| 40   | Cannot back out a PENDOFC BWM with no omitted updates<br>If a BWM is in a pending official state, the user will have to do an OMIT in order to get it out of that state.                                               |

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Field Update Error Codes (continued)

| Code | Explanation                                                                                                                                                                                                                           |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 41   | For %s, expected status %s or %s does not match %s<br>There is a mismatch between the status of two or more update files.                                                                                                             |
| 42   | *Set 0x%lx has wrong set count (%d)<br>The count is incorrect for a particular set.                                                                                                                                                   |
| 43   | *Record 0x%lx is in %d sets<br>The number of sets an update record is in.                                                                                                                                                             |
| 44   | Expecting a pending update but found none<br>If the user is trying to do an APPLY:CONT, BKOUT:CONT, OMIT, or RESET, the process expects the update to be in a pending state.                                                          |
| 45   | *Pending update RID 0x%lx not in queue<br>The pending update record is not on the queue.                                                                                                                                              |
| 46   | Do not recognize operation %d<br>There user is attempting to do an operation that is not in the MSGS file.                                                                                                                            |
| 47   | Cannot reset an update which is not pending<br>An update must be in a pending state for a RESET to work.                                                                                                                              |
| 48   | Unknown release action (%d)<br>The specified generic is not valid.                                                                                                                                                                    |
| 49   | Update for %s is not a function replacement<br>Most likely, the user is using the wrong MSGS file. The commands in the MSGS file are for function replacement when the update may actually be a file replacement or byte replacement. |
| 50   | Update set 0x%lx for %s does not match saved set (0x%lx)<br>There is a mismatch between the current set and saved set of the update.                                                                                                  |
| 51   | Must pass non-NULL BWM buffer to updget<br>The buffer passed to the call to function updget ( ) must contain data.                                                                                                                    |
| 52   | Incompatible database versions: %d vs. %d<br>The correct version of the database is not being used.                                                                                                                                   |
| 53   | BWM name (%s) does not match that of update (%s)<br>A mismatch between BWM names occurred.                                                                                                                                            |

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Field Update Error Codes (continued)

| Code | Explanation                                                                                                                                                                                 |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 54   | %s cannot be made official before %s<br>The record the user is trying to make official is out of order.                                                                                     |
| 55   | For %s, expecting update record for %s<br>The process expects a record of the update.                                                                                                       |
| 56   | Could not malloc space for reclaimable RIDs<br>The system call <code>malloc()</code> failed.                                                                                                |
| 57   | Unexpected end of sequence for reclaimable loop<br>RECLAIM processing ended before it should have ended.                                                                                    |
| 58   | UNABLE TO REFRESH<br>The call to lla library function <code>tb_refresh()</code> failed.                                                                                                     |
| 59   | Could not attach to port for %s<br>The process failed to attach to the proper port. Most likely, another process (perhaps another instance of the same process) has already attached to it. |
| 60   | Inconsistent attaches to update databases<br>The process did not attach to the field update database correctly.                                                                             |
| 61   | Basedir %s does not match record %s<br>There is a mismatch between the user's base directory and the record being updated.                                                                  |
| 62   | Unknown status: %s<br>The state of the BWM is not known (examples of known states are PENDOFC, PENDBKOUT, etc.).                                                                            |
| 63   | Unknown type: %s<br>The type of the BWM is not known (examples of known types are FILER, FUNCN, BYTER, DMRT, ADMRT, and BOOTBOTH).                                                          |
| 64   | CANNOT ATTACH TO %s<br>The process failed to attach to the database.                                                                                                                        |
| 65   | CANNOT RELEASE %s<br>The process failed to release the database.                                                                                                                            |

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Field Update Error Codes (continued)

| Code | Explanation                                                                                                                                                              |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 66   | RID %x IS IN TOO MANY SETS (%d)<br>The return value from lla library function lla_numset( ) was greater than 3.                                                          |
| 67   | CANNOT PURGE %s: STILL {HAS UNRECLAIMED UPDATES   TEMPORARY}<br>An attempt was made to purge a BWM which still has unreclaimed updates or is still in a temporary state. |
| 68   | UNKNOWN NAME FOR RID %x<br>The database does not have a name for the RID.                                                                                                |
| 69   | NO UPDATE PENDING<br>An attempt was made to omit a field update which was not in a pending state.                                                                        |
| 70   | BWM PENDING<br>An attempt was made to omit a BWM which was in the pending reclaim state.                                                                                 |
| 71   | CANNOT CONDENSE RECLAIMED RECORDS FOR %s<br>The call to function condrecl() failed.                                                                                      |
| 72   | NO BWM PENDING<br>An attempt was made to omit a BWM which was not in a pending state (pending temp, pending bkout, or pending ofc).                                      |
| 73   | UNKNOWN STATE (%d) FOR %s<br>The BWM was found to be in an unknown state in the database.                                                                                |
| 74   | UNABLE TO PERM BWM RECORD FOR %s<br>In trying to omit the BWM, the perm_bwm( ) function failed.                                                                          |

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Field Update Warning/Error Codes for DUFR

| Code | Explanation                                                                                                             |
|------|-------------------------------------------------------------------------------------------------------------------------|
| -4   | Warning that the segment names have been cleared.                                                                       |
| -2   | Warning that the attached data segment is named.                                                                        |
| 2    | Bad return from the Kernel Overwrite Process (KOP).                                                                     |
| 4    | Error in opening or reading the update file, or error in the update file format.                                        |
| 6    | Too many segments need attaching in order to perform update.                                                            |
| 8    | Could not grow patch segment.                                                                                           |
| 10   | Error in attempting to attach segments to dufr process.                                                                 |
| 12   | Mismatch between old data in update file and core data.                                                                 |
| 14   | Too many address-data couplets.                                                                                         |
| 16   | dufr internal error.                                                                                                    |
| 18   | Error in detaching segments from dufr.                                                                                  |
| 20   | Overwrite attempts to reference address that is not in process's address space.                                         |
| 22   | Address of transfer vector or address-data overwrite not aligned on a full word boundary.                               |
| 24   | Error in obtaining process IDs from utility manager.                                                                    |
| 26   | Error in processing overwrite for multiple invocations of process, although at least one process was updated correctly. |
| 28   | Error in p_creating kopf process.                                                                                       |
| 30   | kopf did not send kopf-init event to KOP.                                                                               |
| 32   | kopf and KOP faulted; overwrite was backed out.                                                                         |
| 34   | KOP process faulted; neither an overwrite nor a backout was performed.                                                  |
| 36   | dufr process faulted.                                                                                                   |
| 38   | dufr process externally terminated.                                                                                     |
| 40   | Invalid message for dufr process.                                                                                       |
| 42   | dufr process segment name clear failed for system reasons.                                                              |
| 44   | dufr process target process died (for KPUPDATE).                                                                        |

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ID ..... APP:IOP-A  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## IODRV JOB COMPLETION ERROR CODES

Job completion reports have the same format as commands except for the addition of a completion code field.

For Peripheral Interface Controller (PIC) reports the completion field size is 16 bits.

For Peripheral Controller (PC) and Peripheral Controller Subdevice (PCSD) reports the completion field size is 12 bits.

**NOTE:** The codes are in hexadecimal.

| Errors reported by the PC or PCSD (rejected commands) |                                                              |
|-------------------------------------------------------|--------------------------------------------------------------|
| Code                                                  | Description                                                  |
| 0000                                                  | Successful completion.                                       |
| 0001                                                  | Successful completion - recoverable errors.                  |
| 0002                                                  | Job aborted - unrecoverable errors.                          |
| 0003                                                  | Job rejected - illegal command format.                       |
| 0004                                                  | Job rejected - illegal command context codes 05-0f reserved. |

| Errors reported by the PC (rejected commands) |                                                                                  |
|-----------------------------------------------|----------------------------------------------------------------------------------|
| Code                                          | Description                                                                      |
| 0010                                          | PC XMT buffer underflow.                                                         |
| 0011                                          | PC RCV buffer overflow.                                                          |
| 0012                                          | PC RCV queue underflow (asynch report), codes 14-1f reserved; codes 20-ef spare. |

| Errors reported by the PIC (rejected commands) |                                   |
|------------------------------------------------|-----------------------------------|
| Code                                           | Description                       |
| 00f0                                           | PC dequeue full.                  |
| 00f1                                           | PC out-of-service.                |
| 00f2                                           | PC DAM error - CSA timeout.       |
| 00f3                                           | PC DAM error - data parity error. |

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| Errors reported by the PIC (asynchronous reports) |                                                                           |
|---------------------------------------------------|---------------------------------------------------------------------------|
| Code                                              | Description                                                               |
| 00f5                                              | BP resp queue overflow.                                                   |
| 00f6                                              | PC community power failure.                                               |
| aaf7                                              | PC error detected by the PIC: (aa = PC error type); codes f8-ff reserved. |

PC errors detected by the PIC (asynchronous reports - aaf7 format):

Upon detection of a PC error, the PIC will isolate the faulty PC from the common community busses, mark the PC out-of-service, flush all outstanding requests for PIC service by the faulty PC, and issue a HP autonomous error report to the driver. The completion report field includes one of the error types:

|        |                                 |
|--------|---------------------------------|
| CSA    | — Control Signal Acknowledgment |
| DAM    | — Dual Access Memory            |
| ER     | — Error Report                  |
| IR     | — Interrupt Request             |
| LD/ULD | — Load / unload                 |
| SR     | — Service Request               |

| PC errors detected by the PIC (asynchronous reports - aaf7 format) |                                                                  |
|--------------------------------------------------------------------|------------------------------------------------------------------|
| Code                                                               | Description                                                      |
| 01f7                                                               | PC ER lead set.                                                  |
| 02f7                                                               | Spare IR status bit set.                                         |
| 03f7                                                               | Spare SR status bit set.                                         |
| 04f7                                                               | Illegal test IR received.                                        |
| 05f7                                                               | Illegal test SR received.                                        |
| 06f7                                                               | Illegal test ER received.                                        |
| 10f7                                                               | PC DAM parity error detected.                                    |
| 11f7                                                               | PC CSA timed-out.                                                |
| 12f7                                                               | 3B transfer for PC job aborted.                                  |
| 20f7                                                               | Illegal LD / ULD buffer IR parameter: Illegal PCSD ID.           |
| 21f7                                                               | Illegal LD / ULD buffer IR parameter: Illegal byte count.        |
| 22f7                                                               | Illegal LD / ULD buffer IR parameter: Illegal LD / ULD pointer.  |
| 23f7                                                               | Illegal LD / ULD buffer IR parameter: Illegal buffer boundaries. |

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PC errors detected by the PIC (asynchronous reports - aaf7 format) (continued)

| Code | Description                                                    |
|------|----------------------------------------------------------------|
| 30f7 | Illegal LD/ULD buffer SR parameter: Illegal PCSD ID.           |
| 31f7 | Illegal LD/ULD buffer SR parameter: Illegal byte count.        |
| 32f7 | Illegal LD/ULD buffer SR parameter: Illegal LD/ULD pointer.    |
| 33f7 | Illegal LD/ULD buffer SR parameter: Illegal buffer boundaries. |
| 40f7 | Error detected during HP job order: Boundary error.            |
| 41f7 | Error detected during HP job order: ULD PTR OOR.               |
| 42f7 | Error detected during HP job order: LD PTR OOR.                |
| 43f7 | Error detected during HP job order: PC job PTR OOR.            |
| 50f7 | Error detected during BP job order: Boundary error.            |
| 51f7 | Error detected during BP job order: ULD PTR OOR.               |
| 52f7 | Error detected during BP job order: LD PTR OOR.                |
| 53f7 | Error detected during BP job order: PC job PTR OOR.            |
| 60f7 | Error detected during HP job compl: Boundary error.            |
| 61f7 | Error detected during HP job compl: ULD PTR OOR.               |
| 62f7 | Error detected during HP job compl: LD PTR OOR.                |
| 63f7 | Error detected during HP job compl: PC job PTR OOR.            |
| 70f7 | Error detected during BP job compl: Boundary error.            |
| 71f7 | Error detected during BP job compl: ULD PTR OOR.               |
| 72f7 | Error detected during BP job compl: LD PTR OOR.                |
| 73f7 | Error detected during BP job compl: PC job PTR OOR.            |
| 80f7 | Illegal HP job cmp report: Illegal response destination field. |
| 81f7 | Illegal HP job cmp report: Illegal PC ID field.                |
| 82f7 | Illegal HP job cmp report: Illegal PCSD ID field.              |
| 90f7 | Illegal BP job cmp report: Illegal response destination field. |
| 91f7 | Illegal BP job cmp report: Illegal PC ID field.                |
| 92f7 | Illegal BP job cmp report: Illegal PCSD ID field.              |
| a0f7 | Babbling PC IR signal.                                         |
| a1f7 | Babbling PC SR signal.                                         |

PC and PCSD reported errors (device dependent)

TTY or MTTY (PCSD)

| Code | Description                                                                                        |
|------|----------------------------------------------------------------------------------------------------|
| 0003 | Invalid command type or maint access command without 4 control bits properly set (invalid format). |
| 0011 | Input buffer overflow.                                                                             |
| 0013 | Command other than RST or RMV with PCSD out-of-service.                                            |
| 0020 | Job terminated by quit, interrupt, or break.                                                       |
| 0021 | Job aborted by disconnect or flush.                                                                |
| 0022 | High priority message too long for job.                                                            |

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| TTYC or MTTY (PC) |                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------|
| Code              | Description                                                                                                         |
| 0003              | Invalid command type or maint access command without 4 control bits properly set (invalid format).                  |
| 0006              | Checksum error (PC pump).                                                                                           |
| 0009              | PC pump file (i.e., /iop/pccode/t98300xx) issue does not match the micro code issue of the PC (TN983) circuit pack. |

| MT (PCSD) |                                  |
|-----------|----------------------------------|
| Code      | Description                      |
| 0100      | Tape unit write protected.       |
| 0200      | End of physical tape.            |
| 0300      | Subdevice off-line.              |
| 0400      | Timeout error.                   |
| 0500      | Reached end of file during read. |

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ID ..... APP:IOP-B  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

DSCH STATUS LAYOUT (CHANNEL)

| Bit | Description                              |
|-----|------------------------------------------|
| 00  | High 3 bits of low return code.          |
| 01  | High 3 bits of low return code.          |
| 02  | High 3 bits of low return code.          |
| 03  | High 3 bits of high return code.         |
| 04  | High 3 bits of high return code.         |
| 05  | High 3 bits of high return code.         |
| 06  | Channel busy f-f.                        |
| 07  | Input/Output (I/O) inhibit override f-f. |
| 08  | Sequencer error.                         |
| 09  | Illegal 3 out of 6 device address.       |
| 10  | Command error.                           |
| 11  | Channel error (or of previous command).  |
| 12  | Maintenance f-f.                         |

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ID ..... APP:IOP-C  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

# BIC STATUS LAYOUT

| Bit | Description                                                |
|-----|------------------------------------------------------------|
| 00  | Unit address.                                              |
| 01  | Unit address.                                              |
| 02  | Unit address.                                              |
| 03  | Unit address.                                              |
| 04  | Direct Memory Access (DMA) setup overwrite.                |
| 05  | Peripheral Bus Interface (PBI) parity error 0.             |
| 06  | PBI parity error 1.                                        |
| 07  | PBI parity error 2.                                        |
| 08  | PBI parity error 3.                                        |
| 09  | EOD error.                                                 |
| 10  | Peripheral Interface Controller (PIC) fatal error summary. |
| 11  | Sanity error.                                              |
| 12  | PIC data bus parity error lo.                              |
| 13  | PIC data bus parity error hi.                              |
| 14  | Data First-In First-Out (FIFO) overflow.                   |
| 15  | Command register overflow.                                 |
| 16  | FIFO word count.                                           |
| 17  | FIFO word count.                                           |
| 18  | FIFO word count.                                           |
| 19  | FIFO word count.                                           |
| 20  | FIFO word count.                                           |
| 21  | Interrupt.                                                 |
| 22  | Transfer.                                                  |
| 23  | Setup.                                                     |
| 24  | EOD expected.                                              |
| 25  | EOD received.                                              |
| 26  | Transfer mode (0=WRD, 1=BLK).                              |
| 27  | Enable PIC data bus parity check.                          |
| 28  | Interface enable.                                          |
| 29  | Data flag.                                                 |
| 30  | Command In Progress (CIP).                                 |
| 31  | Command flag.                                              |

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ID ..... APP:IOP-D  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

D2SBS STATUS LAYOUT

| Bit | Description               |
|-----|---------------------------|
| 00  | Device reported error.    |
| 01  | Overflow error.           |
| 02  | Sequencer error.          |
| 03  | Illegal D2SBS command.    |
| 04  | Maintenance f-f.          |
| 05  | Device interrupt request. |
| 06  | Device setup request.     |
| 07  | Device transfer request.  |

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ID ..... APP:IOP-E  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

# FAULT CODES RECOGNIZED BY IODRV

**NOTE:** The codes are in hexadecimal.

| No Fault                                      |                                                                                     |
|-----------------------------------------------|-------------------------------------------------------------------------------------|
| Bit                                           | Description                                                                         |
| 00                                            | No fault (normal).                                                                  |
| Peripheral faults - with accompanying message |                                                                                     |
| Bit                                           | Description                                                                         |
| b1                                            | Device reported error, IOPn (PIC or PCm) implicated, IOPn had pio in progress.      |
| b2                                            | Parity divert error, IOPn (PIC) implicated, IOPn had pio in progress.               |
| b3                                            | Channel error, IOPn not implicated but possibly affected, IOPn had pio in progress. |
| b4                                            | Device reported error, IOPn (PIC or PCm) implicated.                                |
| b5                                            | DMA addressing error, IOPn (PIC or PCm) implicated.                                 |
| b6                                            | DMA used OOR address, IOPn (PIC) implicated.                                        |
| b7                                            | Channel error, IOPn not implicated but possibly affected.                           |
| Peripheral faults - no accompanying message   |                                                                                     |
| Bit                                           | Description                                                                         |
| b8                                            | Device reported error, cannot identify unit.                                        |
| b9                                            | Parity divert error, cannot identify unit.                                          |
| ba                                            | Addressing error, cannot identify unit.                                             |
| Message buffer audit faults                   |                                                                                     |
| Bit                                           | Description                                                                         |
| bc                                            | Old or new queued audit messages (with accompanying message).                       |
| bd                                            | Old non-queued audit messages (no accompanying message).                            |

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Configuration manager fault codes - with accompanying message

| Bit | Description                                                          |
|-----|----------------------------------------------------------------------|
| c3  | Config. manager, excessive recoverable errors.                       |
| c4  | Config. manager remove directive, excessive errors.                  |
| c5  | Config. manager remove request, attempt restoral of oos usable unit. |
| c6  | Config. manager limp mode, attempt restoral of oos unusable unit.    |
| c7  | Config. manager limp mode, no replacement avail.                     |
| c8  | Config. manager manual remove.                                       |
| c9  | Unconditional remove, not used by IODRV.                             |

Not seen by IODRV - no accompanying message

| Bit | Description                       |
|-----|-----------------------------------|
| cb  | Routine soft switch, pcpeih only. |

Software errors - no accompanying message

| Bit | Description                                       |
|-----|---------------------------------------------------|
| d1  | Memory management, page invalid or not in memory. |
| d2  | Memory management, page index too large.          |
| d3  | Memory management, segment invalid.               |
| d4  | Memory management, segment index too large.       |
| d5  | Illegal ost (from kernel).                        |
| d6  | Protection violation.                             |
| d7  | Byte or halfword addressing violation.            |
| d8  | Instruction privilege violation.                  |
| d9  | Illegal op code.                                  |

System initialization - no accompanying messages

| Bit | Description                                                      |
|-----|------------------------------------------------------------------|
| e1  | Substantial system recovery has occurred IOPn might be affected. |
| e2  | System initialization - critical.                                |

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ID ..... APP:IOP-F  
WORK CENTER.. MOC  
GENERIC ..... 4AP17 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## ERROR CODES GENERATED BY IODRV

**NOTE:** These error codes are in hexadecimal notation.

### IODRV

| FUNCTION    | CODE | COMMENT                                                 |
|-------------|------|---------------------------------------------------------|
| iointr.c    | 0100 | Cannot convert iorid to ucblp.                          |
| iointr.c    | 0101 | Report error has exceeded the acceptable error count.   |
| iointr.c    | 0102 | Cannot reset interrupt flag in BIC.                     |
| iointr.c    | 0104 | PIC passed out of range load printer.                   |
| iointr.c    | 0106 | Failed to sense D2SBS status.                           |
| iointr.c    | 0107 | D2SBS status off-normal.                                |
| em_iointr.c | 0108 | Error encountered getting response from response queue. |
| procrsp.c   | 0200 | Base priority queue overflow.                           |
| procrsp.c   | 0300 | Cannot convert iorid to ucblp.                          |
| procrsp.c   | 0301 | Unknown response received.                              |
| procrsp.c   | 0304 | PC audit response failure.                              |
| procrsp.c   | 0400 | Cannot convert iorid to ucblp.                          |
| procrsp.c   | 0401 | Unknown response received.                              |
| kost.c      | 0501 | OST is invalid for this dev.                            |
| kost.c      | 0504 | Extraneous OST.                                         |
| kost.c      | 0505 | Cannot map ldin to UCB(s).                              |
| servr2.c    | 0600 | Cannot convert iorid to ucblp.                          |
| servr2.c    | 0640 | Failed to get PCSD's UCB.                               |
| servr2.c    | 0641 | downucb( ) failed for PCSDs.                            |
| servr2.c    | 0642 | Cannot get PC's UCB.                                    |
| servr2.c    | 0643 | downucb( ) failed to get PC's UCB.                      |
| servr2.c    | 0644 | Failed to get IOP's UCB.                                |
| servr2.c    | 0645 | Link to device handler failed.                          |
| servr2.c    | 0646 | Link to device handler failed.                          |
| servr2.c    | 0670 | Failed to get PCSD's UCB.                               |
| servr2.c    | 0671 | downucb( ) failed for PCSDs.                            |

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| FUNCTION  | CODE | COMMENT (continued)                                           |
|-----------|------|---------------------------------------------------------------|
| servr2.c  | 0672 | Cannot get PC's UCB.                                          |
| servr2.c  | 0673 | downucb ( ) failed to get PC's UCB.                           |
| servr2.c  | 0674 | Failed to get IOP's UCB.                                      |
| servr2.c  | 0677 | Cannot get IOP/PC's UCB.                                      |
| procrsp.c | 0711 | Encountered idle response queue entry.                        |
| procrsp.c | 0712 | Response queue load pointer out of range.                     |
| isc.c     | 0740 | isalloc failure - align argument out of acceptable range.     |
| isc.c     | 0741 | isalloc failure - user requested more than segment of space.  |
| isc.c     | 0742 | isalloc failure - iolockseg failed.                           |
| isc.c     | 0743 | isalloc failure - no requester nodes available.               |
| isc.c     | 0744 | isalloc error - isalign could not find growable element.      |
| isc.c     | 0748 | isalloc failure - IMF add message could not be sent to MMGR.  |
| isc.c     | 0749 | isalloc failure - IMF grow message could not be sent to MMGR. |
| isc.c     | 074a | isalloc failure - IMF add message could not be sent to MMGR.  |
| isc.c     | 0750 | isc problem - MSACK from MMGR indicates add failed.           |
| isc.c     | 0751 | isc failure - grow retry failed.                              |
| isc.c     | 0752 | isc failure - isimfretry could not find growable element.     |
| isc.c     | 0758 | isc failure - normal grow request failed.                     |
| isc.c     | 0759 | isc failure - retry grow request for single user failed.      |
| isc.c     | 075a | isc failure - degrow request failed.                          |
| isc.c     | 075b | isc failure - grow of unidentifiable type failed.             |
| isc.c     | 075c | isalloc failure - iolockseg failed.                           |
| isc.c     | 0760 | isc problem - IMF could not send remove message to MMGR.      |
| isc.c     | 0761 | isc problem - IMF could not send degrow message to MMGR.      |
| isc.c     | 0768 | iscanreq failure - invalid cancellation identifier.           |
| isc.c     | 0769 | iscanreq failure - invalid cancellation identifier (o).       |
| isc.c     | 0770 | isfree problem - attempt to unlock failed.                    |
| isc.c     | 0771 | isfree failure - invalid security identifier.                 |
| isc.c     | 0772 | isfree failure - invalid user area address.                   |

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| FUNCTION | CODE | COMMENT (continued)                                                |
|----------|------|--------------------------------------------------------------------|
| isc.c    | 077a | isunlk failure - imf could not decrement lock count.               |
| isc.c    | 077b | isunlk warning - block unlocked but iounlkseg not invoked.         |
| isc.c    | 077c | isunlk failure - invalid security identifier.                      |
| isc.c    | 077d | isunlk failure - invalid user area address.                        |
| isc.c    | 077e | isc problem - no growable free space element in segment.           |
| smc.c    | 0780 | smalloc failure - SMID length argument exceeds maximum.            |
| smc.c    | 0781 | smalloc failure - invalid alignment boundary argument.             |
| smc.c    | 0782 | smalloc failure - block length argument exceeds allocated size.    |
| smc.c    | 0783 | smalloc failure - alignment argument differs from allocated block. |
| smc.c    | 0784 | smalloc failure - no requester nodes available.                    |
| smc.c    | 0785 | smalloc failure - block length argument exceeds size requested.    |
| smc.c    | 0786 | smalloc failure - no shared memory block request nodes available.  |
| smc.c    | 0787 | smalloc failure - no requester nodes available.                    |
| smc.c    | 0788 | smalloc failure - ISC allocation failed.                           |
| smc.c    | 0789 | smalloc error - rqip node not found.                               |
| smc.c    | 078a | smalloc failure - ISC allocation failed.                           |
| smc.c    | 0790 | smcanreq failed - invalid cancel request identifier.               |
| smc.c    | 0791 | smcanreq failed - invalid shared memory identifier.                |
| smc.c    | 0792 | smcanreq failed - zero is invalid cancel request identifier.       |
| smc.c    | 0798 | smfree failed - invalid shared memory block address.               |
| smc.c    | 0799 | smfree failed - invalid security identifier.                       |
| cfr.c    | 07c0 | cfread failure - no requester nodes available.                     |
| cfr.c    | 07c1 | cfread failure - no file request nodes available.                  |
| cfr.c    | 07c2 | cfread failure - no requester nodes available.                     |
| cfr.c    | 07c8 | cfread failure - unable to open file.                              |
| cfr.c    | 07d0 | cfread failure - isalloc unsuccessful.                             |
| cfr.c    | 07d1 | cfread abort by cfreadbuf - no requesters or invalid state.        |
| cfr.c    | 07d8 | cfread - iounlk failed in cfreadack.                               |
| cfr.c    | 07d9 | cfread failure - FMGR message acknowledgement has bad status.      |
| cfr.c    | 07da | cfread - no file request node found for read acknowledgement.      |

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| FUNCTION   | CODE | COMMENT (continued)                                                                                                                                                 |
|------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cfr.c      | 07e0 | cfread failure - FMGR message retry threshold exceeded.                                                                                                             |
| cfr.c      | 07e4 | cfread failure - RQIP node with timeout tag not found.                                                                                                              |
| cfr.c      | 07e8 | cfcanreq error - invalid cancel request identifier.                                                                                                                 |
| cfr.c      | 07e9 | cfcanreq error - file not found.                                                                                                                                    |
| cfr.c      | 07ea | cfcanreq error - invalid cancel request identifier.                                                                                                                 |
| cfr.c      | 07f0 | cffree - freeing file with negative use count.                                                                                                                      |
| cfr.c      | 07f1 | cffree error - invalid security identifier.                                                                                                                         |
| cfr.c      | 07f2 | cffree error - invalid address.                                                                                                                                     |
| cfr.c      | 07f3 | cfaunlock( ) - freeing file with negative use count.                                                                                                                |
| cfr.c      | 07f8 | cfread failure - message buffer overflow.                                                                                                                           |
| cfr.c      | 07f9 | cfread failure - timer request unsuccessful.                                                                                                                        |
| cfr.c      | 07fa | cfread failure - message buffer overflow.                                                                                                                           |
| cfr.c      | 07fb | cfread failure - timer request unsuccessful.                                                                                                                        |
| cfr.c      | 07fc | cfread failure - kgetsgn call unsuccessful.                                                                                                                         |
| cfr.c      | 07fd | cfread - queuemn for close message to FMGR unsuccessful.                                                                                                            |
| cfr.c      | 07fe | cfread - buffer allocation failure for close message.                                                                                                               |
| faultaud.c | 0802 | No handler to process message audit. Format of additional string information is defined as: UNIT a b a = A string for device name. b = A decimal for device number. |
| ioevnt.c   | 0803 | Invalid message type.                                                                                                                                               |
| ioevnt.c   | 0804 | Msg doesn't contain an iorid.                                                                                                                                       |
| ioevnt.c   | 0805 | Msg doesn't contain an iorid.                                                                                                                                       |
| ioevnt.c   | 0806 | IOMESG msg doesn't contain an iorid.                                                                                                                                |
| ioevnt.c   | 0808 | Cannot link msg to device handler.                                                                                                                                  |
| ioevnt.c   | 0809 | Cannot link msg to maint handler.                                                                                                                                   |
| ioevnt.c   | 080a | Unknown message type.                                                                                                                                               |
| ioevnt.c   | 080b | Cannot link msg to device handler.                                                                                                                                  |
| ioevnt.c   | 080c | IODRV both send and receiver of message (not USRACK).                                                                                                               |
| ioevnt.c   | 0810 | Not a pointer in driver's data space.                                                                                                                               |
| ioevnt.c   | 0813 | Cannot link message to Transport Protocol Handler.                                                                                                                  |
| ioevnt.c   | 0814 | Failed to get UCB record for sub-device.                                                                                                                            |
| ioevnt.c   | 0815 | Failed to get UCB record for controller.                                                                                                                            |
| ioevnt.c   | 0816 | Invalid controller for BREAK signal.                                                                                                                                |
| ioevnt.c   | 0817 | Cannot link message to CIH handler.                                                                                                                                 |
| faultaud.c | 0828 | lkhand1( ) returned ENOHAND.                                                                                                                                        |
| faultaud.c | 0829 | Cannot map to a UCB.                                                                                                                                                |
| faultaud.c | 082a | Invalid input option.                                                                                                                                               |
| faultaud.c | 0830 | USRACK expected in system returned message.                                                                                                                         |

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| FUNCTION   | CODE | COMMENT (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| faultaud.c | 0831 | lkhand1() returned ENOHAND.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| faultaud.c | 0832 | lkhand1() returned ENOHAND.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| faultaud.c | 0833 | lkhand1() returned ENOHAND.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| procmsg.c  | 0901 | RID cannot map to a UCB. Format of additional string information is defined as: a b c d a = Message sender's process number in hexadecimal. b = '0' indicates item in c is a MDCT RID '1' indicates that to be a UCB RID. c = UCB PID or MDCT RID in hexadecimal. d = Message sender's utility id in hexadecimal.<br>To get a full copy of the UCB or MDCT, use browse procedures: ">" is the browse prompt, after it is the operator input.<br>The line previous to the input line is response from browse. Comments enclosed are not part of the input/response. >browse %-ecd /* Enter database name for browse */ %-ecd /* browse acknowledgement */ >dd /usr/bin/ecd_aux /* Enter data dictionary look up */ /usr/bin/ecd_aux /* browse acknowledgement */ >0x496a0/r /* dump record with RID of 0x496a0 */ ..... content of the record ..... >q /* quit after dump completion */ |
| procmsg.c  | 0902 | Invalid input option (not CVTRID or CVTLIDIN).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| procmsg.c  | 0905 | Cannot link msg to maint handler.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| procmsg.c  | 0906 | Cannot link msg to device handler.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| procmsg.c  | 0a01 | Cannot map RID to UCB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| procmsg.c  | 0a06 | Cannot link msg to device handler.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| updf1sh.c  | 0b00 | PCn Flash programming - timed out - mark PC community in service.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| updf1sh.c  | 0b01 | PCn Flash programming - timed out - clear PC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| updf1sh.c  | 0b02 | PCn Flash programming - timed out - reset PC isolate flip-flop and mark in service.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| updf1sh.c  | 0b03 | PCn Flash programming - timed out - read PC scan back.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| updf1sh.c  | 0b04 | PCn Flash programming - timed out - pump PC code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| updf1sh.c  | 0b05 | PCn Flash programming - timed out - read PC code version.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| updf1sh.c  | 0b06 | PCn Flash programming - timed out - execute PC code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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| FUNCTION  | CODE | COMMENT (continued)                                                          |
|-----------|------|------------------------------------------------------------------------------|
| updf1sh.c | 0b07 | PCn Flash programming - timed out - pump PC code.                            |
| updf1sh.c | 0b08 | PCn Flash programming - timed out - clear PC.                                |
| updf1sh.c | 0b0b | PCn Flash programming - proc_ufm( ) failed to get timer to update Flash RAM. |
| updf1sh.c | 0b0c | PCn Flash programming - timed out - update Flash RAM.                        |
| initma.c  | 0c00 | initdb( ) cannot get list of IOPs.                                           |
| initma.c  | 0c01 | initdb() cannot attach to database.                                          |
| initma.c  | 0c02 | Failed DMAC RAM initialization - IOPn not restored.                          |
| initma.c  | 0c03 | EMPT pointer has bad virtual address.                                        |
| initma.c  | 0c04 | EMPT has bad virtual address.                                                |
| initma.c  | 0d00 | IOP member number too large - IOPn not restored.                             |
| initma.c  | 0d03 | Cannot convert iorid to ucblp.                                               |
| initma.c  | 0d04 | Cannot convert iorid to ucblp.                                               |
| initma.c  | 0d05 | Cannot get list of IOPs.                                                     |
| initma.c  | 0d06 | Cannot attach to ECD.                                                        |
| initma.c  | 0d07 | IOPn attached to wrong port.                                                 |
| initma.c  | 0d08 | timreq1( ) function returned FAIL.                                           |
| initma.c  | 0d09 | Failed to attach to a port.                                                  |
| initma.c  | 0d0a | Unable to obtain PC power down reset timer.                                  |
| initmb.c  | 0e04 | Memory not allocated for IOPn - leave OOS.                                   |
| initmb.c  | 0e05 | Unable to convert PC RID to UCB.                                             |
| initmb.c  | 0e06 | Unable to convert PCSD RID to UCB.                                           |
| initmb.c  | 0e07 | No memory exists for PC.                                                     |
| initmb.c  | 0e08 | No memory exists for PCSD.                                                   |
| initmb.c  | 0e0a | Downucbs returned fail.                                                      |
| initmb.c  | 0e0b | Downucbs function returned fail.                                             |
| servr2.c  | 0f00 | Unable to convert I/O rid to a ucblp.                                        |
| servr2.c  | 0f01 | Cannot map virt addr to a seg no., or downucbs failed for PCSDs.             |
| servr2.c  | 0f02 | Cannot lock segment or cannot get PC's UCB.                                  |
| servr2.c  | 0f03 | Cannot unlock segment or cannot get PC's UCB.                                |
| servr2.c  | 0f04 | Failed to get IOP's UCB.                                                     |
| servr2.c  | 0f05 | Failed to link to application handler.                                       |
| servr2.c  | 0f06 | Link to device handler failed.                                               |
| picgh.c   | 1001 | Asynchronous PIC completion failure report (not during restoral).            |
| picgh.c   | 1002 | Generic PIC handler in wrong state for given response.                       |
| servr1.c  | 1100 | C_FAIL returned by CONFIG for rpterrr.                                       |
| servr1.c  | 1101 | Recovery - timeout request failure.                                          |

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| FUNCTION | CODE | COMMENT (continued)                                                                                                                                                                                                        |
|----------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| servr1.c | 1102 | Cannot convert iorid to ucblp.                                                                                                                                                                                             |
| servr1.c | 1103 | Recovery will be performed on device.                                                                                                                                                                                      |
| picgh.c  | 1200 | IOPn restore - no timing available.                                                                                                                                                                                        |
| picgh.c  | 1300 | IOPn restore - cannot clear BIC.                                                                                                                                                                                           |
| picgh.c  | 1302 | IOPn restore - invalid sequence number.                                                                                                                                                                                    |
| picgh.c  | 1303 | IOPn restore - cannot reset PIC.                                                                                                                                                                                           |
| picgh.c  | 1306 | IOPn restore - cannot send sysgen pio.                                                                                                                                                                                     |
| picgh.c  | 1307 | IOPn restore - failed to enable interrupts.                                                                                                                                                                                |
| picgh.c  | 1308 | IOPn restore - cannot clear D2SBS.                                                                                                                                                                                         |
| picgh.c  | 1309 | IOP restore - PIC pump failure - trying alternate pumpcode filename. ECD may have incorrect name for IOP pump file or system might be configured for 3B20D/3B21D IOP.                                                      |
| picgh.c  | 130a | IOP restore - PIC pump failure - trying backup version alternate pumpcode filename. ECD may have incorrect name for IOP pump file or the primary pumpcode file may be corrupted or the IOP is configured for the computer. |
| picgh.c  | 130d | Failed to free use of the pumpcode file.                                                                                                                                                                                   |
| picgh.c  | 130e | Cancellation of request to read pumpcode file failed.                                                                                                                                                                      |
| picgh.c  | 1400 | IOPn restore - completion code error.                                                                                                                                                                                      |
| picgh.c  | 1401 | IOPn restore - invalid sequence number.                                                                                                                                                                                    |
| picgh.c  | 1402 | IOPn restore - the asndma21( ) function failed to assign DMA slot.                                                                                                                                                         |
| picgh.c  | 1403 | IOPn restore - the getpta( ) function failed to get PTA.                                                                                                                                                                   |
| picgh.c  | 1404 | IOPn restore - the sendpio1( ) function failed to send the command to IOP.                                                                                                                                                 |
| picgh.c  | 1405 | IOPn restore - the cfread( ) function failed to read the pumpcode file.                                                                                                                                                    |
| picgh.c  | 1406 | IOPn restore - invalid sequence number.                                                                                                                                                                                    |
| picgh.c  | 1407 | IOPn restore - the getsuchl( ) function call failed, cannot retrieve the UCB record for the IOP.                                                                                                                           |
| picgh.c  | 1408 | IOPn restore - the getpta( ) function failed to get PTA.                                                                                                                                                                   |
| picgh.c  | 1409 | IOPn restore - the asndma21( ) function failed to assign DMA slot.                                                                                                                                                         |

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| FUNCTION | CODE | COMMENT (continued)                                                                                                                          |
|----------|------|----------------------------------------------------------------------------------------------------------------------------------------------|
| picgh.c  | 1500 | IOPn restore - timed out.                                                                                                                    |
| pcgh.c   | 1601 | Asynchronous PC completion failure report (not during restoral).                                                                             |
| pcgh.c   | 1602 | Generic PC handler in wrong state for given response.                                                                                        |
| pcgh.c   | 1701 | PCn restore failed.                                                                                                                          |
| pcgh.c   | 1702 | Cannot get PIC UCB.                                                                                                                          |
| prms.c   | 170a | Unable to get message buffer for PRM.                                                                                                        |
| prms.c   | 170b | Unable to send PRM message to SIM.                                                                                                           |
| pcgh.c   | 1800 | PCn restore - command queue failure - mark PC comm in service.                                                                               |
| pcgh.c   | 1801 | PCn restore - command queue failure - clear PC.                                                                                              |
| pcgh.c   | 1802 | PCn restore - command queue failure - reset PC isolate flip-flop and mark in service.                                                        |
| pcgh.c   | 1803 | PCn restore - command queue failure - read PC scanback.                                                                                      |
| pcgh.c   | 1804 | PCn restore - command queue failure - pump PC code.                                                                                          |
| pcgh.c   | 1805 | PCn restore - command queue failure - execute PC code.                                                                                       |
| pcgh.c   | 1806 | getpta( ) returned failure.                                                                                                                  |
| pcgh.c   | 1807 | PCn restore - invalid sequence number.                                                                                                       |
| pcgh.c   | 1808 | PCn restore - command queue failure - read PC code version.                                                                                  |
| pcgh.c   | 1809 | MTTYC restore - PC pump failure - trying alternate pumpcode filename. ECD database may have incorrect name for MTTYC pump file (TN83/TN983). |
| pcgh.c   | 180a | pcclear failed to free copy of pump file.                                                                                                    |
| pcgh.c   | 180b | pcclear failed to cancel pending request for copy of pump file.                                                                              |
| pcgh.c   | 180c | Asndma1( ) failure.                                                                                                                          |
| pcgh.c   | 180d | pccomp cannot pump - getpta call failed.                                                                                                     |
| pcgh.c   | 180e | pccomp cannot pump - cfread failed.                                                                                                          |
| pcgh.c   | 180f | PCn pump abort - PC already being pumped.                                                                                                    |
| pcgh.c   | 1810 | PCn pump abort - wrong sequence number.                                                                                                      |
| pcgh.c   | 1811 | PCn restore failure - could not get UCB.                                                                                                     |
| pcgh.c   | 1813 | getpta( ) returned failure for MTTYC (UN583).                                                                                                |
| pcgh.c   | 1814 | MTTYC restore - command queue failure - read UN583 pump file version.                                                                        |
| pcgh.c   | 1820 | PCn restore - no timing available.                                                                                                           |
| pcgh.c   | 1821 | MTTYC restore - no timing available - read UN583 pump file version.                                                                          |
| pcgh.c   | 1900 | PCn restore - completion code failure mark PC comm in service.                                                                               |

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| FUNCTION | CODE | COMMENT (continued)                                                                     |
|----------|------|-----------------------------------------------------------------------------------------|
| pcgh.c   | 1901 | PCn restore - completion code failure- clear PC.                                        |
| pcgh.c   | 1902 | PCn restore - completion code failure - reset PC isolate flip-flop and mark in service. |
| pcgh.c   | 1903 | PCn restore - completion code failure - read PC scan back.                              |
| pcgh.c   | 1904 | PCn restore - completion code failure - pump PC code.                                   |
| pcgh.c   | 1905 | PCn restore - completion code failure - execute PC code.                                |
| pcgh.c   | 1906 | PCn restore - invalid sequence no.                                                      |
| pcgh.c   | 1907 | PCn restore - no timing available.                                                      |
| pcgh.c   | 1908 | PCn restore - completion code failure - read PC code version.                           |
| pcgh.c   | 1909 | PCn restore - PC not plugged in.                                                        |
| pcgh.c   | 190a | MTTYC restore - completion code failure - read UN583 pump file version.                 |
| pcgh.c   | 1930 | PCn restore - unrecognized response - mark PC comm in service.                          |
| pcgh.c   | 1931 | PCn restore - unrecognized response - clear PC.                                         |
| pcgh.c   | 1932 | PCn restore - unrecognized response - reset PC isolate flip-flop and mark in service.   |
| pcgh.c   | 1933 | PCn restore - unrecognized response - read PC scan back.                                |
| pcgh.c   | 1934 | PCn restore - unrecognized response - pump PC code.                                     |
| pcgh.c   | 1935 | PCn restore - unrecognized response - execute PC code.                                  |
| pcgh.c   | 1938 | PCn restore - unrecognized response - read PC code version.                             |
| pcgh.c   | 1939 | MTTYC restore - unrecognized response - read UN583 pump file version.                   |
| pcgh.c   | 1a00 | PCn restore - timed out - mark PC comm in service.                                      |
| pcgh.c   | 1a01 | PCn restore - timed out - clear PC.                                                     |
| pcgh.c   | 1a02 | PCn restore - timed out - reset PC isolate flip-flop and mark in service.               |
| pcgh.c   | 1a03 | PCn restore - timed out - read PC scanback.                                             |
| pcgh.c   | 1a04 | PCn restore - timed out - pump PC code.                                                 |
| pcgh.c   | 1a05 | PCn restore - timed out - read PC code version.                                         |
| pcgh.c   | 1a06 | PCn restore - timed out - execute PC code.                                              |

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| FUNCTION    | CODE | COMMENT (continued)                                                                                          |
|-------------|------|--------------------------------------------------------------------------------------------------------------|
| updf1sh.c   | 1a0b | PCn Flash programming - prgflsh1() command queue failure - mark PC community in service.                     |
| updf1sh.c   | 1a0c | PCn Flash programming - prgflsh1() command queue failure - clear PC.                                         |
| updf1sh.c   | 1a0d | PCn Flash programming - prgflsh1() command queue failure - reset PC isolate flip-flop and mark in service.   |
| updf1sh.c   | 1a0e | PCn Flash programming - prgflsh1() command queue failure - read PC scan back.                                |
| updf1sh.c   | 1a0f | PCn Flash programming - prgflsh1() failed to get page table address.                                         |
| updf1sh.c   | 1a10 | PCn Flash programming - prgflsh1() command queue failure - read PC code version.                             |
| updf1sh.c   | 1a11 | PCn Flash programming - prgflsh1() command queue failure - execute PC code.                                  |
| updf1sh.c   | 1a12 | PCn Flash programming - prgflsh1() command queue failure - clear PC.                                         |
| updf1sh.c   | 1a13 | PCn Flash programming - prgflsh1() failed to get a message buffer.                                           |
| updf1sh.c   | 1a14 | PCn Flash programming - prgflsh1() - invalid sequence number.                                                |
| updf1sh.c   | 1a20 | PCn Flash programming - prgflsh1() - no timing available for mark PC community in service.                   |
| updf1sh.c   | 1a21 | PCn Flash programming - prgflsh1() - no timing available for clear PC.                                       |
| updf1sh.c   | 1a22 | PCn Flash programming - prgflsh1() - no timing available for reset PC isolate flip-flop and mark in service. |
| updf1sh.c   | 1a23 | PCn Flash programming - prgflsh1() - no timing available for read PC scan back.                              |
| updf1sh.c   | 1a24 | PCn Flash programming - prgflsh1() - no timing available for read PC code version.                           |
| updf1sh.c   | 1a25 | PCn Flash programming - prgflsh1() - no timing available for execute PC code.                                |
| updf1sh.c   | 1a26 | PCn Flash programming - prgflsh1() - no timing available for clear PC.                                       |
| pcgh.c      | 1aff | PCn restore - timed out - PC restoral no longer in progress.                                                 |
| iowque.c    | 1b00 | Push queue - command queue full.                                                                             |
| em_iowque.c | 1b01 | Push queue - push queue failure.                                                                             |
| em_iowque.c | 1b02 | Push queue - failure to queue request due to invalid request, queue corruption, or resource problem.         |
| em_iowque.c | 1b03 | Push queue - failure to queue request for unknown reason.                                                    |

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| FUNCTION  | CODE | COMMENT (continued)                                                                              |
|-----------|------|--------------------------------------------------------------------------------------------------|
| updf1sh.c | 1b0a | PCn Flash programming - pcclear2() failed to free use of pumpcode/flash file.                    |
| updf1sh.c | 1b0b | PCn Flash programming - pcclear2() failed to cancel request for pumpcode/flash file.             |
| updf1sh.c | 1b0c | PCn Flash programming - pccomp2() failed to assign dma slot.                                     |
| updf1sh.c | 1b0d | PCn Flash programming - pccomp2() command queue failure - PC pump (no erase of flash file).      |
| updf1sh.c | 1b0e | PCn Flash programming - pccomp2() command queue failure - PC pump (erase of flash file).         |
| updf1sh.c | 1b0f | PCn Flash programming - pccomp2() command queue failure - PC pump (administration flash file).   |
| updf1sh.c | 1b10 | PCn Flash programming - pccomp2() failed to get page table address.                              |
| updf1sh.c | 1b11 | PCn Flash programming - pccomp2() failed to read flash file.                                     |
| updf1sh.c | 1b12 | PCn Flash programming - pccomp2() abort PC pump - PC already being pumped.                       |
| updf1sh.c | 1b13 | PCn Flash programming - pccomp2() abort PC pump - wrong sequence number.                         |
| updf1sh.c | 1b14 | PCn Flash programming - pccomp2() could not get PC UCB.                                          |
| updf1sh.c | 1b15 | PCn Flash programming - pcclear2() failed to cancel request for pumpcode/flash file.             |
| updf1sh.c | 1b16 | PCn Flash programming - pccomp2() failed to read flash file.                                     |
| updf1sh.c | 1b17 | PCn Flash programming - pccomp2() failed to read all of the flash files.                         |
| updf1sh.c | 1b18 | PCn Flash programming - pccomp2() retrieved flash file with incorrect file size.                 |
| updf1sh.c | 1b19 | PCn Flash programming - get_1sh_files() - invalid flash file index.                              |
| updf1sh.c | 1b20 | PCn Flash programming - pccomp2() - no timing available for PC pump (no erase of flash file).    |
| updf1sh.c | 1b21 | PCn Flash programming - pccomp2() - no timing available for PC pump (erase of flash file).       |
| updf1sh.c | 1b22 | PCn Flash programming - pccomp2() - no timing available for PC pump (administration flash file). |
| rstcont.c | 1c01 | Cannot convert iorid to ucblp.                                                                   |
| rstcont.c | 1c02 | Cannot convert iorid to ucblp.                                                                   |
| updf1sh.c | 1c0a | PCn Flash programming - prgflsh2() completion code failure - mark PC community in service.       |
| updf1sh.c | 1c0b | PCn Flash programming - prgflsh2() completion code failure - clear PC.                           |

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| <b>FUNCTION</b> | <b>CODE</b> | <b>COMMENT (continued)</b>                                                                                   |
|-----------------|-------------|--------------------------------------------------------------------------------------------------------------|
| updf1sh.c       | 1c0c        | PCn Flash programming - prgflsh2() completion code failure - reset PC isolate flip-flop and mark in service. |
| updf1sh.c       | 1c0d        | PCn Flash programming - prgflsh2() - PC not plugged in.                                                      |
| updf1sh.c       | 1c0e        | PCn Flash programming - prgflsh2() completion code failure - read PC scan back.                              |
| updf1sh.c       | 1c0f        | PCn Flash programming - prgflsh2() completion code failure - pump PC code.                                   |
| updf1sh.c       | 1c10        | PCn Flash programming - prgflsh2() completion code failure - read PC code version.                           |
| updf1sh.c       | 1c11        | PCn Flash programming - prgflsh2() completion code failure - execute PC code.                                |
| updf1sh.c       | 1c12        | PCn Flash programming - prgflsh2() completion code failure - pump PC code.                                   |
| updf1sh.c       | 1c13        | PCn Flash programming - prgflsh2() completion code failure - clear PC.                                       |
| updf1sh.c       | 1c14        | PCn Flash programming - prgflsh2() - invalid sequence number.                                                |
| updf1sh.c       | 1c15        | PCn Flash programming - pcflsfail() failed to get a message buffer.                                          |
| updf1sh.c       | 1c20        | PCn Flash programming - prgflsh2() - no timing available for clear PC.                                       |
| updf1sh.c       | 1c21        | PCn Flash programming - prgflsh2() - no timing available for clear PC.                                       |
| updf1sh.c       | 1c30        | PCn Flash programming - prgflsh2() unrecognized response - mark PC community in service.                     |
| updf1sh.c       | 1c31        | PCn Flash programming - prgflsh2() unrecognized response - clear PC.                                         |
| updf1sh.c       | 1c32        | PCn Flash programming - prgflsh2() unrecognized response - reset PC isolate flip-flop and mark in service.   |
| updf1sh.c       | 1c33        | PCn Flash programming - prgflsh2() unrecognized response - read PC scan back.                                |
| updf1sh.c       | 1c34        | PCn Flash programming - prgflsh2() unrecognized response - pump PC code.                                     |
| updf1sh.c       | 1c35        | PCn Flash programming - prgflsh2() unrecognized response - read PC code version.                             |
| updf1sh.c       | 1c36        | PCn Flash programming - prgflsh2() unrecognized response - execute PC code.                                  |
| updf1sh.c       | 1c37        | PCn Flash programming - prgflsh2() unrecognized response - pump PC code.                                     |
| updf1sh.c       | 1c38        | PCn Flash programming - prgflsh2() unrecognized response - clear PC.                                         |

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| FUNCTION  | CODE | COMMENT (continued)                              |
|-----------|------|--------------------------------------------------|
| rstcont.c | 1d00 | Cannot complete common IODRV mem initialization. |
| rstcont.c | 1d01 | Unable to convert IOP RID to UCB.                |
| rstcont.c | 1d02 | Unable to release database record.               |
| rstcont.c | 1d03 | Unable to obtain list of PCs.                    |
| rstcont.c | 1d04 | Unable to convert PC RID to UCB.                 |
| rstcont.c | 1d05 | Unable to release database record.               |
| rstcont.c | 1d06 | Unable to obtain list of PCSDs.                  |
| rstcont.c | 1d07 | Unable to convert PCSD RID to UCB.               |
| rstcont.c | 1d08 | Unable to release database record.               |
| rstcont.c | 1d09 | Unable to obtain list of PCSDs.                  |
| rstcont.c | 1d0a | Unable to convert PCSD RID to UCB.               |
| rstcont.c | 1d0b | Unable to release database record.               |
| rstcont.c | 1d0c | Bad device level.                                |
| rstcont.c | 1d20 | setboot( ) got FAIL from downuch( ).             |
| rstcont.c | 1d21 | setboot( ) got FAIL from relrec( ).              |
| rstcont.c | 1d22 | setboot( ) cannot convert RID to UCB.            |
| servr1.c  | 1d60 | Unknown unit level.                              |
| servr1.c  | 1d61 | No words to zero.                                |
| iowque.c  | 1e00 | Send pio - cannot read BIC status.               |
| iowque.c  | 1e01 | Send pio - failed to read BIC status.            |
| iowque.c  | 1e02 | Send pio - BIC status error or cmd flag stuck.   |
| iowque.c  | 1e03 | Send pio - failed to send programmed I/O instr.  |
| outmsg.c  | 1f00 | Cannot convert iorid to ucblp.                   |
| iotime.c  | 2000 | Cannot convert iorid to ucblp.                   |
| rstcont.c | 2100 | Cannot convert iorid to ucblp.                   |
| rstcont.c | 2101 | lkhand1( ) returned fail.                        |
| rstcont.c | 2200 | downucbs function returned fail.                 |
| rstcont.c | 2300 | Bad handler id.                                  |
| rstcont.c | 2301 | restsd( ) cannot convert RID to UCB.             |
| iolkh.c   | 2400 | getucbl( ) failed to get IOP UCB.                |
| rmvcont.c | 2401 | downucbs function returned fail.                 |
| rmvcont.c | 2402 | Cannot convert a rid to a UCB record.            |
| rmvcont.c | 2403 | rqstrmv( ) returned C_FAIL or unknown response.  |
| iolkh.c   | 2410 | getcomsupv - no free comsupvinfo structure.      |
| servr1.c  | 2500 | Cannot convert iorid to ucblp.                   |
| servr1.c  | 2501 | downucbs function returned fail.                 |
| servr1.c  | 2502 | downucbs function returned fail.                 |
| servr1.c  | 2503 | Cannot convert iorid to ucblp.                   |
| servr1.c  | 2504 | downucbs function returned fail.                 |
| servr1.c  | 2505 | Cannot convert PCSD RID to UCB record.           |

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| FUNCTION    | CODE | COMMENT (continued)                                      |
|-------------|------|----------------------------------------------------------|
| servr1.c    | 2506 | haltact( ) cannot convert RID to UCB.                    |
| servr1.c    | 2600 | Cannot convert a rid to a UCB record.                    |
| servr1.c    | 2601 | downucbs function returned fail.                         |
| servr1.c    | 2602 | Cannot convert iorid to ucblp.                           |
| outmsg.c    | 2700 | Cannot convert iorid to ucblp.                           |
| outmsg.c    | 2800 | Cannot convert iorid to ucblp.                           |
| rmvcont.c   | 2900 | downucbs function returned fail.                         |
| rmvcont.c   | 2901 | Cannot convert iorid to ucblp.                           |
| rmvcont.c   | 2a00 | downucbs function returned fail.                         |
| rmvcont.c   | 2a01 | Unable to convert PC RID to UCB.                         |
| rmvcont.c   | 2b00 | Cannot convert iorid to ucblp.                           |
| rmvcont.c   | 2b01 | rmv_half( ) encountered invalid unit level.              |
| rmvcont.c   | 2c00 | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c03 | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c04 | downucbs( ) function returned FAIL.                      |
| crmvmcont.c | 2c05 | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c06 | downucbs( ) function returned FAIL.                      |
| crmvmcont.c | 2c07 | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c08 | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c09 | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c0a | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c0b | downucbs( ) function returned FAIL.                      |
| crmvmcont.c | 2c0c | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c0d | downucbs( ) function returned FAIL.                      |
| crmvmcont.c | 2c0e | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c0f | downucbs( ) function returned FAIL.                      |
| crmvmcont.c | 2c10 | Cannot convert iorid to ucblp.                           |
| crmvmcont.c | 2c11 | PCn remove - no timing available.                        |
| crmvmcont.c | 2c12 | Cannot get PC UCB.                                       |
| crmvmcont.c | 2c13 | Cannot get PIC UCB.                                      |
| crmvmcont.c | 2c14 | Cannot get PC UCB.                                       |
| crmvmcont.c | 2c15 | Function deltrg1( ) returned FAIL.                       |
| outmsg.c    | 2c20 | Conditional remove - cannot get timing.                  |
| outmsg.c    | 2c21 | Conditional remove - cannot get timing.                  |
| rmvcont.c   | 2c30 | Function downucbs( ) returned FAIL.                      |
| rmvcont.c   | 2c31 | Function rqstrmv( ) returned C_FAIL or unknown response. |
| rmvcont.c   | 2c32 | Function get_llarec( ) returned FAIL from UCB access.    |
| outmsg.c    | 2d00 | Cannot convert iorid to ucblp.                           |
| rstcont.c   | 2e00 | Memory initialization failure.                           |
| rstcont.c   | 2e01 | Cannot convert iorid to ucblp.                           |
| rstcont.c   | 2e02 | getucb1( ) failed to get IOP UCB.                        |
| rstcont.c   | 2f00 | downucbs function returned fail.                         |

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| FUNCTION | CODE | COMMENT (continued)                                                                                                                                                   |
|----------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fault.c  | 3000 | FLT_SCRIT fltcode unexpected.                                                                                                                                         |
| fault.c  | 3001 | FLT_SINIT fault.                                                                                                                                                      |
| fault.c  | 3002 | Software fault. Format of additional string information is defined as: FLTC X'a PA X'b, a = Reference IOP Appendix E, APP:IOP-E, for fault code. b = Program address. |
| fault.c  | 3003 | FLT_SOFTSW fltcode unexpected.                                                                                                                                        |
| fault.c  | 3004 | Strange fault code.                                                                                                                                                   |
| fault.c  | 3005 | IODRV owns an old non-queued audit error message.                                                                                                                     |
| fault.c  | 3006 | Illegal OST.                                                                                                                                                          |
| outmsg.c | 3101 | Unable to convert unit RID to UCB.                                                                                                                                    |
| wkspc.c  | 3110 | Unable to convert unit RID to UCB.                                                                                                                                    |
| wkspc.c  | 3120 | bgrowucmp( ) got FAIL from isfree().                                                                                                                                  |
| wkspc.c  | 3121 | bgrowucm( ) got FAIL from isfree().                                                                                                                                   |
| wkspc.c  | 3122 | dyngrowump( ) got FAIL from isfree().                                                                                                                                 |
| wkspc.c  | 3123 | Failed to release UCB reword.                                                                                                                                         |
| wkspc.c  | 3124 | Cannot get size requirement for PCSD boot growth.                                                                                                                     |
| wkspc.c  | 3125 | Cannot get size requirement for PC boot growth.                                                                                                                       |
| wkspc.c  | 3126 | Cannot update incore UCB for boot growth failure.                                                                                                                     |
| wkspc.c  | 3127 | Cannot update incore UCB for delayed growth failure.                                                                                                                  |
| wkspc.c  | 3130 | Cannot update incore UCB for growth failure.                                                                                                                          |
| ioimf.c  | 3160 | Unable to obtain a message buffer while attempting to add a segment.                                                                                                  |
| ioimf.c  | 3161 | Unable to activate a timer while attempting to add a segment.                                                                                                         |
| ioimf.c  | 3162 | Unable to obtain a message buffer while attempting to grow a segment.                                                                                                 |
| ioimf.c  | 3163 | Unable to activate a timer while attempting to grow a segment.                                                                                                        |
| ioimf.c  | 3164 | Unable to obtain a message buffer while attempting to remove a segment.                                                                                               |
| ioimf.c  | 3165 | Invalid message type.                                                                                                                                                 |
| ioimf.c  | 3166 | Unable to queue the message.                                                                                                                                          |
| ioimf.c  | 3170 | Add message acknowledgement received but no timer was set.                                                                                                            |
| ioimf.c  | 3171 | Grow message acknowledgement received but no timer was set.                                                                                                           |

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| FUNCTION | CODE | COMMENT (continued)                                                                 |
|----------|------|-------------------------------------------------------------------------------------|
| ioimf.c  | 3172 | Invalid message type.                                                               |
| ioimf.c  | 3173 | Pointer contained in ms_ident is not in I/O driver's address space.                 |
| iointr.c | 3174 | Pointer contained in ms_ident is not in I/O driver's address space.                 |
| ioimf.c  | 3180 | Either a message was lost or an attempt failed, causing a retry to have to be made. |
| ioimf.c  | 3181 | Unable to activate the settle-down timer.                                           |
| ioimf.c  | 3182 | The retry counter has been exceeded.                                                |
| ioimf.c  | 3190 | Invalid message type.                                                               |
| ioimf.c  | 3191 | Unable to set initialization timer in imfinit.                                      |
| ioimf.c  | 3192 | ioimftout cannot find MCT.                                                          |
| wkspc.c  | 31c0 | Bad unit level.                                                                     |
| wkspc.c  | 31c1 | Cannot get size requirement for PC growth.                                          |
| wkspc.c  | 31c2 | Cannot get size requirement for PCSD growth.                                        |
| wkspc.c  | 31e0 | Unable to attach to interrupts for IOPn.                                            |
| wkspc.c  | 31e1 | Unable to get page table address for IOPn.                                          |
| wkspc.c  | 31e2 | Unable to initialize DMAC RAM for IOPn.                                             |
| wkspc.c  | 31e3 | Unable to obtain IOPn option block.                                                 |
| wkspc.c  | 31e4 | Failed to attach to interrupt - IOP not restored.                                   |
| fault1.c | 3200 | DMA restart - cannot abort job.                                                     |
| fault1.c | 3201 | Failed to enable interrupts for IOPn.                                               |
| fault1.c | 3202 | Failed to initialize DMAC ram.                                                      |
| fault1.c | 3203 | DMA restart - cannot clear BIC.                                                     |
| fault1.c | 3204 | DMA restart - cannot set interface enable.                                          |
| fault1.c | 3300 | Cannot convert iorid to ucblp.                                                      |
| fault1.c | 3401 | Reboot IOP - pio lost.                                                              |
| fault.c  | 3500 | Cannot convert iorid to ucblp.                                                      |
| fault.c  | 3501 | pio has been lost for a unit.                                                       |
| fault.c  | 3503 | IODRV took message buffer audit fault.                                              |
| fault.c  | 3600 | Cannot convert iorid to ucblp.                                                      |
| fault.c  | 3601 | PICn or PCn implicated.                                                             |
| fault.c  | 3602 | PICn implicated.                                                                    |
| fault.c  | 3603 | PICn affected but not implicated.                                                   |
| fault.c  | 3604 | High error cnt, but must limp along.                                                |
| fault.c  | 3605 | Fault message ignored.                                                              |
| fault.c  | 3606 | High error cnt, remove.                                                             |
| fault.c  | 3607 | PICn affected but not implicated.                                                   |
| fault.c  | 3608 | High error count, but must limp along.                                              |
| fault.c  | 3609 | Too many faults.                                                                    |
| fault.c  | 360a | No timer entry for short limp mode delay.                                           |

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| FUNCTION    | CODE | COMMENT (continued)                                      |
|-------------|------|----------------------------------------------------------|
| fault.c     | 360b | No timer entry for long limp mode delay.                 |
| fault.c     | 360c | Function rptierr( ) returned C_FAIL or unknown response. |
| fault.c     | 360d | Message buffer audit fault.                              |
| fault1.c    | 3703 | NADRD, NPICP, or NDREP fault code - unit not identified. |
| iolla.c     | 3801 | Unable to get UCB record (IORID call Phase I).           |
| iolla.c     | 3802 | Unable to get MDCT record (IORID call Phase II).         |
| iolla.c     | 3803 | Invalid input option (not CVTRID or CVTLIDIN).           |
| iolla.c     | 3806 | MDCT rid not available.                                  |
| iolla.c     | 3807 | Cannot convert a rid to a MDCT record.                   |
| iolla.c     | 3808 | MDCT does not contain at least one UCB rid.              |
| iolla.c     | 3900 | getsucb1( ) cannot get UCB.                              |
| iolla.c     | 3901 | Bad RID passed as argument to getsucb1( ).               |
| iolla.c     | 3902 | Invalid record id.                                       |
| iolla.c     | 3904 | Failed to get ucbl record.                               |
| iolla.c     | 3b02 | Cannot convert rid to a MDCT record.                     |
| iolla.c     | 3c02 | Cannot release a record.                                 |
| pcaudit.c   | 3e00 | downucbs function returned fail.                         |
| pcaudit.c   | 3e01 | Cannot convert iorid to ucblp.                           |
| pcaudit.c   | 3e02 | SCSDC audit failure - restart SCSDC.                     |
| pcaudit.c   | 3e03 | pushq1 function returned fail.                           |
| pcaudit.c   | 3e04 | pushq1 function returned fail for SCSDC audit retry.     |
| pcaudit.c   | 3e05 | PCn audit failure - restart PCn.                         |
| iolla.c     | 3f00 | Invalid record ID.                                       |
| iolla.c     | 3f01 | Unable to convert RID to a specified record.             |
| inhadm.c    | 4600 | Arguments in inhibit admin message unknown.              |
| MT HANDLER  |      |                                                          |
| mterrhand.c | 4000 | MT is in an improper state for restore/restart.          |
| mterrhand.c | 4001 | Invalid type of restore/restart.                         |
| mterrhand.c | 4002 | Failed to restore; scratch area is not allocated.        |
| mterrhand.c | 4004 | Cannot delete a DMA slot while processing a restoral.    |
| mterrhand.c | 4005 | Cannot get PC UCB during PC restoral.                    |
| mterrhand.c | 4006 | No scratch area - restoral failed.                       |
| mterrhand.c | 4007 | Bad major state for restoral of device.                  |
| mterrhand.c | 4008 | Bad restore type.                                        |
| mterrhand.c | 4009 | Cannot get recovery timer.                               |
| mterrhand.c | 4100 | Cannot delete DMA slot while completing manual remove.   |

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| FUNCTION    | CODE | COMMENT (continued)                                                |
|-------------|------|--------------------------------------------------------------------|
| mterrhand.c | 4200 | Cannot delete remove timer while processing half remove.           |
| mterrhand.c | 4201 | Cannot get remove timer.                                           |
| mterrhand.c | 4202 | Cannot delete DMA slot while processing half remove.               |
| mterrhand.c | 4203 | Bad remove type.                                                   |
| mterrhand.c | 4300 | Cannot delete remove timer from mtrmvdly( ).                       |
| pmsgmt3.c   | 4302 | Improper message type.                                             |
| pmsgmt3.c   | 4400 | Failure due to MT not open.                                        |
| pmsgmt3.c   | 4401 | MT already open; not allowed to open to second user.               |
| pmsgmt3.c   | 4402 | Mode must be read or write.                                        |
| pmsgmt3.c   | 4500 | Record size is > 2048 bytes.                                       |
| pmsgmt3.c   | 4501 | Buffer must start on a word boundary in read mode.                 |
| pmsgmt3.c   | 4502 | Offset into buffer must be on a word boundary in read mode.        |
| pmsgmt3.c   | 4503 | Writes must be sequential.                                         |
| mtproc.c    | 4600 | DMA assignment failure.                                            |
| mtproc.c    | 4601 | PC Q area is full.                                                 |
| mtproc.c    | 4602 | Pushq failure.                                                     |
| mtproc.c    | 4603 | Record size > 2048 (because of alignment).                         |
| pmsgmt3.c   | 4700 | Attempt to open a device which is not closed.                      |
| pmsgmt3.c   | 4701 | Attempt to read a device not open for reading.                     |
| pmsgmt3.c   | 4702 | Attempt to write a device not open for writing.                    |
| pmsgmt3.c   | 4703 | Bad message type detected by pmsgmt3( ).                           |
| pmsgmt3.c   | 4704 | Major state unit or handler state not suitable for accepting work. |
| mtproc.c    | 4800 | Bad mode for opening a tape device.                                |
| mtproc.c    | 4801 | Bad parameters for a read request.                                 |
| mtproc.c    | 4802 | Bad parameters for a write request.                                |
| mtproc.c    | 4803 | Attempt to do non-sequential write.                                |
| mtproc.c    | 4804 | Inconsistent internal state for closing a tape device.             |
| mtproc.c    | 4805 | Bad message type detected by mtgetwk( ).                           |
| mtproc.c    | 4900 | pushq1( ) returned fail when sending an open command.              |
| mtproc.c    | 4901 | pushq1( ) returned fail when sending a read / write command.       |
| mtproc.c    | 4902 | pushq1( ) returned fail when sending a close command.              |
| mtproc.c    | 4903 | pushq1( ) returned fail when sending a seek command.               |
| mtproc.c    | 4904 | pushq1( ) returned fail when sending a rewind command.             |

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| FUNCTION  | CODE | COMMENT (continued)                                                                               |
|-----------|------|---------------------------------------------------------------------------------------------------|
| mtproc.c  | 4905 | PC queue counter was not zero during open.                                                        |
| mtproc.c  | 4906 | Cannot send rewind command, PC queue full.                                                        |
| mtproc.c  | 4907 | Cannot send close command, PC queue full.                                                         |
| mtproc.c  | 4908 | Bad opcode in current job structure.                                                              |
| mtproc.c  | 4909 | Failed to assign DMA slot.                                                                        |
| mtproc.c  | 490a | Hit EOF when trying to SEEK.                                                                      |
| mtproc.c  | 490b | Detected fatal error when trying to SEEK.                                                         |
| mtproc.c  | 490c | Detected other errors when trying to SEEK.                                                        |
| prspmt3.c | 4a00 | Failed to delete DMA slot when current job completed.                                             |
| prspmt3.c | 4a01 | Failed to delete DMA slot when received unexpected response.                                      |
| prspmt3.c | 4a02 | Failed to delete DMA slot when received response for non active unit.                             |
| prspmt3.c | 4a03 | opcode in response does not match what was sent.                                                  |
| prspmt3.c | 4a04 | Obsolete response received and ignored.                                                           |
| prspmt3.c | 4b00 | Cannot delete DMA slot when handling an error in response.                                        |
| prspmt3.c | 4b01 | Job rejected illegal command.                                                                     |
| prspmt3.c | 4b02 | Job rejected illegal command sequence.                                                            |
| prspmt3.c | 4b03 | Job aborted nonrecoverable errors, e.g., bad spot on tape.                                        |
| prspmt3.c | 4b04 | Generic part of response invalid.                                                                 |
| prspmt3.c | 4b05 | Tape unit write protected.                                                                        |
| prspmt3.c | 4b06 | End of physical tape.                                                                             |
| prspmt3.c | 4b07 | Subdevice off-line.                                                                               |
| prspmt3.c | 4b08 | Time out error - PC did not hear from tape unit in time.                                          |
| prspmt3.c | 4b09 | Reached end of file during read.                                                                  |
| prspmt3.c | 4b0a | User part of response has unidentified error.                                                     |
| prspmt3.c | 4b0b | Generic part of response has unidentified error.                                                  |
| prspmt3.c | 4b0c | Unknown handler state when handling response.                                                     |
| prspmt3.c | 4b0d | Cannot get error handling dead man timer.                                                         |
| prspmt3.c | 4b0e | Cannot delete DMA slot from procerrs().                                                           |
| prspmt3.c | 4b0f | Cannot delete DMA slot from mterrto().                                                            |
| prspmt3.c | 4b10 | PC timed out returning all pending responses following an error.                                  |
| prspmt3.c | 5000 | Response opcode error.                                                                            |
| prspmt3.c | 5001 | Response comp code default.                                                                       |
| prspmt3.c | 5102 | Block contained more bytes than the number of bytes requested by read; the excess bytes are lost. |
| prspmt3.c | 5200 | EOF reached during read or seek.                                                                  |
| prspmt3.c | 5201 | Tape unit write protected.                                                                        |
| prspmt3.c | 5202 | End of physical tape.                                                                             |

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| FUNCTION    | CODE | COMMENT (continued)                                                                                                                                      |
|-------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| prspmt3.c   | 5203 | Subdevice off-line.                                                                                                                                      |
| prspmt3.c   | 5204 | PC time-out error.                                                                                                                                       |
| prspmt3.c   | 5300 | Job aborted non-recover errors.                                                                                                                          |
| prspmt3.c   | 5301 | Job rejected illegal command.                                                                                                                            |
| prspmt3.c   | 5302 | Job rejected illegal command context.                                                                                                                    |
| prspmt3.c   | 5304 | MT was not active when PC response was received.                                                                                                         |
| TTY HANDLER |      |                                                                                                                                                          |
| prspmt3.c   | 5400 | Retried four times with no success; return with failure.                                                                                                 |
| pmsgci3.c   | 6000 | No active subdevice for supervisor.                                                                                                                      |
| pmsgci3.c   | 6001 | Unexpected acknowledge message received. Format of additional string information is defined as: a a = channel flags (hex).                               |
| pmsgci3.c   | 6002 | Process manager cannot create /prc/unix. Format of additional string information is defined as: a b a = message status (hex). b = channel id (hex).      |
| pmsgci3.c   | 6003 | Unknown process ID for pcreate message.                                                                                                                  |
| pmsgci3.c   | 6004 | Unknown message type. Format of additional string information is defined as: a b a = message type (hex). b = ms_from field of message (hex).             |
| pmsgci3.c   | 6005 | Unable to get ciopt record.                                                                                                                              |
| pmsgci3.c   | 6006 | Unable to get active UCB switchable device.                                                                                                              |
| pmsgci3.c   | 6007 | Non-switchable device not in proper state for close. Format of additional string information is defined as: a a = state of non-switchable device (hex).  |
| pmsgci3.c   | 6008 | Could not find active switchable device for cancel.                                                                                                      |
| pmsgci3.c   | 6009 | Non-switchable device not in proper state for cancel. Format of additional string information is defined as: a a = state of non-switchable device (hex). |
| prmvci3.c   | 6010 | Error on subdevice conditional remove.                                                                                                                   |
| prmvci3.c   | 6011 | Unable to initiate remove timing.                                                                                                                        |
| prmvci3.c   | 6012 | Unknown remove type. Format of additional string information is defined as: [a] a = remove request type (hex).                                           |
| prmvci3.c   | 6013 | Unable to retrieve mdct for remove switchable unit.                                                                                                      |
| prmvci3.c   | 6015 | prmvci3 - allocmsg failed in cihandqs.                                                                                                                   |
| prmvci3.c   | 6016 | prmvci3 - could not get a timer for cifoswitch.                                                                                                          |
| prspci3.c   | 6020 | PC command not in maintenance queue.                                                                                                                     |

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| FUNCTION  | CODE | COMMENT (continued)                                                                                                                                                                                                                                         |
|-----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prspci3.c | 6021 | Unknown opcode in PC response. Format of additional string information is defined as: a b a = response word 1 (hex). b = response word 2 (hex).                                                                                                             |
| prspci3.c | 6022 | Unknown PC asynchronous report type. Format of additional string information is defined as: a b a = response word 1 (hex). b = response word 2 (hex).                                                                                                       |
| prspci3.c | 6023 | Connection report for unit not in standby state. Format of additional string information is defined as: a a = unit state (hex).                                                                                                                             |
| prspci3.c | 6024 | Unrecognized async error report type.                                                                                                                                                                                                                       |
| prspci3.c | 6025 | Unable to get header update timing index.                                                                                                                                                                                                                   |
| prspci3.c | 6026 | Unrecognized async read priority. Format of additional string information is defined as: a a = priority value number (hex).                                                                                                                                 |
| prspci3.c | 6027 | Failed to get connection wait timer. Format of additional string information is defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex).                                                                                       |
| prspci3.c | 6028 | Device switched to OOS unit (HIT).                                                                                                                                                                                                                          |
| prspci3.c | 6029 | Device not switched; could not get a mate on disconnect. Format of additional string information is defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex).                                                                   |
| prspci3.c | 602a | Could not get a mate; device restored. Format of additional string information is defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex).                                                                                     |
| prspci3.c | 602b | Controller reported excessive BREAKs on subdevice. Format of additional string information is defined as: a b a = response word 1 (hex) b = response word 2 (hex) If b = 31000000 then high priority input. If b = 32000000 then base (low) priority input. |
| prspci3.c | 602c | NULL message pointer returned from PCBREAK signal.                                                                                                                                                                                                          |
| ptrpci3.c | 6030 | Unknown ost code. Format of additional string information is defined as: a a = OST type (hex).                                                                                                                                                              |
| prstci3.c | 603a | Restore failure during restart.                                                                                                                                                                                                                             |
| prstci3.c | 603b | Invalid restore type.                                                                                                                                                                                                                                       |
| prstci3.c | 603c | Unable to get logical date pointer.                                                                                                                                                                                                                         |
| prstci3.c | 603d | Unable to retrieve ttopts or ciopts.                                                                                                                                                                                                                        |
| prstci3.c | 603e | Unable to retrieve mdct.                                                                                                                                                                                                                                    |

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| FUNCTION   | CODE | COMMENT (continued)                                                                                                                                                                           |
|------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prstci3.c  | 603f | prstci3 - allocmsg failed in cihandqs( ).                                                                                                                                                     |
| ciexec.c   | 6040 | Unknown maintenance opcode. Format of additional string information is defined as: a b a = maintenance command opcode (hex). b = option record pointer (hex).                                 |
| ciexec.c   | 6041 | Unable to find page table address.                                                                                                                                                            |
| ciexec.c   | 6042 | Could not get a timer to reschedule I/O during port switch.                                                                                                                                   |
| ciexec.c   | 6043 | Could not get a timer to still hold I/O.                                                                                                                                                      |
| ciexec.c   | 6044 | No active device to process held I/O.                                                                                                                                                         |
| ciexec.c   | 6045 | Failed to get mate; no active device to process held I/O.                                                                                                                                     |
| ciexec.c   | 6046 | Could not get scratch area for any device held I/O.                                                                                                                                           |
| ciexec.c   | 6048 | Unable to add maintenance queue. Format of additional string information is defined as: a b [b] [b] [b] [b] a = command to be added b = commands on the maintenance queue (up to 5 of these). |
| ciexec.c   | 6050 | Fail to push PC command queue. Format of additional string information is defined as: a b c a = command word 1 (hex). b = command word 2 (hex). c = message pointer (hex).                    |
| ciexec.c   | 6051 | Unrecognized PC command code. Format of additional string information is defined as: a a = pc opcode.                                                                                         |
| cipcreat.c | 6060 | Unable to be created by non-active subdevice.                                                                                                                                                 |
| cipcreat.c | 6061 | Number of pcreate attempts >THRESHOLD.                                                                                                                                                        |
| cisupv.c   | 6062 | Index bad when pcreate timer fires. Format of additional string information is defined as: a a = channel id (hex).                                                                            |
| cisupv.c   | 6063 | Unable to allocate msg buffer. Format of additional string information is defined as: a a = channel id (hex).                                                                                 |
| cisupv.c   | 6064 | Fail to queue supervisor pcreate msg. Format of additional string information is defined as: a a = channel id (hex).                                                                          |
| cipcreat.c | 6070 | Unable to send signal in high priority.                                                                                                                                                       |
| cipcreat.c | 6071 | Unable to send signal for unclear priority.                                                                                                                                                   |
| ciswitch.c | 6080 | Switching attempts >THRESHOLD. Format of additional string information is defined as: a a = number of portswitch failures (hex).                                                              |
| ciswitch.c | 6081 | timreq1 failure on port switch DTR timing. Format of additional string information is defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex).                   |

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| FUNCTION   | CODE | COMMENT (continued)                                                                                                                                                                          |
|------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ciswitch.c | 6082 | timreq1 failure on port switch DTR on timing. Format of additional string information is defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex).               |
| ciswitch.c | 6083 | No standby mate device for port switch.                                                                                                                                                      |
| ciswitch.c | 6084 | Forced switch attempts >THRESHOLD. Format of additional string information is defined as: a a = number of portswitch failures (hex).                                                         |
| ciswitch.c | 6085 | timreq1( ) failure on forced port switch. Format of additional string information is defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex).                   |
| ciswitch.c | 6086 | Could not get UCB for forced switch cifoswitch.                                                                                                                                              |
| ciswitch.c | 6087 | Device in wrong state to switch.                                                                                                                                                             |
| ciswitch.c | 6088 | Device in wrong state and so is mate to do forced switch. Format of additional string information defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex).      |
| ciswitch.c | 6089 | Could not get a timer to wait for connection forced switch. Format of additional string information is defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex). |
| ciswitch.c | 608a | Could not get UCB ciswfon.                                                                                                                                                                   |
| ciswitch.c | 608b | Could not switch; device not in good state. Format of additional string information is defined as: a b a = portswitch status (hex). b = number of portswitch failures (hex).                 |
| ciswitch.c | 608c | Switch delay timer fired; other device not in a good state to switch.                                                                                                                        |
| ciswitch.c | 608d | Portswitch fail print turned off. Format of additional string information is defined as: SWITCH FAIL PRINT OFF                                                                               |
| prstci3.c  | 60a0 | Restore-timer fired. Format of additional string information is defined as: a b c a = command word 1 (hex). b = command word 2 (hex). c = command opcode (hex).                              |
| prmvci3.c  | 60b0 | Cannot ci_opt record.                                                                                                                                                                        |
| prmvci3.c  | 60b1 | Cannot get MDCT record.                                                                                                                                                                      |
| prmvci3.c  | 60b2 | Invalid type of flshsrch.                                                                                                                                                                    |
| prmvci3.c  | 60b8 | Old Message should not be around. Format of additional string information is defined as: X'a X'b a = message pointer. b = message type.                                                      |

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| FUNCTION  | CODE | COMMENT (continued)                                                                                                                                                                          |
|-----------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prmvci3.c | 60b9 | Found write message on audit. Format of additional string information is defined as: X'a X'b a = message pointer. b = ms_from field of message (hex).                                        |
| prmvci3.c | 60ba | Message for audit not found. Format of additional string information is defined as: X'a X'b a = message pointer. b = io segment id.                                                          |
| prmvci3.c | 60bb | Unknown message typed owned. Format of additional string information is defined as: X'a X'b a = message pointer. b = message type.                                                           |
| prmvci3.c | 60bc | Message audit for read message. Format of additional string information is defined as: X'a X'b a = message pointer. b = ms_from field of message (hex).                                      |
| cisupv.c  | 60c0 | Process manager fails to respond to pcreate message. Format of additional string information is defined as: a b c a = device status (hex). b = channel id (hex). c = channel id flags (hex). |
| cisupv.c  | 60c1 | Unable to get ucbrec by get_llarec call.                                                                                                                                                     |
| ciexec.c  | 60d0 | cillogical pointer NULL.                                                                                                                                                                     |
| ciexec.c  | 60d1 | Could not get any device scratch area for switchable device.                                                                                                                                 |
| ciexec.c  | 60d2 | ci scratch pointer NULL.                                                                                                                                                                     |
| ciqueue.c | 60e0 | Put queue type error. Format of additional string information is defined as: a a = CIH queue type (decimal).                                                                                 |
| ciqueue.c | 60e1 | Get queue type error. Format of additional string information is defined as: a a = CIH queue type (decimal).                                                                                 |
| ciqueue.c | 60e2 | Delete queue type error. Format of additional string information is defined as: a a = CIH queue type (decimal).                                                                              |
| ciqueue.c | 60e3 | Dump queue type error. Format of additional string information is defined as: a a = channel flags (hex).                                                                                     |
| ciqueue.c | 60e4 | Unknown qtype type - ciniphy. Format of additional string information is defined as: a a = CIH queue type (hex).                                                                             |
| ciqueue.c | 60e5 | Queue type error - cistrch. Format of additional string information is defined as: a a = CIH queue type (decimal).                                                                           |
| ciqueue.c | 60e6 | Queue type error - cistrchp. Format of additional string information is defined as: a a = CIH queue type (decimal).                                                                          |

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| FUNCTION  | CODE | COMMENT (continued)                                                                                                              |
|-----------|------|----------------------------------------------------------------------------------------------------------------------------------|
| ciqueue.c | 60e7 | Queue type error - ciinitq. Format of additional string information is defined as: a a = CIH queue type (decimal).               |
| ciqueue.c | 60e8 | Queue damaged - cigetq. Format of additional string information is defined as: CIH QUEUE DAMAGED a a = CIH queue type (decimal). |
| prstci3.c | 6201 | Invalid type of restart/restore.                                                                                                 |
| prstci3.c | 6202 | pushq1( ) returned a failure.                                                                                                    |
| tycfrmt.c | 6301 | getopt failure.                                                                                                                  |
| tycfrmt.c | 6302 | get_llarec (ttopt_rec) failure.                                                                                                  |
| tyrdwrt.c | 6401 | getopt failure.                                                                                                                  |
| tyrdwrt.c | 6402 | Read job failed after failures to access DMA slot.                                                                               |
| tyrdwrt.c | 6403 | Write job failed after failures to access DMA slot.                                                                              |
| prmvci3.c | 6901 | pushq1 returned failure.                                                                                                         |
| ptrpci3.c | 6a01 | LDIN partition invalid for SETTY.                                                                                                |
| ptrpci3.c | 6a02 | LDIN partition invalid for GETTY.                                                                                                |
| ptrpci3.c | 6a07 | Iomap for SETTRAP OST failed.                                                                                                    |
| ptrpci3.c | 6a08 | Iomap for GETTRAP OST failed.                                                                                                    |
| ptrpci3.c | 6a09 | OST code unknown to handler.                                                                                                     |
| ptrpaux.c | 6b01 | getopt failure in tty_to_ci( ).                                                                                                  |
| ptrpaux.c | 6b02 | get_llarec (ttopt_rec) failure in tty_to_ci( ).                                                                                  |
| ptrpaux.c | 6b03 | getopt failure in ci_to_tty( ).                                                                                                  |
| ptrpaux.c | 6b04 | get_llarec (ttopt_rec) failure in ci_to_tty( ).                                                                                  |
| prspci3.c | 6d01 | PCSD response opcode not recognized (Base priority).                                                                             |
| prspci3.c | 6d02 | PCSD response opcode not recognized (High priority read).                                                                        |
| prspci3.c | 6d03 | PCSD response opcode not recognized (High priority write).                                                                       |
| prspci3.c | 6d04 | PCSD cmd-destination field not recognized.                                                                                       |
| prspci3.c | 6d05 | DMA slot removal failed after 'transmit long' PCSD.                                                                              |
| prspci3.c | 6d06 | DMA slot removal failed after 'set options' PCSD.                                                                                |
| prspci3.c | 6d07 | DMA slot removal failed after high priority 'transmit long' PCSD.                                                                |
| prspci3.c | 6d08 | DMA slot removal failed after 'rcv long' response. (Base priority).                                                              |
| prspci3.c | 6d09 | DMA slot removal failed after 'rcv long' response. (High priority).                                                              |

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| FUNCTION   | CODE | COMMENT (continued)                                                                                               |
|------------|------|-------------------------------------------------------------------------------------------------------------------|
| tyrwrite.c | 6e01 | Received write-response but WCQ was empty.                                                                        |
| tyrwrite.c | 6e02 | Fixed field in response different from that in the command.                                                       |
| tyrwrite.c | 6e03 | Unknown response case.                                                                                            |
| tyrshrt.c  | 6f01 | Received rcv-short response but RCQ was empty.                                                                    |
| tyrshrt.c  | 6f02 | Fixed field in response different from that in the command.                                                       |
| tyrlong.c  | 7001 | Received rcv-long response but RCQ was empty.                                                                     |
| tyrlong.c  | 7002 | DMA slot removal failed after rcv-long response.                                                                  |
| tyrlong.c  | 7003 | Read response received but RCQ was empty.                                                                         |
| tyrlong.c  | 7005 | Read response received but RCQ was empty.                                                                         |
| tyrlong.c  | 7007 | Read response received but RCQ was empty.                                                                         |
| tysdrst.c  | 7101 | SD_REST response received, but no command sent.                                                                   |
| tysdrst.c  | 7102 | User-completion-code error (Boot Restore).                                                                        |
| tyrasync.c | 7201 | Connection reported but TTY not restored.                                                                         |
| tyrasync.c | 7202 | Async report not recognized.                                                                                      |
| tyrasync.c | 7203 | Warning: connection reported, but supervisor still up.                                                            |
| tyrasync.c | 7204 | getmdct failure.                                                                                                  |
| tyrasync.c | 7205 | getopt failure.                                                                                                   |
| tyrasync.c | 7206 | get_llarec (ttopt_rec) failure.                                                                                   |
| tyrasync.c | 7207 | get_llarec (cdopt_rec) failure.                                                                                   |
| tymsack.c  | 7301 | No MSACK message is expected.                                                                                     |
| tymsack.c  | 7302 | max number of P_CREAT attempts.                                                                                   |
| tymsack.c  | 7303 | pushq1 failure.                                                                                                   |
| tyswitch.c | 7401 | Wrong index passed to time-out routine.                                                                           |
| tyswitch.c | 7402 | Unable to get mdct from database.                                                                                 |
| tyswitch.c | 7403 | Unable to send command to PC via pushq1.                                                                          |
| tyswitch.c | 7404 | Invalid combination of t_status flags.                                                                            |
| tyswitch.c | 7405 | Unable to return to controlling PC after switchover failure.                                                      |
| tyswitch.c | 7406 | Both switchable subdevices are in the ACTIVE state, or unable to return to 'at rest' PC after switchover failure. |
| tyswitch.c | 7407 | Unable to handle S/D msg due to earlier 7402 error.                                                               |
| tyswitch.c | 7408 | Invalid cmd_type in SW msg.                                                                                       |
| tyswitch.c | 7409 | Invalid msg sub-type in a received IORID ms_type.                                                                 |
| tyswitch.c | 740a | Unable to send cmd to PC via call to pushg1( ).                                                                   |
| tyswitch.c | 740c | Unable to request timer via call to timereq1( ).                                                                  |
| sttyproc.c | 7a04 | Unable to send cmd to PC because PC queues are full.                                                              |
| tytime.c   | 7501 | tyrstsupv( ) - wrong timeout index.                                                                               |
| tytime.c   | 7502 | tyrstsupv( ) - no previous failure in P_CREAT attempt.                                                            |

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| FUNCTION      | CODE | COMMENT (continued)                                          |
|---------------|------|--------------------------------------------------------------|
| tytime.c      | 7503 | tyrestto() - no pending restoral.                            |
| tytime.c      | 7504 | tyrestto() - wrong timeout index.                            |
| tytime.c      | 7514 | tyholdto() - wrong timeout index.                            |
| tytime.c      | 7521 | tyoosto() - wrong timeout index.                             |
| tytime.c      | 7522 | tyoosto() - SD_REMOVE request timed out.                     |
| tystrtsupv.c  | 7601 | Max number of P_CREAT attempts.                              |
| tystrtsupv.c  | 7602 | getmdct failure.                                             |
| tyrsderr.c    | 7701 | Intercharacter timeout detected.                             |
| tyrsderr.c    | 7702 | Acknowledgement timeout detected.                            |
| tyrsderr.c    | 7703 | Suspend-output timeout detected.                             |
| tyrsderr.c    | 7704 | Line printer error detected.                                 |
| tyrsderr.c    | 7706 | Async report not recognized.                                 |
| tyrcntrl.c    | 7801 | Received disconnect response but no cmd sent.                |
| tyrcntrl.c    | 7802 | TY_CNTRL response not recognized.                            |
| tycmdproc.c   | 7902 | Error in formatting PCSD command.                            |
| tycmdproc.c   | 7903 | pushq1 returned failure.                                     |
| tycmdproc.c   | 7904 | DMA slot removal failed after PCSD command formatting error. |
| tycmdproc.c   | 7905 | DMA slot removal failed after pushq1 failure.                |
| sttyproc.c    | 7a01 | DMA slot assignment failed.                                  |
| sttyproc.c    | 7a02 | pushq1() returned failure.                                   |
| sttyproc.c    | 7a03 | getpta() returned failure.                                   |
| tyrslnk.c     | 7f01 | Received rcv-short-linked response, but RCQ was empty.       |
| tyrslnk.c     | 7f02 | Fixed field in response different from that in the command.  |
| tyrslnk.c     | 7f03 | DMA slot removal failed after rcv-short-linked response.     |
| MAINT HANDLER |      |                                                              |
| mainthan.c    | 8000 | ucbptr is zero.                                              |
| mainthan.c    | 8001 | Unit is not in correct state for diagnosis.                  |
| mainthan.c    | 8002 | u_stat is in undefined state.                                |
| mainthan.c    | 8003 | ucbptr is zero.                                              |
| mainthan.c    | 8004 | ucbptr is different than what came with the iopen.           |
| mainthan.c    | 8005 | Failed iolock.                                               |
| mainthan.c    | 8006 | Error on asndma1 function.                                   |
| mainthan.c    | 8007 | Handler is not in DMAEXP state.                              |
| mainthan.c    | 8008 | Error on asndma1 function.                                   |
| mainthan.c    | 8009 | Error on pushing command into queue.                         |
| mainthan.c    | 800a | Error on timreq1 function.                                   |
| mainthan.c    | 800b | ucbptr is zero.                                              |

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| FUNCTION   | CODE | COMMENT (continued)                                                   |
|------------|------|-----------------------------------------------------------------------|
| mainthan.c | 800c | ucbptr is different than what came with the iopen.                    |
| mainthan.c | 800d | Unrecognized message from iop driver.                                 |
| mainthan.c | 800e | Function uniolock() returned FAIL during IOCLOSE processing.          |
| mainthan.c | 800f | Function uniolock() returned FAIL after asndma1() failure.            |
| maintfun.c | 8100 | Detach from interrupts must be babbling.                              |
| maintfun.c | 8101 | Failed to detach from interrupts.                                     |
| maintfun.c | 8102 | Byte cnt returned from IOP is not correct.                            |
| iomaint.c  | 8103 | The call to getpta() failed.                                          |
| iomaint.c  | 8104 | The asndma21() function failed to assign DMA slot number.             |
| iomaint.c  | 8105 | The asndma21() function failed to assign DMA slot number.             |
| iomaint.c  | 8106 | The call to getpta() failed.                                          |
| iomaint.c  | 8107 | The sdc32b() function call failed.                                    |
| iomaint.c  | 8108 | The timreq() function call failed.                                    |
| iomaint.c  | 8109 | The cfmread() function was unsuccessful in reading the pumpcode file. |
| iomaint.c  | 810a | The getsucbl() function was returned null UCB pointer to the IOP.     |
| maintfun.c | 8200 | Detach from interrupts must be babbling.                              |
| maintfun.c | 8201 | Failed to detach from interrupts.                                     |
| maintfun.c | 8400 | Wrong index for timeout.                                              |
| maintfun.c | 8401 | Time out function and handler in wrong state.                         |
| maintfun.c | 8500 | Level is not equal to 1,2,3.                                          |
| iomaint.c  | 8600 | ucbptr is zero.                                                       |
| iomaint.c  | 8601 | ucbptr is different then what came with iopen.                        |
| iomaint.c  | 8602 | Maint command in NONINT state and not PIO.                            |
| iomaint.c  | 8603 | Maint command in NONINIT state and not rmv or rst.                    |
| iomaint.c  | 8604 | IOP driver has req dgn be aborted.                                    |
| iomaint.c  | 8605 | Maint handler is in wrong state for iomaint msg.                      |
| iomaint.c  | 8606 | Request for timreq failed for iomaint msg.                            |
| iomaint.c  | 8607 | Attach to interrupt failed.                                           |
| iomaint.c  | 8608 | Enable interrupts failed.                                             |
| iomaint.c  | 8609 | SDC timreq.                                                           |
| iomaint.c  | 860a | Not diag controller should not ask for this sdc attach.               |

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| FUNCTION    | CODE | COMMENT (continued)                                           |
|-------------|------|---------------------------------------------------------------|
| iomaint.c   | 860b | Attach to interrupt failed.                                   |
| iomaint.c   | 860c | Enable interrupts failed.                                     |
| iomaint.c   | 860d | DIAGC is diagnosing controller should not ask for attach.     |
| iomaint.c   | 860e | Detach from interrupts.                                       |
| iomaint.c   | 860f | DIAGC diagnosing controller should not not ask for detach.    |
| iomaint.c   | 8610 | Error in trying to remove unit.                               |
| iomaint.c   | 8611 | Attach to interrupt failed.                                   |
| iomaint.c   | 8612 | Enable interrupts failed.                                     |
| iomaint.c   | 8613 | u_stat is undefined state.                                    |
| iomaint.c   | 8614 | Error trying to restore unit.                                 |
| iomaint.c   | 8615 | Error on timing req DGNDMA.                                   |
| iomaint.c   | 8616 | getdmaa returned an error.                                    |
| iomaint.c   | 8617 | Received WSETUP0 before DGNDMA.                               |
| iomaint.c   | 8618 | Received WSETUP1 before WSETUP0.                              |
| iomaint.c   | 8619 | Received DMAEND before WSETUP1.                               |
| iomaint.c   | 861a | Failed uniolock.                                              |
| iomaint.c   | 861b | getdmaa returned an error.                                    |
| iomaint.c   | 861c | DIAGC has sent bad data in statword and operword.             |
| iomaint.c   | 861d | Unable to push a command into the queue.                      |
| iomaint.c   | 861e | Error on time request.                                        |
| iomaint.c   | 861f | Function uniolock( ) returned FAIL during WSETUP0 processing. |
| iomaint.c   | 8620 | Function uniolock() returned FAIL.                            |
| maintfun.c  | 8700 | Took interrupt handler in wrong state.                        |
| maintfun.c  | 8701 | Detach failed.                                                |
| maintfun.c  | 87f1 | Cannot convert iorid to ucblp.                                |
| DUI HANDLER |      |                                                               |
| pmsgdu3.c   | 9001 | Unable to store a command sent by Application Kernel.         |
| pmsgdu3.c   | 9002 | pushq1 failure.                                               |
| pmsgdu3.c   | 9003 | DUI ERROR message received from Application Kernel.           |
| pmsgdu3.c   | 9004 | getpta failure.                                               |
| pmsgdu3.c   | 9005 | asndma failure for restore parameters.                        |
| pmsgdu3.c   | 9006 | asndma failure for DUI table.                                 |
| pmsgdu3.c   | 9007 | getopt failure.                                               |
| pmsgdu3.c   | 9010 | Scratch area order entry not NULL (case D_START).             |
| pmsgdu3.c   | 9011 | Scratch area order entry not NULL (case D_STOP).              |

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| FUNCTION            | CODE | COMMENT (continued)                                          |
|---------------------|------|--------------------------------------------------------------|
| pmsgdu3.c           | 9012 | Scratch area order entry not NULL (case D_RMRQAY).           |
| prspdu3.c           | 9101 | TN82 Software Error.                                         |
| prspdu3.c           | 9102 | Unrecognized Asynchronous report received.                   |
| prspdu3.c           | 9103 | deldma1 failure.                                             |
| prspdu3.c           | 9104 | asndma1 failure.                                             |
| prspdu3.c           | 9105 | Received restore command response w / Null msg. pointer.     |
| prspdu3.c           | 9106 | Received successful remove cmd from unknown dui msg type.    |
| prspdu3.c           | 9107 | Remove command from D_STOP msg failed.                       |
| prspdu3.c           | 9108 | Remove command from D_RMRQAK msg failed.                     |
| prspdu3.c           | 9109 | Unsuccessful remove cmd response from unknown msg.           |
| prspdu3.c           | 910a | Received response from unconditional remove.                 |
| prspdu3.c           | 910b | Received unsuccessful response from remove command.          |
| prspdu3.c           | 910c | Received unrecognized response from PC.                      |
| prspdu3.c           | 910d | Received RESTORE command response of unknown origin.         |
| prspdu3.c           | 910e | Received REMOVE command response of unknown origin.          |
| prstdu3.c           | 9201 | timreq1 failure.                                             |
| prstdu3.c           | 9202 | IODRV sent illegal restore case.                             |
| prmvdu3.c           | 9301 | timreq1 failure.                                             |
| duchgstate.c        | 9400 | Received illegal usr_type.                                   |
| duisendmsg.c        | 9500 | Requested msg type to send to Application Kernel is illegal. |
| pinitdu3.c          | 9600 | Invalid type of initializing.                                |
| duifuncts.c         | 9901 | Cannot store PCSD command.                                   |
| SCC AND SDL HANDLER |      |                                                              |
| prstcp3.c           | a010 | Restart during growth.                                       |
| prstcp3.c           | a012 | Failure to obtain option block, restore fails.               |
| prstcp3.c           | a014 | Restore fails, device failed growth.                         |
| prstcp3.c           | a015 | Restore fails, device has no memory status.                  |
| prstcp3.c           | a017 | Restart failed, failed to obtain option block.               |
| prstcp3.c           | a019 | Received a restart during growth, restart fails.             |
| prstcp3.c           | a01a | Restart failed, device has no memory status.                 |
| prstcp3.c           | a01c | Restart failed, device has no memory status.                 |

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| FUNCTION   | CODE | COMMENT (continued)                                                                                                                                                           |
|------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prstcp3.c  | a01d | Restore type unknown.                                                                                                                                                         |
| prstcp3.c  | a01e | Restart failed, device failed growth.                                                                                                                                         |
| prstcp3.c  | a026 | Unable to obtain PTA and SEGID for PCSD scratch area.                                                                                                                         |
| prstcp3.c  | a027 | Unable to obtain DMA job for PCSD scratch area.                                                                                                                               |
| prstcp3.c  | a028 | Unable to obtain DMA job for common scratch area.                                                                                                                             |
| prstcp3.c  | a030 | Invalid restore type.                                                                                                                                                         |
| pinitcp3.c | a100 | Unknown initialization type.                                                                                                                                                  |
| pmsgcp3.c  | a212 | NULL common scratch area pointer.                                                                                                                                             |
| pmsgcp3.c  | a222 | Unknown open type.                                                                                                                                                            |
| ptrpcp3.c  | a302 | NULL common scratch area pointer.                                                                                                                                             |
| prspcp3.c  | a414 | Invalid Dial-out response - feature not supported.                                                                                                                            |
| prspcp3.c  | a417 | Unknown base-priority PCSD response type.                                                                                                                                     |
| prspcp3.c  | a418 | Unknown high-priority PCSC response type.                                                                                                                                     |
| prspcp3.c  | a419 | Invalid priority type.                                                                                                                                                        |
| prspcp3.c  | a422 | Unexpected restore-rsp from a restored PCSD.                                                                                                                                  |
| prspcp3.c  | a423 | Unexpected restore-rsp from an OOS PCSD.                                                                                                                                      |
| prspcp3.c  | a431 | Unexpected CONNECT-report.                                                                                                                                                    |
| prspcp3.c  | a433 | DIAL-OUT-FAILURE-report not yet supported.                                                                                                                                    |
| prspcp3.c  | a434 | Invalid asynchronous report from PCSD.                                                                                                                                        |
| prspcp3.c  | a435 | Failure to send RECEIVE jobs to PCSD.                                                                                                                                         |
| prspcp3.c  | a436 | DISCONNECT-report not yet supported.                                                                                                                                          |
| prspcp3.c  | a442 | Unable to allocate an input buffer.                                                                                                                                           |
| prspcp3.c  | a443 | Unable to send a RECEIVE-command.                                                                                                                                             |
| prspcp3.c  | a445 | No RECEIVE-jobs at PCSD.                                                                                                                                                      |
| prspcp3.c  | a450 | Failure to send RECEIVE-jobs to PCSD.                                                                                                                                         |
| prspcp3.c  | a451 | Unexpected TRANSMIT-response.                                                                                                                                                 |
| prspcp3.c  | a452 | Error on TRANSMIT-response for XID ack packet - Dial-Up link.                                                                                                                 |
| prspcp3.c  | a453 | Error in TRANSMIT-job.                                                                                                                                                        |
| prspcp3.c  | a461 | Unexpected RECEIVE-response.                                                                                                                                                  |
| prspcp3.c  | a462 | Error in RECEIVE-job - Private line link.                                                                                                                                     |
| prspcp3.c  | a463 | Error in RECEIVE-job - Dial-Up link.                                                                                                                                          |
| prspcp3.c  | a470 | Hardware Error/Link disconnect report.                                                                                                                                        |
| prspcp3.c  | a471 | Unknown Hardware Error.                                                                                                                                                       |
| prspcp3.c  | a472 | Invalid BX.25 level 2 protocol line address on TRANSMIT-job.                                                                                                                  |
| prspcp3.c  | a473 | PCSD microcode has detected an operational error. Format of additional information is defined as: a b a = word 1 of error response (hex). b = word 2 of error response (hex). |

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| FUNCTION  | CODE | COMMENT (continued)                                                                                                                                                                                 |
|-----------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prspcp3.c | a474 | BX.25 level 2 N2 count exceeded; number of retransmissions exceeded.                                                                                                                                |
| prspcp3.c | a475 | Invalid asynchronous error report.                                                                                                                                                                  |
| prspcp3.c | a476 | Cause of Receive Frame-reject not known.                                                                                                                                                            |
| prspcp3.c | a477 | Cause of Transmit Frame-reject not known.                                                                                                                                                           |
| prspcp3.c | a478 | Aggregate one-count error type not known.                                                                                                                                                           |
| prspcp3.c | a479 | Receive-frame reject.                                                                                                                                                                               |
| prspcp3.c | a47a | Frame-reject probable line address conflict.                                                                                                                                                        |
| prspcp3.c | a47b | Transmit-frame reject.                                                                                                                                                                              |
| prspcp3.c | a47c | This error type reported by DDCMP version.                                                                                                                                                          |
| prspcp3.c | a47d | Error in RESTORE-data - private line link.                                                                                                                                                          |
| prspcp3.c | a481 | Unable to obtain timer entry for Dial-Up DT2.                                                                                                                                                       |
| prspcp3.c | a482 | Unable to obtain PCSD option block from ECD - Dial-Up link.                                                                                                                                         |
| prspcp3.c | a483 | Unable to send RECEIVE-command for XID packet.                                                                                                                                                      |
| prspcp3.c | a484 | Failure to send RECEIVE-jobs to PCSD.                                                                                                                                                               |
| prspcp3.c | a492 | Unable to obtain PCSD option block from ECD - Dial-Up link.                                                                                                                                         |
| prspcp3.c | a493 | Unable to send TRANSMIT-command for XID acknowledgement packet.                                                                                                                                     |
| prspcp3.c | a4a1 | Unable to obtain timer entry for dial-up DT2.                                                                                                                                                       |
| prspcp3.c | a4b1 | Unable to obtain timer entry for dial-up DT3.                                                                                                                                                       |
| prspcp3.c | a4d1 | Unable to initialize Plants Measurement database.                                                                                                                                                   |
| prspcp3.c | a4d2 | Unable to create PCSD record in PM database.                                                                                                                                                        |
| prspcp3.c | a4d3 | Unable to read PCSD record in PM database.                                                                                                                                                          |
| prspcp3.c | a4d4 | Unable to update PCSD record in PM database.                                                                                                                                                        |
| pdmod.c   | a505 | Unable to push PCSD command.                                                                                                                                                                        |
| prmvcp3.c | a507 | The go-out-of-service (GOOS) timer is active when a remove request is made. Format of additional information is defined as: a b a = word of pdstat (hex). b = short word of GOOS timer index (hex). |
| prmvcp3.c | a508 | The GOOS timer is invalid.                                                                                                                                                                          |
| prmvcp3.c | a509 | Request for GOOS-rsp timer returned FAIL.                                                                                                                                                           |
| ldmod.c   | a611 | Fatal error reported on the PCSD.                                                                                                                                                                   |
| ldmod.c   | a612 | Reported PCSD error not recognized.                                                                                                                                                                 |
| ldmod.c   | a614 | Multiple-active-link config not supported.                                                                                                                                                          |
| ldmod.c   | a616 | Invalid link configuration.                                                                                                                                                                         |
| ldmod.c   | a636 | Invalid link configuration.                                                                                                                                                                         |
| ldmod.c   | a637 | Multiple-active-link config not supported.                                                                                                                                                          |
| ldmod.c   | a644 | Multiple-active-link config not supported.                                                                                                                                                          |
| ldmod.c   | a646 | Invalid link configuration.                                                                                                                                                                         |
| ldmod.c   | a654 | Multiple-active-link config not supported.                                                                                                                                                          |
| ldmod.c   | a655 | Invalid link configuration.                                                                                                                                                                         |
| ldmod.c   | a663 | Multiple-active-link config not supported.                                                                                                                                                          |

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| FUNCTION | CODE | COMMENT (continued)                                      |
|----------|------|----------------------------------------------------------|
| ldmod.c  | a664 | Invalid link configuration.                              |
| ldmod.c  | a665 | No ucblp available - simplex config.                     |
| ldmod.c  | a666 | No ucblp available - duplex config.                      |
| ldmod.c  | a669 | Failure to obtain ucblp.                                 |
| ldmod.c  | a66a | Failure to obtain second ucblp.                          |
| ldmod.c  | a66b | No PCSD is active.                                       |
| ldmod.c  | a66c | Number of PCSDs is greater than 2.                       |
| ldmod.c  | a66d | Second RID equal to NULL and not PCSD is active.         |
| ldmod.c  | a673 | Multiple-active-link config not supported.               |
| ldmod.c  | a674 | Invalid link configuration.                              |
| ldmod.c  | a675 | Reporting PCSD not the active unit.                      |
| ldmod.c  | a681 | Invalid remove-type.                                     |
| ldmod.c  | a684 | Multiple-active-link config not supported.               |
| ldmod.c  | a685 | Invalid link configuration.                              |
| ldmod.c  | a691 | NULL ucblp for simplex config.                           |
| ldmod.c  | a692 | Multiple-active-link config not supported.               |
| ldmod.c  | a693 | No active device for duplex config.                      |
| ldmod.c  | a694 | NULL ucblp for duplex config.                            |
| ldmod.c  | a699 | Invalid link configuration.                              |
| ldmod.c  | a6a0 | Restore-failure in an OOS (internal state) PCSD.         |
| ldmod.c  | a6a3 | Link-available-report from an OOS (internal state) PCSD. |
| ldmod.c  | a6a4 | Invalid stimulus for an OOS (internal state) PCSD.       |
| ldmod.c  | a6a5 | Invalid stimulus for a GOOS (internal state) PCSD.       |
| ldmod.c  | a6aa | Connection-timeout for a restored (internal state) PCSD. |
| ldmod.c  | a6ab | Invalid stimulus for a restored (internal state) PCSD.   |
| ldmod.c  | a6ae | Invalid stimulus for an active (internal state) PCSD.    |
| ldmod.c  | a6b2 | Failure to get ucblp.                                    |
| ldmod.c  | a6b3 | Invalid stimulus for a standby (internal state) PCSD.    |
| ldmod.c  | a6b4 | Invalid stimulus for S1_RECOV state.                     |
| ldmod.c  | a6b7 | Invalid stimulus for S1_INIT state.                      |
| ldmod.c  | a6ff | Invalid internal state for PCSD.                         |
| ldmod.c  | a6be | Multiple-active-link config not supported.               |
| ldmod.c  | a6bf | Invalid link configuration.                              |
| ldmod.c  | a6c5 | Multiple-active-link config not supported.               |
| ldmod.c  | a6c6 | Invalid link configuration.                              |
| ldmod.c  | a6c8 | Connection timeout for a simplex PCSD.                   |
| ldmod.c  | a6c9 | Connection timeout for a duplex config.                  |

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| FUNCTION | CODE | COMMENT (continued)                                                                 |
|----------|------|-------------------------------------------------------------------------------------|
| ldmod.c  | a6ca | Multiple-active-link config not supported.                                          |
| ldmod.c  | a6cb | Invalid link configuration.                                                         |
| ldmod.c  | a6d3 | Multiple-active-link config not supported.                                          |
| ldmod.c  | a6d4 | Invalid link configuration.                                                         |
| ldmod.c  | a6d8 | NULL timeout flag.                                                                  |
| ldmod.c  | a6d9 | Timeout flag different from stored value.                                           |
| ldmod.c  | a6da | Failure to get ucblp.                                                               |
| ldmod.c  | a6db | No record of previously active PCSD.                                                |
| ldmod.c  | a6dc | Both PCSDs are OOS or GOOS (internal state).                                        |
| ldmod.c  | a6dd | Maximum number of timing periods.                                                   |
| ldmod.c  | a6de | Maximum number of timing periods, NULL ucblp.                                       |
| ldmod.c  | a6df | Maximum number of timing periods, NULL ucblp.                                       |
| ldmod.c  | a6e1 | Multiple-active-link config not supported.                                          |
| ldmod.c  | a6e2 | Invalid link configuration.                                                         |
| cminit.c | a712 | Unable to obtain PTA and SEGID for common scratch area.                             |
| cminit.c | a716 | Unable to obtain MDCT record.                                                       |
| chmod.c  | a831 | Invalid output action for PUTCHAR input.                                            |
| chmod.c  | a832 | Invalid current output state for PUTCHAR input.                                     |
| chmod.c  | a833 | Invalid return value for choastrat().                                               |
| chmod.c  | a835 | Invalid closing action for PUTCHAR input.                                           |
| chmod.c  | a836 | Invalid return value from chorstrat().                                              |
| chmod.c  | a841 | Invalid input action for GETCHAR input.                                             |
| chmod.c  | a842 | Invalid current state for GETCHAR input.                                            |
| chmod.c  | a843 | Invalid return value from chiastrat().                                              |
| chmod.c  | a845 | Invalid closing action for GETCHAR input.                                           |
| chmod.c  | a846 | Invalid return value from chirstrat().                                              |
| chmod.c  | a847 | Unable to unlink buffer of a zero-length data packet from the common handler queue. |
| chmod.c  | a854 | Unsuccessful transfer of all input data of user's buffer.                           |
| chmod.c  | a855 | Unsuccessful transfer of all input data to user's buffer.                           |
| chmod.c  | a856 | Unsuccessful transfer of requested input data.                                      |
| chmod.c  | a857 | Invalid return value from chirstrat().                                              |
| chmod.c  | a858 | Invalid current input state for GETCHAR input.                                      |
| chmod.c  | a859 | Invalid return value from chiastrat().                                              |
| chmod.c  | a85a | Error encountered in background data transfer.                                      |
| chmod.c  | a861 | Invalid action for output procedure continuation.                                   |
| chmod.c  | a862 | Invalid current output state.                                                       |
| chmod.c  | a865 | Invalid return value from chorstrat().                                              |

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| FUNCTION    | CODE | COMMENT (continued)                                 |
|-------------|------|-----------------------------------------------------|
| chmod.c     | a866 | Invalid output state.                               |
| chmod.c     | a867 | Invalid return value from chorstrat().              |
| chmod.c     | a868 | Invalid return value from choastrat().              |
| chmod.c     | a869 | cphslfree is NULL.                                  |
| chmod.c     | a870 | cphlkfree is NULL.                                  |
| choastrat   | a871 | Invalid output state.                               |
| chiostrat.c | a881 | More bytes of output than requested.                |
| chiostrat.c | a882 | Invalid output procedure flag.                      |
| chiostrat.c | a885 | Partition in an invalid output state.               |
| phmod.c     | a910 | Invalid system status being reported.               |
| phmod.c     | a941 | Invalid return value from logical device handler.   |
| mmmod.c     | aa00 | ioaddseg() failed in case of IOREBOOT.              |
| mmmod.c     | aa01 | Invalid memory initialization type to mminit().     |
| mmmod.c     | aa10 | Invalid init type.                                  |
| mmmod.c     | aa20 | Bad segment.                                        |
| mmmod.c     | aa21 | Queue is full.                                      |
| mmmod.c     | aa30 | iogrowseg() returned failure.                       |
| mmmod.c     | aa31 | ioaddseg() returned failure.                        |
| mmmod.c     | aa40 | get_cell() returned failure.                        |
| mmmod.c     | aa41 | No matching address and key found.                  |
| mmmod.c     | aa50 | Segment count greater than MAXSEGS.                 |
| mmmod.c     | aa51 | get_cell() returned FAIL.                           |
| mmmod.c     | aa60 | Bad segment.                                        |
| mmmod.c     | aa70 | iogrowseg() returned failure.                       |
| mmmod.c     | aa71 | Bad segment.                                        |
| mmmod.c     | aa80 | No matching address and key found.                  |
| mmmod.c     | aa90 | get_cell() returned failure.                        |
| mmmod.c     | aaa0 | free_area number of cells zero.                     |
| mmmod.c     | aaa1 | iogrowseg() returned failure.                       |
| mmmod.c     | aab0 | vaddr and key invalid.                              |
| mmmod.c     | aab1 | IODRV unable to grow segment.                       |
| pgrowcp3.c  | ab00 | Unknown growth type.                                |
| pgrowcp3.c  | ab02 | Failure to obtain option block, growth fails.       |
| pgrowcp3.c  | ab03 | Degrow fails; memory not allocated at growth time.  |
| pgrowcp3.c  | ab04 | Degrow fails; no memory status for this device.     |
| pgrowcp3.c  | ab06 | Failure to obtain option block; boot restore fails. |
| pgrowcp3.c  | ab08 | Growth fails; memory allocation from SMC failed.    |
| pgrowcp3.c  | ab0a | Failed to obtain same ucb; boot restore fails.      |

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| FUNCTION    | CODE | COMMENT (continued)                                                                                                |
|-------------|------|--------------------------------------------------------------------------------------------------------------------|
| chpcreat.c  | ac01 | No global free space for restio entry.                                                                             |
| chpcreat.c  | ac02 | Index bad when pcreate timer fires. Format of additional string information is defined as: a a = channel id (hex). |
| chpcreat.c  | acf3 | chpcreat returned SUCCESS.                                                                                         |
| chpcreat.c  | acff | findpid() returned non-NULL.                                                                                       |
| x3send.c    | af00 | BX.25 level 3 cannot restart with far end.                                                                         |
| x3send.c    | af01 | Unexpected failure to send control packet.                                                                         |
| x3send.c    | af02 | Unexpected failure to send interrupt packet.                                                                       |
| x3send.c    | af03 | Unexpected failure to send data packet.                                                                            |
| NPH HANDLER |      |                                                                                                                    |
| psconn.c    | b001 | Invalid high level user protocol-id.                                                                               |
| psconn.c    | b002 | Invalid application tag.                                                                                           |
| psdetach    | b003 | Unknown application tag.                                                                                           |
| psrstnp3    | b101 | DTE table full.                                                                                                    |
| psinit      | b302 | RUNA record set_id not found.                                                                                      |
| psinit      | b303 | Failure to open cursor for sets.                                                                                   |
| pgrownp3.c  | b500 | Failure to obtain PCSD option block.                                                                               |
| pgrownp3.c  | b501 | ACT internal state for DEGROW request.                                                                             |
| pgrownp3.c  | b502 | Unknown internal state.                                                                                            |
| pgrownp3.c  | b503 | Unknown type of IODRV request.                                                                                     |
| pgrownp3.c  | b504 | Failure to get SEGID and PTA for buffer area.                                                                      |
| pgrownp3.c  | b505 | Failure to allocate scratch memory.                                                                                |
| pgrownp3.c  | b506 | Failure to get RESTORE PCSD.                                                                                       |
| pgrownp3.c  | b507 | Failure to get obtain ucblp.                                                                                       |
| pgrownp3.c  | b508 | Failure to allocate scratch memory.                                                                                |
| pinitnp3.c  | b580 | Unknown type of IODRV request.                                                                                     |
| prstnp3.c   | b600 | ACT internal state for RESTORE request.                                                                            |
| prstnp3.c   | b601 | Failure to RESTORE a PCSD.                                                                                         |
| prstnp3.c   | b602 | ACT internal state for NOT_IMPLICATED_RESTART request.                                                             |
| prstnp3.c   | b603 | Failure to RESTORE a PCSD.                                                                                         |
| prstnp3.c   | b604 | ACT internal state for IMPLICATED_RESTART request.                                                                 |
| prstnp3.c   | b605 | Failure to obtain an IODRV timer element.                                                                          |
| prstnp3.c   | b606 | Failure to RESTORE a PCSD.                                                                                         |
| prstnp3.c   | b607 | Unknown type of IODRV request.                                                                                     |
| prstnp3.c   | b608 | Memory allocation request in progress.                                                                             |
| prstnp3.c   | b609 | Failed to allocate scratch memory.                                                                                 |
| prstnp3.c   | b60a | Failure to get SEGID and PTA for PCSD scratch.                                                                     |

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| FUNCTION  | CODE | COMMENT (continued)                                         |
|-----------|------|-------------------------------------------------------------|
| prstnp3.c | b60b | Failure to get DMA slot for PCSD scratch.                   |
| prstnp3.c | b60c | Failure to get DMA slot for buffer area.                    |
| prstnp3.c | b60d | Failure to obtain PCSD option block.                        |
| prstnp3.c | b60e | Somebody changed the option block.                          |
| prmvnp3.c | b680 | ACT internal state for UNCONDITIONAL_REMOVE request.        |
| prmvnp3.c | b681 | Failure to send GO_OUT_OF_SERVICE command to PCSD.          |
| prmvnp3.c | b682 | Failure to obtain IODRV timer element.                      |
| prmvnp3.c | b683 | Unknown type of IODRV request.                              |
| prmvnp3.c | b684 | Unknown type of IODRV request.                              |
| prmvnp3.c | b685 | Unknown internal state.                                     |
| prmvnp3.c | b686 | OOS internal state for (UN)CONDITIONAL_REMOVE request.      |
| prmvnp3.c | b687 | OOS internal state for HALF_REMOVE request.                 |
| prmvnp3.c | b688 | OOS internal state for unknown type of IODRV request.       |
| prspnp3.c | b700 | Unexpected RESTORE response, ACT internal state.            |
| prspnp3.c | b701 | Unexpected DIAL-OUT response, ACT internal state.           |
| prspnp3.c | b702 | Unknown PCSD response, ACT internal state.                  |
| prspnp3.c | b703 | Unexpected RECEIVE report, INIT internal state.             |
| prspnp3.c | b704 | Unexpected TRANSMIT report, INIT internal state.            |
| prspnp3.c | b705 | Unexpected ASYNCHRONOUS report, INIT internal state.        |
| prspnp3.c | b706 | Unexpected DIAL-OUT response, INIT internal state.          |
| prspnp3.c | b707 | Unknown PCSD response, INIT internal state.                 |
| prspnp3.c | b708 | Unexpected GO_OUT_OF_SERVICE response, OOS internal state.  |
| prspnp3.c | b709 | Unexpected RECEIVE report, OOS internal state.              |
| prspnp3.c | b70a | Unexpected TRANSMIT report, OOS internal state.             |
| prspnp3.c | b70b | Unexpected ASYNCHRONOUS report, OOS internal state.         |
| prspnp3.c | b70c | Unexpected DIAL-OUT response, OOS internal state.           |
| prspnp3.c | b70d | Unexpected PCSD response, OOS internal state.               |
| prspnp3.c | b70e | Unexpected RESTORE response, RMVIP internal state.          |
| prspnp3.c | b70f | Unexpected ASYNCHRONOUS_ERROR report, RMVIP internal state. |

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| FUNCTION  | CODE | COMMENT (continued)                                       |
|-----------|------|-----------------------------------------------------------|
| prspnp3.c | b710 | Unexpected RECEIVE report, RMVIP internal state.          |
| prspnp3.c | b711 | Unexpected TRANSMIT report, RMVIP internal state.         |
| prspnp3.c | b712 | Unexpected ASYNCHRONOUS report, RMVIP internal state.     |
| prspnp3.c | b713 | Unexpected DIAL-OUT response, RMVIP internal state.       |
| prspnp3.c | b714 | Unknown PCSD response, RMVIP internal state.              |
| prspnp3.c | b715 | Unexpected response; memory request in progress.          |
| prspnp3.c | b716 | Unexpected response; memory request failed.               |
| prspnp3.c | b717 | Unknown internal state.                                   |
| prspnp3.c | b720 | No jobs queued for input on PCSD.                         |
| prspnp3.c | b721 | Error on a RECEIVE job.                                   |
| prspnp3.c | b730 | Error on a TRANSMIT job.                                  |
| prspnp3.c | b740 | Failure to initialize buffers.                            |
| prspnp3.c | b741 | Failure to initialize scratch areas.                      |
| prspnp3.c | b742 | Failure to obtain PCSD option block.                      |
| prspnp3.c | b750 | Failure to send RESTORE command to PCSD.                  |
| prspnp3.c | b760 | Failure to remove an IODRV timer element.                 |
| prspnp3.c | b761 | CONNECT report received on a connected PCSD.              |
| prspnp3.c | b762 | No jobs queued for input on PCSD.                         |
| prspnp3.c | b763 | Invalid DATA-SET DISCONNECT report.                       |
| prspnp3.c | b765 | Unknown ASYNCHRONOUS report.                              |
| prspnp3.c | b770 | Hardware error, link disconnect report.                   |
| prspnp3.c | b771 | Unknown hardware error.                                   |
| prspnp3.c | b772 | PCSD software error.                                      |
| prspnp3.c | b773 | CRC error report.                                         |
| prspnp3.c | b774 | Invalid line address on a RECEIVE job.                    |
| prspnp3.c | b775 | Invalid line address on a TRANSMIT job.                   |
| prspnp3.c | b776 | N2 count exceeded.                                        |
| prspnp3.c | b777 | Frame reject received.                                    |
| prspnp3.c | b778 | Frame reject received, cause unknown.                     |
| prspnp3.c | b779 | Frame reject transmitted.                                 |
| prspnp3.c | b77a | Frame reject transmitted, cause unknown.                  |
| prspnp3.c | b77b | Frame reject transmitted; probable line address conflict. |
| prspnp3.c | b77c | Aggregate one-count error type unknown.                   |
| prspnp3.c | b77d | This error type reported by DDCMP version.                |

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| FUNCTION    | CODE | COMMENT (continued)                                                                                                                                                      |
|-------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prspnp3.c   | b77e | Error in RESTORE data.                                                                                                                                                   |
| prspnp3.c   | b77f | Unknown asynchronous error report.                                                                                                                                       |
| prspnp3.c   | b790 | Failure to allocate an input buffer.                                                                                                                                     |
| prspnp3.c   | b791 | Failure to send a RECEIVE job to PCSD.                                                                                                                                   |
| prspnp3.c   | b792 | RESTORE command timeout.                                                                                                                                                 |
| prspnp3.c   | b793 | CONNECT (level 2 protocol init.) timeout.                                                                                                                                |
| dimod.c     | b800 | Failure to get ucblp.                                                                                                                                                    |
| dimod.c     | b805 | Failure to push PCSD command.                                                                                                                                            |
| dimod.c     | b806 | No jobs queued for input on PCSD.                                                                                                                                        |
| dimod.c     | b807 | Failure to get ucblp.                                                                                                                                                    |
| dimod.c     | b808 | Failure to get ucblp.                                                                                                                                                    |
| plinit.c    | ba01 | Failure to get timer index from IODRV.                                                                                                                                   |
| plrcv.c     | ba11 | Packet < 2 octets or invalid GFI or channel unassigned.                                                                                                                  |
| plrcv.c     | ba12 | Packet type invalid.                                                                                                                                                     |
| plrcv.c     | ba13 | RESTART INDICATION packet in state R3_RSTIND.                                                                                                                            |
| plrcv.c     | ba14 | Logical channel 0 in undefined state.                                                                                                                                    |
| plrcv.c     | ba15 | RESTART INDICATION on non-zero channel in state P6_CLRREQ.                                                                                                               |
| plrcv.c     | ba16 | RESTART INDICATION on non-zero channel in state D2_RESREQ.                                                                                                               |
| plrcv.c     | ba17 | RESTART INDICATION on non-zero channel in state R2_RESREQ.                                                                                                               |
| plrcv.c     | ba18 | Logical channel in an undefined state.                                                                                                                                   |
| plrcv.c     | ba19 | Illegal channel and packet type combination.                                                                                                                             |
| plrcv.c     | ba1a | Invalid packet length. Format of additional information is defined as: a b c a = packet type (hex) b = number of bytes in packet (decimal) c = channel number (decimal). |
| plcaccept.c | bb01 | Logical channel in an undefined state.                                                                                                                                   |
| pldacks.c   | bb02 | Logical channel in an undefined state.                                                                                                                                   |
| plexdt.c    | bb03 | Logical channel in an undefined state.                                                                                                                                   |
| plrest.c    | bb04 | Logical channel in an undefined state.                                                                                                                                   |
| pldacks.c   | bb05 | Read substate of the logical channel undefined.                                                                                                                          |
| plrest.c    | bb06 | RESET INDICATION packet in state D3_RESIND.                                                                                                                              |
| plconfi.c   | bb11 | CALL CONNECTED packet in state R2_RSTREQ.                                                                                                                                |
| plcindic.c  | bb21 | INCOMING CALL packet in state R2_RSTREQ or P6_CLRREQ.                                                                                                                    |
| plcindic.c  | bb22 | Originally-called DTE address is Out of Order in Call Redirection Notification facility.                                                                                 |
| plcindic.c  | bb23 | Originally-called DTE address is Busy in Call Redirection Notification facility.                                                                                         |

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| FUNCTION   | CODE | COMMENT (continued)                                                                                                     |
|------------|------|-------------------------------------------------------------------------------------------------------------------------|
| plcindic.c | bb24 | Non-supported reason for redirecting originally-called DTE address in Call Redirection Notification facility.           |
| plcindic.c | bb25 | Originally-called DTE address is Out of Order in Called Line Address Modified Notification facility.                    |
| plcindic.c | bb26 | Originally-called DTE address is Busy in Called Line Address Modified Notification facility.                            |
| plcindic.c | bb27 | Non-supported reason for modifying originally-called DTE address in Called Line Address Modified Notification facility. |
| pldiscr.c  | bb41 | Logical channel in an undefined state.                                                                                  |
| pldiscr.c  | bb42 | CLEAR INDICATION packet in state P7_CLRIND.                                                                             |
| pldiscr.c  | bb43 | Logical channel in an undefined state.                                                                                  |
| pldiscr.c  | bb44 | CLEAR CONFIRMATION in state R2_RSTREQ or R3_RSTIND.                                                                     |
| pldiscr.c  | bb45 | Logical channel in an undefined state.                                                                                  |
| plrest.c   | bb70 | RESET INDICATION packet in state R2_RSTREQ or R3_RSTIND.                                                                |
| plrest.c   | bb71 | RESET CONFIRMATION in state R2_RSTREQ or R3_RSTIND.                                                                     |
| plrest.c   | bb72 | Reset received with diag code of "d-bit not supported."                                                                 |
| plexdt.c   | bb81 | Logical channel in an undefined state.                                                                                  |
| plexdt.c   | bb82 | Logical channel in an undefined state.                                                                                  |
| plrndata.c | bc01 | Logical channel in an undefined state.                                                                                  |
| plrndata.c | bc02 | Invalid return code from "copypacket" function.                                                                         |
| plrndata.c | bc03 | Read substate of logical channel undefined.                                                                             |
| plrndata.c | bc05 | Read substate of logical channel undefined.                                                                             |
| plrndata.c | bc70 | DATA packet in state R2_RSTREQ or R3_RSTIND.                                                                            |
| plsndata.c | bd01 | Send substate of logical channel undefined.                                                                             |
| plsndata.c | bd02 | Logical channel in an undefined state.                                                                                  |
| plsndata.c | bd03 | Invalid return code from "edmacopy" function.                                                                           |
| plsndata.c | bd04 | Send substate of channel undefined.                                                                                     |
| plsndata.c | bd80 | RR/RNR packet in state R2_RSTREQ or R3_RSTIND.                                                                          |
| pltime.c   | be00 | T22 timer not active in state D2_RESREQ.                                                                                |
| pltime.c   | be01 | T21 timer not active in state P2_CALLREQ.                                                                               |
| pltime.c   | be02 | T23 timer not active in state P6_CLRREQ.                                                                                |
| pltime.c   | be03 | T20 timer not active in state R2_RSTREQ.                                                                                |

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TP HANDLER

| FUNCTION    | CODE | COMMENT (continued)                                              |
|-------------|------|------------------------------------------------------------------|
| md_buffer.c | c101 | Wait for a buffer; type is unknown.                              |
| md_buffer.c | c111 | Failure to format an AK, EA, or RJ TPDU.                         |
| md_init.c   | c121 | Failure to read the "TPH 0" UCB ECD record.                      |
| md_init.c   | c122 | Failure to read the tphopt ECD record for TPH.                   |
| md_init.c   | c125 | Failure to retrieve RID for ECD record being changed.            |
| md_init.c   | c126 | Failure to find tsapinfo record RID in table; DELETE operation.  |
| md_init.c   | c131 | Failure to read the tphopt ECD record for TPH.                   |
| md_init.c   | c133 | Failure to retrieve tsapinfo record; INSERT operation.           |
| md_init.c   | c134 | Failure to retrieve tsapinfo record; UPDATE operation.           |
| md_init.c   | c135 | Failure to retrieve NSAP to DTE mapping table; DELETE operation. |
| md_init.c   | c136 | Failure to retrieve NSAP to DTE mapping table; UPDATE operation. |
| md_init.c   | c137 | Failure to retrieve NSAP to DTE mapping table; INSERT operation. |
| md_init.c   | c141 | Request for memory from the IODRV failed.                        |
| md_timers.c | c142 | Request for memory for TPH input buffer failed.                  |
| md_input.c  | c201 | Unknown address type for TS user data area.                      |
| md_input.c  | c202 | Unknown state of the TC input queue.                             |
| md_input.c  | c211 | Unknown address type for TS user data area.                      |
| md_input.c  | c212 | Unknown TPDU type for a NPH RDCMP.                               |
| md_input.c  | c213 | Unknown NPH return code value for a NPH RDCMP.                   |
| md_output.c | c217 | NULL value passed in as TPH memory buffer ptr.                   |
| md_input.c  | c221 | Unknown address type for TS user data area.                      |
| md_input.c  | c222 | Unknown state of the TC input queue.                             |
| md_input.c  | c223 | TS user read error; class 2 TC.                                  |
| md_input.c  | c224 | TS user read error; class 2 TC.                                  |
| md_input.c  | c225 | Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.        |
| md_input.c  | c226 | TS user read error; class 0 or 2 TC.                             |
| md_input.c  | c227 | Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.        |
| md_input.c  | c228 | Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.        |
| md_input.c  | c229 | TS user read error; class 0 or 2 TC.                             |
| md_timers.c | c231 | Timeout for unknown timer type.                                  |
| md_timers.c | c232 | Timeout for invalid TC local reference.                          |

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| FUNCTION     | CODE | COMMENT (continued)                                                     |
|--------------|------|-------------------------------------------------------------------------|
| md_timers.c  | c233 | Invalid timeout element for timer type.                                 |
| tl_buffers.c | c301 | Cannot find TPDU on retain queue.                                       |
| tl_buffers.c | c302 | Retain queue is empty.                                                  |
| tl_conn.c    | c311 | DR TPDU not found in the retained queue.                                |
| tl_conn.c    | c315 | Failure to initiate TCONreq; invalid predicate, P1 or P3.               |
| tl_conn.c    | c316 | Failure to initiate TCONreq; all tc_data structures in use.             |
| tl_conn.c    | c317 | Failure to initiate TCONreq; no tsapinfo for TSAP addresses specified.  |
| tl_conn.c    | c318 | Failure to initiate TCONreq; TS user data length exceeds maximum.       |
| tl_conn.c    | c319 | Failure to initiate TCONreq; all nc_data structures in use.             |
| tl_conn.c    | c320 | Failure to initiate TCONreq; invalid class in tsapinfo.                 |
| tl_conn.c    | c321 | DR TPDU not found in the retained queue.                                |
| tl_conn.c    | c322 | Failure handling incoming CR; cannot allocate tc_data.                  |
| tl_conn.c    | c323 | Failure handling incoming CR; cannot assign nc_data.                    |
| tl_conn.c    | c324 | Failure handling incoming CR; cannot assign nc_data.                    |
| tl_conn.c    | c325 | Failure handling incoming CR; insufficient throughput available.        |
| tl_conn.c    | c326 | Invalid CR TPDU received; connection refused.                           |
| tl_conn.c    | c331 | CR TPDU not found in the retained queue.                                |
| tl_conn.c    | c332 | Invalid TC state for a N-CONNECT confirmation.                          |
| tl_conn.c    | c333 | DR TPDU not found in the retained queue.                                |
| nsi.c        | c341 | Unknown NPH indication.                                                 |
| nsi.c        | c342 | tc-data structure queued twice on DTE priority queue.                   |
| nsi.c        | c343 | tc-data structure queued twice on DTE priority queue.                   |
| nsi.c        | c344 | Failure requesting NC for TC; no tsapinfo for TSAP addresses specified. |
| nsi.c        | c345 | Failure requesting NC for TC; invalid local nsap in tsapinfo.           |

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| FUNCTION  | CODE | COMMENT (continued)                                                  |
|-----------|------|----------------------------------------------------------------------|
| nsi.c     | c346 | Failure to obtain NC; class 0 or 1 TC.                               |
| nsi.c     | c347 | Failure to obtain NC; no DTE found to degrade TC's service.          |
| nsi.c     | c348 | Failure to obtain NC; no NCs available for multiplexing.             |
| nsi.c     | c349 | Failure to obtain NC; could not change throughput on multiplexed NC. |
| nsi.c     | c350 | Failure to obtain NC on retry; no NCs and /or throughput.            |
| nsi.c     | c351 | Failure to obtain NC on retry; invalid return.                       |
| nsi.c     | c352 | Failure to obtain NC; class 0 or 1 TC.                               |
| nsi.c     | c353 | Failure to obtain NC; no NCs available for multiplexing.             |
| nsi.c     | c354 | Failure to obtain NC; could not change throughput on multiplexed NC. |
| nsi.c     | c355 | Failure to obtain NC; invalid QOS specified.                         |
| nsi.c     | c356 | Failure to obtain NC; DTE specified is unavailable.                  |
| nsi.c     | c357 | Failure to obtain NC; invalid return.                                |
| nsi.c     | c358 | Failure to obtain NC; no NCs and /or throughput for class 0 TC.      |
| tl_data.c | c401 | Invalid event for first TPDU received.                               |
| tl_data.c | c405 | Error formatting CC TPDU; extended TSAPID requested, but not found.  |
| tl_data.c | c406 | Error formatting CC TPDU; user data specified for class 0 TC.        |
| tl_data.c | c407 | Error formatting CC TPDU; TS user data length exceeds maximum.       |
| tl_data.c | c411 | DR TPDU not found in the retained queue.                             |
| tl_data.c | c421 | Unknown event for tl_dt_procedure.                                   |
| tl_data.c | c422 | Retained DT TPDU mismatches lower window.                            |
| tl_data.c | c431 | DT TPDU not found in the retained queue.                             |
| tl_data.c | c432 | DT TPDU not found in the retained queue.                             |
| tl_data.c | c433 | CC TPDU not found in the retained queue.                             |
| tl_data.c | c434 | DR TPDU not found in the retained queue.                             |
| tl_data.c | c435 | NS provider error for transmission of a DT TPDU.                     |
| tl_disc.c | c441 | Invalid TC state for a DR TPDU.                                      |
| tl_disc.c | c442 | DR TPDU RECEIVED; invalid SRC-REF.                                   |
| tl_disc.c | c443 | DR TPDU RECEIVED; class 0 TC, OPEN state.                            |
| tl_disc.c | c444 | DR TPDU RECEIVED; WFCC state, peer refused connect request.          |
| tl_disc.c | c445 | DR TPDU RECEIVED; class 0 TC, WBCL state.                            |

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| FUNCTION    | CODE | COMMENT (continued)                                    |
|-------------|------|--------------------------------------------------------|
| tl_disc.c   | c446 | Receipt of DC TPDU; class 0 TC, CLOSING state.         |
| tl_disc.c   | c447 | Receipt of DC TPDU; protocol error, invalid state.     |
| tl_disc.c   | c451 | Invalid TC state for a N-DISCONNECT indication.        |
| tl_disc.c   | c452 | NDISind; class 0 or 2 TC, WFCC state.                  |
| tl_disc.c   | c453 | NDISind; class 0 or 2 TC, WFNC state.                  |
| tl_disc.c   | c454 | NDISind; TTR timeout, WFNC state.                      |
| tl_disc.c   | c455 | NDISind; TTR timeout, WBCL state.                      |
| tl_disc.c   | c456 | NDISind; WFTRESP or WBOC state, no TWR timer value.    |
| tl_disc.c   | c457 | NDISind; class 0 or 2 TC, CLOSING or WBCL state.       |
| tl_disc.c   | c458 | TDISreq; WFCC state.                                   |
| tl_disc.c   | c459 | TDISreq; WFTRESP state.                                |
| tl_disc.c   | c45a | TDISreq; WBOC state.                                   |
| tl_interf.c | c461 | Unknown incoming event.                                |
| tl_interf.c | c462 | Unsupported class.                                     |
| tl_interf.c | c463 | AK or EA TPDU received; class 0 TC.                    |
| tl_interf.c | c464 | RJ TPDU received; class 0 or 2 TC.                     |
| tl_interf.c | c465 | Expedited Data Request; class 0 TC.                    |
| tl_interf.c | c471 | Unknown TPDU type.                                     |
| tl_interf.c | c481 | Fatal TPH error for a reassignment.                    |
| tl_misc.c   | c491 | Changing TC state to an invalid state.                 |
| tl_misc.c   | c4a1 | TPDU not found in the retained queue.                  |
| tl_timers.c | c501 | Unknown timer type.                                    |
| tl_timer.c  | c502 | Failure to start timer.                                |
| tl_timers.c | c511 | Unknown timer type.                                    |
| tl_timers.c | c512 | Failure to stop timer.                                 |
| tl_timers.c | c541 | Invalid state.                                         |
| tl_timers.c | c551 | Invalid state.                                         |
| tl_timers.c | c561 | Unknown timer type.                                    |
| tl_reset.c  | c581 | Failure to format RJ TPDU.                             |
| tl_reset.c  | c582 | NRSTind; class 0 or 2 TC, OPEN state.                  |
| tl_reset.c  | c583 | NRSTind; OPEN state, TTR timer has previously expired. |
| tl_reset.c  | c584 | NRSTind; class 0 or 2 TC, WFCC state.                  |
| tl_reset.c  | c585 | NRSTind; WFCC state, TTR timer has previously expired. |
| tl_reset.c  | c586 | NRSTind; class 0 or 2 TC, WFTRESP state.               |
| tl_reset.c  | c587 | NRSTind; class 0 TC, WBCL state.                       |
| tl_reset.c  | c588 | NRSTind; class 0 TC, CLOSING state.                    |
| tl_reset.c  | c589 | Protocol error for a TPDU received.                    |
| tsi.c       | c591 | No tsapinfo ECD record for specified TSAP.             |
| tsi.c       | c592 | Failure to open ECD for tsapinfo records.              |

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BTI HANDLER

| FUNCTION               | CODE | COMMENT (continued)                   |
|------------------------|------|---------------------------------------|
| update_tc_state()      | cf00 | Transport connection state invalid.   |
| update_control_state() | cf01 | Control state invalid.                |
| update_output_state()  | cf02 | Output state invalid.                 |
| timeout_tc()           | cf03 | Transport connection timeout.         |
| fatal_btih_error()     | cf04 | Fatal BT interface handler error.     |
| inp_avail()            | cf10 | Received unexpected pdu type.         |
| receive_complete()     | cf10 | Received unexpected pdu type.         |
| connect_tc()           | cf11 | TSAP not found.                       |
| connect_tc()           | cf12 | Respond failed.                       |
| inp_avail()            | cf13 | T_rcv failed.                         |
| write_to_tl()          | cf20 | T_send failed.                        |
| get_query_info()       | cf21 | P_iomap failed.                       |
| open_device()          | cf30 | T_attach failed.                      |
| pass_poll_request()    | cf40 | Sendevent failed.                     |
| pass_checkpoint_ack()  | cf40 | Sendevent failed.                     |
| neg_cleanup()          | cf40 | Sendevent failed.                     |
| open_device()          | cf40 | Sendevent failed.                     |
| disconnect_tc()        | cf40 | Sendevent failed.                     |
| ptrpbt3()              | cf50 | G_iomap failed.                       |
| read_ecd_data()        | cf60 | Bad logdev record for control device. |
| read_ecd_data()        | cf61 | Bad logdev record for output device.  |
| read_ecd_data()        | cf62 | Bad btihdev ecd record.               |
| pmsgbt3()              | cf70 | No more available pdu blocks.         |
| get_free_block()       | cf70 | No more available pdu blocks.         |

SP HANDLER

|                         |      |                                                        |
|-------------------------|------|--------------------------------------------------------|
| s_i_ab_spdu_mi()        | d010 | Expected TDisconnect Indication.                       |
| s_req_buffer_md()       | d101 | Requested more than a segment of memory.               |
| s_init_all_buffers_md() | d103 | Handler initialization error.                          |
| s_init_s_con_data_md()  | d104 | Handler not initialized yet.                           |
| s_rel_con_data_md()     | d105 | NULL pointer for pointer to connection data structure. |
| s_rel_con_data_md()     | d106 | Connection data structure corrupted.                   |
| s_rel_con_data_md()     | d107 | Connection data structure already returned to map.     |
| s_rel_con_data_md()     | d108 | Too many connection data structures returned.          |

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| FUNCTION                 | CODE | COMMENT (continued)                                |
|--------------------------|------|----------------------------------------------------|
| s_reuse_con_data_md()    | d109 | Connection data structure pointer is NULL.         |
| s_reuse_con_data_md()    | d10a | Connection data structure corrupted.               |
| s_reuse_con_data_md()    | d10b | Expedited service selected.                        |
| s_reuse_con_data_md()    | d10c | No reuse in effect.                                |
| s_reuse_con_data_md()    | d10d | Duplicate entry in no reuse structure.             |
| s_reuse_con_data_md()    | d10e | Duplicate entry in reuse structure.                |
| s_reuse_con_data_md()    | d10f | Too many connections allocated.                    |
| s_find_ind_function_md() | d110 | Session Protocol Handler not ready.                |
| s_attach()               | d111 | Session Protocol Handler not ready.                |
| s_detach()               | d112 | Session Protocol Handler not ready.                |
| s_reuse_con_data_md()    | d113 | Illegal state of Session Protocol Machine.         |
| s_attach()               | d114 | Invalid version.                                   |
| s_o_t_req_connect_md()   | d201 | Call to t_connect() failed.                        |
| s_o_t_rsp_connect_md()   | d202 | Call to t_respond() failed.                        |
| s_o_t_disconnect_md()    | d203 | Call to t_disconnect() failed.                     |
| pinitsp3                 | d301 | Attach to local TSAP failed.                       |
| pmsgsp3                  | d302 | Invalid message type.                              |
| pmsgsp3                  | d303 | Message had bad record id.                         |
| pmsgsp3                  | d304 | lla_rdget call failed.                             |
| pmsgsp3                  | d305 | Attach to local TSAP failed.                       |
| pmsgsp3                  | d306 | Illegal ECD operation reported.                    |
| s_o_norm_spdu_send_md    | d402 | Failed attempt to send CN SPDU.                    |
| s_o_norm_spdu_send_md    | d403 | Illegal state to send SPDU.                        |
| s_o_norm_spdu_send_md    | d404 | Failed attempt to send SPDU.                       |
| s_o_norm_spdu_send_md    | d405 | Illegal state to send SPDU.                        |
| s_o_norm_spdu_send_md    | d406 | Failed attempt to send AA or AB SPDU.              |
| s_o_norm_spdu_send_md    | d407 | Illegal state to send AA or AB SPDU.               |
| s_o_norm_spdu_send_md    | d408 | Illegal SPDU type.                                 |
| s_o_ssdu_send_md()       | d409 | Illegal use of segmenting.                         |
| s_o_ssdu_send_md()       | d40a | Illegal state for sending unsegmented data.        |
| s_o_ssdu_send_md()       | d40b | Illegal ssdu_segment value.                        |
| s_o_ssdu_send_md()       | d40c | Illegal ssdu_segment value.                        |
| s_o_ssdu_send_md()       | d40d | Illegal state for sending segmented data.          |
| s_o_ssdu_send_md()       | d40e | tsdu size <= GTSEGDTHDR.                           |
| s_send_tsc_md()          | d40f | Failed attempt to send AA or AB SPDU.              |
| s_send_tsc_md()          | d410 | Session Protocol Machine in illegal state.         |
| s_send_ack_md()          | d411 | Inconsistent number of t_acknowledges outstanding. |
| s_send_ack_md()          | d412 | Inconsistent number of t_acknowledges.             |

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| FUNCTION               | CODE | COMMENT (continued)                                   |
|------------------------|------|-------------------------------------------------------|
| s_send_ack_md()        | d413 | Inconsistent number of t_acknowledges.                |
| s_send_ack_md()        | d414 | Number of t_acknowledges > NUMSEGHEADS.               |
| s_send_ack_md()        | d415 | Inconsistent number of t_acknowledges.                |
| s_send_ack_md()        | d416 | Inconsistent number of t_acknowledges.                |
| s_send_ack_md()        | d417 | Inconsistent number of t_acknowledges.                |
| s_send_ack_md()        | d418 | Number of t_acknowledges > NUMSEGHEADS.               |
| s_send_ack_md()        | d419 | Inconsistent number of t_acknowledges.                |
| s_send_ack_md()        | d41a | Inconsistent number of t_acknowledges.                |
| s_send_ack_md()        | d41b | Inconsistent number of acknowledges.                  |
| s_send_ack_md()        | d41c | Inconsistent number of acknowledges.                  |
| s_send_ack_md()        | d41d | Inconsistent number of acknowledges.                  |
| s_send_ack_md()        | d41e | Session Protocol Machine in illegal state.            |
| s_unseg_send_md()      | d41f | Transport send failed.                                |
| s_unseg_send_md()      | d420 | Transport send failed.                                |
| s_seg_send_md()        | d421 | Data transmission error - not enough user data.       |
| s_seg_send_md()        | d422 | Data transmission error - not enough user data.       |
| s_seg_send_md()        | d423 | Data transmission error.                              |
| s_seg_send_md()        | d424 | Data transmission error.                              |
| s_o_exp_spdu_send_md() | d425 | Expedited data transmission error at transport layer. |
| s_o_exp_spdu_send_md() | d426 | Expedited data transmission error at session layer.   |
| s_o_ssdu_send_md()     | d427 | Length of user data <= 0.                             |
| s_o_ssdu_send_md()     | d428 | SS-user tried to send after S_PARTIAL response.       |
| s_o_ssdu_send_md()     | d429 | SS-user tried to send after S_PARTIAL response.       |
| s_send_ack_md()        | d42a | Bad state for orderly release.                        |
| s_send_ack_md()        | d42b | Unexpected acknowledgement.                           |
| s_unseg_send_md()      | d42e | Invalid T_ACKNOWLEDGE indication.                     |
| s_send_ack_md()        | d42f | Bad disconnect state for orderly abort.               |
| s_send_suc_md()        | d430 | Bad disconnect state for orderly abort.               |
| s_send_suc_md()        | d431 | Bad disconnect state for orderly abort.               |
| s_o_exp_spdu_md()      | d432 | Cannot send EX SPDU.                                  |
| s_send_suc_md()        | d43a | Invalid state for an orderly release.                 |
| s_send_suc_md()        | d43b | Invalid return code value from t_send.                |
| s_send_suc_md()        | d43c | Invalid send machine state.                           |
| s_i_spdu_rec_md()      | d501 | Failed while reading SPDU header.                     |
| s_i_spdu_rec_md()      | d502 | Failed while reading concatenated SPDU header.        |
| s_i_spdu_rec_md()      | d503 | Extended concatenation not supported.                 |
| s_i_spdu_rec_md()      | d504 | Invalid return from s_i_process_spdu_md().            |
| s_i_spdu_rec_md()      | d505 | Invalid return from s_i_process_spdu_md().            |
| s_i_spdu_rec_md()      | d506 | Wrong state to receive a new SPDU.                    |

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| FUNCTION                  | CODE | COMMENT (continued)                                                                    |
|---------------------------|------|----------------------------------------------------------------------------------------|
| s_i_decode_length()       | d507 | SPDU header too long for input buffer.                                                 |
| s_i_decode_length()       | d508 | Length of SPDU header wrong.                                                           |
| s_i_decode_length()       | d509 | Length of SPDU header wrong.                                                           |
| s_i_decode_length()       | d50a | Unrecognized return code from t_receive().                                             |
| s_i_PI_buf_get_md()       | d50b | Failure to get PG length in SPDU header.                                               |
| s_i_PI_buf_get_md()       | d50c | Failure to get PG data in SPDU header.                                                 |
| s_i_header_get_md()       | d50d | SPDU header too long for input buffer.                                                 |
| s_i_header_get_md()       | d50e | Wrong number of bytes returned from t_receive().                                       |
| s_i_header_get_md()       | d50f | Unrecognized return code from t_receive().                                             |
| s_i_header_get_md()       | d510 | Invalid length of Parameter Group data.                                                |
| s_i_header_get_md()       | d511 | User data indicated, but reached end of SPDU.                                          |
| s_i_header_get_md()       | d512 | Invalid SPDU header length.                                                            |
| s_i_header_get_md()       | d513 | Too many bytes in SPDU header.                                                         |
| s_i_header_get_md()       | d514 | End of SPDU header, wrong length.                                                      |
| s_i_data_get_md()         | d515 | SPDU header too long for input buffer.                                                 |
| s_i_data_get_md()         | d516 | Number of bytes in SPDU header greater than indicated.                                 |
| s_i_data_get_md()         | d517 | Wrong number of bytes returned from t_receive().                                       |
| s_i_data_get_md()         | d518 | End of SPDU header, wrong length.                                                      |
| s_i_data_get_md()         | d519 | Invalid return code from t_receive().                                                  |
| s_i_type_spdu_decode_md() | d51a | Illegal concatenation.                                                                 |
| s_i_type_spdu_decode_md() | d51b | Illegal SPDU type.                                                                     |
| s_i_length_PG_md()        | d51c | SPDU header too long for input buffer.                                                 |
| s_i_length_PG_md()        | d51d | Wrong number of bytes returned from t_receive().                                       |
| s_i_length_PG_md()        | d51e | While reading LONG SPDU header got return code of T_NEW_TSDU.                          |
| s_i_length_PG_md()        | d51f | While reading LONG SPDU header got return code of T_READ_END.                          |
| s_i_length_PG_md()        | d520 | While reading LONG SPDU header got invalid return code.                                |
| s_i_length_PG_md()        | d521 | SPDU header too long for input buffer; SPDU type is CN, AC, or RF.                     |
| s_i_length_PG_md()        | d522 | SPDU header too long for input buffer; SPDU type is GT, OUR_DT, PT, FN, DN, AA, or AB. |
| s_i_length_PG_md()        | d523 | Unknown SPDU type header.                                                              |
| s_i_trc_md()              | d524 | Wrong byte count from t_receive_complete().                                            |

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| FUNCTION     | CODE | COMMENT (continued)                                |
|--------------|------|----------------------------------------------------|
| s_i_trc_md() | d525 | Illegal type of SPDU received.                     |
| s_i_trc_md() | d526 | Illegal length of SPDU header.                     |
| s_i_trc_md() | d527 | Failed to process concatenated SPDU.               |
| s_i_trc_md() | d528 | Illegal concatenation.                             |
| s_i_trc_md() | d529 | Invalid return from s_i_process_spdu_md().         |
| s_i_trc_md() | d52a | Illegal concatenation.                             |
| s_i_trc_md() | d52b | Failed to read in SPDU header.                     |
| s_i_trc_md() | d52c | Failed to read in concatenated SPDU header.        |
| s_i_trc_md() | d52d | Illegal concatenation.                             |
| s_i_trc_md() | d52e | Invalid return from s_i_process_spdu_md().         |
| s_i_trc_md() | d52f | Invalid return from s_i_PI_buf_get_md().           |
| s_i_trc_md() | d530 | Illegal SPDU type.                                 |
| s_i_trc_md() | d531 | Invalid return code from<br>t_receive_complete().  |
| s_i_trc_md() | d532 | Wrong byte count from t_receive_complete().        |
| s_i_trc_md() | d533 | Failed while reading SPDU header.                  |
| s_i_trc_md() | d534 | Illegal concatenation.                             |
| s_i_trc_md() | d535 | Failed while reading concatenated SPDU.            |
| s_i_trc_md() | d536 | Invalid return from s_i_process_spdu_md().         |
| s_i_trc_md() | d537 | Invalid return from s_i_PI_buf_get().              |
| s_i_trc_md() | d538 | LONG SPDU header;t_receive returned<br>T_NEW_TSDU. |
| s_i_trc_md() | d539 | LONG SPDU header;t_receive returned<br>T_READ_END. |
| s_i_trc_md() | d53a | Invalid return from t_receive_complete().          |
| s_i_trc_md() | d53b | Wrong byte count from t_receive_complete().        |
| s_i_trc_md() | d53c | Invalid length of SPDU header.                     |
| s_i_trc_md() | d53d | Have USER DATA;SPDU header length wrong.           |
| s_i_trc_md() | d53e | Illegal concatenation.                             |
| s_i_trc_md() | d53f | Failed while reading header of concatenated SPDU.  |
| s_i_trc_md() | d540 | Invalid return from s_i_process_spdu_md().         |
| s_i_trc_md() | d541 | Failed while reading SPDU header.                  |
| s_i_trc_md() | d542 | Failed while reading header of concatenated SPDU.  |
| s_i_trc_md() | d543 | Illegal concatenation.                             |
| s_i_trc_md() | d544 | Invalid return from s_i_process_spdu_md().         |
| s_i_trc_md() | d545 | Invalid return from s_i_PI_buf_get_md().           |
| s_i_trc_md() | d546 | USERDATA indicated, none present.                  |
| s_i_trc_md() | d547 | USERDATA indicated, none present.                  |

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| FUNCTION            | CODE | COMMENT (continued)                                                                |
|---------------------|------|------------------------------------------------------------------------------------|
| s_i_trc_md()        | d548 | Parameter Group length != 0; wrong.                                                |
| s_i_trc_md()        | d549 | Wrong Parameter Group length.                                                      |
| s_i_trc_md()        | d54a | Invalid return from t_receive_complete().                                          |
| s_i_trc_md()        | d54b | Illegal concatenation.                                                             |
| s_i_trc_md()        | d54c | Failed while reading head of concatenated SPDU.                                    |
| s_i_trc_md()        | d54d | Invalid return from s_i_process_spdu_md().                                         |
| s_i_trc_md()        | d54e | Failed while reading Parameter Groups of SPDU header.                              |
| s_i_trc_md()        | d54f | Failed while reading header of concatenated SPDU.                                  |
| s_i_trc_md()        | d550 | Illegal concatenation.                                                             |
| s_i_trc_md()        | d551 | Invalid return from s_i_process_spdu_md().                                         |
| s_i_trc_md()        | d552 | Invalid return from s_i_PI_buf_get_md().                                           |
| s_i_trc_md()        | d553 | Incorrect byte count in SPDU header.                                               |
| s_i_trc_md()        | d554 | Invalid return from t_receive_complete().                                          |
| s_i_trc_md()        | d555 | Bad byte count from t_receive_complete().                                          |
| s_i_trc_md()        | d556 | USER DATA; bad byte count in SPDU header.                                          |
| s_i_trc_md()        | d557 | Illegal concatenation.                                                             |
| s_i_trc_md()        | d558 | Failed while reading header of concatenated SPDU.                                  |
| s_i_trc_md()        | d559 | Invalid return from s_i_process_spdu_md().                                         |
| s_i_trc_md()        | d55a | Failed while reading Parameter Groups of SPDU header.                              |
| s_i_trc_md()        | d55b | Failed while reading header of concatenated SPDU.                                  |
| s_i_trc_md()        | d55c | Illegal concatenation.                                                             |
| s_i_trc_md()        | d55d | Invalid return from s_i_process_spdu_md().                                         |
| s_i_trc_md()        | d55e | Failed while reading Parameter Groups of SPDU header.                              |
| s_i_trc_md()        | d55f | LONG SPDU header; t_receive returned T_NEW_TSDU.                                   |
| s_i_trc_md()        | d560 | LONG SPDU header; t_receive returned T_READ_END.                                   |
| s_i_trc_md()        | d561 | Invalid return from t_receive_complete().                                          |
| s_i_trc_md()        | d562 | Invalid return from t_receive_complete().                                          |
| s_i_trc_md()        | d563 | Invalid return from t_receive_complete().                                          |
| s_i_trc_md()        | d564 | Illegal receive state.                                                             |
| s_i_size_check_md() | d565 | SPDU header too long for input buffer; SPDU type is CN, AC, or RF.                 |
| s_i_size_check_md() | d566 | SPDU header too long for input buffer; SPDU type is OUR_DT, PT, FN, DN, AA, or AB. |
| s_i_size_check_md() | d567 | SPDU header too long for input buffer; SPDU type is GT.                            |

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| FUNCTION                  | CODE | COMMENT (continued)                                                             |
|---------------------------|------|---------------------------------------------------------------------------------|
| s_i_size_check_md()       | d568 | Unknown SPDU type header.                                                       |
| s_i_last_norm_data_md()   | d569 | Invalid return code from t_receive().                                           |
| s_i_last_norm_data_md()   | d56a | Illegal state - receive data.                                                   |
| s_i_more_norm_data_md()   | d56b | Invalid return code from t_receive().                                           |
| s_i_more_norm_data_md()   | d56c | Illegal state - receive data.                                                   |
| s_i_rec_norm_data_md()    | d56d | Invalid return code from t_receive().                                           |
| s_i_rec_norm_data_md()    | d56e | Invalid return code from t_receive().                                           |
| s_i_rec_norm_data_md()    | d56f | Illegal state - receive data.                                                   |
| s_i_process_spdu_md()     | d570 | Bad byte count from t_receive().                                                |
| s_i_process_spdu_md()     | d571 | Unknown SPDU type.                                                              |
| s_i_process_spdu_md()     | d572 | Unknown SPDU type.                                                              |
| s_i_process_spdu_md()     | d573 | Illegal length of AB SPDU.                                                      |
| s_i_process_spdu_md()     | d574 | Illegal SPDU header length.                                                     |
| s_i_process_spdu_md()     | d575 | Failed while reading Parameter Groups of SPDU header.                           |
| s_i_process_spdu_md()     | d576 | Illegal concatenation.                                                          |
| s_i_process_spdu_md()     | d577 | Invalid return from s_i_PI_buf_get_md().                                        |
| s_i_process_spdu_md()     | d578 | Illegal state - receive SPDU header.                                            |
| s_i_concat_check_md()     | d579 | Illegal concatenation with a GT SPDU.                                           |
| s_i_concat_check_md()     | d57a | Illegal concatenation.                                                          |
| s_i_trc_md()              | d57b | Illegal length of AB SPDU.                                                      |
| s_i_trc_md()              | d57c | Invalid return code from t_receive().                                           |
| s_i_trc_md()              | d57d | Bad byte count while reading AB SPDU.                                           |
| s_i_trc_md()              | d57e | Invalid return from t_receive_complete() while reading AB SPDU.                 |
| s_i_process_spdu_md()     | d57f | Invalid return code while reading AB SPDU.                                      |
| s_i_process_spdu_md()     | d580 | Bad byte count from t_receive().                                                |
| s_i_trc_md()              | d581 | Bad state for orderly release.                                                  |
| s_i_rec_norm_data_md()    | d582 | Bad state for orderly release.                                                  |
| s_i_concat_check_md()     | d583 | Improper concatenation - RS SPDU must be concatenated with meaningless GT SPDU. |
| s_i_concat_check_md()     | d584 | Improper concatenation - RA SPDU must be concatenated with a PT SPDU.           |
| s_i_trc_md()              | d585 | Failure to discard remainder of SPDU.                                           |
| s_i_trc_md()              | d586 | Invalid return code from t_receive() when in the discard receive state.         |
| s_i_type_spdu_decode_md() | d587 | RS/RA SPDU must be concatenated with GT/PT SPDU.                                |
| s_i_trc_md()              | d588 | Bad state for orderly release.                                                  |

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| FUNCTION           | CODE | COMMENT (continued)                                                      |
|--------------------|------|--------------------------------------------------------------------------|
| s_i_ac_spdu_mi()   | d601 | Session Protocol Machine in (illegal) state STA01C.                      |
| s_i_ac_spdu_mi()   | d602 | Parsing of SPDU failed.                                                  |
| s_i_ac_spdu_mi()   | d603 | No transport connection exists.                                          |
| s_i_ac_spdu_mi()   | d604 | Expected t_connect_confirm.                                              |
| s_i_ac_spdu_mi()   | d605 | Invalid Session Protocol Machine state.                                  |
| s_ac_parse_mi()    | d606 | Invalid token setting in AC SPDU.                                        |
| s_ac_parse_mi()    | d607 | Invalid parameter group in AC SPDU.                                      |
| s_ac_parse_mi()    | d608 | Parsing of AC SPDU failed.                                               |
| s_ac_parse_mi()    | d609 | AC SPDU functional units specified incorrectly.                          |
| s_cn_spdu_mi()     | d60a | Expected Abort Accept or Transport Disconnect Indication.                |
| s_cn_spdu_mi()     | d60b | Receiving side not transport acceptor.                                   |
| s_cn_spdu_mi()     | d60c | Expected t_connect_confirm.                                              |
| s_cn_spdu_mi()     | d60d | No transport connection exists.                                          |
| s_cn_spdu_mi()     | d60e | Invalid Session Protocol Machine state.                                  |
| s_cn_parse_mi()    | d60f | Invalid token setting in CN SPDU.                                        |
| s_cn_parse_mi()    | d610 | Invalid duplex/half duplex choice in CN SPDU.                            |
| s_cn_parse_mi()    | d611 | SSAP length exceeds S_MAX_SSAP_ID_LEN.                                   |
| s_cn_parse_mi()    | d612 | Invalid parameter group in CN SPDU.                                      |
| s_cn_parse_mi()    | d613 | Parsing of CN SPDU failed.                                               |
| s_i_rf_spdu_mi()   | d614 | Session Protocol Machine in illegal state (STA01C).                      |
| s_i_rf_spdu_mi()   | d615 | Session Protocol Machine in illegal state (STA01).                       |
| s_i_rf_spdu_mi()   | d616 | Expected t_connect_confirm.                                              |
| s_i_rf_spdu_mi()   | d617 | Session Protocol Machine in invalid state.                               |
| s_rf_parse_mi()    | d618 | duplex/half duplex option not specified in RF SPDU.                      |
| s_rf_parse_mi()    | d619 | Invalid Parameter Group in RF SPDU.                                      |
| s_rf_parse_mi()    | d61a | Parsing of RF SPDU failed.                                               |
| s_i_c_req_mi()     | d61b | User data length exceeds S_U_512_LEN.                                    |
| s_i_c_req_mi()     | d61c | Failed attempt to construct CN SPDU.                                     |
| s_i_c_req_mi()     | d61d | Failed attempt to get a transport connection.                            |
| s_i_c_req_mi()     | d61e | User data length exceeds S_U_512_LEN.                                    |
| s_i_c_req_mi()     | d61f | Failed attempt to send CN SPDU.                                          |
| s_i_c_req_mi()     | d620 | Failed attempt to construct CN SPDU.                                     |
| s_i_c_req_mi()     | d621 | Sender not transport connection initiator.                               |
| s_i_c_req_mi()     | d622 | Session Protocol Machine in invalid state to receive connection request. |
| build_cn_spdu_mi() | d623 | Failed attempt to add the connection id parameter field to CN spdu.      |
| build_cn_spdu_mi() | d624 | Invalid token setting in building CN SPDU.                               |
| build_cn_spdu_mi() | d625 | Invalid duplex/half duplex choice.                                       |
| build_cn_spdu_mi() | d626 | Failed attempt to add the session user requirements field to CN spdu.    |
| build_cn_spdu_mi() | d627 | Calling ssap identifier length > S_MAX_SSAP_ID_LEN.                      |

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| FUNCTION                  | CODE | COMMENT (continued)                                                     |
|---------------------------|------|-------------------------------------------------------------------------|
| build_cn_spdu_mi()        | d628 | Called ssap identifier length > S_MAX_SSAP_ID_LEN.                      |
| add_conn_id_mi()          | d629 | User reference parameter length > S_REF_MAX_LEN.                        |
| add_conn_id_mi()          | d62a | Common reference length parameter > S_REF_MAX_LEN.                      |
| add_conn_id_mi()          | d62b | Additional reference length parameter > S_REF_MAX_LEN.                  |
| add_cn_rf_sess_req_mi()   | d62c | Invalid duplex/half duplex setting.                                     |
| add_cn_rf_sess_req_mi()   | d62d | Invalid expedited data setting.                                         |
| add_cn_rf_sess_req_mi()   | d62e | Invalid CCITT subset selected.                                          |
| add_ac_sess_req_mi()      | d62f | Invalid duplex/half duplex setting.                                     |
| add_ac_sess_req_mi()      | d630 | Invalid expedited data setting.                                         |
| add_ac_sess_req_mi()      | d631 | Invalid CCITT subset selected.                                          |
| s_i_cacc_rsp_connect_mi() | d632 | Expected TConnect Confirm.                                              |
| s_i_cacc_rsp_connect_mi() | d633 | User Data length > S_U_512_LEN.                                         |
| s_i_cacc_rsp_connect_mi() | d634 | Failed attempt to construct AC SPDU.                                    |
| s_i_cacc_rsp_connect_mi() | d635 | Failed attempt to send AC SPDU.                                         |
| s_i_cacc_rsp_connect_mi() | d636 | Session Protocol Machine in invalid state.                              |
| build_ac_spdu_mi()        | d637 | Failed attempt to add connection identifier parameter group to AC SPDU. |
| build_ac_spdu_mi()        | d638 | Invalid token setting.                                                  |
| build_ac_spdu_mi()        | d639 | Attempt to set data token in duplex mode.                               |
| build_ac_spdu_mi()        | d63a | Invalid token holder setting.                                           |
| build_ac_spdu_mi()        | d63b | Failed to add session user requirements parameter items to an AC SPDU.  |
| build_ac_spdu_mi()        | d63c | Called ssap length > S_MAX_SSAP_ID_LEN.                                 |
| s_i_crej_rsp_connect_mi() | d63d | Expected TConnect Confirm.                                              |
| s_i_crej_rsp_connect_mi() | d63e | User Data length > S_U_512_LEN.                                         |
| s_i_crej_rsp_connect_mi() | d63f | Failed attempt to construct RF SPDU with reuse set.                     |
| s_i_crej_rsp_connect_mi() | d640 | Failed attempt to send RF SPDU with reuse set.                          |
| s_i_crej_rsp_connect_mi() | d641 | Failed attempt to construct RF SPDU with no reuse set.                  |
| s_i_crej_rsp_connect_mi() | d642 | Failed attempt to send RF SPDU with no reuse set.                       |
| s_i_crej_rsp_connect_mi() | d643 | Session Protocol Machine in invalid state.                              |
| build_rf_spdu_mi()        | d644 | Invalid reason code with User Data.                                     |
| build_rf_spdu_mi()        | d645 | Failed attempt to add connection id parameter group field to RF SPDU.   |

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| FUNCTION               | CODE | COMMENT (continued)                                                                      |
|------------------------|------|------------------------------------------------------------------------------------------|
| build_rf_spdu_mi()     | d646 | Invalid reason code with session user requirements.                                      |
| build_rf_spdu_mi()     | d647 | Failed attempt to add session user requirements field to RF SPDU.                        |
| build_rf_spdu_mi()     | d648 | Illegal reason code.                                                                     |
| s_i_t_con_connect_mi() | d649 | Failed attempt to send CN SPDU.                                                          |
| s_i_t_con_connect_mi() | d64a | Expected T_Disconnect or Abort Accept indication.                                        |
| s_i_t_con_connect_mi() | d64b | No transport connection.                                                                 |
| s_i_t_con_connect_mi() | d64c | Illegal state for Transport Connection Confirm.                                          |
| s_i_tc_ind_mi()        | d64d | Failed attempt to send T_CONNECT_RESPONSE.                                               |
| s_i_tc_ind_mi()        | d64e | Transport connection already established.                                                |
| s_i_tc_ind_mi()        | d64f | Expected Abort Accept or T_Disconnect Indication.                                        |
| s_i_tc_ind_mi()        | d650 | Illegal or invalid state to receive Transport Connection Indication.                     |
| build_ac_spdu_mi()     | d651 | Invalid token holder setting.                                                            |
| build_ac_spdu_mi()     | d652 | Calling ssap identifier length > S_MAX_SSAP_ID_LEN.                                      |
| s_i_c_req_mi()         | d653 | Could not get buffer to build CN SPDU.                                                   |
| s_ac_parse_mi()        | d654 | Too much user data on version 1 AC SPDU.                                                 |
| s_ac_parse_mi()        | d655 | Enclosure item not supported on AC SPDU.                                                 |
| s_ac_parse_mi()        | d656 | AC SPDU does not contain proposed version.                                               |
| s_ac_parse_mi()        | d657 | AC SPDU does not contain one of the proposed data mode types (duplex or half duplex).    |
| s_ac_parse_mi()        | d658 | Initial sync point serial number is missing.                                             |
| s_i_cn_spdu_mi()       | d659 | Proposed version is not supported on this SSAP.                                          |
| s_i_cn_spdu_mi()       | d65a | Could not find indication function due to unrecognized SSAP.                             |
| s_cn_parse_mi()        | d65b | User data too large for version 1 connect SPDU.                                          |
| s_cn_parse_mi()        | d65c | Extended user data not valid in version 1.                                               |
| s_cn_parse_mi()        | d65d | Overflow parameter not supported.                                                        |
| s_refuse_cn_mi()       | d65e | Could not get buffer for sending RF SPDU.                                                |
| s_refuse_cn_mi()       | d65f | Failed to build RF SPDU.                                                                 |
| s_refuse_cn_mi()       | d660 | Failed to send RF SPDU.                                                                  |
| s_rf_parse_mi()        | d661 | Too much user information on version 1 RF SPDU.                                          |
| s_rf_parse_mi()        | d662 | Enclosure parameter not supported on refuse SPDU.                                        |
| s_i_c_req_mi()         | d663 | Invalid initial sync point serial number.                                                |
| s_i_c_req_mi()         | d664 | Initial sync point serial number must not be set if resync functional unit not proposed. |

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| FUNCTION                  | CODE | COMMENT (continued)                                                                      |
|---------------------------|------|------------------------------------------------------------------------------------------|
| s_i_c_req_mi()            | d665 | Invalid initial sync point serial number.                                                |
| s_i_c_req_mi()            | d666 | Initial sync point serial number must not be set if resync functional unit not proposed. |
| add_cn_rf_sess_req_mi()   | d667 | Invalid resync functional unit setting.                                                  |
| add_ac_sess_req_mi()      | d668 | Invalid resync functional unit setting.                                                  |
| s_i_cacc_rsp_connect_mi() | d669 | Invalid initial sync point serial number.                                                |
| s_i_cacc_rsp_connect_mi() | d66a | Serial number must be S_NO_SERNUM if resync functional unit not proposed.                |
| build_ac_spdu_mi()        | d66b | Maximum SPDU length exceeded on AC.                                                      |
| build_ac_spdu_mi()        | d66c | AC SPDU exceeds negotiated max TSDU size.                                                |
| build_rf_spdu_mi()        | d66d | Maximum SPDU length exceeded on RF SPDU.                                                 |
| build_rf_spdu_mi()        | d66e | RF SPDU exceeds negotiated max TSDU size.                                                |
| s_i_ac_spdu_mi()          | d66f | Failure to discard AC SPDU.                                                              |
| s_ac_parse_mi()           | d670 | SSAP length exceeds S_MAX_SSAP_ID_LEN.                                                   |
| s_ac_parse_mi()           | d671 | Token setting item missing in conditions when it is required.                            |
| s_req_connect()           | d701 | Indication function not specified.                                                       |
| s_req_connect()           | d702 | No connection data structure available.                                                  |
| s_req_connect()           | d703 | Session connection set up failed.                                                        |
| s_acc_con_res()           | d704 | Error processing Session Accept Request.                                                 |
| s_rej_con_res()           | d705 | Error processing Session Connect Reject.                                                 |
| s_send_normal()           | d706 | Error processing Send Normal Data Request.                                               |
| s_receive()               | d707 | Error processing Receive Request.                                                        |
| s_send_exp()              | d708 | Error processing Send Expedited Data Request.                                            |
| s_give_tokens()           | d709 | Error processing Give Tokens Request.                                                    |
| s_please_tokens()         | d70a | Error processing Please Tokens Request.                                                  |
| s_req_rel()               | d70b | Error processing Release Request.                                                        |
| s_resp_rel()              | d70c | Error processing Release Response Request.                                               |
| s_u_abort()               | d70d | Error processing User Abort Request.                                                     |
| s_acc_con_res()           | d70e | Illegal connection data structure pointer.                                               |
| s_rej_con_res()           | d70f | Illegal connection data structure pointer.                                               |
| s_send_normal()           | d710 | Illegal connection data structure pointer.                                               |
| s_receive()               | d711 | Illegal connection data structure pointer.                                               |
| s_send_exp()              | d712 | Illegal connection data structure pointer.                                               |
| s_give_tokens()           | d713 | Illegal connection data structure pointer.                                               |
| s_please_tokens()         | d714 | Illegal connection data structure pointer.                                               |
| s_req_rel()               | d715 | Illegal connection data structure pointer.                                               |
| s_rel_resp()              | d716 | Illegal connection data structure pointer.                                               |
| s_u_abort()               | d717 | Illegal connection data structure pointer.                                               |
| s_set_uinfo()             | d718 | Invalid pointer to connection data structure.                                            |
| s_rs_req()                | d719 | Invalid resync type requested - only abandon is supported.                               |

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| FUNCTION             | CODE | COMMENT (continued)                                  |
|----------------------|------|------------------------------------------------------|
| s_rs_req()           | d71a | Illegal connection data structure pointer.           |
| s_rs_req()           | d71b | Error processing resync request.                     |
| s_rs_rsp()           | d71c | Illegal connection data structure pointer.           |
| s_rs_rsp()           | d71d | Error processing resync response.                    |
| s_set_timer_md()     | d801 | Abort timer already active on this connection.       |
| s_gt_timer_md()      | d802 | Give tokens timer already active on this connection. |
| s_tnewsdu_timer_md() | d803 | tnewsdu timer already active on this connection.     |
| s_stop_timer_md()    | d804 | Abort timer not active on this connection.           |
| s_timer_exp_md()     | d805 | Unknown timer type.                                  |
| s_i_fn_spdu_mi()     | d901 | Illegal state (STA01C) to receive FN SPDU.           |
| s_i_fn_spdu_mi()     | d902 | Illegal reuse after SPDU collision.                  |
| s_i_fn_spdu_mi()     | d903 | Illegal reuse during data transfer.                  |
| s_i_fn_spdu_mi()     | d904 | Illegal state to receive FN SPDU.                    |
| s_fn_parse_mi()      | d905 | User Data > S_U_512_LEN.                             |
| s_fn_parse_mi()      | d906 | Illegal Parameter Identifier.                        |
| s_fn_parse_mi()      | d907 | FN SPDU parsing failed.                              |
| s_i_dn_spdu_mi()     | d908 | Illegal state (STA01C) to receive DN SPDU.           |
| s_i_dn_spdu_mi()     | d909 | DN SPDU parsing failed.                              |
| s_i_dn_spdu_mi()     | d90a | DN SPDU parsing error or S_P69_MI failed.            |
| s_i_dn_spdu_mi()     | d90b | Illegal state to receive DN SPDU.                    |
| s_dn_parse_mi()      | d90c | User Data > S_U_512_LEN.                             |
| s_dn_parse_mi()      | d90d | Illegal Parameter Identifier.                        |
| s_dn_parse_mi()      | d90e | DN SPDU parsing failed.                              |
| s_i_ab_spdu_mi()     | d90f | AB SPDU parsing failed.                              |
| s_i_ab_spdu_mi()     | d911 | Failed attempt to send Abort Accept SPDU.            |
| s_i_ab_spdu_mi()     | d912 | Failed attempt to send Abort Accept SPDU.            |
| s_i_ab_spdu_mi()     | d913 | Illegal/invalid state to receive AB SPDU.            |
| s_ab_parse_mi()      | d914 | Missing transport disconnect parameter.              |
| s_ab_parse_mi()      | d915 | Illegal parameter group or length.                   |
| s_ab_parse_mi()      | d916 | Illegal User Data in AB SPDU.                        |
| s_ab_parse_mi()      | d917 | REFLECT parameter not allowed.                       |
| s_ab_parse_mi()      | d918 | Illegal Parameter Identifier.                        |
| s_ab_parse_mi()      | d919 | AB SPDU parsing failed.                              |
| s_i_aa_spdu_mi()     | d91a | Illegal state (STA01C) to receive AA SPDU.           |
| s_i_aa_spdu_mi()     | d91b | Expected TDisconnect Indication.                     |
| s_i_aa_spdu_mi()     | d91c | Illegal state to receive AA SPDU.                    |
| s_i_req_mi()         | d91d | Expected Abort Accept, got Release Request.          |
| s_i_req_mi()         | d91e | User Data Length > S_U_512_LEN.                      |
| s_i_req_mi()         | d91f | Failed attempt to send FN, no reuse, SPDU.           |
| s_i_req_mi()         | d920 | Data token not available.                            |
| s_i_req_mi()         | d921 | User Data Length > S_U_512_LEN.                      |
| s_i_req_mi()         | d922 | Failed attempt to send FN SPDU, no reuse.            |
| s_i_req_mi()         | d923 | Failed attempt to send FN SPDU, with reuse.          |

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| FUNCTION                  | CODE | COMMENT (continued)                                           |
|---------------------------|------|---------------------------------------------------------------|
| s_i_req_mi()              | d924 | Data token error.                                             |
| s_i_req_mi()              | d925 | Illegal state to receive Release Request.                     |
| s_i_racc_rsp_release_mi() | d926 | Expected Abort Accept, got Release Accept Request.            |
| s_i_racc_rsp_release_mi() | d927 | Illegal value for finish request response.                    |
| s_i_racc_rsp_release_mi() | d928 | User Data Length > S_U_512_LEN.                               |
| s_i_racc_rsp_release_mi() | d929 | Failed attempt to send DN SPDU.                               |
| s_i_racc_rsp_release_mi() | d92a | Failed attempt to send DN SPDU.                               |
| s_i_racc_rsp_release_mi() | d92b | Failed attempt to send DN SPDU.                               |
| s_i_racc_rsp_release_mi() | d92c | Illegal state to receive Release Accept Request.              |
| s_i_racc_rsp_release_mi() | d92d | Null connection data structure pointer.                       |
| s_i_racc_rsp_release_mi() | d92e | Null connection data structure pointer.                       |
| s_i_u_abort_mi()          | d92f | User Data Length > S_U_512_LEN.                               |
| s_i_td_ind_mi()           | d933 | Illegal state to receive TDisconnect Indication.              |
| s_i_timer_exp_mi()        | d934 | Illegal state for abort timer to expire.                      |
| s_i_u_abort_mi()          | d935 | Illegal state.                                                |
| s_i_r_req_mi()            | d936 | Failed to get buffer for FN SPDU.                             |
| s_i_r_req_mi()            | d937 | Failed to get buffer for FN SPDU.                             |
| s_i_r_req_mi()            | d938 | Failed to get buffer for FN SPDU.                             |
| s_i_fn_spdu_mi()          | d939 | Parse of FN SPDU failed due to implementation restriction.    |
| s_fn_parse_mi()           | d93a | Enclosure item not supported on FN SPDU.                      |
| s_i_dn_spdu_mi()          | d93b | Parse of DN SPDU failed due to implementation restriction.    |
| s_dn_parse_mi()           | d93c | Enclosure item not supported on DN SPDU.                      |
| s_ab_parse_mi()           | d93d | Enclosure item not supported on AB SPDU.                      |
| s_i_r_req_mi()            | d93e | Could not build FN SPDU (no reuse) due to too much user data. |
| s_i_r_req_mi()            | d93f | Could not build FN SPDU (no reuse) due to too much user data. |
| s_i_r_req_mi()            | d940 | Could not build FN SPDU (reuse) due to too much user data.    |
| s_i_racc_rsp_release_mi() | d941 | Could not build DN SPDU due to too much user data.            |
| s_i_racc_rsp_release_mi() | d942 | Could not build DN SPDU due to too much user data.            |
| s_i_racc_rsp_release_mi() | d943 | Could not build DN SPDU due to too much user data.            |
| s_i_u_abort_mi()          | d944 | Could not build AB SPDU due to too much user data.            |

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| FUNCTION              | CODE | COMMENT (continued)                                                                 |
|-----------------------|------|-------------------------------------------------------------------------------------|
| s_i_fn_spdu_mi()      | d945 | Failed to discard FN SPDU.                                                          |
| s_i_fn_spdu_mi()      | d946 | Parse of FN SPDU failed due to implementation restriction.                          |
| s_i_fn_spdu_mi()      | d947 | Failure to discard FN SPDU.                                                         |
| s_i_fn_spdu_mi()      | d948 | Failure to discard FN SPDU.                                                         |
| s_i_fn_spdu_mi()      | d949 | Parse of FN SPDU failed due to implementation restriction.                          |
| s_i_fn_spdu_mi()      | d94a | Parse of FN SPDU failed due to protocol error.                                      |
| s_i_aa_spdu_mi()      | d94b | Illegal state (STA01 or STA01B) to receive AA SPDU.                                 |
| s_i_u_abort_mi()      | d94c | Copy of abort user data from edma structure failed.                                 |
| s_i_u_abort_mi()      | d94d | Copy of abort user data from edma structure failed.                                 |
| s_i_t_ind_md()        | da01 | Transport connection disconnected due to congestion.                                |
| s_i_t_ind_md()        | da02 | New connection data structure not allocated.                                        |
| s_i_t_ind_md()        | da03 | No user indication function.                                                        |
| s_i_result_parse_md() | da04 | Illegal value from indication function.                                             |
| s_i_t_ind_md()        | da05 | Illegal connection data structure pointer.                                          |
| s_i_result_parse_md() | da06 | Null indication function.                                                           |
| s_i_result_parse_md() | da07 | Null indication function.                                                           |
| s_i_result_parse_md() | da08 | Null indication function.                                                           |
| s_i_result_parse_md() | da09 | Null indication function.                                                           |
| s_i_result_parse_md() | da0a | Null indication function.                                                           |
| s_i_result_parse_md() | da0b | Null indication function.                                                           |
| s_i_result_parse_md() | da0c | Null indication function.                                                           |
| s_i_result_parse_md() | da0d | Null indication function.                                                           |
| s_i_t_ind_md()        | da0e | Illegal state or return code combination for transport receive complete indication. |
| s_i_t_ind_md()        | da0f | Illegal state or return code combination for transport receive complete indication. |
| s_i_result_parse_md() | da10 | Null indication function.                                                           |
| s_i_result_parse_md() | da11 | Null indication function.                                                           |
| s_i_result_parse_md() | da12 | Invalid return code from processing a PT SPDU.                                      |
| s_i_result_parse_md() | da13 | Null indication function.                                                           |
| s_i_result_parse_md() | da14 | Invalid return code from processing a PT SPDU.                                      |
| s_i_result_parse_md() | da15 | Null indication function.                                                           |
| s_i_result_parse_md() | da16 | Null indication function.                                                           |
| s_i_result_parse_md() | da17 | Null indication function.                                                           |
| s_parse_pi_pgi_mi()   | db01 | Reference Parameter length > S_REF_MAX_LEN.                                         |

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| FUNCTION            | CODE | COMMENT (continued)                                                  |
|---------------------|------|----------------------------------------------------------------------|
| s_parse_pi_pgi_mi() | db02 | Additional Reference Parameter length > S_ADDREF_MAX_LEN.            |
| s_parse_pi_pgi_mi() | db03 | Reflect Parameter length > S_RFLCT_MAX_LEN.                          |
| s_parse_pi_pgi_mi() | db04 | Called or Calling SSAP length > S_MAX_SSAP_ID_LEN.                   |
| s_parse_pi_pgi_mi() | db05 | Protocol Options Parameter length != S_LEN_PROOPT.                   |
| s_parse_pi_pgi_mi() | db06 | Invalid value for TSDU maximum size.                                 |
| s_parse_pi_pgi_mi() | db07 | Invalid value for Session User Reqmts Parameter.                     |
| s_parse_pi_pgi_mi() | db08 | Incorrect length for token setting parameters.                       |
| s_parse_pi_pgi_mi() | db09 | Incorrect length for token item parameter.                           |
| s_parse_pi_pgi_mi() | db0a | Incorrect length for transport disconnect parameter.                 |
| s_parse_pi_pgi_mi() | db0b | Zero length Reason Code Parameter.                                   |
| s_parse_pi_pgi_mi() | db0c | Invalid Parameter Identifier.                                        |
| s_parse_pi_pgi_mi() | db0d | Incorrect length of enclosure item parameter.                        |
| s_exq_put()         | db0e | Incorrect length of expedited data SPDU.                             |
| s_exq_put()         | db0f | Expedited data queue is full.                                        |
| s_parse_pi_pgi_mi() | db10 | User Data > S_U_512_LEN.                                             |
| s_parse_pi_pgi_mi() | db11 | Invalid length of extended user data field.                          |
| s_parse_pi_pgi_mi() | db12 | Invalid length of version parameter field.                           |
| s_parse_pi_pgi_mi() | db13 | Invalid length of serial number parameter field.                     |
| s_parse_pi_pgi_mi() | db14 | Invalid character in serial number parameter field.                  |
| s_parse_pi_pgi_mi() | db15 | Reason code must be one byte for any reason other than S_RUINFO.     |
| s_parse_pi_pgi_mi() | db16 | Invalid length of prepare type parameter field.                      |
| s_parse_pi_pgi_mi() | db17 | Invalid prepare type.                                                |
| s_parse_pi_pgi_mi() | db18 | Invalid length of resync type parameter field.                       |
| s_parse_pi_pgi_mi() | db19 | Invalid resync type.                                                 |
| s_chk_u_data()      | db1a | Parse failed while looking for user data.                            |
| s_cleanup()         | db1b | Discard failed while cleaning up after refuse.                       |
| s_cleanup()         | db1c | Invalid receive machine state for cleaning up after refuse.          |
| s_cleanup()         | db1d | Discard failed while cleaning up after abort.                        |
| s_cleanup()         | db1e | Invalid receive machine state for cleaning up after abort.           |
| s_cleanup()         | db1f | The action causing cleanup is invalid.                               |
| s_i_nrm_data_mi()   | dc01 | Session Protocol Machine in illegal state to send data.              |
| s_i_dt_data_mi()    | dc02 | Session Protocol Machine in illegal state to receive data.           |
| s_i_exp_data_mi()   | dc03 | Session Protocol Machine in illegal state to send expedited data.    |
| s_i_ex_data_mi()    | dc04 | Session Protocol Machine in illegal state to receive expedited data. |

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| FUNCTION              | CODE | COMMENT (continued)                                                            |
|-----------------------|------|--------------------------------------------------------------------------------|
| s_i_give_token_mi()   | dc05 | Session Protocol Machine in illegal state to send Give Tokens SPDU.            |
| s_i_gt_spdu_mi()      | dc06 | Session Protocol Machine in illegal state to receive Give Tokens SPDU.         |
| s_i_please_token_mi() | dc07 | Session Protocol Machine in illegal state to send Please Tokens SPDU.          |
| s_i_pt_spdu_mi()      | dc08 | Session Protocol Machine in illegal state to receive Please Tokens SPDU.       |
| s_i_please_token_mi() | dc09 | Previous Action not complete.                                                  |
| s_i_dt_spdu_mi()      | dc0a | Error detected after receiving DT SPDU while in discard state.                 |
| s_i_dt_spdu_mi()      | dc0b | Error in discarding DT SPDU when waiting after PR-AB.                          |
| s_i_give_token_mi()   | dc0c | No user data allowed on version 1 GT SPDU.                                     |
| s_i_give_token_mi()   | dc0d | Could not get buffer to send GT SPDU.                                          |
| s_i_give_token_mi()   | dc0e | Maximum SPDU size exceeded on GT SPDU.                                         |
| s_i_gt_spdu_mi()      | dc0f | Error while discarding GT SPDU.                                                |
| s_i_gt_spdu_mi()      | dc10 | Error while discarding GT SPDU.                                                |
| s_gt_parse_mi()       | dc11 | Missing token item parameter on GT SPDU.                                       |
| s_gt_parse_mi()       | dc12 | GT SPDU received when either data token not in use or token already available. |
| s_gt_parse_mi()       | dc13 | Parse of GT SPDU failed.                                                       |
| s_gt_parse_mi()       | dc14 | User data not allowed on version 1 GT SPDU.                                    |
| s_gt_parse_mi()       | dc15 | Enclosure item not supported on GT SPDU.                                       |
| s_gt_parse_mi()       | dc16 | Invalid parameter on GT SPDU.                                                  |
| s_gt_parse_mi()       | dc17 | Parse of GT SPDU failed.                                                       |
| s_i_please_token_mi() | dc18 | Maximum SPDU size exceeded on PT SPDU.                                         |
| s_i_pt_spdu_mi()      | dc19 | Error while discarding PT SPDU.                                                |
| s_i_gt_spdu_mi()      | dc1a | Error while discarding PT SPDU.                                                |
| s_pt_parse_mi()       | dc1b | Missing parameter on PT SPDU.                                                  |
| s_pt_parse_mi()       | dc1c | PT SPDU received when data token not in use.                                   |
| s_pt_parse_mi()       | dc1d | Parse of PT SPDU failed.                                                       |
| s_pt_parse_mi()       | dc1e | User data exceeds maximum allowable size for version 1 PT SPDU.                |
| s_pt_parse_mi()       | dc1f | Enclosure item not supported on PT SPDU.                                       |
| s_pt_parse_mi()       | dc20 | Invalid parameter on PT SPDU.                                                  |
| s_pt_parse_mi()       | dc21 | Parse of PT SPDU failed.                                                       |
| s_i_pr_spdu_mi()      | dd01 | Invalid state for receiving PR-RS.                                             |
| s_i_pr_spdu_mi()      | dd02 | Invalid state for receiving PR-RS.                                             |
| s_i_pr_spdu_mi()      | dd03 | Invalid state for receiving PR-RS.                                             |
| s_i_pr_spdu_mi()      | dd04 | Invalid state for receiving PR-RA.                                             |
| s_i_pr_spdu_mi()      | dd05 | Invalid state for receiving PR-RA.                                             |

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| FUNCTION           | CODE | COMMENT (continued)                                                                        |
|--------------------|------|--------------------------------------------------------------------------------------------|
| s_i_pr_spdu_mi()   | dd06 | PR-AB invalid for version 1 protocol.                                                      |
| s_i_pr_spdu_mi()   | dd07 | Invalid state for receiving PR-AB.                                                         |
| s_i_pr_spdu_mi()   | dd08 | Invalid prepare type.                                                                      |
| s_i_pr_spdu_mi()   | dd09 | Parse of PR SPDU failed.                                                                   |
| s_i_pr_spdu_mi()   | dd0a | Invalid PR SPDU - wrong size.                                                              |
| s_i_rs_qst_mi()    | dd0b | Resync functional unit not selected.                                                       |
| s_i_rs_qst_mi()    | dd0c | Invalid conditions for receiving resync request.                                           |
| s_i_rs_qst_mi()    | dd0e | Invalid conditions for receiving resync request.                                           |
| s_i_rs_qst_mi()    | dd0f | Must wait until send in progress completes before making resync request.                   |
| s_i_rs_qst_mi()    | dd10 | Failed to build RS SPDU.                                                                   |
| s_i_rs_qst_mi()    | dd11 | Failed to send PR-RS SPDU.                                                                 |
| s_i_rs_qst_mi()    | dd12 | Failed to send RS SPDU.                                                                    |
| s_i_rs_qst_mi()    | dd13 | Invalid or unsupported resync type on resync request.                                      |
| s_i_rs_qst_mi()    | dd14 | Invalid state for receiving resync request.                                                |
| build_rs_spdu_mi() | dd15 | Invalid token setting in RS request.                                                       |
| build_rs_spdu_mi() | dd16 | Token setting missing in resync request when half duplex functional unit selected.         |
| build_rs_spdu_mi() | dd17 | Invalid or missing serial number in resync request.                                        |
| build_rs_spdu_mi() | dd18 | Too much user data for version 1 resync request.                                           |
| build_rs_spdu_mi() | dd19 | Resync request exceeds max SPDU size.                                                      |
| build_rs_spdu_mi() | dd1a | Resync request exceeds max TSDU size.                                                      |
| s_i_rs_rsp_mi()    | dd1b | Serial number on resync response request does not match serial number on RS(a) indication. |
| s_i_rs_rsp_mi()    | dd1c | Resync response requested before action completed for previous request.                    |
| s_i_rs_rsp_mi()    | dd1d | Failure to build RA SPDU.                                                                  |
| s_i_rs_rsp_mi()    | dd1e | Failure in sending expedited PR-RA SPDU.                                                   |
| s_i_rs_rsp_mi()    | dd1f | Failure to send RA SPDU.                                                                   |
| s_i_rs_rsp_mi()    | dd20 | Illegal state for SS user to request a resync response.                                    |
| build_ra_spdu_mi() | dd21 | Illegal token setting on resync response.                                                  |
| build_ra_spdu_mi() | dd22 | Illegal token setting on resync response.                                                  |
| build_ra_spdu_mi() | dd23 | Illegal token setting on resync response.                                                  |
| build_ra_spdu_mi() | dd24 | Token setting is missing on resync response.                                               |
| build_ra_spdu_mi() | dd25 | Illegal serial number on resync response.                                                  |
| build_ra_spdu_mi() | dd26 | Too much user data for version 1 resync response.                                          |
| build_ra_spdu_mi() | dd27 | Resync response exceeds max SPDU size.                                                     |
| build_ra_spdu_mi() | dd28 | Resync response exceeds max TSDU size.                                                     |
| s_i_rs_spdu_mi()   | dd29 | Discard of RS SPDU failed.                                                                 |
| s_i_rs_spdu_mi()   | dd2a | Invalid conditions for receiving RS SPDU.                                                  |
| s_i_rs_spdu_mi()   | dd2b | Discard of RS SPDU failed.                                                                 |
| s_i_rs_spdu_mi()   | dd2c | Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.                      |

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| FUNCTION         | CODE | COMMENT (continued)                                                                        |
|------------------|------|--------------------------------------------------------------------------------------------|
| s_i_rs_spdu_mi() | dd2d | Discard of RS SPDU failed.                                                                 |
| s_i_rs_spdu_mi() | dd2e | Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.                      |
| s_i_rs_spdu_mi() | dd2f | Illegal state to receive RS SPDU.                                                          |
| s_rs_parse_mi()  | dd30 | Illegal token setting in RS SPDU.                                                          |
| s_rs_parse_mi()  | dd31 | Too much user data on RS SPDU for session protocol version 1.                              |
| s_rs_parse_mi()  | dd32 | Enclosure item not supported on RS SPDU.                                                   |
| s_rs_parse_mi()  | dd33 | Illegal parameter type on RS SPDU.                                                         |
| s_rs_parse_mi()  | dd34 | Parse of parameter on RS SPDU failed.                                                      |
| s_rs_parse_mi()  | dd35 | RS SPDU is missing mandatory resync type parameter.                                        |
| s_rs_parse_mi()  | dd36 | RS SPDU is missing mandatory serial number parameter.                                      |
| s_rs_parse_mi()  | dd37 | RS SPDU is missing token setting parameter in conditions when this parameter is mandatory. |
| s_i_ra_spdu_mi() | dd38 | Discard of RA SPDU failed.                                                                 |
| s_i_ra_spdu_mi() | dd39 | Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.                      |
| s_i_ra_spdu_mi() | dd3a | Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.                      |
| s_i_ra_spdu_mi() | dd3b | Illegal state to receive RA SPDU.                                                          |
| s_ra_parse_mi()  | dd3c | Conflicting token setting in RA SPDU.                                                      |
| s_ra_parse_mi()  | dd3d | Conflicting token setting in RA SPDU.                                                      |
| s_ra_parse_mi()  | dd3e | Illegal token setting in RA SPDU.                                                          |
| s_ra_parse_mi()  | dd3f | Too much user data in RA SPDU.                                                             |
| s_ra_parse_mi()  | dd40 | Enclosure item not supported on RA SPDU.                                                   |
| s_ra_parse_mi()  | dd41 | Illegal parameter type on RA SPDU.                                                         |
| s_ra_parse_mi()  | dd42 | Parse of parameter on RA SPDU failed.                                                      |
| s_ra_parse_mi()  | dd43 | RA SPDU is missing mandatory serial number parameter.                                      |
| s_ra_parse_mi()  | dd44 | RA SPDU is missing token setting parameter in conditions when this parameter is mandatory. |

| SOURCE     | FUNCTION | CODE | COMMENT                                                                                           |
|------------|----------|------|---------------------------------------------------------------------------------------------------|
| pinitap3.c | pinitap3 | df00 | Call to IODRV space controller for memory failed.                                                 |
| pinitap3.c | pinitap3 | df01 | APH could not attach application type to SSAP.                                                    |
| pmsgap3.c  | pmsgap3  | df01 | APH could not attach application type to SSAP.                                                    |
| archive.c  | arch_lib | df02 | ECD access of aphuser record for archive user requesting a connection returned IDNULL or IDERROR. |

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| SOURCE      | FUNCTION   | CODE | COMMENT (continued)                                                                     |
|-------------|------------|------|-----------------------------------------------------------------------------------------|
| as_op_cl.c  | as_open    | df02 | ECD access of aphuser record returned IDNULL or IDERROR.                                |
| asi_funcs.c | as_con_ind | df02 | ECD access of aphuser record that an indication is to go to returned IDNULL or IDERROR. |
| as_op_cl.c  | as_open    | df0e | alloc_mdct failed in as_open().                                                         |
| asi_funcs.c | as_con_ind | df0f | alloc_mdct failed in as_con_ind().                                                      |

#### SCSD HANDLER

| FUNCTION   | CODE | COMMENT                                                           |
|------------|------|-------------------------------------------------------------------|
| prspsd3.c  | e001 | pushq1 failure.                                                   |
| pmsgsd3.c  | e001 | pushq1 failure.                                                   |
| sc_func.c  | e001 | pushq1 failure.                                                   |
| scsd.c     | e102 | No timing available.                                              |
| prstd3.c   | e205 | PC restoral failed.                                               |
| sc_func.c  | e206 | Illegal internal state in sc_rst().                               |
| prspsd3.c  | e503 | Cannot allocate message.                                          |
| prspsd3.c  | e504 | Failed to get port of Admin.                                      |
| prspsd3.c  | e506 | Failed to send message to Admin.                                  |
| prspsd3.c  | e507 | Unrecognized response from PC.                                    |
| pmsgsd3.c  | e701 | Number of UCB pointers greater than one.                          |
| pmsgsd3.c  | e707 | Illegal point number.                                             |
| pmsgsd3.c  | e708 | Illegal operation.                                                |
| pmsgsd3.c  | e709 | Received unrecognized message.                                    |
| pgrowsd3.c | e801 | Cannot allocate message.                                          |
| sc_admin.c | e902 | Bad port number used for Admin attach.                            |
| prspsd3.c  | eaxx | PC returned error: code in low order bits (see completion codes). |

#### PP HANDLER

Each error code is of the form SNN, where S is the severity of the error and NN is an error identifier unique within the given severity level.

The severity of an error will be:

- 0 - Minor error. Either a resource was exhausted, a procedural error was committed, or a minor software error was encountered. In the second two cases, the user may proceed normally, though if a software error occurred, some resources may have been lost.

These messages print at level 2.

- 1 - Association fatal error. An application association has gone insane. PPH will fail all send or receive requests from the user of the association until PPH is reinitialized, and any indication received by the association will result in an abort. Since the damage was limited to only the single association, other associations may proceed normally, though some resources may have been lost. Note that the affected user process may hang when errors of this sort occur. Each process will receive an E\_ABORT event if the PPH is

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reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

- 2 - PPH fatal error. PPH's global data structures have become inconsistent or corrupted. All associations will be locked up, and PPH will fail all send and receive requests from any user until PPH is reinitialized. An indication received for any association will result in an abort. Note that some or all user processes may hang when errors of this sort occur. Each process will receive an E\_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

If a severity 1 or 2 error is encountered, contact the first level of technical support for instructions on how to reinitialize the PPH.

| FUNCTION              | CODE | COMMENT                                                                                    |
|-----------------------|------|--------------------------------------------------------------------------------------------|
| acse_pm               | f001 | Unexpected or invalid ACSE indication; aborting association.                               |
| a_ascreq_idle         | f002 | Could not get pphuser record.                                                              |
| a_pascrsp_w_assoc_rsp | f003 | Could not get ACSE Implementation Information.                                             |
| a_nascrsp_w_assoc_rsp | f004 | Could not get ACSE Implementation Information.                                             |
| a_aarq_idle           | f005 | Error decoding AARQ; aborting association.                                                 |
| a_aarq_idle           | f006 | ACSE version not supported; refusing association.                                          |
| a_aarq_idle           | f007 | Could not map to ACSE user; refusing association.                                          |
| a_aarep_w_aare        | f008 | Error decoding AARE; aborting association.                                                 |
| a_aarep_w_aare        | f009 | Invalid ACSE version; aborting association.                                                |
| a_aarep_w_aare        | f00a | Invalid ACSE association result; aborting association.                                     |
| a_aaren_w_aare        | f00b | Error decoding AARE; aborting association.                                                 |
| a_aaren_w_aare        | f00c | Invalid ACSE association result; aborting association.                                     |
| a_aaren_w_aare        | f00d | Invalid ACSE result source diagnostic; aborting association.                               |
| a_aaren_w_aare        | f00e | ACSE Called Application Entity Invocation Identifier not recognized; aborting association. |
| a_rlrq_assoc          | f00f | Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.                  |
| a_rlrq_assoc          | f010 | Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.                  |

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| FUNCTION                | CODE | COMMENT (continued)                                                                              |
|-------------------------|------|--------------------------------------------------------------------------------------------------|
| a_rlrq_assoc            | f011 | Error decoding RLRQ; aborting association.                                                       |
| a_rlrep                 | f012 | Error decoding RLRE--APPLICATION 1 tag not present; aborting association.                        |
| a_rlrep                 | f013 | Error decoding RLRE--APPLICATION 1 tag not present; aborting association.                        |
| a_rlrep                 | f014 | Error decoding RLRE; aborting association.                                                       |
| a_p_2uabind_anybut_idle | f015 | Error decoding ABRT; aborting association.                                                       |
| a_getrqevt              | f016 | Invalid read queue primitive; aborting association.                                              |
| p_sindics               | f017 | Invalid session indication--ignored.                                                             |
| p_sindics               | f018 | Indication received while PPH fatal error condition exists; aborting connection.                 |
| p_sindics               | f019 | Presentation connection data structure invalid or all structures exhausted; aborting connection. |
| p_sindics               | f01a | Indication received while association fatal error condition exists; aborting connection.         |
| p_sindics               | f01b | Indication structures exhausted; aborting connection.                                            |
| p_sindics               | f01c | Unexpected session indication received while another is pending; aborting connection.            |
| p_sindics               | f01d | Could not set session user information; aborting connection.                                     |
| p_sindics               | f01e | Could not free presentation connection data structure.                                           |
| p_sindics               | f01f | Encoded connect PDU header buffers exhausted; aborting connection.                               |
| p_sindics               | f020 | Could not free presentation connection data structure.                                           |
| p_sindics               | f021 | Decoded connect PDU header buffers exhausted; aborting connection.                               |
| p_sindics               | f022 | Could not free presentation connection data structure.                                           |
| p_sindics               | f023 | Could not receive connect PDU headers; connection is gone.                                       |
| p_sindics               | f024 | Encoded connect PDU header buffers exhausted; aborting connection.                               |
| p_sindics               | f025 | Decoded connect PDU header buffers exhausted; aborting connection.                               |
| p_sindics               | f026 | Could not receive connect confirm PDU headers; connection is gone.                               |

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| FUNCTION           | CODE | COMMENT (continued)                                                           |
|--------------------|------|-------------------------------------------------------------------------------|
| p_sindics          | f027 | Encoded abort PDU header buffers exhausted; aborting connection.              |
| p_sindics          | f028 | Decoded abort PDU header buffers exhausted; aborting connection.              |
| p_sindics          | f029 | Could not receive abort PDU headers; connection is gone.                      |
| p_sindics          | f02a | Encoded abort PDU header buffers exhausted; aborting connection.              |
| p_sindics          | f02b | Decoded abort PDU header buffers exhausted; aborting connection.              |
| p_sindics          | f02c | Could not receive release PDU headers; connection is gone.                    |
| p_sindics          | f02d | Encoded resynchronize PDU header buffers exhausted; aborting connection.      |
| p_sindics          | f02e | Decoded resynchronize PDU header buffers exhausted; aborting connection.      |
| p_sindics          | f02f | Could not receive resynchronize PDU headers; connection is gone.              |
| p_sindics          | f030 | Received send acknowledgement when no user was attached; aborting connection. |
| p_sindics          | f031 | Received send acknowledgement when no user was attached; aborting connection. |
| p_sindics          | f032 | Could not free presentation connection data structure.                        |
| p_sindics          | f033 | Could not free presentation connection data structure.                        |
| p_sindics          | f034 | Could not free presentation connection data structure.                        |
| p_sindics          | f035 | Invalid action complete indication--ignored.                                  |
| p_sindics          | f036 | Encoded abort PDU header buffers exhausted; aborting connection.              |
| p_sindics          | f037 | Decoded abort PDU header buffers exhausted; aborting connection.              |
| p_sindics          | f038 | Could not receive PDU headers; connection is gone.                            |
| p_give_sindic      | f039 | Decoded connect PDU header buffer was not allocated.                          |
| p_give_sindic      | f03a | Could not free presentation connection data structure.                        |
| p_give_sindic      | f03b | Fatal error occurred after passing up session indication.                     |
| p_free_pdu_buffers | f03c | Encoded connect PDU header buffer not allocated.                              |

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| FUNCTION           | CODE | COMMENT (continued)                                                             |
|--------------------|------|---------------------------------------------------------------------------------|
| p_free_pdu_buffers | f03d | Decoded connect PDU header buffer not allocated.                                |
| p_free_pdu_buffers | f03e | Encoded abort PDU header buffer not allocated.                                  |
| p_free_pdu_buffers | f03f | Decoded abort PDU header buffer not allocated.                                  |
| p_free_pdu_buffers | f040 | Encoded resynchronize PDU header buffer not allocated.                          |
| p_free_pdu_buffers | f041 | Decoded resynchronize PDU header buffer not allocated.                          |
| p_free_pdu_buffers | f042 | Invalid indication type; buffer not freed.                                      |
| p_no_hdr_cleanup   | f043 | Could not free presentation connection data structure.                          |
| p_no_hdr_cleanup   | f044 | Invalid indication; PDU header buffers not freed and abort indication not sent. |
| p_no_hdr_cleanup   | f045 | Encoded abort PDU header buffers exhausted; aborting connection.                |
| p_no_hdr_cleanup   | f046 | Decoded abort PDU header buffers exhausted; aborting connection.                |
| a_dabort           | f047 | Unexpected user abort output PDU header buffer.                                 |
| setup_edma         | f048 | Could not map user buffer.                                                      |
| p_add_tag          | f049 | Could not map user buffer.                                                      |
| pinitpp3           | f04a | Unrecognized initialization type--ignored.                                      |
| p_sindics          | f04b | Could not discard data; connection is gone.                                     |
| pmsgpp3            | f04c | Process died with association waiting; aborting association.                    |
| si_detach          | f04d | Detached while association waiting; aborting association.                       |
| pph_memory         | f04e | Could not attach to SSAP.                                                       |
| pph_memory         | f04f | ECD access error; may have unattached SSAPs.                                    |
| pph_memory         | f050 | Too many pphuser records; excess records ignored.                               |
| si_close           | f051 | Closed while association waiting; aborting association.                         |
| pmsgpp3            | f053 | Could not map control buffer; read request failed.                              |
| pmsgpp3            | f054 | Could not map control buffer; write request failed.                             |
| pmsgpp3            | f055 | Could not map control buffer; detach request may or may not have failed.        |
| pmsgpp3            | f056 | Invalid RC/V operation type--ignored.                                           |
| pmsgpp3            | f057 | Could not attach to new SSAP--ignored.                                          |
| pmsgpp3            | f058 | ECD access error; pphuser insertion ignored.                                    |
| pmsgpp3            | f059 | ACSE user information structures exhausted; pphuser insertion ignored.          |
| pmsgpp3            | f05a | Could not attach to new SSAP--ignored.                                          |

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| FUNCTION        | CODE | COMMENT (continued)                                                                                             |
|-----------------|------|-----------------------------------------------------------------------------------------------------------------|
| pmsgpp3         | f05b | Unrecognized pphuser record; update ignored.                                                                    |
| pmsgpp3         | f05c | ECD access error; pphuser update ignored.                                                                       |
| pmsgpp3         | f05d | Invalid RC/V operation type--ignored.                                                                           |
| pmsgpp3         | f05e | Unexpected ECD record type--ignored.                                                                            |
| pmsgpp3         | f05f | No presentation connection data structure corresponding to MSACK; association may have been previously aborted. |
| pmsgpp3         | f060 | Received MSACK for unexpected message type, or process creation failed.                                         |
| pph_restart     | f061 | Detach failed or caused an active session connection to be aborted.                                             |
| si_req_ack      | f062 | Could not map control buffer; user request failed.                                                              |
| pph_ssap_detach | f063 | Detach failed or caused an active session connection to be aborted.                                             |
| pph_ssap_detach | f064 | Active user forcibly detached.                                                                                  |
| pph_ssap_detach | f065 | Waiting user forcibly detached.                                                                                 |
| pph_ssap_detach | f066 | Waiting association discarded because of a detach.                                                              |
| si_dequeue      | f067 | Queue corrupted; dequeue failed.                                                                                |
| pres_pm         | f068 | Unexpected or invalid presentation layer indication; aborting connection.                                       |
| p_cp_idle       | f069 | Error decoding CP; aborting connection.                                                                         |
| p_cp_idle       | f06a | Could not get pphuser record; refusing connection.                                                              |
| p_cp_idle       | f06b | Called presentation address unknown; refusing connection.                                                       |
| p_cp_idle       | f06c | Called presentation address unknown; refusing connection.                                                       |
| p_cp_idle       | f06d | Presentation version not supported; refusing connection.                                                        |
| p_cp_idle       | f06e | ACSE presentation context not found or transfer syntax not supported; refusing connection.                      |
| p_cpa_w_cpar    | f06f | Error decoding CPA; aborting connection.                                                                        |
| p_cpa_w_cpar    | f070 | Presentation version not supported; aborting connection.                                                        |
| p_cpa_w_cpar    | f071 | Presentation context definition result list not present; aborting connection.                                   |
| p_cpa_w_cpar    | f072 | Presentation requirements not supported; aborting connection.                                                   |
| p_cpr_w_cpar    | f073 | Error decoding CPR; aborting connection.                                                                        |

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| FUNCTION            | CODE | COMMENT (continued)                                                            |
|---------------------|------|--------------------------------------------------------------------------------|
| p_cpr_w_cpar        | f074 | Presentation context definition result list not present; aborting connection.  |
| p_arp_anybut_idle   | f075 | Error decoding ARP; aborting connection.                                       |
| p_arp_anybut_idle   | f076 | Invalid presentation provider abort reason; aborting connection.               |
| p_aru_anybut_idle   | f077 | Error decoding ARU; aborting connection.                                       |
| p_rsyncind_dx       | f078 | Error decoding RS; aborting connection.                                        |
| p_rsynccnf_dx       | f079 | Error decoding RSA; aborting connection.                                       |
| p_getrqevt          | f07a | Error in processing presentation indication; aborting connection.              |
| p_getrqevt          | f07b | Invalid session primitive; aborting connection.                                |
| si_attach           | f07c | ACSE/PL user structures exhausted; attach failed.                              |
| si_attach           | f07d | ECD access error; attach failed.                                               |
| si_detach           | f07e | Could not free ACSE/PL user structure.                                         |
| si_detach           | f07f | Unexpected ACSE/PL user structure; detach failed.                              |
| pp_get_p_con_data   | f080 | Presentation connection data structures exhausted.                             |
| pp_get_p_con_data   | f081 | Presentation connection data structure corrupted; discarding structure.        |
| pp_free_p_con_data  | f082 | Invalid presentation connection data structure-- ignored.                      |
| pp_free_p_con_data  | f083 | Unexpected user abort output PDU header buffer.                                |
| pp_free_p_con_data  | f084 | Indication queue corrupted; discarding presentation connection data structure. |
| pp_get_acse_pl_user | f085 | ACSE/PL user structures exhausted.                                             |
| pp_fr_acse_pl_user  | f086 | Invalid ACSE/PL user structure--ignored.                                       |
| pp_fr_acse_pl_user  | f087 | Could not map control buffer; user request failed.                             |
| si_cbuf_size        | f088 | Invalid ACSE/PL indication.                                                    |
| si_open             | f089 | Process information structures exhausted; open failed.                         |
| si_close            | f08a | Could not free ACSE/PL user structure.                                         |
| si_enq_indic        | f08b | Could not free ACSE/PL user structure.                                         |
| si_prc_rcv          | f08c | Invalid ACSE/PL indication; aborting association.                              |
| si_prc_rcv          | f08d | Could not map control buffer; receive request failed.                          |
| si_prc_rcv          | f08e | Could not map user buffer; receive request failed.                             |
| si_prc_rcv          | f08f | Could not receive user data; association is gone.                              |
| si_cmp_rcv          | f090 | Error decoding user data; aborting association.                                |
| si_cmp_rcv          | f091 | User data overran buffer trailer area; aborting association.                   |

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| FUNCTION         | CODE | COMMENT (continued)                                                                   |
|------------------|------|---------------------------------------------------------------------------------------|
| si_cmp_rcv       | f092 | Data present beyond end of PDUs; aborting association.                                |
| si_cmp_rcv       | f093 | Invalid ACSE/PL indication; aborting association.                                     |
| si_cmp_rcv       | f094 | Could not acknowledge user request and data may have been lost; aborting association. |
| si_fr_inbuf      | f095 | Encoded connect PDU header buffer not found.                                          |
| si_fr_inbuf      | f096 | Decoded connect PDU header buffer not found.                                          |
| si_fr_inbuf      | f097 | Encoded abort PDU header buffer not found.                                            |
| si_fr_inbuf      | f098 | Decoded abort PDU header buffer not found.                                            |
| si_fr_inbuf      | f099 | Encoded resynchronize PDU header buffer not found.                                    |
| si_fr_inbuf      | f09a | Decoded resynchronize PDU header buffer not found.                                    |
| si_fr_inbuf      | f09b | Invalid ACSE/PL indication.                                                           |
| si_ack_rcv       | f09c | Could not receive user data; aborting association.                                    |
| si_udata_present | f09d | Invalid ACSE/PL indication.                                                           |
| si_dec_trailers  | f09e | Error decoding ABRT trailer; aborting association.                                    |
| si_dec_trailers  | f09f | Error decoding ARU PDV-list trailer; aborting association.                            |
| si_dec_trailers  | f0a0 | Error decoding ARU trailer; aborting association.                                     |
| si_dec_trailers  | f0a1 | Error decoding RLRQ trailer; aborting association.                                    |
| si_dec_trailers  | f0a2 | Error decoding RLRQ PDV-list trailer; aborting association.                           |
| si_dec_trailers  | f0a3 | Error decoding RLRE trailer; aborting association.                                    |
| si_dec_trailers  | f0a4 | Error decoding RLRE PDV-list trailer; aborting association.                           |
| si_dec_trailers  | f0a5 | Error decoding AARQ trailer; aborting association.                                    |
| si_dec_trailers  | f0a6 | Error decoding AARQ PDV-list trailer; aborting association.                           |
| si_dec_trailers  | f0a7 | Error decoding CP trailer; aborting association.                                      |
| si_dec_trailers  | f0a8 | Presentation mode not supported; aborting association.                                |
| si_dec_trailers  | f0a9 | Error decoding AARE trailer; aborting association.                                    |
| si_dec_trailers  | f0aa | Error decoding AARE PDV-list trailer; aborting association.                           |
| si_dec_trailers  | f0ab | Error decoding CPA trailer; aborting association.                                     |
| si_dec_trailers  | f0ac | Presentation mode not supported; aborting association.                                |
| si_dec_trailers  | f0ad | Error decoding AARE trailer; aborting association.                                    |
| si_dec_trailers  | f0ae | Error decoding AARE PDV-list trailer; aborting association.                           |
| si_dec_trailers  | f0af | Error decoding CPR trailer; aborting association.                                     |

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| FUNCTION       | CODE | COMMENT (continued)                                                              |
|----------------|------|----------------------------------------------------------------------------------|
| si_dectrailers | f0b0 | Error decoding RS trailer; aborting association.                                 |
| si_dectrailers | f0b1 | Error decoding RSA trailer; aborting association.                                |
| si_dectrailers | f0b2 | Unexpected provider abort PDU trailers.                                          |
| si_dectrailers | f0b3 | Unexpected data, expedited data, give token, or please token PDU trailers.       |
| si_dectrailers | f0b4 | Invalid ACSE/PL indication.                                                      |
| si_end_data    | f0b5 | Invalid ACSE/PL indication.                                                      |
| si_end_data    | f0b6 | Could not map user buffer and data may have been lost; aborting association.     |
| si_more_data   | f0b7 | More data result received for unexpected indication type; aborting association.  |
| si_more_data   | f0b8 | Could not map control buffer and data may have been lost; aborting association.  |
| si_map_assoc   | f0b9 | No user found to receive association indication.                                 |
| si_map_assoc   | f0ba | Could not get ucb record for process creation.                                   |
| si_map_assoc   | f0bb | ECD access error.                                                                |
| si_map_assoc   | f0bc | Could not allocate process creation message.                                     |
| si_map_assoc   | f0bd | Could not send process creation message.                                         |
| si_prc_send    | f0be | Could not map control buffer; failing send request.                              |
| si_prc_send    | f0bf | Presentation connection data structures exhausted; failing association request.  |
| si_prc_send    | f0c0 | Unexpected encoded abort PDU header buffer.                                      |
| si_prc_send    | f0c1 | Encoded abort PDU header buffers exhausted.                                      |
| si_prc_send    | f0c2 | Unexpected encoded connect PDU header buffer.                                    |
| si_prc_send    | f0c3 | Encoded connect PDU header buffers exhausted.                                    |
| si_fr_outbuf   | f0c4 | Encoded abort PDU header buffer not found.                                       |
| si_fr_outbuf   | f0c5 | Encoded connect PDU header buffer not found.                                     |
| si_fr_outbuf   | f0c6 | Invalid ACSE/PL indication.                                                      |
| si_abt_comp    | f0c7 | Could not free ACSE/PL user structure.                                           |
| si_abt_ind     | f0c8 | Could not map control buffer; failing send request.                              |
| si_resync_ind  | f0c9 | Could not map control buffer; failing send request.                              |
| si_resync_ind  | f0ca | Could not map control buffer; failing send request.                              |
| si_resync_ind  | f0cb | Could not map control buffer; failing send request.                              |
| si_resync_ind  | f0cc | Could not map control buffer; failing send request.                              |
| si_send_abt    | f0cd | Unexpected generated abort failure or process created user died without closing. |
| si_send_abt    | f0ce | Unexpected generated abort failure.                                              |
| si_send_abt    | f0cf | Unexpected generated abort failure.                                              |
| si_send_abt    | f0d0 | Unexpected generated abort failure.                                              |
| si_send_abt    | f0d1 | Unexpected generated abort failure.                                              |
| si_send_abt    | f0d2 | Unexpected generated abort failure.                                              |
| si_send_abt    | f0d3 | Invalid return code from ACSE protocol machine.                                  |
| si_snd_pabt    | f0d4 | Unexpected generated abort failure.                                              |

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| FUNCTION             | CODE | COMMENT (continued)                                                                             |
|----------------------|------|-------------------------------------------------------------------------------------------------|
| si_snd_pabt          | f0d5 | Unexpected generated abort failure.                                                             |
| si_snd_pabt          | f0d6 | Unexpected generated abort failure.                                                             |
| si_snd_pabt          | f0d7 | Unexpected generated abort failure.                                                             |
| si_snd_pabt          | f0d8 | Unexpected generated abort failure.                                                             |
| si_snd_pabt          | f0d9 | Unexpected generated abort failure.                                                             |
| si_snd_pabt          | f0da | Invalid return code from ACSE protocol machine.                                                 |
| pp_discard           | f0db | Could not receive data to be discarded; association is gone.                                    |
| si_deq_msg           | f0dc | Data corruption in ACSE/PL user queue; PPH will be restarted.                                   |
| si_deq_msg           | f0dd | Hanging ACSE/PL user may occur after PPH is restarted.                                          |
| flshmpp3             | f0de | Data corruption in ACSE/PL user's receive queue; PPH will be restarted.                         |
| flshmpp3             | f0df | Hanging ACSE/PL user may occur after PPH is restarted.                                          |
| pph_init             | f0e0 | ECD access error; unable to get messages count from btparm record.                              |
| p_sindics            | f101 | Presentation connection data structure corrupted; discarding structure and aborting connection. |
| p_sindics            | f102 | Waiting indication queue corrupted; abort indication ignored.                                   |
| p_sindics            | f103 | Indication free queue corrupted; abort indication ignored.                                      |
| p_sindics            | f104 | Presentation connection data structure corrupted; discarding structure and aborting connection. |
| p_sindics            | f105 | Indication free queue corrupted; discarding presentation connection data structure.             |
| p_sindics            | f106 | Indication free queue corrupted; discarding presentation connection data structure.             |
| p_sindics            | f107 | Indication free queue corrupted; discarding presentation connection data structure.             |
| p_sindics            | f108 | Waiting indication queue corrupted; receive acknowledgement indication ignored.                 |
| p_sindics            | f109 | Waiting indication queue corrupted.                                                             |
| p_sindics            | f10a | Waiting indication queue corrupted.                                                             |
| p_s_rs_req           | f10b | Receive request queue corrupted.                                                                |
| p_s_rs_req           | f10c | Indication queue corrupted.                                                                     |
| pp_fr_waiting_indics | f10d | Waiting indication queue corrupted.                                                             |
| pp_fr_waiting_indics | f10e | Waiting indication queue corrupted.                                                             |
| si_enq_recv          | f10f | Receive request queue corrupted; receive request failed.                                        |

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| FUNCTION        | CODE | COMMENT (continued)                                                                         |
|-----------------|------|---------------------------------------------------------------------------------------------|
| si_enq_indic    | f110 | Receive request queue corrupted; receive request failed.                                    |
| si_enq_indic    | f111 | Indication queue corrupted; discarding presentation connection data structure.              |
| si_prc_rcv      | f112 | Indication queue corrupted; receive request failed.                                         |
| si_rcv_error    | f113 | Indication queue corrupted; no abort sent.                                                  |
| si_rcv_error    | f114 | Receive request queue corrupted; no abort sent.                                             |
| si_enq_send     | f115 | Send request queue corrupted; request failed.                                               |
| si_resync_ind   | f116 | Send request queue corrupted; failing send request.                                         |
| si_resync_ind   | f117 | Send request queue corrupted; failing send request.                                         |
| acse_pm         | f201 | ACSE double abort finite state machine entry not found.                                     |
| acse_pm         | f202 | Internally generated ACSE finite state machine entry not found.                             |
| p_sindics       | f203 | ACSE/PL user structure queue corrupted; action complete indication ignored.                 |
| p_sindics       | f204 | Presentation connection data structure queue corrupted; action complete indication ignored. |
| p_sindics       | f205 | Presentation connection data structure queue corrupted; action complete indication ignored. |
| p_sindics       | f206 | Received action complete indication when no user was attached; indication ignored.          |
| p_sindics       | f207 | Received receive complete indication when no user was attached; indication ignored.         |
| p_give_sindic   | f208 | Invalid return code from presentation layer protocol machine.                               |
| p_gen_cpr       | f209 | Could not encode generated CPR.                                                             |
| p_p_dabort      | f20a | Could not encode generated ARP.                                                             |
| p_p_dabort      | f20b | Could not set up EDMA for generated ARP.                                                    |
| a_gen_aaren     | f20c | Could not encode generated refuse AARE.                                                     |
| a_gen_aaren     | f20d | Could not set up EDMA for generated refuse AARE.                                            |
| a_gen_aaren     | f20e | Could not send generated refuse AARE.                                                       |
| a_dabort        | f20f | Could not encode generated ABRT.                                                            |
| a_dabort        | f210 | Could not set up EDMA for generated ABRT.                                                   |
| a_dabort        | f211 | Could not send generated ABRT.                                                              |
| pph_memory      | f212 | ACSE user information table corrupted.                                                      |
| pp_mem_complete | f213 | Invalid dynamic memory type; initialization failed.                                         |
| pp_mem_complete | f214 | Incorrect amount of dynamic memory; initialization failed.                                  |

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| FUNCTION           | CODE | COMMENT (continued)                                                                          |
|--------------------|------|----------------------------------------------------------------------------------------------|
| pp_mem_complete    | f215 | Invalid dynamic memory type; initialization failed.                                          |
| pmsgpp3            | f216 | ACSE user information structure queue corrupted.                                             |
| pmsgpp3            | f217 | ACSE user information structure queue corrupted.                                             |
| pmsgpp3            | f218 | ACSE user information structure queue corrupted.                                             |
| pph_ssap_detach    | f219 | Presentation connection data structure queue corrupted.                                      |
| pph_ssap_detach    | f21a | ACSE/PL user structure queue corrupted.                                                      |
| pph_ssap_detach    | f21b | ACSE/PL user structure queue corrupted.                                                      |
| pph_ssap_detach    | f21c | Presentation connection data structure queue corrupted.                                      |
| pres_pm            | f21d | Presentation double abort finite state machine entry not found; aborting connection.         |
| pres_pm            | f21e | Internally generated presentation finite state machine entry not found; aborting connection. |
| si_attach          | f21f | Presentation connection data structure queue corrupted; attach failed.                       |
| si_detach          | f220 | Process information structure not found; detach failed.                                      |
| si_detach          | f221 | ACSE/PL user structure queue corrupted; detach failed.                                       |
| pp_fr_acse_pl_user | f222 | ACSE/PL user structure still linked to presentation connection data structure.               |
| si_close           | f223 | ACSE/PL user structure queue corrupted.                                                      |
| si_close           | f224 | Process information structure queue corrupted.                                               |
| si_enq_indic       | f225 | Presentation connection data structure queue corrupted.                                      |
| si_enq_indic       | f226 | Presentation connection data structure queue corrupted.                                      |
| si_enq_indic       | f227 | ACSE/PL user structure queue corrupted.                                                      |
| si_cmp_recv        | f228 | Presentation connection data structure queue corrupted.                                      |
| si_cmp_recv        | f229 | ACSE/PL user structure queue corrupted.                                                      |
| si_map_assoc       | f22a | ACSE/PL user structure queue corrupted.                                                      |
| si_prc_send        | f22b | ACSE/PL user structure not found or queue is corrupted.                                      |
| si_prc_send        | f22c | ACSE/PL user structure queue corrupted.                                                      |
| si_prc_send        | f22d | Presentation connection data structure queue corrupted.                                      |
| si_prc_pm_result   | f22e | Unexpected return code from protocol machine.                                                |
| si_prc_pm_result   | f22f | Presentation connection data structure queue corrupted.                                      |
| si_prc_pm_result   | f230 | ACSE/PL user structure queue corrupted.                                                      |
| si_cmp_send        | f231 | Presentation connection data structure queue corrupted.                                      |

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| FUNCTION         | CODE | COMMENT (continued)                                                                                                                                                                                                                                                                                                                   |
|------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| si_cmp_send      | f232 | ACSE/PL user structure queue corrupted.                                                                                                                                                                                                                                                                                               |
| si_abt_comp      | f233 | Presentation connection data structure queue corrupted.                                                                                                                                                                                                                                                                               |
| si_abt_comp      | f234 | ACSE/PL user structure queue corrupted.                                                                                                                                                                                                                                                                                               |
| si_send_abt      | f235 | Presentation connection data structure queue corrupted.                                                                                                                                                                                                                                                                               |
| si_snd_pabt      | f236 | ACSE/PL user structure queue corrupted.                                                                                                                                                                                                                                                                                               |
| si_snd_pabt      | f237 | Presentation connection data structure queue corrupted.                                                                                                                                                                                                                                                                               |
| pph_init         | f238 | Exceeded dynamic memory limit; initialization failed.                                                                                                                                                                                                                                                                                 |
| pph_memory       | f239 | Could not allocate dynamic memory; initialization failed.                                                                                                                                                                                                                                                                             |
| pph_memory       | f23a | Could not allocate timer; initialization failed.                                                                                                                                                                                                                                                                                      |
| pp_ecd_init_info | f23b | ECD access error; initialization failed.                                                                                                                                                                                                                                                                                              |
| pp_ecd_init_info | f23c | ECD access error; initialization failed.                                                                                                                                                                                                                                                                                              |
| BXSL HANDLER     |      |                                                                                                                                                                                                                                                                                                                                       |
| modglob.c        | e1   | A signal has been delivered to a locked model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: m4:p q r p = A string of model name. q = Signal in hexadecimal. r = Major control block's state in decimal.                                                        |
| modglob.c        | e2   | A signal is not recognized by a model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: m4:p q r p = A string of model name. q = Signal in hexadecimal. r = Major control block's state in decimal.                                                                |
| modglob.c        | e3   | A signal is sent from a major model to a submodel that has not been invoked. Hex code for the major model, state of the major model, and signal number are given. Format of additional string information is defined as: m4:p q r p = Major model in hexadecimal. q = State of the major model in decimal. r = Signal in hexadecimal. |

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| FUNCTION  | CODE | COMMENT (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| modglob.c | e4   | A major model attempted to invoke a submodel that is already invoked. Address of the major model and state of the major model are given. Format of additional string information is defined as: m4: p q p = Model control function's program address in hexadecimal. q = Model control block's state in decimal.                                                                                                                                                                                              |
| pmsgsl3.C | e5   | The model failed to free an scb from the user. Some scb structures may be orphaned.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| modglob.c | f0   | Idle_model() was called with a Session Control Block address of NULL. Return address of the caller is given. Format of additional string information is defined as: m4: p p = Idle_model() return address in hexadecimal.                                                                                                                                                                                                                                                                                     |
| modglob.c | f1   | Idle_model() was called with a Session Control Block still joined to the user. Address of the model and state of the model is given. Format of additional string information is defined as: m4: p q p = Model control function's program address in hexadecimal. q = Model control block's state in decimal.                                                                                                                                                                                                  |
| modglob.c | f2   | Idle_model() was called with a Session Control Block still joined to the circuit. Address of the model and state of the model is given. Format of additional string information is defined as: m4: p q p = Model control function's program address in hexadecimal. q = Model control block's state in decimal.                                                                                                                                                                                               |
| modglob.c | f3   | Idle_model() was called and the Input submodel has not been updated to idle. Address of the input submodel, state of the input submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: m4: p q r s p = Input model control function's program address in hexadecimal. q = Input model control block's state in decimal. r = Model control function's program address in hexadecimal. s = Model control block's state in decimal. |

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| FUNCTION  | CODE | COMMENT (continued)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| modglob.c | f4   | Idle_model() was called and the Output submodel has not been updated to idle. Address of the output submodel, state of the output submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: m4: p q r s p = Output model control function's program address in hexadecimal. q = Output model control block's state in decimal. r = Model control function's program address in hexadecimal. s = Model control block's state in decimal. |
| modglob.c | f5   | Idle_model() was called and the auxiliary input buffer has not been released. Address and state of the model are given. Format of additional string information is defined as: m4: p q p = Model control function's program address in hexadecimal. q = Model control block's state in decimal.                                                                                                                                                                                                                    |
| modglob.c | f6   | Idle_model() was called and a timer is still running. The timer type, address and state of the model are given. Format of additional string information is defined as: m4: p q r p = Session control block's timer type in hexadecimal. q = Output model control function's program address in hexadecimal. r = Output model control block's state in decimal.                                                                                                                                                     |
| modglob.c | f7   | Idle_model() was called and the Session Control Block is still on the list of pcreated processes. Address of the model and state of the model are given. Format of additional string information is defined as: m4: p q p = Model control function's program address in hexadecimal. q = Model control block's state in decimal.                                                                                                                                                                                   |
| sltime.C  | 7    | Current timer index in SCB is not the same as the time-out index. Format of additional string information is defined as: TIM: p q p = Current timer index in hexadecimal; q = Time-out index in hexadecimal. Connect id mapping failed. Format of additional string information is defined as: Tmapfail: p p = Session connect id in hexadecimal;                                                                                                                                                                  |

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**SPECIAL WARNING MESSAGES**

| CODE  | COMMENT                                                    |
|-------|------------------------------------------------------------|
| fff01 | No responses to process in interrupt entry.                |
| fff02 | Response not properly passed to handler (lost).            |
| fff03 | Resp queue ul pointer written by someone other than IODRV. |

The output of all of the error codes can be controlled by the SET:IODRV and CLR:IODRV input commands.

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ID ..... APP:IOP-G  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**NOTE:** The codes are in hexadecimal.

ERROR CODES RETURNED BY THE MAINTENANCE HANDLER (ERRWD)

| Name      | Code | Description                                                                                |
|-----------|------|--------------------------------------------------------------------------------------------|
| iomaint.c | 01   | ucbptr is zero.                                                                            |
| iomaint.c | 03   | Maint command in NONINT state and not Peripheral I/O (PIO) subsystem.                      |
| iomaint.c | 06   | Maint command in NONINIT state and not rmv or rst.                                         |
| iomaint.c | 07   | Input/Output Processor (IOP) driver has req dgn be aborted.                                |
| iomaint.c | 08   | Maint handler is in wrong state for iomaint msg.                                           |
| iomaint.c | 09   | Request for timreq failed for iomaint msg.                                                 |
| iomaint.c | 0a   | Attach to interrupt failed.                                                                |
| iomaint.c | 0b   | Enable interrupts failed.                                                                  |
| iomaint.c | 0c   | Store Data Control (SDC) tim req.                                                          |
| iomaint.c | 0d   | Not diag controller should not ask for this SDC attach.                                    |
| iomaint.c | 0e   | Attach to interrupt failed.                                                                |
| iomaint.c | 0f   | Enable interrupts failed.                                                                  |
| iomaint.c | 10   | Diagnostic Control (DIAGC) program is not diagnosing controller should not ask for attach. |
| iomaint.c | 11   | Detach from interrupts.                                                                    |
| iomaint.c | 12   | DIAGC not diagnosing controller should not ask for detach.                                 |
| iomaint.c | 13   | Attach to interrupt failed.                                                                |
| iomaint.c | 14   | Enable interrupts failed.                                                                  |
| iomaint.c | 15   | u_stat is undefined state.                                                                 |
| iomaint.c | 16   | getdmaa returned an error.                                                                 |
| iomaint.c | 17   | Received WSETUP0 before DGNDMA.                                                            |
| iomaint.c | 18   | Received WSETUP1 before WSETUP0.                                                           |
| iomaint.c | 1a   | Failed uniolock.                                                                           |
| iomaint.c | 1b   | getdmaa returned an error.                                                                 |
| iomaint.c | 1c   | DIAGC has sent a nonsense op code.                                                         |
| iomaint.c | 1d   | DIAGC has sent bad data in statword and operword.                                          |
| iomaint.c | 1e   | Unable to push a command into the queue.                                                   |
| iomaint.c | 1f   | Error on time request.                                                                     |
| iomaint.c | 20   | The getpta() function returned error.                                                      |
| iomaint.c | 21   | The asndma21() function returned error.                                                    |

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ERROR CODES RETURNED BY THE MAINTENANCE HANDLER (ERRWD) (continued)

| Name       | Code | Description                                                                                                  |
|------------|------|--------------------------------------------------------------------------------------------------------------|
| iomaint.c  | 22   | The asndma21() function returned error.                                                                      |
| iomaint.c  | 23   | The getpta() function returned error.                                                                        |
| iomaint.c  | 24   | The sdc32() function returned error.                                                                         |
| iomaint.c  | 25   | The request for timreq failed.                                                                               |
| iomaint.c  | 26   | The cfread() function returned unsuccessful read.                                                            |
| iomaint.c  | 27   | The getsucbl() returned null UCB pointer.                                                                    |
| crmvcont.c | 30   | Conditional remove failed - Conference (CONF) denial or Equipment Configuration Database (ECD) access error. |
| crmvcont.c | 31   | Conditional remove failed - CONF denial or ECD access error.                                                 |
| crmvcont.c | 32   | Conditional remove failed - CONF denial or ECD access error.                                                 |
| crmvcont.c | 33   | Peripheral Controller Subdevices (PCSD) conditional remove failed by handler.                                |
| crmvcont.c | 34   | PCSD conditional remove failed - ECD access error.                                                           |
| crmvcont.c | 35   | Peripheral Controller (PC) subsystem conditional remove failed by handler.                                   |
| crmvcont.c | 36   | PC conditional remove failed - ECD access error.                                                             |
| crmvcont.c | 37   | Peripheral Interface Controller (PIC) conditional remove failed by handler.                                  |
| outmsg.c   | 39   | No timing available to continue conditional remove.                                                          |
| outmsg.c   | 40   | Conditional remove failed.                                                                                   |
| outmsg.c   | 42   | Handler failed to restore unit to service.                                                                   |
| outmsg.c   | 44   | Restore failed - PC not plugged in slot.                                                                     |
| servr1.c   | 46   | An error has occurred - abort restoral.                                                                      |
| servr1.c   | 47   | An error has occurred - abort conditional removal.                                                           |
| faultaud.c | 48   | Remove or restore aborted - causes diagnostic message to fail.                                               |
| mainthan.c | 51   | Failed iolock.                                                                                               |
| mainthan.c | 52   | Error on asndma1 function.                                                                                   |
| mainthan.c | 53   | Handler is not in DMAEXP state.                                                                              |
| mainthan.c | 54   | Error on asndma1 function.                                                                                   |
| mainthan.c | 56   | Error on timreq1 function.                                                                                   |
| mainthan.c | 57   | u_stat is in undefined state.                                                                                |
| maintfu.c  | 70   | Byte cnt is not correct.                                                                                     |
| maintfun.c | 72   | Abort the diagnostic.                                                                                        |
| maintfun.c | 73   | Abort the diagnostic.                                                                                        |
| updfllsh.c | 80   | Update Flash RAM has been aborted.                                                                           |

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ID ..... APP:IOP-H  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**NOTE:** The codes are in hexadecimal.

# ERROR CODES GENERATED BY REMOVE / RESTORE PROCESS

| Bit | Description                                                   |
|-----|---------------------------------------------------------------|
| 1   | Cannot enable message reception.                              |
| 2   | recvw function error.                                         |
| 3   | Cannot open spooler.                                          |
| 4   | Cannot open Equipment Configuration Database (ECD) manager.   |
| 5   | Cannot get Unit Control Block (UCB).                          |
| 6   | UCB not for requested unit.                                   |
| 7   | Cannot get special device file.                               |
| 8   | Cannot open special device file.                              |
| 9   | Invalid command tag from Diagnostic Monitor Program (DIAMON). |
| 0a  | Cannot reset reserve bit.                                     |
| 0b  | sendw function error.                                         |
| 0c  | Cannot set u_tnum in UCB.                                     |
| 0d  | Request type from DIAMON not manual or auto.                  |
| 0e  | Cannot set u_manrqst in UCB.                                  |
| 0f  | Cannot release special device file.                           |
| 10  | Abort request via manual input.                               |

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ID ..... APP:IOP-I  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

REASONS FOR A REMOVE OR RESTORE REQUEST BEING STOPPED

| Bit | Description                                                            |
|-----|------------------------------------------------------------------------|
| 1   | The diagnostic had failures.                                           |
| 2   | The Request Out Of Service (ROS) (power control switch) is off normal. |
| 3   | Diagnostic request only, not remove or restore.                        |
| 4   | The unit is already active.                                            |
| 5   | The unit is already out of service.                                    |
| 6   | The unit is off-line (in update or growth mode).                       |
| 7   | The unit is unavailable (forced).                                      |
| 8   | The unit is in the INIT state.                                         |
| 9   | The unit is in the GROWTH state.                                       |
| a   | Aborted diagnostic, request denied.                                    |

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ID ..... APP:IOP-J  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

**NOTE:** The codes are in hexadecimal notation.

# ERROR CODES GENERATED BY IODRV FOR GROWTH AND DEGROWTH

| Bit | Description                                                                                                                  |
|-----|------------------------------------------------------------------------------------------------------------------------------|
| 1   | Cannot get Peripheral Controller Subdevices (PCSD) scratch size for boot time growth.                                        |
| 2   | Cannot get PCSD Unit Control Block (UCB) for boot time growth.                                                               |
| 3   | Cannot get Peripheral Controller (PC) subsystem scratch size for boot time growth.                                           |
| 4   | downucb ( ) failed to get PCSDs for boot time growth.                                                                        |
| 5   | Cannot get PC UCB for boot time growth.                                                                                      |
| 6   | downucb ( ) failed to get PCs for boot time growth.                                                                          |
| 7   | Cannot get PIC UCB for boot time growth.                                                                                     |
| 8   | Intelligent Serial Controller (ISC) failed to allocate memory for boot time growth of Peripheral Interface Controller (PIC). |
| 9   | Bad unit level for boot time growth.                                                                                         |
| a   | Cannot restore the PIC during boot time growth.                                                                              |
| b   | ioplevl ( ) failed to get level of unit.                                                                                     |
| c   | Cannot get PC or PCSD UCB for boot time growth.                                                                              |
| d   | ISC failed to allocate memory for boot time growth of PC or PCSD.                                                            |
| e   | Failed to restore a PIC which has no subunits.                                                                               |
| f   | Cannot initialize PC scratch area during boot time growth.                                                                   |
| 10  | Cannot initialize PCSD scratch area during boot time growth.                                                                 |
| 11  | Cannot link to handler for boot time growth of PC.                                                                           |
| 12  | Cannot link to handler for boot time growth of PCSD.                                                                         |
| 20  | Bad unit level for dynamic growth.                                                                                           |
| 21  | Cannot dynamically grow a unit, controlling unit is unequipped.                                                              |
| 22  | Cannot get UCB of the controlling unit for dynamic growth.                                                                   |
| 23  | Unit has wrong major state for dynamic growth.                                                                               |
| 24  | Failed to initialize PIC during dynamic growth.                                                                              |
| 25  | Failed to initialize PC during dynamic growth.                                                                               |
| 26  | Failed to link to handler for dynamic growth of a PC.                                                                        |
| 27  | Failed to initialize PCSD during dynamic growth.                                                                             |
| 28  | Failed to link to handler for dynamic growth of a PCSD.                                                                      |
| 29  | Cannot get level of unit for dynamic growth.                                                                                 |
| 2a  | Cannot get UCB of unit for dynamic growth.                                                                                   |

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ERROR CODES GENERATED BY IODRV FOR GROWTH AND DEGROWTH (continued)

| Bit | Description                                                         |
|-----|---------------------------------------------------------------------|
| 2b  | ISC failed to allocate memory for dynamic growth of a unit.         |
| 2c  | Cannot get size of unit for dynamic growth.                         |
| 2d  | Bad unit level during dynamic growth completion.                    |
| 2e  | grow() encountered bad unit level.                                  |
| 30  | ISC failed to deallocate memory for dynamic degrowth of a PIC.      |
| 31  | ISC failed to deallocate memory for dynamic degrowth of a PC.       |
| 32  | ISC failed to deallocate memory for dynamic degrowth of a PCSD.     |
| 33  | Invalid unit level during dynamic degrowth.                         |
| 34  | Cannot dynamically degrow a unit, it has equipped units beneath it. |
| 35  | Unit has wrong major state for dynamic degrowth.                    |
| 36  | Cannot link to handler for PC dynamic degrowth.                     |
| 37  | Cannot link to handler for PCSD dynamic growth.                     |
| 38  | degrow() encountered unit level out of range.                       |
| 39  | degrow() encountered NULL pointer to IOP data area.                 |
| 40  | dyngrow() got bad opcode for growth.                                |
| 41  | dyngrow() failed to get UCB of unit.                                |

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ID ..... APP:LLA  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

### LLA Audit Output Messages

The LLA audit output messages come in three types:

- DIAG - Diagnostic only
- RCVY - Error detection and associated recovery actions
- UNRCVY - Detection of an unrecoverable error

**NOTE:** A percent character, "%", followed by x, lx, d, and ld in an error message means that the appropriate value is substituted into the output message at this point.

- lx Long (four byte) hexadecimal number.
- x Integer hexadecimal number.
- ld Long (four bytes) decimal number.
- d Integer decimal number.

| Error Code | Status | Message  | Description                                                                                 |
|------------|--------|----------|---------------------------------------------------------------------------------------------|
| 100        | RCVY   | STRAUD00 | Incore database sanity Identification (ID) found to have incorrect value 0x%lx.             |
| 101        | RCVY   | STRAUD01 | Offset to SDP SPACE structure being reset from 0x%lx to 0x%x.                               |
| 102        | RCVY   | STRAUD02 | Offset to user data section being reset from 0x%lx to 0x%lx.                                |
| 103        | UNRCVY | STRAUD03 | Either user rootid in STARTUP(=0x%lx) or DMLHEAD(=0x%lx) is bad, use browse to patch error. |
| 104        | RCVY   | STRAUD04 | Startup database size being reset from 0x%lx to 0x%lx.                                      |
| 105        | RCVY   | STRAUD05 | Space maxpage being reset from 0x%lx to 0x%lx.                                              |
| 106        | RCVY   | STRAUD06 | Number of SDP space allocation stacks being reset from 0x%lx to 0x%lx.                      |
| 107        | RCVY   | STRAUD07 | Pointer to SDP stacks being reset from 0x%lx to 0x%lx.                                      |
| 108        | RCVY   | STRAUD08 | SDP space pointer to environ being reset from 0x%lx to 0x%lx.                               |
| 109        | RCVY   | STRAUD09 | ENVIRON manager pointer being reset from 0x%lx to 0x%lx.                                    |
| 110        | RCVY   | STRAUD10 | SDP manager frame pointer being reset from 0x%lx to 0x%lx.                                  |
| 111        | RCVY   | STRAUD11 | SDP manager page ID being reset from 0x%lx to 0x0.                                          |
| 112        | RCVY   | STRAUD12 | SDP manager use count being reset from 0x%lx to 0x1.                                        |

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| Error Code | Status | Message  | Description (continued)                                                           |
|------------|--------|----------|-----------------------------------------------------------------------------------|
| 113        | RCVY   | STRAUD13 | SDP manager next index being reset from 0x%lx to 0xl.                             |
| 114        | RCVY   | STRAUD14 | SDP manager previous index being reset from 0x%lx to 0x1.                         |
| 115        | RCVY   | STRAUD15 | SDP manager page ID being reset from 0x%lx to IDNULL.                             |
| 116        | RCVY   | STRAUD16 | SDP manager use count being reset from 0x%lx to 0x0.                              |
| 117        | RCVY   | STRAUD17 | SDP manager next index being reset from 0x%lx to 0x0.                             |
| 118        | RCVY   | STRAUD18 | SDP manager previous index being reset from 0x%lx to 0x0.                         |
| 200        | DIAG   | SDPAUD00 | Stack entry 0x%lx next ID found to have incorrect value 0x%lx.                    |
| 201        | DIAG   | SDPAUD01 | Stack entry 0x%lx on %d list size %ld out of range.                               |
| 202        | RCVY   | SDPAUD02 | Resetting depth of %d control stack from %ld to %ld.                              |
| 203        | RCVY   | SDPAUD03 | Resetting next ID of %d control stack from 0x%lx to 0x%lx.                        |
| 204        | RCVY   | SDPAUD04 | Stack entry 0x%lx next ID being reset from 0x%lx to 0x%lx.                        |
| 205        | RCVY   | SDPAUD05 | Resetting next ID of %d control stack from 0x%lx to 0x%lx.                        |
| 206        | DIAG   | SDPAUD06 | Four byte stack entry 0x%1x top found to have incorrect value 0x%1x.              |
| 207        | RCVY   | SDPAUD07 | Resetting top ITEMID of 4 byte stack from 0x%1x to 0x%1x..                        |
| 208        | RCVY   | SDPAUD08 | Resetting depth of 4 byte stack from %ld.                                         |
| 209        | RCVY   | SDPAUD09 | Resetting top of 4 byte stack from 0x%1x to 0x%1x.                                |
| 210        | RCVY   | SDPAUD10 | 4 byte stack entry 0x%1x next ID being reset from 0x%1x to 0x%1x.                 |
| 300        | UNRCVY | DMLAUD00 | Unable to load DMLHEAD structure with SDP.                                        |
| 301        | RCVY   | DMLAUD01 | DML sanity ID at ITEMID = 0 was found to have incorrect value 0x%lx.              |
| 302        | RCVY   | DMLAUD02 | DML page size found to have incorrect value %d, should be %d.                     |
| 303        | RCVY   | DMLAUD03 | Number of RIDs in RIDBLK per page found to have incorrect value %d, should be %d. |
| 304        | DIAG   | DMLAUD04 | Start of set header list found to have incorrect value 0x%lx.                     |
| 305        | DIAG   | DMLAUD05 | Set start points to bad set header at 0x%lx.                                      |
| 306        | DIAG   | DMLAUD06 | End of set header list found to have incorrect value 0x%lx.                       |
| 307        | DIAG   | DMLAUD07 | Set end points to bad set header at 0x%lx.                                        |
| 308        | RCVY   | DMLAUD08 | Set start ITEMID being reset to 0x%lx from 0x%lx.                                 |
| 309        | RCVY   | DMLAUD09 | Set end ITEMID being reset to 0x%lx from 0x%lx.                                   |
| 310        | DIAG   | DMLAUD10 | Start of RID block list found to have incorrect value 0x%lx.                      |
| 311        | DIAG   | DMLAUD11 | RID block start points to bad RID block header at 0x%lx.                          |
| 312        | DIAG   | DMLAUD12 | End of RID block list found to have incorrect value 0x%lx.                        |
| 313        | DIAG   | DMLAUD13 | RID block end points to bad RID block at 0x%lx.                                   |
| 314        | RCVY   | DMLAUD14 | RID block start ITEMID being reset to 0x%lx from 0x%lx.                           |
| 315        | RCVY   | DMLAUD15 | RID block end ITEMID being reset to 0x%lx from 0x%lx.                             |
| 316        | RCVY   | DMLAUD16 | SPACE page size found to have incorrect value %d, should be %d.                   |
| 400        | RCVY   | SETAUD00 | Set header sanity ID at 0x%lx found to have incorrect value 0x%lx.                |
| 401        | RCVY   | SETAUD01 | Previous link field in set header at 0x%lx being reset from 0x%lx to 0x%lx.       |

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| Error Code | Status | Message     | Description (continued)                                                           |
|------------|--------|-------------|-----------------------------------------------------------------------------------|
| 402        | RCVY   | SETAUD02    | Next link field in set header at 0x%lx being reset from 0x%lx to 0x%lx.           |
| 500        | RCVY   | RBLAUD00    | RID block sanity ID at 0x%lx found to have incorrect value 0x%lx.                 |
| 501        | RCVY   | RBLAUD01    | Previous link field in RID block at 0x%lx being reset from 0x%lx to 0x%lx.        |
| 502        | RCVY   | RBLAUD02    | Next link field in RID block at 0x%lx being reset from 0x%lx to 0x%lx.            |
| 600        | RCVY   | BCKAUD00    | Record sanity ID at 0x%lx found to have incorrect value 0x%lx.                    |
| 601        | RCVY   | BCKAUD01    | Record at 0x%lx back link being reset from 0x%lx to 0x%lx.                        |
| 602        | RCVY   | BCKAUD02    | RID block slot at 0x%lx being reset from 0x%lx to 0x%lx.                          |
| 603        | RCVY   | BCKAUD03    | RID block slot 0x%lx bad, being reset from 0x%lx to 0x%lx.                        |
| 700        | RCVY   | ORPAUD00    | Resetting RIDBLK slot at 0x%lx to 0x%lx from 0x%lx.                               |
| 800        | RCVY   | FREAUD00    | RID block 0x%lx being put on free RID block list at head. T}                      |
| 801        | RCVY   | FREAUD01    | RID block 0x%lx on free list has no free slots.                                   |
| 900        | DIAG   | FRLAUD00    | RID block 0x%lx next free link found to have incorrect value 0x%lx.               |
| 901        | DIAG   | FRLAUD01    | DMLHEAD link to start of RID block free list found to have incorrect value 0x%lx. |
| 1000       | RCVY   | FRLAUDR00   | RID block 0x%lx next free link being reset from 0x%lx to 0x%lx.                   |
| 1001       | RCVY   | FRLAUDR01   | Resetting free RID block ID in DMLHEAD from 0x%lx to 0x%lx.                       |
| 1200       | UNRCVY | SHDAUD00    | Set 0x%lx ordinal in both header and accessid bad.                                |
| 1201       | RCVY   | SHDAUD01    | Set 0x%lx ordinal being reset from 0x%x to 0x%x.                                  |
| 1202       | RCVY   | SHDAUD02    | Set 0x%lx number of access methods being reset from %d to %d.                     |
| 1203       | RCVY   | SHDAUD03    | Set 0x%lx cluster flag being reset from 0x%x to 0x%x.                             |
| 1204       | RCVY   | SHDAUD04    | Set 0x%lx, access method %d, accessid being reset from 0x%lx to 0x%lx.            |
| 1205       | RCVY   | SHDAUD05    | Set 0x%lx, access method %d, pagesize being reset from 0x%x to 0x%x.              |
| 1206       | RCVY   | SHDAUD06    | Set 0x%lx, access method %d, keylength being reset from %d to %ld.                |
| 1300       | RCVY   | DMLAUDR0    | Start and end RID block links being reset from 0x%lx, 0x%lx to 0x%lx, 0x%lx.      |
| 1301       | RCVY   | DMLAUDR1    | Start and end set header links being reset from 0x%lx, 0x%lx to 0x%lx, 0x%lx.     |
| 1400       | RCVY   | DSTRAUD1400 | Offset to DML structure being reset from 0x%1x to 0x%1x.                          |

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| Error Code | Status | Message     | Description (continued)                                                             |
|------------|--------|-------------|-------------------------------------------------------------------------------------|
| 1401       | UNRCVY | DSTRAUD1401 | Offset to DML structure found to be 0x%1x but should be 0x%1x.                      |
| 1402       | RCVY   | DSTRAUD1402 | Disk database sanity ID being reset from 0x%1x to 0x%1x.                            |
| 1403       | UNRCVY | DSTRAUD1403 | Disk database sanity ID found to be 0x%1x but should be 0x%1x.                      |
| 1404       | RCVY   | DSTRAUD1404 | Offset to SDP SPACE structure being reset from 0x%1x to 0x%1x.                      |
| 1405       | UNRCVY | DSTRAUD1405 | Offset to SDP SPACE structure found to be 0x%1x but should be 0x%1x.                |
| 1406       | UNRCVY | DSTRAUD1406 | Sanity ID for DML structure found to be 0x%1x but should be 0x%1x.                  |
| 1407       | UNRCVY | DSTRAUD1407 | Either user rootid in STARTUP(=0x%1x) or DMLHEAD(=0x%1x) is bad, use fsdb to patch. |
| 1408       | RCVY   | DSTRAUD1408 | Disk database size in STARTUP being reset from 0x%1x to 0x%1x.                      |
| 1409       | UNRCVY | DSTRAUD1409 | Disk database size in STARTUP found to be 0x%1x but should be 0x%1x.                |
| 1410       | RCVY   | DSTRAUD1410 | Disk database size in SDP SPACE structure being reset from 0x%1x to 0x%1x.          |
| 1411       | UNRCVY | DSTRAUD1411 | Disk database size in SDP SPACE structure found to be 0x%1x but should be 0x%1x.    |
| 1412       | RCVY   | DSTRAUD1412 | Number of SDP STAX being reset from 0x%1x to 0x%1x.                                 |
| 1413       | UNRCVY | DSTRAUD1413 | Number of SDP STAX found to be 0x%1x but should be 0x%1x.                           |
| 1414       | RCVY   | DSTRAUD1414 | SDP SPACE page size reset from 0x%1x to 0x%1x.                                      |
| 1415       | UNRCVY | DSTRAUD1415 | SDP SPACE structure found to have page size 0x%1x but should be 0x%1x.              |
| 1416       | RCVY   | DSTRAUD1416 | Address of file information structure being reset from 0x%1x to 0x%1x.              |
| 1417       | UNRCVY | DSTRAUD1417 | Address of file information structure found to be 0x%1x but should be 0x%1x.        |
| 1418       | RCVY   | DSTRAUD1418 | Address of STAX information structure being reset from 0x%1x to 0x%1x.              |
| 1419       | UNRCVY | DSTRAUD1419 | Address of STAX information structure found to be 0x%1x but should be 0x%1x.        |
| 1420       | RCVY   | DSTRAUD1420 | Address of environment structure reset from 0x%1x to 0x%1x.                         |
| 1421       | UNRCVY | DSTRAUD1421 | Address of environment structure found to be 0x%1x but should be 0x%1x.             |
| 1422       | RCVY   | DSTRAUD1422 | Address of head name reset from 0x%1x to 0x%1x.                                     |
| 1423       | UNRCVY | DSTRAUD1423 | Address of head name found to be 0x%1x but should be 0x%1x.                         |
| 1424       | RCVY   | DSTRAUD1424 | Address of manager structure reset from 0x%1x to 0x%1x.                             |
| 1425       | UNRCVY | DSTRAUD1425 | Address of manager structure found to be 0x%1x but should be 0x%1x.                 |

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| Error Code | Status | Message     | Description (continued)                                                          |
|------------|--------|-------------|----------------------------------------------------------------------------------|
| 1426       | RCVY   | DSTRAUD1426 | Number of frames in environment structure reset from 0x%1x to 0x%1x.             |
| 1427       | UNRCVY | DSTRAUD1427 | Number of frames in environment structure found to be 0x%1x but should be 0x%1x. |
| 1428       | RCVY   | DSTRAUD1428 | Frame pointer address reset from 0x%1x to 0x%1x.                                 |
| 1429       | UNRCVY | DSTRAUD1429 | Frame pointer address found to be 0x%1x but should be 0x%1x.                     |
| 1430       | RCVY   | DSTRAUD1430 | Manager[0] space pointer reset from 0x%1x to 0x%1x.                              |
| 1431       | UNRCVY | DSTRAUD1431 | Manager[0] space pointer found to be 0x%1x but should be 0x%1x.                  |
| 1432       | RCVY   | DSTRAUD1432 | Manager[0] page ID reset from 0x%1x to 0x%1x.                                    |
| 1433       | UNRCVY | DSTRAUD1433 | Manager[0] page ID found to be 0x%1x but should be 0x%1x.                        |
| 1434       | RCVY   | DSTRAUD1434 | Manager[0] use count reset from 0x%1x to 0x%1x.                                  |
| 1435       | UNRCVY | DSTRAUD1435 | Manager[0] use count found to be 0x%1x but should be 0x%1x.                      |
| 1436       | RCVY   | DSTRAUD1436 | Manager[0] forward pointer reset from 0x%1x to 0x%1x.                            |
| 1437       | UNRCVY | DSTRAUD1437 | Manager[0] forward pointer found to be 0x%1x but should be 0x%1x.                |
| 1438       | RCVY   | DSTRAUD1438 | Manager[0] backward pointer reset from 0x%1x to 0x%1x.                           |
| 1439       | UNRCVY | DSTRAUD1439 | Manager[0] backward pointer found to be 0x%1x but should be 0x%1x.               |
| 1440       | RCVY   | DSTRAUD1440 | Manager[1] page ID reset from 0x%1x to 0x%1x.                                    |
| 1441       | UNRCVY | DSTRAUD1441 | Manager[1] page ID found to be 0x%1x but should be 0x%1x.                        |
| 1442       | RCVY   | DSTRAUD1442 | Manager[1] use count reset from 0x%1x to 0x%1x.                                  |
| 1443       | UNRCVY | DSTRAUD1443 | Manager[1] use count found to be 0x%1x but should be 0x%1x.                      |
| 1444       | RCVY   | DSTRAUD1444 | Manager[1] forward pointer reset from 0x%1x to 0x%1x.                            |
| 1445       | UNRCVY | DSTRAUD1445 | Manager[1] forward pointer found to be 0x%1x but should be 0x%1x.                |
| 1446       | RCVY   | DSTRAUD1446 | Manager[1] backward pointer reset from 0x%1x to 0x%1x.                           |
| 1447       | UNRCVY | DSTRAUD1447 | Manager[1] backward pointer found to be 0x%1x but should be 0x%1x.               |
| 1448       | RCVY   | DSTRAUD1448 | Cannot open %s for writing - no corrections made.                                |
| 1449       | UNRCVY | DSTRAUD1449 | Cannot rewrite lla control structures for %s - no corrections made.              |

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ID ..... APP:MSGCLASS  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

# MESSAGE CLASS NUMBER/REPORT DESTINATION NAME RELATIONSHIP

This appendix shows the relationship between the message class number (as used to access the ECD Classdef records, and as it appears in the OMDB Cross Reference Appendix), and the report destination name as it appears in output message headers.

The first table gives the translation from class number to report destination name, together with a short textual description of the message class. The second table provides the reverse translation.

Table 1 - Message Class to Report Destination Translation

| MSG<br>Class | Report<br>Destination | Description                        |
|--------------|-----------------------|------------------------------------|
| 0            | SPERR                 | Spooler Error reports              |
| 1            | MAINT                 | General Maintenance reports        |
| 2            | MAIPR                 | Low Priority Maintenance reports   |
| 3            | DEBUG                 | Debugging reports                  |
| 4            | TIME                  | Data and Time reports              |
| 5            | PMORT                 | Post-Mortem reports                |
| 6            | EIH                   | Processor Error Interrupt reports  |
| 7            | MEMF                  | Memory Fault reports               |
| 8            | CONF                  | Configuration Management reports   |
| 9            | DGN                   | Diagnostic reports                 |
| 10           | TLP                   | Trouble Locating Procedure reports |
| 11           | AUDT                  | Audit reports (printed)            |
| 12           | AUDL                  | Audit reports (logged)             |
| 13           | RC                    | Recent Change reports              |
| 14           | UTIL                  | Field Utility reports              |
| 15           | SIM                   | System Integrity reports           |
| 16           | XUNIT                 | Unit Abnormal Condition reports    |
| 17           | REX                   | Routine Exercise reports           |
| 18           | GSPM                  | Generic Utility reports (printed)  |
| 19           | GSPL                  | Generic Utility reports (logged)   |
| 20           | LGTRM                 | Log File Output reports            |
| 21           | PMCR                  | Plant Measurement Common reports   |

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Table 1 - Message Class to Report Destination Translation (continued)

| MSG Class | Report Destination | Description                                  |
|-----------|--------------------|----------------------------------------------|
| 22        | ULARP              | Unix Level Automatic Restart Process reports |
| 23        |                    |                                              |
| 24        | DSKUTL             | Disk Utility reports                         |
| 25        | DSKSYS             | Disk Subsystem reports                       |
| 26        | PSSWD              | Password Break Attempt reports               |
| 27        | AUTH               | Authority Administration reports             |

Table 2 - Report Destination to Message Class Translation

| MSG Class | Report Destination | Description                                  |
|-----------|--------------------|----------------------------------------------|
| 12        | AUDL               | Audit reports (logged)                       |
| 11        | AUDT               | Audit reports (printed)                      |
| 27        | AUTH               | Authority Administration reports             |
| 8         | CONF               | Configuration Management reports             |
| 3         | DEBUG              | Debugging reports                            |
| 9         | DGN                | Diagnostic reports                           |
| 25        | DSKSYS             | Disk Subsystem reports                       |
| 24        | DSKUTL             | Disk Utility reports                         |
| 6         | EIH                | Processor Error Interrupt reports            |
| 19        | GSPL               | Generic Utility reports (logged)             |
| 18        | GSPM               | Generic Utility reports (printed)            |
| 20        | LGTRM              | Log File Output reports                      |
| 1         | MAINT              | General Maintenance reports                  |
| 2         | MAIPR              | Low Priority Maintenance reports             |
| 7         | MEMF               | Memory Fault reports                         |
| 21        | PMCR               | Plant Measurement Common reports             |
| 5         | PMORT              | Post-Mortem reports                          |
| 26        | PSSWD              | Password Break Attempt reports               |
| 13        | RC                 | Recent Change reports                        |
| 17        | REX                | Routine Exercise reports                     |
| 15        | SIM                | System Integrity reports                     |
| 0         | SPERR              | Spooler Error reports                        |
| 4         | TIME               | Data and Time reports                        |
| 10        | TLP                | Trouble Locating Procedure reports           |
| 22        | ULARP              | Unix Level Automatic Restart Process reports |
| 14        | UTIL               | Field Utility reports                        |
| 16        | XUNIT              | Unit Abnormal Condition reports              |

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ID ..... APP:OMDB-REF  
WORK CENTER.. MOC  
GENERIC ..... 4AP18 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## OMDB CROSS REFERENCE APPENDIX

The Output Message Database (OMDB) cross reference gives information about every message contained in the OMDB. The information includes its key, message class, alarm level, message text, variable offsets, sizes and translation types.

This is an example of a cross reference entry and an explanation of the fields:

KEY = 5 MSGCLS = 1 ALARM = MAN %1 OMDB COMPLETED

Shows a database entry for key number 5, which has a message class of 1 (MAINT) and an alarm level of MAN (manual). The message has a variable field indicated by the %. In this particular case the variable field shows which enum the OMDB completed.

| Field Name | Description                                                                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KEY        | The key (index) into the OMDB. The key(s) for each message in the database can be found on the Output Message manual pages.                                                  |
| MSGCLS     | The numeric message class for this message (0-255). For a complete list of message classes, refer to the MSGCLASS Appendix, APP:MSGCLASS.                                    |
| ALARM      | The alarm level defined for this message. One of the following: CRIT, MAJ, MIN, MAN, ACT, INFO, VAR.                                                                         |
| MESSAGE    | Reason the OMDB was output. The percent sign (%) in this field indicates variable information. Please contact Lucent Technologies Customer Technical Support for assistance. |

The following is a listing of the possible DMERT/UNIX® RTR OMDB keys.

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| KEY | MSGCLS | ALARM | MESSAGE                                                       |
|-----|--------|-------|---------------------------------------------------------------|
| 0   | 1      | INFO  | REPT CSOP IN SERVICE                                          |
| 1   | 1      | MAN   | ACTV OMDB COMPLETED                                           |
| 2   | 1      | MAN   | APPLY OMDB COMPLETED                                          |
| 3   | 1      | MAN   | %1 OMDB NO DATABASE ENTRY FOUND FOR THE<br>FOLLOWING KEYS:    |
| 4   | 1      | MAN   | UPD OMDB COMPLETED FOR THE FOLLOWING KEYS:                    |
| 5   | 1      | MAN   | %1 OMDB COMPLETED                                             |
| 6   | 1      | MAN   | OP OMDB %1                                                    |
| 7   | 1      | MAN   | OP OMDB %1 NO DATABASE ENTRY FOUND FOR THE<br>FOLLOWING KEYS: |
| 8   | 1      | MAN   | APPLY OMDB LOGFILE ERROR                                      |
| 9   | 1      | MAN   | %1 OMDB CANNOT OPEN OR CREATE LOGFILE                         |
| 10  | 1      | MAN   | %1 OMDB ABORTED                                               |
| 11  | 1      | INFO  | REPT CSOP FORMATTING                                          |
| 12  | 28     | INFO  | REPT SOP DELETING OLDER HALF OF %1                            |
| 13  | 2      | INFO  | DEL LOG CANNOT OPEN WORKFILE                                  |
| 14  | 2      | INFO  | DEL LOG FILE %1 DELETION COMPLETE %2 DELETED                  |
| 15  | 14     | INFO  | DEL LOG CORRUPT LOGFILE %1%2 AT %3                            |
| 16  | 1      | ACT   | ANALY TLPFILE %1 SUMMARY DATA MSG STARTED                     |
| 17  | 1      | ACT   | ANALY TLPFILE %1 TLPSRCH MSG IP                               |
| 18  | 1      | ACT   | ANALY TLPFILE %1 SUSPECTED FAULTY EQUIPMENT MSG COMPL         |
| 19  | 1      | ACT   | REPT TLP ERROR %1 %2 %3 %4 %5                                 |
| 20  | 1      | ACT   | REPT ANALY TLP %1 %2                                          |
| 21  | 1      | ACT   | REPT ANALY TLP %1                                             |
| 22  | 1      | ACT   | REPT ANALY TLP %1 %2                                          |
| 23  | 1      | ACT   | DGN %1 %2 - FLASH MEMORY UPDATE PROCESS IN PROGRESS           |
| 24  | 16     | MAN   | OP REXINH %1                                                  |
| 25  | 1      | INFO  | OP REXINH CANNOT OPEN %1                                      |
| 26  | 17     | INFO  | REPT REX SUMMARY %1                                           |
| 27  | 1      | INFO  | REPT REX TERMINATED - INTERNAL REQUEST                        |
| 28  | 1      | INFO  | REPT REX UNABLE TO SEND MESSAGE TO APPLICATION<br>REX PORT    |
| 29  | 1      | INFO  | REPT REX UNABLE TO REQUEST PORTSWITCH FOR IOP<br>DIAGNOSIS    |
| 30  | 1      | INFO  | REPT REX ROP PORTSWITCH REQUEST DENIED                        |
| 31  | 1      | INFO  | REPT REX MTTY PORTSWITCH REQUEST DENIED                       |
| 32  | 1      | MAJ   | REPT REX MAJOR ALARM %1                                       |
| 33  | 1      | INFO  | REPT REX CANNOT OPEN %1                                       |
| 34  | 1      | ACT   | REPT DGN CU ERROR %1                                          |
| 35  | 1      | MAN   | EX STEP SCRATCH WORD VALUE IS %1                              |
| 36  | 1      | ACT   | REPT DGN CU ERROR %1                                          |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                |
|-----|--------|-------|--------------------------------------------------------------------|
| 37  | 1      | MAN   | EX STEP BYTE SENT %1                                               |
| 38  | 1      | MAN   | EX STEP BYTE RECEIVED %1                                           |
| 39  | 1      | MAN   | EX LDPARM MASC %1 TEST INPUT VALUES                                |
| 40  | 1      | MAN   | EX LDPARM MASC %1 TEST INPUT VALUES                                |
| 41  | 1      | MAN   | EX LDPARM MASC %1 TEST INPUT VALUES                                |
| 42  | 1      | MAN   | EX LDPARM MASC MEM TEST INPUT VALUES                               |
| 43  | 1      | MAN   | EX LDPARM MASC UPD TEST INPUT VALUES                               |
| 44  | 1      | MAN   | EX LDPARM MASC UPD TEST INPUT VALUES                               |
| 45  | 1      | ACT   | REPT DGN CU %1                                                     |
| 46  | 1      | MAN   | EX %1 %2 %3 %4 %5 %6 %7 %8                                         |
| 47  | 1      | MAN   | EX STEP MESSAGE SENT                                               |
| 48  | 1      | MAN   | EX STEP MESSAGE RECEIVED                                           |
| 49  | 16     | MAN   | OP %1 MESSAGE STARTED                                              |
| 50  | 16     | MAN   | OP %1 COMPLETED                                                    |
| 51  | 1      | MAN   | OP %1 INTERFACE ERROR, ERRNO = %2                                  |
| 52  | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6                         |
| 53  | 1      | ACT   | %1 CU %2 MASC %3 PH %4 MEMORY FAILURE RESULTS                      |
| 54  | 1      | ACT   | REPT DGN %1 NO DIAMON                                              |
| 55  | 1      | ACT   | REPT DGN ERROR TEST NUMBER %1                                      |
| 56  | 1      | ACT   | REPT DGN AUDIT %1                                                  |
| 57  | 1      | ACT   | DGN %1 %2 PH %3 DISK READ/WRITE FAILURES                           |
| 58  | 1      | ACT   | REPT %1 ERROR 3 %2                                                 |
| 59  | 1      | ACT   | REPT MIRA %1                                                       |
| 60  | 1      | ACT   | REPT MIRA CANNOT RESERVE UNITS FOR %1 %2 %3 %4 %5                  |
| 61  | 1      | ACT   | DGN %1 %2 - FLASH MEMORY UPDATE PROCESS COMPLETE                   |
| 62  | 1      | MAN   | INH DMQ CANNOT INHIBIT A MANUAL SOURCE %1                          |
| 63  | 1      | MAN   | INH DMQ %1                                                         |
| 64  | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6                         |
| 65  | 1      | MAN   | INH DMQ CANNOT LCALL INHTIMER PROCESS %1 FOR<br>INHIBIT ERRNO = %2 |
| 66  | 1      | MAN   | ALW DMQ ENABLED %1%2                                               |
| 67  | 1      | MAN   | ALW DMQ SOURCE %1 %2                                               |
| 68  | 1      | ACT   | REPT MIRA CANNOT LCALL %1                                          |
| 69  | 1      | MAN   | REPT MIRA CANNOT SEND MESSAGE TO %1 ERRNO = %2                     |
| 70  | 1      | ACT   | %1 %2 %3 %4 %5 TASK %6 %7                                          |
| 71  | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6                         |
| 72  | 1      | ACT   | REPT MIRA %1 ERRNO = %2                                            |
| 73  | 1      | ACT   | REPT MIRA %1 %2 %3 %4 %5                                           |
| 74  | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6                         |
| 75  | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6                         |
| 76  | 12     | VAR   | AUD ENV=RTR %1 %2 %3 %4 %5                                         |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                               |
|-----|--------|-------|-------------------------------------------------------------------|
| 77  | 1      | MAN   | EX %1 %2 NO ACTION TAKEN                                          |
| 78  | 12     | VAR   | AUD ENV=RTR %1 %2 %3 COMPLETED                                    |
| 79  | 12     | VAR   | REPT SIOF ERROR - TOO MANY BLOCKS (%1) RETURNED<br>BY SIM         |
| 80  | 12     | VAR   | REPT SIOF ERROR - INVALID OUTPUT FORMAT TYPE %1                   |
| 81  | 12     | VAR   | REPT SIOF ERROR - INVALID ALARM LEVEL %1<br>SUBSTITUTING ' '      |
| 82  | 12     | VAR   | REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA<br>TYPE %1           |
| 83  | 12     | VAR   | REPT SIOF ERROR - UNABLE TO FIND AVAILABLE<br>SEGMENT INDEX       |
| 84  | 12     | VAR   | REPT SIOF ERROR - INVALID SEGMENT ID %1 CODE %2                   |
| 85  | 12     | VAR   | REPT SIOF ERROR - UNABLE TO ADD SEGMENT ID %1<br>CODE %2          |
| 86  | 1      | ACT   | REPT MIRA %1 %2 %3 %4 %5 ABORT REQUESTED REASON %6                |
| 87  | 12     | VAR   | REPT SIOF ERROR - CANNOT SET VIRTUAL ADDRESS<br>SEGNUM %1 CODE %2 |
| 88  | 12     | VAR   | REPT SIOF ERROR - CANNOT ADD SEGNUM %1 CODE %2                    |
| 89  | 12     | VAR   | REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA                      |
| 90  | 1      | ACT   | REPT MIRA CONC=%1 %2                                              |
| 91  | 1      | ACT   | OP DMQ                                                            |
| 92  | 1      | ACT   | REPT DMQ %1 %2%3 %4                                               |
| 93  | 1      | ACT   | REPT DMQ INHIBIT %1%2 ACTIVE, REMAINING TIME %3<br>MINUTES        |
| 94  | 12     | VAR   | REPT SIOF ERROR - UNABLE TO FREE SEGMENT %1                       |
| 95  | 1      | ACT   | REPT DIAMON ERROR = %1 ERRNO = %2                                 |
| 96  | 1      | ACT   | %1 %2 %3 %4 %5 %6                                                 |
| 97  | 12     | VAR   | REPT SIOF ERROR - INVALID SEG ID STAMP %1                         |
| 98  | 12     | VAR   | REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA<br>FORMAT %1         |
| 99  | 1      | ACT   | %1 %2 %3 %4 %5 %6 %7 %8                                           |
| 100 | 12     | VAR   | REPT SIOF ERROR - sizeof( %1 ) NOT FACTOR OF<br>PASSED SIZE       |
| 101 | 12     | VAR   | REPT SIOF ERROR - CANNOT %1 FILE %2                               |
| 102 | 12     | VAR   | REPT SIOF ERROR - CANNOT OPEN %1 FILE %2                          |
| 103 | 1      | ACT   | %1 %2 %3 %4 %5 %6 (%7 %8 %9) %10                                  |
| 104 | 6      | INFO  | REPT ERSLOT                                                       |
| 105 | 7      | INFO  | REPT ERSLOT                                                       |
| 106 | 1      | ACT   | %1 %2 %3 %4 %5 ABORTED AT PH %6 STMNT %7 ATP<br>MSG IP            |
| 107 | 6      | INFO  | REPT ERSLOT                                                       |
| 108 | 7      | INFO  | REPT ERSLOT                                                       |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                 |
|-----|--------|-------|-----------------------------------------------------|
| 109 | 1      | ACT   | %1 %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP |
| 110 | 1      | ACT   | %1 %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP |
| 111 | 1      | ACT   | %1 %2 %3 %4 %5 %6 %7 %8 %9 %10 (%11 %12) MSG IP     |
| 112 | 7      | INFO  | REPT ERSLOT                                         |
| 113 | 7      | INFO  | REPT ERSLOT                                         |
| 114 | 6      | INFO  | REPT ERSLOT                                         |
| 115 | 6      | INFO  | REPT ERSLOT                                         |
| 116 | 6      | INFO  | REPT ERSLOT                                         |
| 117 | 1      | ACT   | REPT ERRPORT %1 %2 %3                               |
| 118 | 1      | MAN   | %1 OMDB ABORTED                                     |
| 119 | 24     | INFO  | %1 %2 %3 %4 %5                                      |
| 120 | 24     | MAN   | %1 %2 %3 %4 %5                                      |
| 121 | 24     | MAJ   | %1 %2 %3 %4 %5                                      |
| 122 | 24     | MAN   | %1 MHD %2 %3 IN PROGRESS                            |
| 123 | 24     | MAN   | LOAD MHD %1 DEFECT TABLE %2 %3 %4                   |
| 124 | 24     | MAN   | %1 %2 %3 PARTITION MISMATCH                         |
| 125 | 24     | INFO  | %1 %2 %3 PARTITION MISMATCH                         |
| 126 | 24     | MAN   | %1 %2 %3 PARTITION %4                               |
| 127 | 24     | INFO  | %1 %2 %3 PARTITION %4                               |
| 128 | 24     | MAN   | %1 %2 %3 PARTITION BYPASSED                         |
| 129 | 24     | INFO  | %1 %2 %3 PARTITION BYPASSED                         |
| 130 | 24     | MAN   | %1 %2 %3 FINAL SUMMARY                              |
| 131 | 24     | INFO  | %1 %2 %3 FINAL SUMMARY                              |
| 132 | 24     | MAN   | %1 %2 %3 PARTITION ACCESS FAILURE                   |
| 133 | 24     | INFO  | %1 %2 %3 PARTITION ACCESS FAILURE                   |
| 134 | 1      | MAN   | REPT FAN %1 %2 %3                                   |
| 135 | 1      | MAJ   | REPT FAN %1 %2 %3                                   |
| 136 | 1      | MIN   | REPT FAN %1 %2 %3                                   |
| 137 | 1      | INFO  | REPT FAN %1 %2 %3                                   |
| 138 | 1      | INFO  | REPT PSM ERROR %1 %2 %3 %4 %5 %6 %7                 |
| 139 | 1      | MAN   | REPT POWER %1 %2 %3 %4 %5                           |
| 140 | 1      | INFO  | REPT POWER FAULT CLEARED %1 %2 %3 %4                |
| 141 | 1      | MIN   | REPT POWER %1 %2 %3 %4 %5 %6                        |
| 142 | 1      | MAJ   | REPT POWER %1 %2 %3 %4 %5 %6                        |
| 143 | 0      | INFO  | REPT %1 %2 %3                                       |
| 145 | 24     | MAN   | DUMP MHD %1 DEFECT TABLE %2                         |
| 146 | 24     | MAJ   | %1 MHD %2 EARLY TERM VFY FAILED %3                  |
| 147 | 24     | MAN   | %1 MHD %2 %3 %4 %5                                  |
| 148 | 24     | INFO  | %1 MHD %2 %3 %4 %5                                  |
| 149 | 24     | MAJ   | %1 MHD %2 %3 %4 %5                                  |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                      |
|-----|--------|-------|--------------------------------------------------------------------------|
| 150 | 24     | MAN   | OP DFC %1 INFO                                                           |
| 151 | 24     | MAN   | OP MHD %1 INFO                                                           |
| 152 | 24     | MAN   | OP DFC %1 INFO                                                           |
| 153 | 24     | MAN   | OP %1 %2 INFO %3 %4 %5                                                   |
| 154 | 24     | MAN   | REPT DKDIP MESSAGE                                                       |
| 155 | 254    | INFO  | REPT IODRV %1 %2 %3 %4 %5 %6 %7                                          |
| 156 | 254    | INFO  | REPT IODRV %1 %2 %3 %4 %5 %6 %7                                          |
| 157 | 1      | MAN   | OP SCSD GRPN %1                                                          |
| 158 | 1      | MAN   | OP SCSD UNIT %1                                                          |
| 159 | 1      | MAN   | %1 %2                                                                    |
| 160 | 1      | INFO  | OP IODRV COMPLETED                                                       |
| 161 | 1      | INFO  | OP IODRV %1                                                              |
| 162 | 1      | INFO  | LVL                                                                      |
| 163 | 1      | INFO  | OP IODRV MSG STARTED                                                     |
| 164 | 1      | MAN   | SW PORTSW %1 %2 %3                                                       |
| 165 | 1      | INFO  | REPT SCSDA %1 %2 %3 %4 %5 %6 %7 %8                                       |
| 166 | 1      | MAJ   | REPT PHASE %1 IN PROGRESS                                                |
| 167 | 1      | CRIT  | REPT PHASE %1 IN PROGRESS                                                |
| 168 | 1      | MIN   | REPT INHIBIT SCAN POINT %1 ON SCSD %2                                    |
| 169 | 13     | MAN   | RCV MENU %1 %2 %3 %4 %5 %6                                               |
| 170 | 11     | INFO  | REPT ECDMAN %1                                                           |
| 171 | 1      | ACT   | OP DMQ                                                                   |
| 172 | 1      | ACT   | OP DMQ                                                                   |
| 173 | 1      | ACT   | OP DMQ                                                                   |
| 174 | 6      | INFO  | REPT ERSLOT                                                              |
| 175 | 1      | INFO  | REPT C/D ERROR %1 %2 %3 %4 %5 %6 %7                                      |
| 176 | 254    | INFO  | REPT CSOP %1                                                             |
| 177 | 1      | INFO  | %1                                                                       |
| 178 | 1      | INFO  | %1 %2                                                                    |
| 179 | 1      | INFO  | %1                                                                       |
| 180 | 1      | INFO  | REPT RTS GETDBSEG FAILED ERRNO %1                                        |
| 181 | 1      | MAN   | VFY TAPE %1                                                              |
| 182 | 1      | MAN   | VFY TAPE %1 %2                                                           |
| 183 | 1      | MAN   | VFY TAPE STOPPED %1 HEADER %2 RECORD %3                                  |
| 184 | 1      | MAN   | VFY TAPE COMPLETED RETRIES %1 HEADER MISMATCHES<br>%2 DATA MISMATCHES %3 |
| 185 | 1      | MAN   | %1 %2 %3                                                                 |
| 186 | 1      | MAN   | COPY ACTDISK STOPPED WITH ERROR CODE %1 ERRNO %2 %3                      |
| 187 | 1      | MAN   | COPY ACTDISK ON MHD %1 COMPLETED                                         |
| 188 | 1      | MAN   | COPY %1 %2 %3 %4                                                         |
| 189 | 1      | MAN   | CLR PTN STOPPED WITH ERROR CODE %1 ERRNO %2 %3                           |
| 190 | 1      | MAN   | CLR PTN ON MHD %1 COMPLETED                                              |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                           |
|-----|--------|-------|---------------------------------------------------------------|
| 191 | 1      | MAN   | CLR PTN CLEARING %1 ON MHD %2                                 |
| 192 | 25     | INFO  | REPT DKDRV ERROR DATA %1                                      |
| 193 | 254    | INFO  | REPT IODRV RECEIVED UNIDENTIFIED RCV MESSAGE                  |
| 194 | 254    | INFO  | REPT IODRV RECEIVED UNIDENTIFIED RCV MESSAGE                  |
| 195 | 254    | INFO  | %1 %2 %3 %4                                                   |
| 196 | 254    | INFO  | %1 %2 %3 %4                                                   |
| 197 | 254    | INFO  | REPT %1 %2 %3 %4 %5                                           |
| 198 | 254    | INFO  | REPT %1 %2 %3 %4 %5                                           |
| 199 | 25     | INFO  | REPT %1 %2 INFO CODE %3                                       |
| 200 | 25     | INFO  | REPT %1 %2 INFO HA SHADOW REGISTER STATUS %3                  |
| 201 | 254    | INFO  | REPT CSOP %1 %2%3                                             |
| 202 | 254    | INFO  | REPT CSOP %1 %2%3 %4 %5%6                                     |
| 203 | 254    | INFO  | REPT CSOP CANNOT SEND MSG TO %1 %2 ERRNO %3                   |
| 204 | 254    | INFO  | REPT CSOP NO QUEUE ENTRY OUTPUT ERROR %1 %2 %3 %4             |
| 205 | 254    | INFO  | REPT CSOP SOf INIT %1 %2 %3 %4                                |
| 206 | 254    | INFO  | REPT CSOP SOP OUTPUT ERROR                                    |
| 207 | 254    | INFO  | REPT %1 %2 %3 %4 %5 %6 %7 %8 %9                               |
| 208 | 254    | INFO  | REPT %1 %2 %3 %4 %5 %6 %7 %8 %9                               |
| 209 | 11     | ACT   | REPT PMSAUD %1                                                |
| 210 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6                    |
| 211 | 1      | ACT   | REPT PMDBCOPY %1 %2 %3 %4                                     |
| 212 | 1      | ACT   | REPT PLDMON ERROR %1 %2 %3 %4                                 |
| 213 | 1      | ACT   | OP PMCR ERROR %1 %2 %3 %4                                     |
| 214 | 1      | MAN   | OP PMCR WILL %1 OUTPUT %2 REPORTS %3 %4                       |
| 215 | 6      | INFO  | REPT ERSLOT                                                   |
| 216 | 7      | INFO  | REPT ERSLOT                                                   |
| 217 | 1      | ACT   | %1 %2 %3 %4 %5 TERMINATED AT PH %6 STMNT %7<br>AFTER TEST %8  |
| 218 | 1      | INFO  | ID                                                            |
| 219 | 1      | INFO  | CLASS                                                         |
| 220 | 1      | INFO  | MSGSAVE                                                       |
| 221 | 1      | INFO  | OP IODRV MSG STARTED                                          |
| 223 | 254    | INFO  | REPT %1 %2 %3 %4 %5 %6                                        |
| 224 | 254    | INFO  | REPT %1 %2 %3 %4 %5 %6                                        |
| 225 | 254    | INFO  | REPT %1 %2 %3 %4                                              |
| 226 | 254    | INFO  | REPT %1 %2 %3 %4                                              |
| 227 | 254    | INFO  | REPT %1 %2 %3 %4 %5 %6                                        |
| 228 | 254    | INFO  | REPT %1 %2 %3 %4 %5 %6                                        |
| 229 | 1      | MAN   | %1 %2 %3 %4 %5 %6 %7 %8 %9 %10 %11 %12 %13 %14<br>%15 %16 %17 |
| 230 | 25     | INFO  | REPT DKDRV INFO CODE %1                                       |
| 231 | 25     | INFO  | REPT %1 %2 ERROR DATA %3                                      |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                        |
|-----|--------|-------|------------------------------------------------------------|
| 232 | 25     | MIN   | REPT %1 %2 ERROR COMPLETION CODE %3 DEVICE<br>STATUS %4    |
| 233 | 25     | INFO  | REPT %1 %2 ERROR %3 STATUS %4                              |
| 234 | 25     | INFO  | REPT %1 %2 FAULT CODE %3                                   |
| 235 | 25     | INFO  | REPT %1 %2 UNIDENTIFIED RESPONSE WD1=%3<br>WD2=%4          |
| 236 | 25     | INFO  | REPT %1 %2 ERROR STATUS %3 MASK %4 EXP %5                  |
| 237 | 25     | MAJ   | REPT %1 %2 AUTONOMOUS RESPONSE %3                          |
| 238 | 25     | MIN   | REPT %1 %2 AUTONOMOUS RESPONSE %3                          |
| 239 | 25     | INFO  | REPT %1 %2 AUTONOMOUS RESPONSE %3                          |
| 240 | 25     | INFO  | REPT DKDRV RECEIVED UNKNOWN RCV MESSAGE %1 %2 %3           |
| 241 | 25     | INFO  | REPT %1 %2 %3 %4                                           |
| 242 | 1      | INFO  | REPT DISK INDEPENDENT OPERATION MODE IN EFFECT             |
| 243 | 25     | INFO  | REPT DISK INDEPENDENT OPERATION MODE STATUS %1<br>%2 %3 %4 |
| 244 | 25     | INFO  | REPT %1 %2 ERROR COMPLETION CODE %3 DEVICE<br>STATUS %4    |
| 245 | 1      | INFO  | REPT UNIX INIT ERROR %1 CHANID %2 %3                       |
| 246 | 24     | MAN   | DUMP MHD %1 BLOCK %2 %3 %4                                 |
| 247 | 24     | MAN   | DUMP MHD %1 BLOCK %2                                       |
| 248 | 24     | MAN   | DUMP MHD %1 VTOC %2 %3 %4                                  |
| 249 | 24     | MAN   | DUMP MHD %1 VTOC SEGMENT %2 of %3                          |
| 250 | 24     | MAN   | DUMP MHD %1 DEFECT TABLE %2 %3 %4                          |
| 251 | 24     | MAN   | DUMP MHD %1 DEFECT TABLE %2                                |
| 252 | 24     | MAN   | DUMP MHD %1 DEFECT TABLE %2                                |
| 253 | 24     | MAN   | REPT DKDIP MESSAGE                                         |
| 254 | 24     | MAN   | REPT DKDIP MESSAGE                                         |
| 256 | 24     | MAN   | REPT DKDIP MESSAGE                                         |
| 257 | 24     | MAN   | REPT DKDIP MESSAGE                                         |
| 259 | 1      | INFO  | REPT DKDIP MESSAGE                                         |
| 260 | 1      | INFO  | RST MHD %1 IN PROGRESS                                     |
| 261 | 1      | INFO  | RST MHD %1 IN PROGRESS                                     |
| 262 | 1      | MAN   | RST MHD %1 IN PROGRESS                                     |
| 263 | 1      | INFO  | RST MHD %1 IN PROGRESS                                     |
| 264 | 1      | MAN   | RST MHD %1 IN PROGRESS %2                                  |
| 265 | 1      | INFO  | RST MHD %1 IN PROGRESS %2                                  |
| 266 | 24     | MAJ   | REPT DKDIP MESSAGE                                         |
| 267 | 24     | MAN   | REPT DKDIP MESSAGE                                         |
| 270 | 1      | MAN   | REPT DKDIP MESSAGE                                         |
| 272 | 1      | INFO  | REPT AUDIT IMCATALOG %1                                    |
| 273 | 1      | INFO  | REPT C/D %1 %2 %3 %4 %5 %6 %7 %8                           |
| 275 | 1      | INFO  | REPT C/D %1 %2 %3 %4 %5 %6 %7                              |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                         |
|-----|--------|-------|-------------------------------------------------------------|
| 276 | 14     | MAN   | OP LOG %1 %2 %3 %4                                          |
| 277 | 14     | MAN   | %1 LOG %2 %3 %4 %5 %6                                       |
| 279 | 14     | INFO  | OP LOG %1 %2 SEGMENT %3                                     |
| 280 | 1      | INFO  | %1 %2 %3 %4                                                 |
| 281 | 1      | MAN   | OP STATUS DISKUSE STOPPED                                   |
| 282 | 1      | MAN   | %1 %2%3 %4 %5 %6                                            |
| 283 | 1      | MAN   | %1 CLK STOPPED                                              |
| 284 | 1      | INFO  | %1 %2%3 %4 %5 %6                                            |
| 285 | 1      | INFO  | REPT FIELD MAINT %1                                         |
| 286 | 1      | MAN   | COPY TAPE %1 %2 %3 %4                                       |
| 287 | 1      | MAN   | %1 CLK COMPLETED                                            |
| 288 | 1      | INFO  | %1 %2 %3 %4                                                 |
| 289 | 1      | INFO  | EXC ENVIR UPROC %1 STOPPED                                  |
| 290 | 1      | MAN   | REPT CFT LIB %1 %2                                          |
| 291 | 1      | MIN   | REPT CFT LIB %1 %2                                          |
| 292 | 1      | INFO  | %1 REPT CFTSHL %2 %3 %4 %5                                  |
| 293 | 1      | MAN   | %1 REPT CFTSHL %2 %3 %4 %5                                  |
| 294 | 1      | INFO  | REPT %1 %2 %3                                               |
| 295 | 1      | INFO  | %1 %2                                                       |
| 296 | 1      | INFO  | REPT %1 %2 %3%4 %5 %6                                       |
| 297 | 1      | INFO  | %1 %2                                                       |
| 298 | 1      | CRIT  | REPT %1 %2 %3                                               |
| 299 | 1      | MIN   | REPT %1 %2 %3                                               |
| 300 | 26     | MIN   | REPT PASSWORD BREAK ATTEMPT                                 |
| 301 | 1      | INFO  | REPT DLGSHL DEVICE %1 %2 %3                                 |
| 303 | 1      | INFO  | REPT BDG %1 %2 %3%4%5                                       |
| 305 | 27     | INFO  | VFY %1 COMPLETED                                            |
| 306 | 27     | INFO  | VFY %1 COMPLETED                                            |
| 307 | 1      | INFO  | REPT RTS %1                                                 |
| 308 | 1      | VAR   | %1 %2 %3 %4 %5 %6 %7                                        |
| 309 | 4      | INFO  | REPT TIME %1 %2:%3:%4                                       |
| 310 | 1      | INFO  | REPT INIT DEVICE STATUS                                     |
| 311 | 1      | INFO  | REPT BDG FATAL FAULT FLT CODE %1 PA %2                      |
| 312 | 1      | INFO  | REPT %1 %2 %3                                               |
| 313 | 1      | INFO  | REPT C/D %1 %2 %3 %4                                        |
| 314 | 1      | INFO  | %1 %2 %3                                                    |
| 315 | 1      | MAN   | %1 %2                                                       |
| 316 | 1      | INFO  | REPT CIAGETTY %1 %2                                         |
| 317 | 1      | INFO  | REPT C/D %1 %2 %3 %4                                        |
| 319 | 1      | ACT   | OP PMCR INFO %1                                             |
| 320 | 1      | MAN   | VFY TAPE IN PROGRESS %1 RETRIES NEEDED TO READ<br>HEADER %2 |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                 |
|-----|--------|-------|---------------------------------------------------------------------|
| 321 | 1      | MAN   | VFY TAPE IN PROGRESS %1 RETRIES NEEDED TO READ<br>DATA %2 RECORD %3 |
| 322 | 21     | INFO  | REPT OP PMCR REPORT FORM 1                                          |
| 323 | 21     | INFO  | REPT OP PMCR REPORT FORM 2                                          |
| 324 | 1      | CRIT  | REPT DISK INDEPENDENT OPERATION MODE ENTERED                        |
| 325 | 24     | INFO  | %1 MHD %2 %3 IN PROGRESS                                            |
| 326 | 1      | MAN   | %1 GEN %2 %3 %4 %5 %6                                               |
| 328 | 1      | INFO  | REPT MMGR001 BAD DKDRV STAT %1                                      |
| 329 | 1      | INFO  | REPT MMGR002 EXCESSIVE RETRIES FOR I/O SWAP                         |
| 330 | 1      | INFO  | REPT MMGR003 ADD %1 MEMORY FAILED. AVAILABLE<br>MEMORY = %2 PAGES   |
| 331 | 1      | INFO  | REPT MMGR004 SWAP SPACE REQUEST FAILED                              |
| 332 | 1      | INFO  | REPT KAUDPRC FAULT CODE %1 %2 %3                                    |
| 333 | 1      | INFO  | REPT MAXINTVL %1                                                    |
| 334 | 1      | INFO  | REPT DIOP %1 %2 %3 %4                                               |
| 335 | 12     | INFO  | REPT %1 TASK STATUS - %2, %3%4 TYPE=%5 ADDR=%6                      |
| 336 | 1      | INFO  | REPT FMGR ECD %1 %2 PID=%3 UID=%4 %5                                |
| 337 | 1      | INFO  | REPT FMGR NON-TASK FAULT %1 ADDR %2                                 |
| 338 | 1      | INFO  | REPT LIBC FAULT IN %1 FLTCODE %2 PA %3                              |
| 339 | 1      | INFO  | REPT LIBC ERROR EXEC BAD SHLIB DATA IN PFILE<br>HPATH %1            |
| 340 | 1      | INFO  | REPT LIBC ERROR EXEC CHANGE ATTRIB FAILED                           |
| 341 | 1      | INFO  | REPT LIBC ERROR EXEC SET CLASS FAILED CLASS %1                      |
| 342 | 1      | INFO  | REPT LIBC ERROR EXEC CHGPCB FAILED %1 %2                            |
| 343 | 1      | INFO  | REPT LIBC ERROR EXEC %1                                             |
| 344 | 1      | INFO  | REPT LIBC ERROR EXEC %1                                             |
| 345 | 1      | INFO  | REPT LIBC ERROR EXEC ALOCSEG FAILED                                 |
| 346 | 1      | INFO  | REPT LIBC ERROR EXEC ADDSEG FAILED SEG NUMBER %1                    |
| 347 | 1      | INFO  | REPT LIBC ERROR EXEC SEG READ FAILED ERRNO %1                       |
| 348 | 1      | INFO  | REPT LIBC ERROR EXEC %1 ERRNO %2                                    |
| 349 | 1      | INFO  | REPT LIBC ERROR EXEC BAD LIB HEAD DATA                              |
| 350 | 1      | INFO  | REPT LIBC ERROR FORK COPYSEG FAILED %1 RET %2                       |
| 351 | 1      | INFO  | REPT LIBC ERROR FORK %1                                             |
| 352 | 1      | INFO  | REPT LIBC ERROR START COULD NOT OPEN ROOT DIR<br>ERRNO %1           |
| 353 | 1      | INFO  | REPT LIBC ERROR COULD NOT CREATE TEMP ERROR FILE                    |
| 354 | 1      | INFO  | REPT PMGR ERROR %1 %2 %3                                            |
| 355 | 1      | INFO  | REPT PMGR ERROR %1 %2 %3                                            |
| 356 | 1      | INFO  | REPT PMGR ERROR %1 %2 %3                                            |
| 357 | 1      | INFO  | REPT PMGR ERROR %1 %2 %3                                            |
| 358 | 1      | INFO  | REPT PMGR ERROR %1 %2 %3                                            |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)         |
|-----|--------|-------|-----------------------------|
| 359 | 1      | INFO  | REPT PMGR ERROR %1 %2 %3 %4 |
| 360 | 1      | INFO  | REPT PMGR ERROR %1 %2 %3    |
| 361 | 1      | INFO  | REPT PMGR ERROR %1 %2 %3 %4 |
| 362 | 1      | MAN   | %1                          |
| 363 | 1      | MAN   | %1%2%3%4%5%6%7 %8           |
| 364 | 1      | MAN   | %1                          |
| 366 | 22     | INFO  | REPT ULARP %1 %2 %3         |
| 367 | 22     | ACT   | REPT ULARP %1 %2 %3         |
| 368 | 1      | INFO  | OP ULARP %1 %2              |
| 369 | 24     | MAJ   | %1 %2 %3 FINAL SUMMARY      |
| 373 | 6      | INFO  | REPT ERSLOT                 |
| 374 | 6      | INFO  | REPT ERSLOT                 |
| 375 | 6      | INFO  | REPT ERSLOT                 |
| 376 | 6      | INFO  | REPT ERSLOT                 |
| 377 | 6      | INFO  | REPT ERSLOT                 |
| 378 | 6      | INFO  | REPT ERSLOT                 |
| 379 | 6      | INFO  | REPT ERSLOT                 |
| 380 | 6      | INFO  | REPT ERSLOT                 |
| 381 | 6      | INFO  | REPT ERSLOT                 |
| 382 | 6      | INFO  | REPT ERSLOT                 |
| 383 | 7      | INFO  | REPT ERSLOT                 |
| 384 | 6      | INFO  | REPT ERSLOT                 |
| 385 | 6      | INFO  | REPT ERSLOT                 |
| 386 | 6      | INFO  | REPT ERSLOT                 |
| 387 | 6      | INFO  | REPT ERSLOT                 |
| 388 | 6      | INFO  | REPT ERSLOT                 |
| 389 | 6      | INFO  | REPT ERSLOT                 |
| 390 | 6      | INFO  | REPT ERSLOT                 |
| 391 | 6      | INFO  | REPT ERSLOT                 |
| 392 | 6      | INFO  | REPT ERSLOT                 |
| 393 | 6      | INFO  | REPT ERSLOT                 |
| 394 | 6      | INFO  | REPT ERSLOT                 |
| 395 | 6      | INFO  | REPT ERSLOT                 |
| 396 | 6      | INFO  | REPT ERSLOT                 |
| 397 | 6      | INFO  | REPT ERSLOT                 |
| 398 | 6      | INFO  | REPT ERSLOT                 |
| 399 | 6      | INFO  | REPT ERSLOT                 |
| 400 | 6      | INFO  | REPT ERSLOT                 |
| 401 | 5      | INFO  | REPT PMSLOT                 |
| 402 | 5      | INFO  | REPT PMSLOT                 |
| 403 | 1      | INFO  | REPT RMF %1 %2              |
| 404 | 1      | INFO  | REPT RMF %1 %2              |
| 405 | 1      | INFO  | REPT ADP %1 %2 %3 %4 %5 %6  |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                            |
|-----|--------|-------|--------------------------------------------------------------------------------|
| 406 | 1      | MAN   | %1 %2 COMPLETED                                                                |
| 407 | 1      | INFO  | REPT INHADM FAULTED FCODE = %1                                                 |
| 408 | 1      | INFO  | REPT INHADM UNABLE TO MAINTAIN INHIBITS                                        |
| 409 | 1      | INFO  | REPT INHADM CANNOT GET UCB RECORD                                              |
| 410 | 1      | INFO  | REPT INHADM UNABLE TO SEND INHIBIT MESSAGE TO<br>DRIVER %1                     |
| 411 | 1      | MIN   | REPT INHADM MINOR ALARM FROM INHIBIT<br>ADMINISTRATOR                          |
| 412 | 1      | ACT   | OP ERRCHK MESSAGE STARTED                                                      |
| 413 | 1      | ACT   | OP ERRCHK MESSAGE IN PROGRESS                                                  |
| 414 | 1      | INFO  | %1 %2 ABORTED %3                                                               |
| 415 | 1      | INFO  | SW CU ABORTED %1                                                               |
| 416 | 1      | MAN   | DUMP OFFLINE CACHE %1 %2                                                       |
| 417 | 1      | INFO  | REPT CONFIG FAULT TYPE %1 INACCESSIBLE RID = %2<br>PID = %3 ASSERT = %4        |
| 418 | 1      | INFO  | REPT CONFIG FAULT TYPE %1 UNIT = %2 %3 %4 %5<br>PID = %6 ASSERT = %7           |
| 419 | 1      | MIN   | REPT CONFIG RECONFIGURATION TYPE %1 UNIT = %2 %3<br>%4 %5 PID = %6             |
| 420 | 1      | INFO  | REPT CURSTRMV FAULT TYPE %1 INACCESSIBLE RID =<br>%2 LOCID = %3                |
| 421 | 1      | INFO  | REPT CURSTRMV FAULT TYPE %1 UNIT = %2 %3 %4 %5<br>LOCID = %6                   |
| 422 | 1      | INFO  | REPT CURSTRMV FAULT TYPE %1 UNIT = %2 %3 %4 %5<br>%6 %7 %8                     |
| 423 | 1      | INFO  | REPT CURSTRMV FAULT TYPE %1 CHECKSUM FAILED IN<br>SLOT %2 LOCID = %3           |
| 424 | 1      | INFO  | RST CU %1 IN PROGRESS                                                          |
| 425 | 1      | MIN   | REPT CU %1 MAINTENANCE INTERRUPT %2                                            |
| 426 | 1      | MAJ   | REPT PHASE 1 IN PROGRESS                                                       |
| 427 | 1      | MAN   | OP MEMERRS CANNOT OPEN NEW TEMP FILE                                           |
| 428 | 1      | MAN   | OP MEMERRS %1                                                                  |
| 429 | 1      | MAN   | OP MEMERRS NO MEMLOG FILES                                                     |
| 430 | 1      | INFO  | REPT PCPAUD FAULT TYPE %1 ASSERT = %2                                          |
| 431 | 1      | INFO  | REPT PCPMD FAULT TYPE %1 INACCESSIBLE RID = %2<br>ASSERT = %3                  |
| 432 | 1      | INFO  | REPT PCPMD FAULT TYPE %1 UNIT = %2 %3 %4 %5<br>ASSERT = %6                     |
| 433 | 1      | INFO  | REPT CURSTRMV CU RESTORE CONTINUING DIAGNOSTIC<br>FAILURE IN NON-CRITICAL UNIT |
| 434 | 1      | MAN   | OP AUDERR %1                                                                   |
| 435 | 1      | INFO  | %1 ABORTED ECD INTERFACE ERROR %2 %3 %4                                        |
| 436 | 1      | MAN   | OP AUDERR COMPLETED - NO AUDIT RECORDS IN ECD                                  |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                |
|-----|--------|-------|----------------------------------------------------|
| 437 | 1      | INFO  | OP AUD COMPLETED - NO AUDIT RECORDS IN ECD         |
| 438 | 1      | INFO  | %1 ABORTED CANNOT OPEN OUTPUT FILE %2              |
| 439 | 1      | MAN   | OP AUD %1                                          |
| 440 | 1      | INFO  | REPT AUDSTAT %1                                    |
| 441 | 1      | MAN   | REPT AUDSTAT COMPLETED                             |
| 442 | 1      | MAN   | OP FNAME %1                                        |
| 443 | 1      | INFO  | OP FNAME COMPLETED - NO MATCH ON %1                |
| 444 | 15     | MAN   | OP EMERSTAT COMPLETED                              |
| 445 | 15     | MAN   | OP EMERSTAT COMPLETED                              |
| 446 | 15     | INFO  | REPT SIMCHK %1 %2 %3 %4 %5                         |
| 447 | 15     | ACT   | REPT SIMCHK %1 %2 %3 %4 %5                         |
| 448 | 15     | MIN   | REPT SIMCHK %1 %2 %3 %4 %5                         |
| 449 | 15     | INFO  | REPT %1 LOST                                       |
| 450 | 15     | ACT   | REPT EMERGENCY DUMP PARTITION FULL                 |
| 451 | 15     | ACT   | REPT FILESYS %1 OVERFLOW %2                        |
| 452 | 15     | MIN   | REPT FILESYS %1 OVERFLOW %2                        |
| 454 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6         |
| 455 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6         |
| 456 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6         |
| 457 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6         |
| 458 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6         |
| 459 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6         |
| 460 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6         |
| 465 | 6      | INFO  | REPT ERSLOT                                        |
| 467 | 1      | INFO  | OP ULARP %1 %2                                     |
| 472 | 1      | INFO  | OP ULARP STOPPED - CANNOT CREATE TEMPORARY FILE %1 |
| 473 | 1      | MIN   | REPT REX MINOR ALARM %1                            |
| 474 | 1      | INFO  | REPT %1 FOR %2 %3 %4 %5                            |
| 475 | 1      | MAJ   | REPT %1 FOR %2 %3 %4 %5                            |
| 476 | 1      | MIN   | REPT %1 FOR %2 %3 %4 %5                            |
| 477 | 16     | ACT   | OP %1 MESSAGE STARTED                              |
| 478 | 16     | ACT   | OP %1 COMPLETED                                    |
| 479 | 16     | ACT   | OP %1 INTERFACE ERROR, ERRNO = %2                  |
| 493 | 1      | MAN   | %1 %2 %3 %4 %5 %6 %7 %8 %9 #G%10                   |
| 494 | 1      | MAN   | %1 %2 %3 %4 %5 %6 %7 #G%8                          |
| 495 | 1      | INFO  | REPT GRASP %1                                      |
| 496 | 1      | ACT   | %1 UMEM %2 WAS %3 NOW %4                           |
| 497 | 1      | MAN   | INH UTIL COMPLETED %1                              |
| 498 | 1      | MAN   | %1 %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10           |
| 499 | 1      | INFO  | REPT GRASP RMBPT %1 COMPLETED                      |
| 500 | 1      | MAN   | REPT GRASP BREAKPOINT FIRED                        |
| 501 | 1      | INFO  | REPT GRASP BREAKPOINT %1 IN CRITICAL PLACE REMOVED |
| 502 | 1      | MAN   | %1 %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8           |
| 503 | 1      | MAN   | %1 %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9               |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                   |
|-----|--------|-------|-----------------------------------------------------------------------|
| 504 | 1      | ACT   | CLR UMEM COMPLETED CKT FAILURE #G%1                                   |
| 505 | 1      | ACT   | CLR UTILFLAG %1 COMPLETED CKT FAILURE #G%2                            |
| 506 | 1      | MAN   | %1 %2 %3 %4 %5 %6 NOT STARTED NGUID                                   |
| 507 | 1      | MAN   | OP UMEM STOPPED COULD NOT CREATE %1 #G%2                              |
| 508 | 1      | MAN   | OP UMEM COMPLETED NO OUTPUT #G%1                                      |
| 509 | 1      | MAN   | OP UMEM COMPLETED %1 LINES WRITTEN TO %2 FROM %3<br>#G%4              |
| 510 | 1      | MAN   | %1 %2 %3 %4 %5 %6 COMPLETED #G%7                                      |
| 511 | 1      | MAN   | %1 %2 %3 %4 %5 %6 COMPLETED #G%7                                      |
| 514 | 1      | MAN   | %1 %2 %3 %4 %5 %6 COMPLETED #G%7                                      |
| 515 | 1      | MAN   | OP UTIL COMPLETED #G%1 - #G%2                                         |
| 517 | 254    | MIN   | REPT SOP CANNOT OPEN SCC CHANNEL                                      |
| 518 | 1      | INFO  | REPT FMGR %1 IN FILE SYSTEM %2                                        |
| 519 | 1      | MAN   | %1 %2 %3 %4                                                           |
| 520 | 1      | MAN   | BP NUMBER %1 AT %2                                                    |
| 521 | 1      | MAN   | MISMATCH AT %1 IN SECTION %2                                          |
| 522 | 1      | MAN   | CORE CONTENTS %1 %2 %3 %4                                             |
| 523 | 1      | MAN   | DISK CONTENTS %1 %2 %3 %4                                             |
| 524 | 1      | MAN   | DISK AND CORE ARE EQUAL FOR %1                                        |
| 525 | 1      | MAN   | THE CORE SIZE FOR SEGMENT %1 IN SEGMENT MAP FOR<br>%2 IS OVER X'20000 |
| 526 | 1      | INFO  | UPD AUTOMATION %1                                                     |
| 527 | 1      | MAN   | UPD REPT %1                                                           |
| 528 | 1      | MAN   | UPD COMMAND %1 %2 %3                                                  |
| 529 | 2      | MAN   | UPD DISPLAY UPDATE DATABASE RECORD NUMBER=%1 GEN=%2                   |
| 530 | 2      | MAN   | UPD DISPLAY UPDATE DATABASE RECORD NUMBER=%1 GEN=%2                   |
| 531 | 2      | MAN   | UPD DISPLAY SUMMARY REPORT GEN=%1                                     |
| 532 | 2      | MAN   | UPD DISPLAY BACKUP DATABASE RECORD NUMBER=%1 GEN=%2                   |
| 533 | 1      | MAN   | UPD BLDBOOT REPT                                                      |
| 534 | 1      | MAN   | %1                                                                    |
| 535 | 1      | MAN   | IN REMOTE ERROR 10, ERRNO = %1                                        |
| 536 | 1      | MAN   | UPD REPT INFORMATION                                                  |
| 537 | 1      | MAN   | UPD NEW FUNCTION ADDRESSES FOR %1                                     |
| 538 | 1      | INFO  | REPT FMGR %1 TABLE %2 FAIL                                            |
| 539 | 2      | MAN   | %1 VERSION %2 %3 %4 %5 %6 %7                                          |
| 541 | 2      | MAN   | UPD VFYCON - TABLE OF INCONSISTENCIES                                 |
| 542 | 1      | MAJ   | REPT MOP CANNOT UNMOUNT DEVICE %1 ERROR = %2                          |
| 545 | 1      | MIN   | UPD AUTOMATION %1                                                     |
| 546 | 1      | MAJ   | UPD AUTOMATION %1                                                     |
| 547 | 25     | INFO  | REPT DKDRV WARNING, MHD %1 PARTITION %2 IS WRITE<br>RESTRICTED,       |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                      |
|-----|--------|-------|--------------------------------------------------------------------------|
| 549 | 1      | INFO  | VFY FILE %1 %2                                                           |
| 550 | 1      | INFO  | VFY FILE %1 %2                                                           |
| 551 | 1      | INFO  | VFY FILE %1                                                              |
| 554 | 1      | INFO  | REPT DKDRV WARNING, MHD %1 EXCEEDS LONG TERM<br>FAILURE THRESHOLD        |
| 555 | 1      | MAN   | %1 %2 %3 %4 %5 %6 COMPLETED #G%7                                         |
| 557 | 1      | INFO  | VFY FILE CANNOT PROCESS %1                                               |
| 558 | 12     | VAR   | AUD ENV=RTR %1 %2 %3                                                     |
| 559 | 1      | MAJ   | VFY FILE VERIFICATION FAILURE ON FILE %1                                 |
| 560 | 1      | INFO  | REPT FMGR ACCESS WINDOW TO BLOCK DEVICE FOR<br>MOUNTED FILE SYSTEM IS %1 |
| 561 | 1      | MAJ   | REPT FMGR %1 UNMOUNTED DUE TO DISK REMOVAL                               |
| 562 | 14     | MAN   | OP DFCELOG %1 %2                                                         |
| 563 | 14     | INFO  | OP DFCELOG IN PROGRESS %1 %2 SEGMENT %3                                  |
| 564 | 27     | INFO  | VFY %1 COMPLETED                                                         |
| 565 | 1      | MAN   | UPD REPT WARNING                                                         |
| 566 | 1      | INFO  | OP:UMEM STOPPED. TRACE DEFINED ON CU %1                                  |
| 567 | 1      | MAN   | %1 %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10                          |
| 568 | 24     | MAN   | LOAD DFC %1 %2 %3 %4 %5                                                  |
| 569 | 24     | MAJ   | %1 MHD %2 EARLY TERM VFY FAILED %3                                       |
| 570 | 24     | MAN   | OP DFC %1 INFO                                                           |
| 571 | 24     | MAN   | OP DFC %1 INFO                                                           |
| 572 | 24     | MAN   | OP MHD %1 INFO                                                           |
| 573 | 24     | MAN   | DUMP MHD %1 DEFECT TABLE %2                                              |
| 574 | 24     | MAN   | REPT DKDIP MESSAGE                                                       |
| 575 | 24     | MAN   | REPT DKDIP MESSAGE                                                       |
| 576 | 24     | MAN   | REPT DKDIP MESSAGE                                                       |
| 577 | 25     | INFO  | REPT DFC %1 %2 %3                                                        |
| 580 | 16     | MAN   | OP %1 IN PROGRESS                                                        |
| 582 | 16     | ACT   | OP %1 IN PROGRESS                                                        |
| 583 | 1      | INFO  | REPT FMGR UNMOUNT FAILED: PROCESS %1 HAS OPEN<br>FOR INODE %2 FOR %3     |
| 585 | 254    | INFO  | REPT IODRV ERR %1 %2 %3 %4 %5 %6 %7 %8                                   |
| 586 | 1      | INFO  | REPT %1 %2 %3 %4 %5 %6 %7                                                |
| 588 | 16     | MAN   | OP %1 RETRY LATER - %2                                                   |
| 589 | 16     | ACT   | OP %1 RETRY LATER - %2                                                   |
| 590 | 0      | MAJ   | REPT %1 %2 %3                                                            |
| 591 | 1      | INFO  | %1 AUD NOT STARTED                                                       |
| 593 | 15     | MAN   | OP EMERSTAT COMPLETED                                                    |
| 594 | 15     | MAN   | OP EMERSTAT COMPLETED                                                    |
| 595 | 1      | INFO  | STOP AUD NOT STARTED                                                     |
| 596 | 254    | CRIT  | REPT UNIX INIT CANNOT MOUNT %1 %2 %3 ERRNO %4                            |
| 597 | 1      | MAN   | OP MEMERRS CANNOT RETRIEVE MEMLOG RECORD FROM ECD                        |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                |
|-----|--------|-------|--------------------------------------------------------------------|
| 598 | 1      | MAN   | OP MEMERRS CANNOT OPEN ECD FOR MEMLOG                              |
| 599 | 254    | INFO  | REPT CSOP BAD DEVICE DEFINITIONS IN ECD                            |
| 600 | 1      | MAN   | OP MEMERRS COMPLETED                                               |
| 601 | 1      | MAJ   | %1 %2 %3 %4 %5 %6 %7                                               |
| 602 | 1      | INFO  | REPT FMGR PROCESS KILLED BY UNCONDITIONAL MOUNT                    |
| 603 | 1      | MIN   | REPT SYSTEM IS IN MINIMUM CONFIGURATION MODE                       |
| 604 | 1      | MAN   | REPT MKDSK %1 NEXT TAPE IN SEQUENCE                                |
| 607 | 12     | CRIT  | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6                         |
| 610 | 24     | MAN   | LOAD MHD %1 DEFECT TABLE COMPLETED                                 |
| 611 | 24     | MAN   | LOAD MHD %1 DEFECT TABLE COMPLETED                                 |
| 612 | 24     | MAN   | DUMP MHD %1 DEFECT TABLE COMPLETED                                 |
| 613 | 24     | MAN   | REPT DKDIP MESSAGE                                                 |
| 615 | 1      | MAN   | WARNING: PROCESS INSTANCE DOES NOT EXIST OR                        |
| 616 | 1      | MAN   | USAGE: cmpr -f <filename>                                          |
| 619 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6                         |
| 621 | 24     | MAN   | CLR MHD %1 MAEC %2 %3 %4                                           |
| 623 | 1      | MAN   | UPD ISG %1 CANNOT OPEN %2 %3                                       |
| 624 | 1      | MAN   | UPD ISG %1 FAILED TO %2                                            |
| 625 | 1      | MAN   | UPD ISG %1 CAN'T FIND %2                                           |
| 626 | 1      | MAN   | UPD ISG %1 WRITE FAILED                                            |
| 627 | 1      | MAN   | UPD ISG BF_FCHK FILE %1 IS NOT A SINGLE EXTENT<br>CONTIGUOUS FILE  |
| 628 | 1      | INFO  | %1 ABORTED CANNOT WRITE OUTPUT FILE %2                             |
| 629 | 1      | MIN   | REPT EAI %1 SELECTED ON EAI PAGE                                   |
| 630 | 1      | MAN   | UPD ISG PF_FLAGS PFILE %1 %2                                       |
| 631 | 1      | MAN   | UPD ISG %1                                                         |
| 632 | 1      | MAN   | UPD ISG BT_KERN MISSING OR INVALID %1                              |
| 633 | 1      | MAN   | UPD ISG MAIN CRC VALUE WAS NOT %1                                  |
| 634 | 1      | MAN   | UPD ISG DB_CKPTH UNABLE TO FIND MATCH IN<br>SGEN2_REC FOR %1       |
| 635 | 1      | MAN   | UPD ISG %1 SEGMENT %2 IN %3 IS MARKED COMMON,<br>BUT CSIZE IS ZERO |
| 636 | 1      | MAN   | UPD ISG PF_GETFILE FILE %1 MUST BE 3BSWABBED                       |
| 637 | 1      | MAN   | UPD ISG %1 FILE %2 HAS %3 %4                                       |
| 638 | 1      | MAN   | UPD ISG %1 INVALID %2                                              |
| 639 | 1      | MAN   | UPD ISG %1 EXCEEDED MAX NUMBER OF PFILE<br>SEGMENTS                |
| 640 | 1      | MAN   | UPD ISG VA_SETSEG SEGMENT %1 ALREADY IN USE                        |
| 641 | 1      | MAN   | UPD ISG PF_SEGCLASS SEGMENT %1 OF PROCESS %2 HAS<br>FSIZE %3       |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                         |
|-----|--------|-------|-------------------------------------------------------------|
| 642 | 1      | INFO  | %1 OMDB ABORTED                                             |
| 647 | 1      | MAJ   | REPT EAI %1 SELECTED ON EAI PAGE                            |
| 648 | 1      | INFO  | REPT SIM UTILITY IDS OF PROCESSES KILLED DURING<br>CFT INIT |
| 650 | 1      | INFO  | OP REXINH CANNOT WRITE TO %1 WRITE FAILURE ON<br>KEY # %2   |
| 651 | 1      | INFO  | REPT FMGR MOUNT FAILED:                                     |
| 653 | 24     | MAN   | REPT DKDIP MESSAGE                                          |
| 654 | 24     | MAN   | REPT DKDIP MESSAGE                                          |
| 655 | 1      | MAJ   | VFY FILE VERIFICATION FAILURE ON FILE %1                    |
| 656 | 16     | MAN   | OP %1 CANNOT WRITE TO %2 FAILED ON KEY # %3                 |
| 657 | 16     | ACT   | OP %1 CANNOT WRITE TO %2 FAILED ON KEY # %3                 |
| 658 | 1      | INFO  | %1 %2 COMPLETED WITH %3                                     |
| 659 | 1      | MAJ   | REPT EAI SANITY TIMERS ARE INHIBITED                        |
| 660 | 1      | MAJ   | VFY FILE %1 %2                                              |
| 662 | 24     | MAN   | REPT DKDIP MESSAGE                                          |
| 663 | 24     | MAN   | LOAD MHD %1 DEFECT TABLE COMPLETED                          |
| 664 | 24     | MAN   | REPT DKDIP MESSAGE                                          |
| 665 | 24     | MAN   | DUMP MHD %1 DEFECT TABLE COMPLETED                          |
| 666 | 24     | MAN   | %1 MHD %2 %3 ABORTED %4                                     |
| 667 | 1      | INFO  | %1 ABORTED CANNOT CREATE TEMPORARY FILE                     |
| 668 | 1      | INFO  | OP AUD COMPLETED - NO AUDITS RUNNING                        |
| 670 | 1      | MAJ   | VFY FILE %1 %2                                              |
| 672 | 16     | MAN   | OP %1 %2 - INVALID UNIT %3                                  |
| 673 | 26     | INFO  | REPT LGN %1 ON %2 %3                                        |
| 674 | 1      | INFO  | REPT MMGR005 AVAILABLE %1 MEMORY NOW %2 PAGES               |
| 675 | 1      | INFO  | REPT LIBC PROGRAM ADDRESS BACKTRACE UTID: %1                |
| 676 | 1      | INFO  | REPT LIBC SAVE STATE REGISTERS UTID: %1                     |
| 677 | 1      | INFO  | REPT LIBC ARGUMENTS TO FUNC %1 UTID: %2                     |
| 678 | 1      | INFO  | REPT FMGR DIR SW FAILED: INODE %1 OPEN BY PID %2<br>ON %3   |
| 679 | 7      | INFO  | REPT ERSLOT                                                 |
| 680 | 7      | INFO  | REPT ERSLOT                                                 |
| 681 | 7      | INFO  | REPT ERSLOT                                                 |
| 682 | 7      | INFO  | REPT ERSLOT                                                 |
| 683 | 7      | INFO  | REPT ERSLOT                                                 |
| 684 | 7      | INFO  | REPT ERSLOT                                                 |
| 685 | 6      | MAJ   | REPT ERSLOT                                                 |
| 686 | 5      | INFO  | REPT PMSLOT                                                 |
| 687 | 5      | INFO  | REPT PMSLOT                                                 |
| 689 | 1      | VAR   | %1 %2                                                       |
| 690 | 1      | INFO  | %1 %2                                                       |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                       |
|-----|--------|-------|---------------------------------------------------------------------------|
| 691 | 1      | MIN   | STOP OFLBOOT STARTED                                                      |
| 692 | 6      | INFO  | REPT EAI ** WARNING ** %1 ON CU %2.                                       |
| 693 | 12     | VAR   | AUD ENV=RTR %1 %2 %3 DATA %4 REPORT %5                                    |
| 694 | 24     | MAN   | LOAD MHD %1 FIRMWARE %2 %3 %4                                             |
| 695 | 24     | MAN   | OP MT %1 INFO                                                             |
| 696 | 1      | VAR   | %1 %2                                                                     |
| 697 | 1      | CRIT  | REPT FAN %1 %2 %3                                                         |
| 698 | 1      | MAJ   | REPT FUSE %1 %2                                                           |
| 699 | 1      | INFO  | EXC OFLBOOT TERMINATED                                                    |
| 700 | 1      | INFO  | SW OFLBOOT TERMINATED                                                     |
| 701 | 1      | INFO  | STOP OFLBOOT TERMINATED                                                   |
| 702 | 1      | MAN   | %1 %2                                                                     |
| 703 | 1      | MIN   | REPT EAI APPLICATION PARAMETER IS SET                                     |
| 704 | 1      | VAR   | %1 %2                                                                     |
| 705 | 1      | VAR   | %1 %2                                                                     |
| 706 | 1      | VAR   | %1 %2                                                                     |
| 707 | 1      | VAR   | %1 %2                                                                     |
| 708 | 1      | VAR   | %1 %2                                                                     |
| 709 | 1      | VAR   | %1 %2                                                                     |
| 711 | 1      | INFO  | REPT OLBCONFIG FAULT TYPE %1 INACCESSIBLE RID =<br>%2 PID = %3 LOCID = %4 |
| 712 | 1      | INFO  | REPT OLBCONFIG FAULT TYPE %1 UNIT = %2 %3 %4 %5<br>PID = %6 LOCID = %7    |
| 713 | 1      | MAN   | OP MEMERRS %1 %2                                                          |
| 714 | 1      | INFO  | REPT ECD BTPARM RECORD RESTORED WITH VALUES AT<br>LAST BOOT               |
| 715 | 2      | INFO  | REPT SOP INVALID OUTPUT REQUEST %1 %2                                     |
| 716 | 1      | INFO  | VFY FILE VERIFICATION FAILURE ON FILE %1                                  |
| 717 | 1      | MIN   | REPT ECD BTPARM RECORD MODIFIED                                           |
| 718 | 1      | ACT   | STOP DMQ COMPLETED                                                        |
| 719 | 1      | VAR   | %1 %2                                                                     |
| 720 | 11     | MIN   | AUD ENV=RTR ECD ERROR %1 - %2                                             |
| 721 | 13     | MIN   | RCV %1 %2 DB %3 %4                                                        |
| 722 | 13     | INFO  | RCV %1 %2 %3 %4 %5 %6 %7 %8                                               |
| 723 | 1      | MAN   | %1 OMDB AUTO CLEAR NOT ALLOWED FOR THE FOLLOWING<br>KEYS:                 |
| 724 | 10     | INFO  | REPT DCIDRV INFO CODE %1 %2 %3                                            |
| 725 | 10     | INFO  | REPT %1 %2 INFO CODE %3 %4 %5                                             |
| 726 | 10     | INFO  | REPT DCIDRV ERROR CODE %1 %2 %3                                           |
| 727 | 10     | INFO  | REPT %1 %2 ERROR CODE %3 %4 %5                                            |
| 728 | 10     | MIN   | REPT %1 %2 ERROR COMPLETION CODE %3                                       |
| 729 | 10     | INFO  | REPT %1 %2 ERROR COMPLETION CODE %3                                       |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                                                              |
|-----|--------|-------|----------------------------------------------------------------------------------|
| 730 | 10     | INFO  | REPT %1 %2 ERROR - %3 STATUS %4                                                  |
| 731 | 10     | INFO  | REPT %1 %2 FAULT CODE %3 %4                                                      |
| 732 | 10     | INFO  | REPT %1 %2 UNIDENTIFIED RESPONSE WD1=%3                                          |
| 733 | 10     | INFO  | REPT %1 %2 ERROR STATUS %3 MASK %4 EXP %5                                        |
| 734 | 10     | MAJ   | REPT %1 %2 AUTONOMOUS RESPONSE %3                                                |
| 735 | 10     | MIN   | REPT %1 %2 AUTONOMOUS RESPONSE %3                                                |
| 736 | 10     | INFO  | REPT %1 %2 AUTONOMOUS RESPONSE %3                                                |
| 737 | 10     | INFO  | REPT DCIDRV RECEIVED UNKNOWN RCV MESSAGE %1 %2 %3                                |
| 738 | 10     | INFO  | REPT %1 %2 %3 %4                                                                 |
| 740 | 10     | INFO  | REPT %1 %2 CHANNEL %3 %4 CODE %5 %6 %7                                           |
| 741 | 27     | INFO  | VFY AUTH COMPLETED                                                               |
| 742 | 1      | INFO  | REPT ADPAB - COMMAND LINE ERROR                                                  |
| 743 | 1      | ACT   | REPT DGN CU ERROR %1                                                             |
| 745 | 254    | INFO  | REPT CSOP CANNOT RETRIEVE FILENAME FROM %1 LOCATION                              |
| 746 | 1      | MAN   | UPD FLASH MEMORY %1 %2 %3 %4                                                     |
| 747 | 1      | INFO  | REPT FUSE %1 %2                                                                  |
| 748 | 1      | INFO  | COPY BKDISK %1                                                                   |
| 749 | 24     | MAN   | REPT DKDIP MESSAGE                                                               |
| 750 | 24     | MAN   | REPT DKDIP MESSAGE                                                               |
| 751 | 24     | MAN   | REPT DKDIP MESSAGE                                                               |
| 752 | 1      | MAN   | VFY TAPE STOPPED UNABLE TO POSITION TAPE AT<br>BEGINNING OF SESSION %1 VOLUME %2 |
| 753 | 1      | MAN   | VFY TAPE IN PROGRESS SESSION %1 VOLUME %2 %3                                     |
| 754 | 1      | MAN   | VFY TAPE %1                                                                      |
| 755 | 1      | MAN   | VFY TAPE STOPPED %1 HEADER %2 RECORD %3 IN<br>SESSION %4 VOLUME %5               |
| 756 | 1      | MAN   | VFY TAPE IN PROGRESS                                                             |
| 757 | 1      | MAN   | VFY TAPE IN PROGRESS                                                             |
| 758 | 24     | MAN   | UPD FLASH DFC %1 %2 %3 %4                                                        |
| 760 | 1      | INFO  | %1 BKTape %2%3%4                                                                 |
| 761 | 1      | INFO  | %1 BKTape %2%3%4                                                                 |
| 762 | 1      | INFO  | DUMP BKTape TD %1 IN PROGRESS                                                    |
| 763 | 1      | INFO  | DUMP BKTape TD %1 IN PROGRESS                                                    |
| 764 | 1      | INFO  | STOP BKDISK %1                                                                   |
| 765 | 1      | INFO  | REPT DCIDIP %1 %2 %3                                                             |
| 766 | 254    | MAN   | OP IOP %1 INFO                                                                   |
| 767 | 254    | MAN   | OP IOP %1 INFO %2 %3 %4                                                          |
| 768 | 1      | INFO  | REPT HPMON %1 %2                                                                 |
| 769 | 1      | INFO  | OP ABD %1                                                                        |
| 770 | 1      | INFO  | OP ABD COMPLETED                                                                 |
| 771 | 1      | MIN   | REPT EAI BOOT DISK SELECTION                                                     |
| 772 | 1      | MAJ   | REPT EAI BOOT DISK SELECTION                                                     |
| 773 | 1      | INFO  | CFR DUPLEXDISKS %1                                                               |

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| KEY | MSGCLS | ALARM | MESSAGE (continued)                      |
|-----|--------|-------|------------------------------------------|
| 774 | 1      | INFO  | CFR DUPLEXDISKS STOPPED WITH ERROR %1    |
| 775 | 1      | MIN   | REPT EAI ALTERNATE BOOT DISK MISMATCH %1 |
| 776 | 1      | MAJ   | REPT EAI ALTERNATE BOOT DISK MISMATCH %1 |
| 777 | 1      | MAN   | CLR IOMEM %1 %2                          |
| 778 | 1      | INFO  | REPT EAI OFF-NORMAL SELECTION STATUS     |

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ID ..... APP:OP-FNAME  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

Explanations of OP:FNAME Output Messages

| Explanation                    | Reason for Failure                                                              |
|--------------------------------|---------------------------------------------------------------------------------|
| CANNOT CHANGE DIRECTORY TO/dev | Unable to change working directory to /dev.                                     |
| CANNOT FIND FILE SYSTEM        | Unable to find the first directory of the mounted file system.                  |
| CANNOT OPEN FILE SYSTEM        | Cannot open the file system at its mount point.                                 |
| CANNOT READ SUPERBLOCK         | Unable to read the superblock for the file system.                              |
| CANNOT SEEK TO SUPERBLOCK      | Unable to seek to the file system's superblock.                                 |
| INCONSISTENT DATA 1            | The greater value must be equal to or larger than the lower value in the range. |
| INVALID CHARACTER 1            | The first or only range value is not an integer.                                |
| INVALID CHARACTER 2            | The last range value is not an integer.                                         |
| INVALID KEYWORD 1              | FS must be the first keyword.                                                   |
| INVALID KEYWORD 2              | INODE or BLOCK must be the second keyword,                                      |
| MISSING DATA 1                 | No file system name given.                                                      |
| MISSING DATA 2                 | No inode or block # given.                                                      |

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Explanations of OP : FNAME Output Messages (continued)

| Explanation       | Reason for Failure                                                                                                                              |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| MISSING KEYWORD 1 | FS must appear after FNAME.                                                                                                                     |
| MISSING KEYWORD 2 | Either INODE or BLOCK must be entered.                                                                                                          |
| MOUNT TABLE ERROR | Unable to obtain the mount table from the file manager.                                                                                         |
| RANGE ERROR 1, a  | File system requested does not exist. a is the value entered.                                                                                   |
| RANGE ERROR 4     | Either the lower or only INODE value is less than two or the greater or only INODE value is larger than the maximum allowed in the file system. |
| RANGE ERROR 5     | The greater or only BLOCK value is larger than the maximum allowed in the file system.                                                          |
| RANGE ERROR 6     | The lower or only BLOCK value is less than the minimum allowed in the file system.                                                              |

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ID ..... APP:OST  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

Table 1 - Kernel Process OST Code Definitions

Table 2 - Supervisor / UNIX® Process OST Code Definitions

| Table 1 - Kernel Process OST Code Definitions |                                          |
|-----------------------------------------------|------------------------------------------|
| OST Code                                      | OST Name (Arguments)                     |
| 1                                             | alocmsg(nbytes, owner)                   |
| 2                                             | atchintr(process,vector,entry,psw,ident) |
| 3                                             | dequeue(process, owner)                  |
| 4                                             | dqtype(process,type,owner)               |
| 5                                             | dtchintr(process,vector)                 |
| 6                                             | freemsg(msgbuf, owner)                   |
| 7                                             | enabintr(process, vector)                |
| 8                                             | getime()                                 |
| 9                                             | iolock(segid)                            |
| 10                                            | iomap(segid,offset,count)                |
| 11                                            | ioqueue(msgbuf, owner)                   |
| 12                                            | messink(msgbuf, owner)                   |
| 13                                            | prtimer(process,time)                    |
| 14                                            | psignal(channel,evflags)                 |
| 15                                            | psleep(process,pattern)                  |
| 16                                            | ptimer(process,time)                     |
| 17                                            | top_pid()                                |
| 18                                            | pwakeup(pattern)                         |
| 19                                            | queue(msgbuf, owner)                     |
| 20                                            | queuemn(msgbuf, owner)                   |
| 21                                            | riteback(segid)                          |
| 22                                            | rtnint(svstate)                          |
| 23                                            | segname(segid,segnam)                    |
| 24                                            | sendevent(process,evflags)               |
| 25                                            | sendfault(process,fcode)                 |

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Table 1 - Kernel Process OST Code Definitions (continued)

| OST Code | OST Name (Arguments)                                     |
|----------|----------------------------------------------------------|
| 26       | setime(time)                                             |
| 27       | timeleft(process)                                        |
| 28       | uniolock(segid)                                          |
| 29       | dqlimit(process,ltype,utype,owner)                       |
| 30       | kmsgwflt(buf, fcode, owner)                              |
| 31       | rtiflt(fcode)                                            |
| 32       | kconport(portnum,process)                                |
| 33       | kdetport(portnum, process)                               |
| 34       | kportid(portnum)                                         |
| 35       | bkpt_irm(segid, offset, nbytes, new_code, save_code, uf) |
| 36       | rpaddress(segid, offset)                                 |
| 37       | move_ut(address)                                         |
| 38       | field update ost                                         |
| 39       | field update ost                                         |
| 40       | send_err(string, num)                                    |
| 41       | rtbp(save, opcode)                                       |
| 42       | atchchan(chandstruct)                                    |
| 43       | dschmask()                                               |
| 44       | ntermclass(type, class, bitspot)                         |
| 45       | evclass(class, event)                                    |
| 46       | getclass                                                 |
| 47       | setclass(pid, class)                                     |
| 48       | fltclass(class, fault)                                   |
| 49       | kpagemap()                                               |
| 50       | phase(d_l, a_l, code, uid)                               |
| 51       | disabintr(process, vector)                               |
| 52       | enable_ev(process, events)                               |
| 53       | mask_ev(process, mask)                                   |
| 54       | kvt_kp()                                                 |
| 55       | overload(parms1, parms2, class, pnum)                    |
| 56       | fupatch(action, patch)                                   |
| 57       | rcevent(pnum)                                            |
| 58       | termutil(utilid)                                         |
| 59       | idlevent(pid, event)                                     |
| 60       | inhibitdv(ivect,action,im,srm)                           |
| 61       | kublkseg(segid)                                          |
| 62       | ksegsz(segid)                                            |
| 63       | ksegadd(pn,sn,sgx,siz,perm,name)                         |
| 64       | krmvseg(process, segnum)                                 |
| 65       | prctype(pnum)                                            |

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Table 1 - Kernel Process OST Code Definitions (continued)

| OST Code | OST Name (Arguments)                         |
|----------|----------------------------------------------|
| 66       | phasewop(d_l,a_l,code,uid,action)            |
| 67       | ep_attach(segindx, pid)                      |
| 68       | dsksimplex()                                 |
| 69       | dskduplex()                                  |
| 70       | sysdlm()                                     |
| 71       | kdlnmkill(pnum, flag)                        |
| 72       | dtchchan(chandstruct)                        |
| 73       | kgetnpas(&word)                              |
| 74       | getemminfo(&word)                            |
| 75       | getmodule(segid)                             |
| 76       | oldmsg(type, owner)                          |
| 77       | maxintvl(process,interval,omsg,prms,failure) |
| 78       | dionotify(pnum, flag)                        |
| 136      | kshartxt(segid, sghdx, sghnum)               |

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Table 2 - Supervisor / UNIX® Process OST Code Definitions

| OST Code | OST Name (Arguments)                                        |
|----------|-------------------------------------------------------------|
| 1        | addseg(segnum, flag)                                        |
| 2        | adduser(process)                                            |
| 3        | alockseg(segnum)                                            |
| 4        | alocseg(segnum,size,partition,0L)                           |
| 4        | alocseg(segnum,size,partition,name)                         |
| 5        | free slot                                                   |
| 6        | crb(psync, flag)                                            |
| 7        | lbolt()                                                     |
| 8        | kpstart(exl,segnum, class, dctflags, pcls1, pcls2)          |
| 9        | clrevent(eflag)                                             |
| 10       | copyseg(segnum,newid,msident,rtcnt)                         |
| 11       | uplockseg(segid)                                            |
| 12       | conport(portnum)                                            |
| 13       | detport(portnum)                                            |
| 14       | pfork1(segnum)                                              |
| 15       | dropseg(segnum)                                             |
| 16       | enevent(eflag)                                              |
| 17       | event(process,eflag)                                        |
| 18       | execute(sp, pcbndx, stkndx, pevp, class, pcl1, pcl2, flags) |
| 19       | freeseq(segnum,mode)                                        |
| 20       | smsgwflt(buf,fcode)                                         |
| 21       | err_rpt(string, num)                                        |
| 22       | getime()                                                    |
| 23       | getmsg(msgbuf)                                              |
| 24       | dctreset(state,pnum)                                        |
| 25       | gettype(msgbuf)                                             |
| 26       | growseg(segnum,nbytes,oszptr)                               |
| 27       | inhibit()                                                   |
| 28       | ioqueueu(msgbuf)                                            |
| 29       | jobchg()                                                    |
| 30       | lockid(segid)                                               |
| 31       | lockseg(segnum)                                             |
| 32       | mgetlim(msgbuf)                                             |
| 33       | getclass(pid)                                               |
| 34       | setclass(pid, class)                                        |
| 35       | pfork2(segnum)                                              |

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Table 2 - Supervisor / UNIX® Process OST Code Definitions (continued)

| OST Code | OST Name (Arguments)                      |
|----------|-------------------------------------------|
| 36       | openseg(segnum,segid,segflags,mode)       |
| 37       | permit()                                  |
| 38       | pstart(segnum)                            |
| 39       | pswap()                                   |
| 40       | punswap()                                 |
| 41       | field update ost                          |
| 42       | field update ost                          |
| 43       | rmoveg(segnum)                            |
| 44       | rti(evmask,svstate)                       |
| 45       | rtoutset(ticks)                           |
| 46       | segname(segid,name)                       |
| 47       | sendcpmsg(msgbuf)                         |
| 48       | sendfault(process,fcode)                  |
| 49       | sendmsg(msgbuf)                           |
| 50       | sendport(msgbuf)                          |
| 51       | setewait(eflag,opt)                       |
| 52       | setime(time)                              |
| 53       | setmap(segnum,access,segndx)              |
| 54       | setprior(priority)                        |
| 55       | invalid                                   |
| 56       | sizeseg(segnum)                           |
| 57       | sleep(pattern)                            |
| 58       | sndmsgfrom(msgbuf)                        |
| 59       | spacalloc(segnum)                         |
| 60       | sswap(segnum)                             |
| 61       | sunswap(segnum)                           |
| 62       | portid(portnum)                           |
| 63       | toutset(ticks)                            |
| 64       | unlockid(segid)                           |
| 65       | unlockseg(segnum)                         |
| 66       | unblkseg(segnum)                          |
| 67       | wakeup(pattern)                           |
| 68       | writeseg(segnum)                          |
| 69       | kvt_sup()                                 |
| 70       | fupatch(action, patch)                    |
| 71       | termutil(utilid)                          |
| 72       | unused                                    |
| 73       | utilset(utilid)                           |
| 74       | clrname(segname)                          |
| 75       | chg_attrib(flag,pri,slice,lib1,lib2,name) |

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Table 2 - Supervisor / UNIX® Process OST Code Definitions (continued)

| OST Code | OST Name (Arguments)                  |
|----------|---------------------------------------|
| 76       | sprctype(pid)                         |
| 77       | ntermclass(type, class, bitspot)      |
| 78       | sgetpnum(utilid)                      |
| 79       | ssetflag(prcnum, flag)                |
| 80       | sdlmkill(pnum)                        |
| 81       | sadopt(pnum)                          |
| 82       | schgpcb(field, value)                 |
| 83       | sgetnpas(&word)                       |
| 84       | getemminfo(&word)                     |
| 85       | getmodule(segid)                      |
| 86       | smaxintvl(interval,omsg,prms,failure) |
| 87       | sevclass(class, event)                |
| 88       | sdionotify(flag)                      |
| 127      | sendg(msgbuf)                         |

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ID ..... APP:PRM  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

This appendix has been prepared as a guide to the Processor Recovery Messages (PRMs) produced by the 4ESS™ / APS application during recovery and initialization. It will help the user interpret the messages and correct faults. This appendix documents the structure of the application (step E) PRMs.

PRMs are one-line fixed format messages that are encrypted in hexadecimal notation. They appear on the Emergency Action Interface (EAI) page and the Receive-Only Printer (ROP). The reason that PRMs are used is that they can be produced without the availability of the human machine interface.

Application PRMs are put out by the Application Integrity Monitor (AIM) process and the Partition Mounting Kernel Process (PMKP) to indicate significant initialization progress or failure.

All PRMs produced by the 4ESS™ / APS application processes, except those which immediately precede phasing the Central Processor (CP), are sent to the DMERT System Integrity Monitor (SIM) process, which spools them for output to prevent loss or overwriting.

For more general information concerning the interpretation of PRMs, and for the interpretation of PRMs produced by the DMERT operating system, refer to the DMERT documentation.

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PRM: pDde a1b0 xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

Internal AIM event triggered, cleared, or escalated.

PRM EXPANSION:

|          |                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                   |
| D        | Application Integrity Monitor.                                                                            |
| d        | RTR Initialization level.                                                                                 |
| e        | Application.                                                                                              |
| a        | E for success.<br>F for failure.                                                                          |
| b        | Event sub-category:<br>0: for event being set.<br>1: for event being cleared.<br>2: for event escalating. |
| xx       | Internal AIM event code.                                                                                  |
| yy       | Internal AIM task code for task that initiated event.                                                     |
| zzww     | Timestamp (elapsed time since boot).                                                                      |
| hh hh hh | Hardware status digits.                                                                                   |

EXPLANATION:

This PRM is printed whenever an internal AIM event changes state.

CORRECTIVE ACTION:

No action necessary for success PRMs. Seek technical assistance for failure PRMs.

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PRM: pDde a20c xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM task executed an internal AIM recovery action.

PRM EXPANSION:

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| D        | Application Integrity Monitor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| d        | RTR Initialization level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| e        | Application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| a        | E for success.<br>F for failure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| c        | Recovery action code:<br><br>0: Task executed UNIX® RTR phase.<br>xx = level<br>yy = calling internal task id<br>zzww = timestamp<br><br>1: Task executed panic dump primitives.<br>xxyyzzww = event word sent to recovdata.<br><br>2: Task zeroed AMA PAS segments.<br>ww = segment number for base of zeroing.<br><br>3: Task printed a progress PRM.<br>xx = user defined arg from AIMFILE.<br>yy = task id of action.<br>zzww = timestamp.<br><br>4: Panic dump partition is full and less than half a day old,<br>don't overwrite.<br>xxyyzzww = define mode flags for recovdata. |
| hh hh hh | Hardware status digits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

EXPLANATION:

This PRM is printed whenever an internal AIM task executes one of the internal AIM functions.

CORRECTIVE ACTION:

None.

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PRM: pDde a30c xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM process trace prms.

PRM EXPANSION:

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| D        | Application Integrity Monitor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| d        | RTR Initialization level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| e        | Application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| a        | E for success.<br>F for failure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| c        | Value that indicates which state process is in.<br>0: Cannot send P_CREAT Message to PMGR.<br>1: Good MSACK was received from PMGR.<br>2: Failure MSACK was received from PMGR.<br>3: Timed Out waiting for MSACK from PMGR.<br>4: Process Initialization Complete.<br>5: Process Initialization Failure.<br>6: Process Initialization Timeout.<br>7: Process Death (expected).<br>8: Process Death (unexpected).<br>9: Timed out waiting for process death ack.<br>A: Process audit failure.<br>B: Killed a process for using too many message buffers (>25%). |
| xxyy     | Utility ID of process.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| zzww     | Timestamp (seconds since boot or wraparound). For 30B prms,<br>number of message buffers freed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| hh hh hh | Hardware status digits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

EXPLANATION:

This PRM is printed when a process changes state.

CORRECTIVE ACTION:

None.

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PRM: pDde a31c xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM child process prms.

PRM EXPANSION:

|          |                                                                                                                                                                                                                                                                   |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                                           |
| D        | Application Integrity Monitor.                                                                                                                                                                                                                                    |
| d        | RTR Initialization level.                                                                                                                                                                                                                                         |
| e        | Application.                                                                                                                                                                                                                                                      |
| a        | E for success.<br>F for failure.                                                                                                                                                                                                                                  |
| c        | Request from AIM child process.<br>0: Process requested UNIX® RTR Phase.<br>1: Child process requested contract of another process.<br>2: Child process requested single-process purge.<br>3: Child Process requested PRM.<br>4: Child Process monitoring status. |
| xxyy     | Utility ID of requesting process.                                                                                                                                                                                                                                 |
| zzww     | User Defined Data:<br>For c = 4, this field contains the repetitive timer value set by the child.<br>For c = 1, this field contains the UID of to be initialized process.                                                                                         |
| hh hh hh | Hardware status digits.                                                                                                                                                                                                                                           |

EXPLANATION:

This PRM is printed whenever AIM child processes request services from AIM.

CORRECTIVE ACTION:

None.

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PRM: pDde a40c xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM EAI options status.

PRM EXPANSION:

|          |                                                                                                                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                                                                                                                            |
| D        | Application Integrity Monitor.                                                                                                                                                                                     |
| d        | RTR Initialization level.                                                                                                                                                                                          |
| e        | Application.                                                                                                                                                                                                       |
| a        | E for success.<br>F for failure.                                                                                                                                                                                   |
| c        | The following values are defined:<br><br>0: Application Parameter Acknowledgement.<br>ww = application parameter value.<br><br>1: INH-SFT-CHKS status.<br>ww = boolean status of INH-SFT-CHKS flag (1 means TRUE). |
| hh hh hh | Hardware status digits.                                                                                                                                                                                            |

EXPLANATION:

This PRM is printed whenever AIM re-reads the EAI parameters or receives a message from the Inhibit Administrator (INH-SFT-CHKS).

CORRECTIVE ACTION:

None.

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PRM: pDde a41b cccc cccc hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM application "all-seems-well" status.

PRM EXPANSION:

|           |                                                                                                                                                                                                                                               |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p         | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                       |
| D         | Application Integrity Monitor.                                                                                                                                                                                                                |
| d         | RTR Initialization level.                                                                                                                                                                                                                     |
| e         | Application.                                                                                                                                                                                                                                  |
| a         | E for success. No critical events set.<br>F for failure. Some critical or important event(s) may be set.                                                                                                                                      |
| b         | 0 gives status of first 32 events (0-31) in the event table.<br><br>1 gives status of the remaining events (32-64) in the table.                                                                                                              |
| cccc cccc | A bit field. Any bit set to one means that the corresponding AIM event is set. When a bit is zero, it means that the corresponding AIM event is not set. Refer to the table of AIM events given in the file 3bsico / AIM / doc / PRM / app.D. |
| hh hh hh  | Hardware status digits.                                                                                                                                                                                                                       |

EXPLANATION:

These PRMs are printed every thirty-two seconds if enabled by entering the EAI\_STAT\_TOGGLE application parameter ('F') or if the system is in critical alarm level. Disabling the PRM is also done by entering the EAI\_STAT\_TOGGLE application parameter. The 410 and 411 PRMs are two parts of the AIM All-Seems-Well PRM.

CORRECTIVE ACTION:

A failure ASW PRM (F410 and / or F411) indicates that a critical function has failed. This can be caused either by any of the most 'important' events- (amarbuf, amafbuf, no1acom, and nostream) being set (gives E410 and F411), or by any other event with a critical alarm level- (monfai, msgout, dctcrit, klock, reqtr2, reqtr3, and nodrv) being set (gives F410 and F411). If automatic recovery is not evident, manual recovery actions may be necessary. Additional indicators on the 1B processor or 3B20D may help direct this action.

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PRM: pDde a42c xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM has been loading PAS regions with data.

PRM EXPANSION:

|          |                                                                                                                                                                                                                                                                                         |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                                                                 |
| D        | Application Integrity Monitor.                                                                                                                                                                                                                                                          |
| d        | RTR Initialization level.                                                                                                                                                                                                                                                               |
| e        | Application.                                                                                                                                                                                                                                                                            |
| a        | E for success.<br>F for failure.                                                                                                                                                                                                                                                        |
| c        | PAS operation sub-category:<br>0: UNIX® RTR Interrupt Stack was dumped to PAS for later analysis.<br>1: AIMFILE was read from disk into PAS.<br>ww = return code from operation.<br>1: Busy, retry later.<br>2: Completed with no errors.<br>3: Total failure.<br>4: Busy, retry later. |
| hh hh hh | Hardware status digits.                                                                                                                                                                                                                                                                 |

EXPLANATION:

This PRM is printed whenever AIM loads an area of PAS.

CORRECTIVE ACTION:

None.

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PRM: pDde a44c xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM internal errors.

PRM EXPANSION:

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| D | Application Integrity Monitor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| d | RTR Initialization level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| e | Application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| a | E for success.<br>F for failure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| c | Internal error sub-category:<br><br>0: AIM was faulted with an unexpected fault code.<br>ww = fault code.<br><br>1: AIM could not attach to PAS (mod 0, seg 0).<br><br>2: AIM 500ms. prtimer request failed.<br><br>3: AIM could not read the ECD to get feature bits.<br><br>4: AIM could not attach to the system port PT_AIM.<br>xxyyzzww = return code from kportid call.<br><br>5: AIM could not send a system initialization message request<br>to SIM.<br><br>6: AIM timed out waiting for system initialization message<br>from SIM.<br><br>7: AIM could not send a sanity timer request to SIM or sanity<br>timer acknowledgement is invalid.<br><br>8: AIM timed out waiting for sanity timer acknowledgement<br>from SIM.<br><br>9: AIM could not schedule an internal task to run.<br>ww = taskid of task that could not be scheduled.<br><br>a: Bad index (reference to an unknown task) was set.<br><br>b: Notify (via ost) Dlncm of node status.<br><br>c: Not supported now.<br><br>d: Request (send an event) to klmon to run. |

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e: 3B just came of the boot.

hh hh hh Hardware status digits.

**EXPLANATION:**

This PRM is printed anytime AIM detects a serious internal error.

**CORRECTIVE ACTION:**

None.

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PRM: pDde a5rr xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM child process requested the PRM.

PRM EXPANSION:

|          |                                                                                                                                                                                                                                                                                                |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                                                                        |
| D        | Application Integrity Monitor.                                                                                                                                                                                                                                                                 |
| d        | RTR Initialization level.                                                                                                                                                                                                                                                                      |
| e        | Application.                                                                                                                                                                                                                                                                                   |
| a        | E for success.<br>F for failure.                                                                                                                                                                                                                                                               |
| rr       | Reason for the PRM.<br>When field xxyy is 06ab rr is<br>bb: start of ring initialization<br>bf: end of ring initialization                                                                                                                                                                     |
| xxyy     | Uid of the AIM child process which wants to print the PRM.                                                                                                                                                                                                                                     |
| zzww     | Additional data process wants to print.<br>When field rr is bb and field xxyy is 06ab:<br>zz: ring initialization escalation level<br>range 00 - 08<br>ww: ring initialization level being executed<br><br>When field rr is bf and field xxyy is 06ab:<br>zzww: ring initialization time (hex) |
| hh hh hh | Hardware status digits.                                                                                                                                                                                                                                                                        |

EXPLANATION:

This PRM is printed whenever an AIM child process wants to get the service of AIM to print a PRM.

CORRECTIVE ACTION:

None.

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PRM: pDde a6rr xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM child process requested initialization.

PRM EXPANSION:

|          |                                                                                                                                                                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                                            |
| D        | Application Integrity Monitor.                                                                                                                                                                                                                                     |
| d        | RTR Initialization level.                                                                                                                                                                                                                                          |
| e        | Application.                                                                                                                                                                                                                                                       |
| a        | E for success.<br>F for failure.                                                                                                                                                                                                                                   |
| rr       | Reason for the initialization request.                                                                                                                                                                                                                             |
| xxyy     | Uid of the AIM child process which wants initialization.                                                                                                                                                                                                           |
| zzww     | Additional data process wants to print.<br>When field rr is 02 and field xxyy is 06ab:<br>zz: the source of the ring initialization request<br>0 - RTR BOOT<br>1 - CRAFT request<br>2 - DLNCM process<br>3 - CNI system<br>ww: requested ring initialization level |
| hh hh hh | Hardware status digits.                                                                                                                                                                                                                                            |

EXPLANATION:

This PRM is printed whenever an AIM child process requests an initialization through AIM.

CORRECTIVE ACTION:

None.

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PRM: pDde a7rr xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM child process requested RTR phase.

PRM EXPANSION:

|          |                                                                                                                                                                                                                                                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                                                                                                                                                                                                          |
| D        | Application Integrity Monitor.                                                                                                                                                                                                                   |
| d        | RTR Initialization level.                                                                                                                                                                                                                        |
| e        | Application.                                                                                                                                                                                                                                     |
| a        | E for success.<br>F for failure.                                                                                                                                                                                                                 |
| rr       | Return level of initialization from AIM after escalation.                                                                                                                                                                                        |
| xxyy     | Uid of the AIM child process which requested the phase.                                                                                                                                                                                          |
| zzww     | Additional data process wants to print.<br>When field xxyy is 06ab:<br>zz : the source of the ring initialization request<br>0 - RTR BOOT<br>1 - CRAFT request<br>2 - DLNCM process<br>3 - CNI system<br>ww: requested ring initialization level |
| hh hh hh | Hardware status digits.                                                                                                                                                                                                                          |

EXPLANATION:

This PRM is printed whenever an AIM child process requests an RTR phase through AIM. Please refer also to a6rr prm which comes out before this prm.

CORRECTIVE ACTION:

None.

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PRM: pDde a8rr xxyy zzww hh hh hh

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

AIM child process requested purge.

PRM EXPANSION:

|          |                                                         |
|----------|---------------------------------------------------------|
| p        | E for normal prms.<br>F for phase prms.                 |
| D        | Application Integrity Monitor.                          |
| d        | RTR Initialization level.                               |
| e        | Application.                                            |
| a        | E for success.<br>F for failure.                        |
| rr       | Reason for the purge request.                           |
| xxyy     | Uid of the AIM child process which requested the purge. |
| zzww     | Additional data process wants to print.                 |
| hh hh hh | Hardware status digits.                                 |

EXPLANATION:

This PRM is printed whenever an AIM child process requests a purge through AIM.

CORRECTIVE ACTION:

None.

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PRM: EE00 10CC 06AB DEAD 79 C0 00 [1]

PRM: EE00 10BF 06AB xxxx 79 C0 00 [2]

RECOVERY STEP: Application Integrity Monitor (AIM)

FUNCTION:

Ring Initialization (RInginit) Disposition

PRM EXPANSION:

|         |                                     |
|---------|-------------------------------------|
| DEAD    | Ring Initialization failed.         |
| BF xxxx | Time to initialize the ring in hex. |

EXPLANATION:

This PRM is printed to report the disposition of Ring initialization.

CORRECTIVE ACTION:

If the expansion is of type DEAD, reinitialize the ring via the INIT:RING {0|1|3|4} message.

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ID ..... APP:SUPR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## System Update Error Codes Appendix

### 1. Introduction

This appendix contains the error codes for System Update. The error codes consist of six decimal digits. The first three digits indicate the nature of the error. The next two digits (xx) indicate the module in which the error occurred (that information is not provided here). The last digit (the error number, y) is used to differentiate errors of the same error code that can occur multiple times in the same module. To locate exactly which error in the module failed, each error is given its own unique error number.

### 2. Errors Associated with UNIX® System Calls

More information about these UNIX® System Calls can be found in the System Error Codes Appendix, APP:SYSERR. The error code that corresponds with the System Call that failed is kept in the System Update log file. It can be read by executing OP:GEN;READLOG command. The log entry specifying the UNIX® error number will be the error code for the UNIX® call that failed. The information for these System Calls may be found in the *UNIX® RTR Operating System Manuals*.

101xxy mkseg() error.

The UNIX® system call mkseg() failed when the System Update Enter command tried to create a segment using makeseg() that was to be used as a buffer when reading in a new partition from the LDFT tape and writing it to disk. Makeseg() may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the UPD:GEN;CONTINUE command.

102xxy open() error.

The UNIX® system call open() failed when System Update attempted to open the System Update log file. The open may have failed because:

- the System Update log file does not exist (/etc/log/suprlog)
- one of the directories in the System Update log file pathname (/etc/log) does not exist or does not have read permissions

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- the System Update log file is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

103xxy read() error.

The UNIX® system call `read()` failed when System Update tried to read an entry from the System Update log file. The read may have failed because of

- a damaged log file
- physical I/O errors
- a bad `read()` parameter
  - bad buffer address where the data is to be read
  - number of bytes to be read is bad
  - file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

104xxy seek() error.

The UNIX® system call `lseek()` failed when System Update attempted to seek to a particular log entry in the System Update log file. The `lseek` may have failed because the file descriptor for the log file is undefined, the seek went to a position before the beginning of the log file, or the log file is damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

105xxy write() error.

The UNIX® system call `write()` failed when System Update attempted to write a log entry to the System Update log file. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - bad buffer address from where the data is to be read
  - number of bytes to be written is bad
  - bad file descriptor for the System Update log file to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command.

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106xxy close() error.

The UNIX® system call `close()` failed when System Update attempted to close the System Update log file. An incorrect file descriptor for the log file may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

107xxy unlink() error.

The UNIX® system call `unlink()` failed when the System Update Proceed command attempted to unlink (remove) the special device file that was used to copy the System Update log file to the offline disk (offline disk method) or to the backup /etc partition (backup partition method). The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the enter step.

108xxy setio() error.

The UNIX® system call `setio()` failed when System Update attempted to set the input/output mode for the disk being updated to physical I/O. The `setio` may have failed because the disk being updated was never opened. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the enter step.

109xxy mknod() error.

The UNIX® system call `mknod()` failed when the System Update Restore or Commit command attempted to make a node that would be used to copy the new/old partitions over the old/new partitions using the backup partition method. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then manually execute the applhook process.

110xxy lcall() error.

The UNIX® system call `lcall()` failed when System Update attempted to execute `applhook (/prc/supr/applhook)`. `Applhook` may not exist or may not have execution permissions. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

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111xxy msgenab() error.

The UNIX® system call `msgenab()` failed when System Update attempted to enable message reception from one of the processes: Applhook, Continue, the disk driver, MIRA, or SIM. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

112xxy send() error.

The UNIX® system call `sendw()` failed when the System Update Continue command either attempted to send an acknowledgement message to the System Update Enter process which is currently running or attempted to send a message to SIM in order to request system initialization information. Try to continue the update again using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

113xxy kill() error.

The UNIX® system call `kill()` failed when the System Update Stop command attempted to terminate the System Update process that is currently running. The kill command may have failed because:

- the process to be killed does not exist
- the sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID
- the Process ID (PID) of the process being terminated is damaged in the System Update log; The Stop command passes this PID as a parameter to `kill()`

If the System Update still needs to be stopped, execute the Stop process unconditionally (using the UCL argument on its command line).

**CAUTION:** If Stop is executed unconditionally, it will attempt to terminate the running System Update process by an extreme method using the `pkill()` command. Some system resources in use by the process may not be released automatically.

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114xxy stat() error.

The UNIX® system call stat() failed when System Update attempted to obtain status information about the disk that is to be updated. This function may have failed because the disk does not exist. If this error occurred during the Enter step of System Update, make sure that all destination file names specified on the Enter command line exist. After resolving the problem, try to continue the update using the UPD:GEN;CONTINUE command.

115xxy msgport() error.

The UNIX® system call msgport() failed when System Update attempted to send a message to the disk driver so that System Update could have access to an out of service disk at the partition level rather than at the disk level. The msgport may have failed because:

- the disk driver is nonexistent
- the port number specified is invalid
- no process is connected to the specified port
- the message buffer is not in the user address space

Try to continue the update using the UPD:GEN;CONTINUE command.

116xxy mount() error.

The UNIX® system call mount() failed when System Update attempted to mount the /etc file system so that the System Update log file can be copied to the new generic or the database file system so that the ECD can be updated. The mount may have failed because:

- the effective user ID of the process executing the mount is not a superuser
- the specified file system does not exist
- the file system to be mounted is not specified
- the block special file from which the file system is to be mounted is inaccessible or not an appropriate file
- the file system is already mounted
- the directory pathname that the file system is to be mounted on is not a directory
- too many file systems are mounted

Try to continue the update by using the UPD:GEN;CONTINUE command.

117xxy unmount() error.

The UNIX® system call unmount() failed when System Update attempted to unmount the /etc/ file system after the System Update log file has been

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copied to the new generic or the database file system after the ECD has been updated. The umount may have failed because:

- the effective user ID of the process executing the umount is not a superuser
- the file system is not mounted
- there are active files on the file system being unmounted

Try to continue the update using the `UPD:GEN;CONTINUE` command.

118xxy link() error.

RC/V recognizes the ECD by the name `/mount directory/ecd` where `mount directory` represents the directory path on which the `ecd` file system is mounted. But, System Update recognizes the ECD by the name `/mount directory/dmrt` or `/mount directory/appdmrt`. In order for System Update to use RC/V, it must link its database name with the name that RC/V recognizes. This error occurs when the link fails using the UNIX® system call `link()`. The link may have failed because:

- the original name that is being linked to cannot be found
- the new name that is being linked already exists
- the directory that contains the new name does not have write permissions
- the link is done by a user other than a superuser
- the link was attempted on a file that is on another file system
- the file has too many links

If this update is continued using the `UPD:GEN;CONTINUE` command, it will keep failing until this problem is resolved. Start the update over from the beginning of the Enter step.

119xxy create() error.

The UNIX® system call `create()` failed when a file was being created under the `/tmp` directory in one of the situations: the System Update Enter command attempted to create the System Update log file, or the System Update Readlog command attempted to create a buffer used to store log entries that are about to be printed to the terminal and to the ROP. The create may have failed because:

- a directory in the pathname of the file to be created is not searchable
- the file to be created does not exist and the directory in which it is to be created does not have write permission
- the file to be created does exist and does not have write permissions
- the file to be created is a directory
- the maximum number of files (20) are already open
- there is not enough space in the `/tmp` file system for the created file

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After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

120xxy    `vcall()` error.

The UNIX® system call `vcall()` failed when the System Update Continue command executed the System Update process that is being continued. This function normally fails when the process being executed does not exist or does not have execution permissions. Make sure that all System Update processes in `/prc/supr` have execution permissions. After resolving the problem, re-enter the System Update `UPD:GEN;CONTINUE` command.

121xxy    `rmoveg()` error.

The UNIX® system call `rmoveg()` failed when the System Update Enter command attempted to remove a previously created segment after it was no longer needed. The segment may have been created in the first place to be used as: 1) a buffer used to hold the new generic which was read in from tape and then written to disk, or 2) a buffer used to hold the new generic which was read from the primary partitions and written to the backup partitions using the offline disk method. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

122xxy    `mkseg()` error.

The UNIX® system call `mkseg()` failed when the System Update Enter command tried to create a segment using `makeseg()` that was to be used as a buffer when reading in an updated segment from the offline disk and writing it to its backup partition. `makeseg()` may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

123xxy    `fopen()` error.

The UNIX® system call `fopen()` failed when the System Update Restore or Commit command attempted to open a partition that is to be used to update the old or new generic to the new or old generic. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.

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124xxy    open() error.

The UNIX® system call open() failed when System Update attempted to open the ECD. The open may have failed because:

- the ECD special device file does not exist (/dev/ecd)
- the root directory which contains the ECD does not have read permissions
- the ECD is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

125xxy    open() error.

The UNIX® system call open() failed when System Update attempted to open the disk that is being updated for one of the reasons:

- the VTOC needs to be read
- the backup partitions need to be updated during the Enter process using the offline disk method
- the little boot start block address in the VTOC needs to be restored

The open() may have failed because:

- the disk does not exist
- one of the directories in the disk pathname does not exist or does not have read permissions
- the disk is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update over from the beginning of the Enter step.

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126xxy    open() error.

The UNIX® system call `open()` failed when System Update attempted to open one of the partitions that is being updated. The open may have failed because:

- the partition does not exist
- one of the directories in the partition pathname does not exist or does not have read permissions
- the partition is not readable or writable depending on what it is being opened for (reading or writing)
- too many files are open

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

127xxy    read() error.

The UNIX® system call `read()` failed when System Update tried to read the VTOC from the LDFT tape. The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - bad buffer address where the data is to be read
  - number of bytes to be read is bad
  - file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

128xxy    read() error.

The UNIX® system call `read()` failed when System Update tried to read the VTOC from disk. The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - bad buffer address where the data is to be read
  - number of bytes to be read is bad
  - file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

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**129xxy read() error.**

The UNIX® system call `read()` failed when System Update tried to read a data block from an LDFT tape. The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - bad buffer address where the data is to be read
  - number of bytes to be read is bad
  - file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

**130xxy read() error.**

The UNIX® system call `read()` failed when System Update tried to read a partition from the offline disk for one of two reasons: the hash sum needed to be computed to make sure that the partition was written correctly, or the backup partition needed to be updated from its primary partition which contained the new generic (for offline disk method only). The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - bad buffer address where the data is to be read
  - number of bytes to be read is bad
  - file descriptor indicating the file to be read from is not that of an input file

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

**131xxy read() error.**

The UNIX® system call `read()` failed when System Update tried to read a header from an LDFT tape. The read may have failed because of

- physical I/O errors
- a bad `read()` parameter
  - bad buffer address where the data is to be read
  - number of bytes to be read is bad

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- file descriptor indicating the file to be read from is not that of an input file

Make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

132xxy    `lseek()` error.

The UNIX® system call `lseek()` failed when System Update attempted to seek to a particular partition on disk. The `lseek` may have failed because the file descriptor for the disk is undefined, or the seek went to a position before the beginning of the disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the disk may be damaged.

133xxy    `lseek()` error.

The UNIX® system call `lseek()` failed when System Update attempted to seek to a previous block on an LDFT tape. A tape read failure may have occurred. If this happens, System Update automatically seeks back to the beginning of the set of blocks it tried to read and tries to read those blocks again. Since a read error may have occurred first, check the possible causes for a read error located at error codes 103xxy, and 127xxy - 131xxy and take the action listed there. If a read error is not the problem, make sure the "head" of the tape drive is clean and continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

134xxy    `write()` error.

The UNIX® system call `write()` failed when the System Update Readlog command attempted to write log entries to an output buffer which is later spooled to the terminal and to the ROP. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - bad buffer address where the data is to be read from
  - number of bytes to be written is bad
  - bad file descriptor for the buffer to which the data is to be written

The log file cannot be read.

135xxy    `write()` error.

The UNIX® system call `write()` failed when the System Update Enter command attempted to write the VTOC to the disk being updated. The write may have failed because of

- physical I/O errors

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- a bad `write()` parameter
  - bad buffer address from where the data is to be read
  - number of bytes to be written is bad
  - bad file descriptor for the disk to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the disk may be damaged.

136xxy `write()` error.

The UNIX® system call `write()` failed when the System Update Enter command attempted to write a partition to the disk being updated. The write may have failed because of

- physical I/O errors
- a bad `write()` parameter
  - bad buffer address where the data is to be read from
  - number of bytes to be written is bad
  - bad file descriptor for the disk to which the data is to be written

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the disk may be damaged.

137xxy `fclose()` error.

The UNIX® system call `fclose()` failed when the System Update Restore or Commit command attempted to close a partition that was used to update the old or new generic to the new or old generic. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.

138xxy `close()` error.

The UNIX® system call `close()` failed when System Update attempted to close the disk being updated. An incorrect file descriptor for the disk may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the Enter step.

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139xxy     `close()` error.

The UNIX® system call `close()` failed when System Update attempted to close the ECD. An incorrect file descriptor for the ECD may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

140xxy     `close()` error.

The UNIX® system call `close()` failed when System Update attempted to close a partition on the disk being updated. An incorrect file descriptor for the disk partition may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

141xxy     `close()` error.

The UNIX® system call `close()` failed when System Update attempted to close the tape device from which the new generic was read. An incorrect file descriptor for the tape device may have been passed to the `close()` command. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

142xxy     `unlink()` error.

The UNIX® system call `unlink()` failed when System Update attempted to unlink (remove) the special device file that was used to access the offline disk when updating the backup partitions using the offline disk method. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

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143xxy     unlink() error.

The UNIX® system call unlink() failed when System Update attempted to unlink (remove) the special device file that was used to access a partition being updated. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update over from the beginning of the Enter step.

144xxy     unlink() error.

The UNIX® system call unlink() failed when System Update attempted to unlink (remove) a special device file that was used to perform a Recent Change function on the ECD. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update over from the beginning of the Enter step.

145xxy     setio() error.

The UNIX® system call setio() failed when System Update attempted to set the Input/Output mode for the tape device from which the new generic is to be read to physical I/O. The setio may have failed because the tape device was never opened. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update over from the beginning of the Enter step.

146xxy     setio() error.

The UNIX® system call setio() failed when System Update attempted to set the Input/Output mode for a partition to be updated to physical I/O. The setio may have failed because the partition was never opened. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update over from the beginning of the Enter step.

147xxy     mknod() error.

The UNIX® system call mknod() failed when the System Update Proceed command attempted to make a node that would be used to copy the System Update log file to the offline disk (offline disk method) or to the backup /etc partition (backup partition method). Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update from the beginning of the Enter step.

148xxy     mknod() error.

The UNIX® system call mknod() failed when System Update attempted to make a node that would be used to update the backup partitions using the offline disk method. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update from the beginning of the Enter step.

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149xxy     mknod() error.

The UNIX® system call mknod() failed when System Update attempted to make a node that would be used to copy the new generic to the offline disk (offline disk method) or to the backup partitions (backup partition method). Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update from the beginning of the Enter step.

150xxy     mknod() error.

The UNIX® system call mknod() failed when System Update attempted to make a node that would be used to perform a Recent Change function on the ECD. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update from the beginning of the Enter step.

151xxy     fopen() error.

The UNIX® system call fopen() failed when System Update attempted to open a file (located in /tmp) that is to be used to create a Recent Change script which is used to change the ECD. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update over from the beginning of the Enter step.

152xxy     fclose() error.

The UNIX® system call fclose() failed when System Update attempted to close the file (located in /tmp) that contains a Recent Change script used to change the ECD. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update over from the beginning of the Enter step.

153xxy     sendpw error.

The UNIX® system call sendpw() failed when System Update attempted to send a message to MIRA in order to remove or restore a UCB. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the applhook process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the applhook process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

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### 3. Errors Associated with the Input Data

201xxy VTOC is not the first piece of data on the mounted LDFT tape.

This error occurred when System Update could not find the VTOC because:

- System Update incorrectly thinks it should have the first tape of the sequence and therefore searches for the VTOC
- the wrong tape may have been mounted; check to make sure that the mounted LDFT tape is the first tape in the sequence

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the problem persists, the LDFT tape may be damaged. Regenerate a new tape.

202xxy HEADER and VTOC addresses are different.

While a partition entry was being searched for in the disk VTOC, the search erroneously went beyond the scope of the VTOC. The disk partition address that was specified in the LDFT header for that partition does not match the disk partition address in the corresponding VTOC entry on the disk. The LDFT tape may be damaged. Regenerate a new LDFT tape and start the update over from the beginning of the Enter step.

203xxy Disk and tape VTOCs are different.

The VTOC entry on tape must be identical to the VTOC entry on disk. The VTOC on the LDFT tape may be damaged. Regenerate a new tape sequence.

204xxy A partition being updated does not have a backup partition.

All partitions must have backup partitions if they are being updated via the backup partition method (except for the VTOC and little boot partitions). If some partitions need to be updated but do not have backup partitions, start the update over from the beginning of the Enter step using the offline disk method.

205xxy Primary and backup versions of same partition found on same tape.

An LDFT tape can only contain the primary or the backup version of the same partition. Both cannot be found on the LDFT tape. The LDFT tape may be damaged. Regenerate a new tape.

206xxy Partition data spans across partition boundaries.

Each header on the LDFT tape contains the starting address for that partition on the disk and the partition's size. The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

207xxy Two VTOCs found in same tape sequence.

Only one VTOC is allowed per tape sequence. This may be a bad tape sequence. The entire tape sequence should be regenerated.

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- 208xxy End-of-Tape and End-of-Sequence flags on LDFT tape are incompatible.
- The End of Sequence flag is set in the last header on the last tape, but the End of Tape flag is not set. This may be a bad tape. Regenerate a new tape.
- 209xxy Different hash sums.
- Hash sum - a computed integer used to make sure that the data on the LDFT tape has not been damaged since the tape was created. The hash sum that is in one of the headers on the LDFT tape for that header or its data block does not match the hash sum that System Update computed for that header or data block.
- Make sure that the "head" of the tape drive is clean and try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.
- 210xxy Ichk() detected error(s) on file system.
- At this time, this error will never occur because System Update does not call `ichk()`.
- 211xxy Cannot find VTOC partition entry in the VTOC VTOC on the LDFT tape.
- This may be a bad VTOC on the tape. Regenerate a new tape.
- 212xxy Cannot find the RTC partition entry in the VTOC on the disk.
- The VTOC on the disk may be bad. This update cannot be continued until this problem is resolved.
- 213xxy Cannot find ETC partition entry in the VTOC on the LDFT tape.
- This may be a bad VTOC on the tape. Regenerate a new tape.
- 214xxy Cannot find ECD partition entry in the VTOC on the LDFT tape.
- This may be a bad VTOC on the tape. Regenerate a new tape.
- 215xxy SG ID on LDFT tape does not match the SG ID on previous LDFT tape.
- SG ID - identifier in the first header of an LDFT tape that describes the SG database from which this tape was written. It is used to make sure that multiple tapes and sequences were written using the same SG database. The SG ID on the LDFT tape does not match the SG ID on the previously loaded LDFT tape. This is not really an error, just a warning. This may occur if a field site uses its own SG database when generating tapes. Continue the update using the `UPD:GEN;CONTINUE` command and the error will be ignored.

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- 216xxy Generic version number on LDFT tape does not match generic version number on previous LDFT tape.
- Generic version number - used to make sure that multiple tapes and sequences were written using the same generic version.
- Continue the update using the `UPD:GEN;CONTINUE` command and the error will be ignored.
- 217xxy Little boot entry in offline disk VTOC could not be found when System Update attempted to restore the little boot start block address to its valid value.
- Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the VTOC on the offline disk may be damaged.
- 218xxy Little boot entry in the VTOC on the LDFT tape is different from the little boot entry in the VTOC on the disk when the backup partition method is being used.
- During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.
- 219xxy One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the backup partition method is being used.
- During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.
- 220xxy One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the offline disk method is being used.
- This partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.
- 221xxy VTOC entry for little boot on LDFT tape is different from VTOC entry for little boot on disk when the offline disk method is being used.
- The little boot partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

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222xxy Header for VTOC on LDFT tape contains starting address for VTOC on the disk and the VTOC's size.

The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

223xxy VTOC entry for primary source or backup destination partition not found in offline disk VTOC.

When updating the backup partitions using the offline disk method, the VTOC entry for a source (primary) or destination (backup) partition could not be found in the offline disk VTOC. The offline disk VTOC may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

224xxy VTOC entry in VTOC on LDFT tape could not be found.

This may be a bad VTOC on the tape. Regenerate a new tape and start the update over from the beginning of the Enter step.

225xxy Little boot entry in VTOC read from LDFT tape could not be found when System Update attempted to invalidate the little boot start block address to prevent a boot from occurring from the disk that is being updated.

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the VTOC on the LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

226xxy VTOC entry could not be found in VTOC on the mounted LDFT tape.

The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

227xxy Note: This error message is not available in all releases.

The pack ids in the tape and destination disk VTOCs do not match. Check that the proper tape is mounted, and that the destination VTOC was entered correctly. This check can be overridden by performing the update unconditionally with the UCL parameter.

#### 4. Internal System Update Errors

301xxy Too many command line arguments used.

The maximum number of arguments allowed on the command line has been exceeded for one of the commands: Continue, Readlog, Stop, Commit, Restore, Backout, Enter, or Proceed. The only way this error message could appear is if the System Update process has been executed from a UNIX® terminal instead of a user terminal. Re-execute the System Update process using the correct arguments, or execute the process from a user terminal using the corresponding PDS or MML Craft Input Message.

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302xxy Message returned was not what was expected.

Any time System Update sends a message to SIM, the disk driver, applhook, or continue, it checks the return message that is sent back. In this case, a bad message was returned or the time limit set to receive the message from continue expired. Try to continue the update using the `UPD:GEN;CONTINUE` command.

303xxy Internal buffers are too small.

The data after a header on the LDFT tape is larger than one segment. Up to only one segment is allowed after each header. The LDFT tape may be damaged. Regenerate a new tape.

304xxy Cannot locate System Update log.

Any time the System Update log is accessed, it is assumed to be in `/etc/log/supr log`. In this case, it could not be found. System Update may have been attempting to retrieve or write a log entry or attempting to read the entire log file. The log file may have been accidentally removed. If the System Update Readlog command was executed to read the log file, the log file cannot be read since Readlog cannot locate it. If any other System Update process was executed, start the update over from the beginning of the Enter step.

305xxy No "enter" entries in log.

Log entries for the Enter step cannot be found in the System Update log. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, the log file may be damaged. Start the update over from the beginning of the Enter step.

306xxy Log entries are inconsistent.

The System Update Continue command found that one of the entries in the System Update log file contains a bad value (the type of log entry, tape sequence number, or disk pair number). The System Update log may be damaged. Start the update over from the beginning of the Enter step.

307xxy Bad process type.

A bad process type was found in one of the log entries in the System Update log file. This error occurs when System Update tries to continue an update and the entry for the System Update process that is being continued cannot be found in the log. The log may be damaged. Start the entire update over from the beginning of the Enter step.

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**308xxy** Bad update method.

The System Update Readlog command found an incorrect update method specified in one of the System Update log file entries (Begin or Disk) or the System Update Enter command found an incorrect update method specified on its command line. Only two methods are allowed: backup partition method or off-line disk method. If the Readlog command was executed, the log may be damaged and therefore cannot be read. If the Enter command was executed, start the update over from the beginning of the Enter step.

**309xxy** Bad execution mode.

The System Update Readlog command found a bad execution mode in a Begin log entry for one of the System Update processes. Only two execution modes are allowed: conditional or unconditional. The log file may be damaged and therefore cannot be read.

**310xxy** Bad bootfile.

The System Update Readlog command found an incorrect bootfile specified in the End entry in the System Update log file. Only two bootfile types are allowed: DMERT or APPDMERT. The log file may be damaged and therefore cannot be read.

**311xxy** Bad file system.

The System Update Readlog command found an incorrect file system specified in the End entry in the System Update log file. Only two file systems are allowed: PRIMARY or SECONDARY. The log file may be damaged and therefore cannot be read.

**312xxy** Bad log entry.

A bad disk pair number was found in either the Disk or End log entry in the System Update log. The log file may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

**313xxy** Bad completion code.

The System Update Readlog command found that the End entry in the System Update log file contains a bad completion code. Only two completion codes are allowed: SUCCESS or FAILURE. The log may be damaged and therefore cannot be read.

**314xxy** Tried to reserve the same disk twice.

System Update tried to reserve a disk that has already been reserved. Try to continue the update using the `UPD:GEN;CONTINUE` command.

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315xxy Tried to release an unreserved disk.

System Update tried to release a disk that was never previously reserved. Try to continue the update using the `UPD:GEN;CONTINUE` command.

316xxy Bad UCB disk state requested.

A bad state was specified when System Update attempted to change the state of a UCB (valid states = OOS, ACT) or a disk (valid states = OOS, OFL). Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

317xxy Bad sequence indicator.

The System Update Readlog command found that the Tape entry in the System Update log file contains a bad sequence number. Only three sequence entries are allowed: FIRST, SECOND, or THIRD. The log may be damaged and therefore cannot be read.

318xxy Bad continuable indicator.

The System Update Readlog command found that the End entry of the System Update log contains a bad continuable flag variable. Only two continuable flag variables are allowed: YES or NO. The log may be damaged and therefore cannot be read.

319xxy BEGIN ENTER log entry could not be found in the System Update log file.

The log may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

320xxy System Update Enter command terminated.

The System Update Enter command terminated while it was updating the backup partitions using the offline disk method and then was continued using the `UPD:GEN;CONTINUE` command. In order for System Update to know which partition it was in the middle of updating before it terminated, it looks in the log file and attempts to find the last UPDATE ENTER log entry.

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In this case, the UPDATE ENTER log entry could not be found. Therefore, System Update could not do any further processing. Try to continue the update again using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter command.

321xxy VTOC on FDFT tape exceeds maximum allowed.

The size of the VTOC on the LDFT tape is greater than the maximum size allowed: 512 bytes. The VTOC may be damaged on the LDFT tape. Regenerate a new tape.

322xxy Write log entry found in System Update log file without a proceeding Disk log entry.

The log file may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

323xxy Log file retrived not requested.

System Update requested a log entry (Disk, Tape, or End) from the log file, but the log entry that was retrieved was not the one requested. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

324xxy Corresponding disk log not found.

While searching the System Update log file, System Update could not find the Disk log entry that corresponds to the bootdisk being updated. Try to continue the update using the `UPD:GEN;CONTINUE` command.

325xxy Incorrect update method specified.

System Update found an incorrect update method specified in the internal variable `glob_method` which was obtained through the Enter command line or the System Update log file. Only two methods are allowed: backup partition method or off-line disk method. The log may be damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the entire update over from the beginning of the Enter step.

326xxy Bad execution mode found on Enter command line.

Only two execution modes are allowed: conditional or unconditional. Start the update over from the beginning of the Enter step.

327xxy Bad sequence option in log file.

System Update found bad sequence option in the log file. Valid sequence options are: SGL, DBL, or TPL. The log may be damaged and therefore cannot be read. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter command.

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## 5. Errors Associated with Execution

401xxy Context of request is invalid.

The System Update Enter command was executed conditionally (without the UCL argument) while the System Update log file contained log entries (possibly from a previous update session). Either remove the log file (/etc/log/suprlog) or execute the Enter command using the UCL argument on the command line.

402xxy Bad input file (tape unit) specified.

The input file specified (normally a tape unit) on the Enter command line is invalid. Make sure that the name is entered correctly (the name of a tape unit is of the form /dev/mtnn where nn is a two digit hexadecimal number). If the input is from a tape, make sure that the unit is on-line. Re-execute the Enter command with the UCL argument on its command line.

403xxy Data not in sync.

The tape being read is either not a tape usable with System Update (not in LDFT format), the data on it has been mutilated, or the LDFT formatted tape being used was created for a different processor. Make sure that the correct tape has been mounted, and continue the update using the UPD:GEN;CONTINUE input command.

404xxy Data sequence id incorrect (wrong tape).

The data input does not belong on the disk being written. Make sure that correct tape has been mounted and continue the update using the UPD:GEN;CONTINUE input command.

405xxy Data sequence number out of order.

One of the tapes in the sequence has been mounted out of order. Mount the correct tape and continue the update using the UPD:GEN;CONTINUE input command.

406xxy Bad destination VTOC specified.

The filename specified for the disk being updated is not a block special device file or the disk cannot be opened. Check that the filename was entered correctly. If not, re-execute the Enter command using the UCL argument on the command line.

407xxy This error code is no longer used.

408xxy User did not return from "continue" request.

When a new tape needs to be mounted, a mount tape and continue message appears. After the user mounts the tape, the UPD:GEN;CONTINUE command needs to be executed in order for the update to continue its processing.

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System Update waits 30 minutes for the Continue command to be executed. If it is not executed, another mount tape and continue message appears and System Update waits another 30 minutes for the Continue command to be executed. If it still is not executed, System Update terminates with this error code. Execute the UPD:GEN;CONTINUE command to continue the update process where System Update left off.

409xxy Attempt to run two system update processes.

The user attempted to

- run two System Update processes at the same time (when one System Update process is running another one may not be started unless it is one of: Stop, Continue, or Readlog)
- run a System Update process while Field Update or PDT is currently running (a System Update cannot be performed while Field Update or PDT is running)

If a System Update process needs to be stopped, the System Update Stop command may be used to stop it. If this is not successful, seek technical assistance.

410xxy User stopped process (not a fault condition).

This error code is used to acknowledge that the user terminated one of the System Update processes (Commit, Restore, Backout, Enter, or Proceed) using the System Update Stop command. There is no fault condition associated with this code.

411xxy No process exists to talk to (e.g., nothing to stop).

The user has attempted to stop a System Update process using the System Update Stop command when there are no System Update processes that are running.

412xxy System update log is empty.

The System Update log file does not contain any log entries when it is expected to in one of the situations:

- An attempt to continue a System Update process was made, but the command to be continued could not be figured out since this information is contained in the log file and the log file is either empty or does not contain the BEGIN ENTER log entry,
- The log file was attempted to be read via the System Update Readlog command, but there was nothing to read since the log file was empty,

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- One of the System Update processes (excluding the Enter process) was executed when the log file was empty. These processes need information in the log in order to complete their processing, or
- The log file was attempted to be searched for information, but the log file is empty.

Start the update over from the beginning of the Enter command.

413xxy Off-line disk method started with one disk active.

The offline disk method is being used and a disk was selected by System Update to retain the old generic, but this disk is not in the Active state. All disk pairs must be duplexed (active) before the Enter command is executed. Restore all affected disks to service and execute the Enter command again using the UCL argument on its command line. If this error occurred because the System Update Enter process aborted leaving one or more disks in the offline state, execute the Restore command using the UCL argument on its command line and wait for it to complete. Then, start the update over from the beginning of the Enter step.

414xxy In off-line disk method with both disks active.

An offline disk was somehow restored to service when System Update expected it to be in the offline state. If all affected disks are offline, try to continue the update using the `UPD:GEN;CONTINUE` command. If an affected disk(s) is active or if the error persists after the continue, start the update over from the beginning of the Enter step.

415xxy Process did not log failure termination.

The user attempted to restart a System Update process with the Continue command but the last System Update process that was run logged a successful termination and therefore cannot be continued. Dumping the System Update log file using the Readlog command may be helpful in determining what happened to the last process. Try to execute the next System Update process.

416xxy Process is not continuable.

The user attempted to restart a System Update process using the Continue command, but the last System Update process that was run failed due to a problem which would usually cause it to fail again. For example, one of the pathnames in an Enter input message was bad, or one or more log entries needed for continuing the process are corrupted.

Dumping the log file using the Readlog command may be helpful in determining what happened to the original process. Try to re-enter the original input message using the UCL argument on the command line (for the Enter command, make sure the disks are duplexed first - see error code 413xxy).

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417xxy Disk is no longer off-line.

A specified disk device is not in any of the valid states: offline, out of service, or active. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Enter process, restore the disk to an active state and re-execute the Enter command using the UCL argument on its command line.
- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.

418xxy Bad destination DFC specified.

An invalid DFC unit number was specified as an argument to the `OFLDISK` keyword on the Enter command line. Valid DFC unit numbers are 0 (zero) and 1 (one). The DFC number can be omitted, in which case the Enter process will chose DFC 1.

419xxy Command executed out of order.

A System Update command was executed out of order.

- The `Proceed` command was executed before the `Enter` command completed successfully.
- The `Commit` command was executed before the `Proceed` command completed successfully.
- The `Backout` command was executed before the `Proceed` command completed successfully.
- If error code `y` is 4, the `Restore` command was executed before the `Proceed` command completed successfully. Execute the `Restore` command unconditionally using the UCL argument on its command line.
- If error code `y` is 5, `Conditional Restore` after successful `Backout` or `Proceed` is no longer valid. Execute the `Restore` command unconditionally using the UCL argument on its command line.

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420xxy Incorrect file system base is running.

The wrong file system base is currently running for the System Update command that was just executed.

- Backout and Commit commands - the file system currently running needs to be the new generic.
- Proceed and Restore commands - the file system currently running needs to be the old generic.

If the wrong command was executed, execute the right one. If the right command was executed, boot the system so that it is running on the correct file system, then execute the command again.

421xxy Disk not in active state.

The offline disk method is being used and a disk was selected by System Update to contain the new generic, but this disk is not in the Active state. All disk pairs must be duplexed (active) before the Enter command is executed. Restore all affected disks to service and execute the Enter command again.

If this error occurred because the System Update Enter process aborted leaving one or more disks in the offline state, execute the Restore command using the UCL argument on the command line and wait for it to complete. Then, start the update over from the beginning of the Enter step.

422xxy Disk being updated not in offline state.

When the backup partitions are being updated using the offline disk method, the disk being updated should be in the offline state, but it is not. Check the Common Processor Display page (page 102) or another page which shows the MHDs. If all disks affected are active, try to re-execute the Enter command using the UCL argument on the command line. If any affected disks are out of service, restore them and then re-execute the Enter command using the UCL argument on the command line.

423xxy Disk being updated is no longer in offline state.

The disk being updated, which should be in the offline state, is no longer in that state. Check the Common Processor Display page (page 102) or another page which shows the MHDs. If all disks affected are active, try to re-execute the Enter command using the UCL argument on the command line. If any affected disks are out of service, restore them and then re-execute the Enter command using the UCL argument on the command line.

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## 6. Errors Associated with Application Processing

501xxy Time limit message error.

This error may have occurred because:

- the application process did not send a message indicating a time limit that it needs to do its processing
- the message that the application process sent to set a time limit was damaged
- the UNIX® RTR send( ) process failed when the application process tried to use it to send a time limit message to the System Update Process

If the error occurred because the application process did not send a time limit message, start the application process over using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

502xxy Application hook process failed or did not return.

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, start the update over from the beginning of the Enter step.

## 7. Errors Associated with Interfaces with UNIX® RTR

601xxy User is not privileged for execution.

The System Update process must be executed from a login that has superuser permissions. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

602xxy Timeout for SIM message.

When System Update sends SIM a message, it sets a time out limit by which it must receive the return message from SIM. This error occurred when System Update was waiting for the return message from SIM. This error may have occurred because:

- System Update did not receive a return message from SIM within the time out limit
- the `recvw( )` process that waits for the return message from SIM failed

Try to continue the update using the `UPD:GEN;CONTINUE` command.

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603xxy Time out for MIRA message.

When System Update sends MIRA a message, it sets a time out limit by which it must receive the return message from MIRA. This error occurred when System Update was waiting for the return message from MIRA. This error may have occurred because:

- System Update did not receive a return message from MIRA within the time out limit
- the `recvw()` process that waits for the return message from MIRA failed

Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the `Enter` step, or take one of the actions:

- If this error occurred during the `Restore` process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the `Commit` process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the `Enter` step.

604xxy Timeout for disk driver message.

When System Update sends the disk driver a message, it sets a time out limit by which it must receive the return message from the disk driver. This error occurred when System Update was waiting for the return message from the disk driver. This error may have occurred because:

- System Update did not receive a return message from the disk driver within the time out limit
- the `recvw()` process that waits for the return message from the disk driver failed

Try to continue the update using the `UPD:GEN;CONTINUE` command.

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**605xxy1** Bad MIRA return on message.

When System Update receives a return message from MIRA, it checks certain fields in the message for bad values. This error occurs when System Update finds a bad value in one of the fields in the return message. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.
- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

**606xxy** Bad disk driver return on message.

When System Update receives a return message from the disk driver, it checks the return code that is in the message. The value of the return code must be zero. This error occurred because the return code was a value other than zero. Try to continue the update using the `UPD:GEN;CONTINUE` command.

**607xxy** Wrong disk state result.

After MIRA changes the state of the disk (to Active or Out of Service), System Update checks the UCB of that disk in the ECD to make sure that the change actually took place. This error occurred when System Update thought it changed the state of the disk, but the UCB of that disk does not reflect the change. Either MIRA did not change the state correctly or the state field in the UCB is damaged. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.
- If this error occurred during the Commit process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the `applhook` process.

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- If this error occurred during any other System Update process, start the update over from the beginning of the Enter step.

608xxy No active boot disks.

System Update checks the UCB in the ECD to find out which disk is the current system disk that is in the active state. This error occurred because there were not any disks that were in the active state. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, restore both disks to the active state and start the update over from the beginning of the Enter step.

609xxy Partition copy error.

The command `COPY:PTN:ALL` failed when the System Update Restore or Commit command used it to copy the new or old generic over the old or new generic during a backup partition method update. The error(s) associated with the command `COPY:PTN:ALL` will be saved in `/tmp/supr.prtcp`. The most common cause for this error is when the disks are not duplexed (e.g., both disks are not active) when the Restore or Commit commands are executed. After resolving the problem, (e.g., duplex both disks), continue the update using the `UPD:GEN;CONTINUE` command.

610xxy Recent change error.

This error occurred when System Update was performing a Recent Change on the ECD. The journal file and the error messages will be saved in `/tmp/supr.rcv` and `/tmp/supr.rcvout` respectively. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

611xxy Copy command failed.

This error may have occurred when System Update was copying the log from the old generic to the new generic. Additional error codes can be found in `/tmp/supr.cp`. After resolving the problem, try to continue the update using the `UPD:GEN;CONTINUE` command.

612xxy ECDMAN ugucbn() error.

This error occurred when System Update used the ECD function `ugucbn()` to get information about the UCB record associated with a specified disk. Try to continue the update using the `UPD:GEN;CONTINUE` command. If the error persists, either start the update over from the beginning of the Enter step, or take one of the actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the `applhook` process.

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- If this error occurred during the **Commit** process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the **applhook** process.
- If this error occurred during any other System Update process, start the update over from the beginning of the **Enter** step.

613xxy     ECDMAN ugetucb() error.

This error occurred when System Update used the ECD function **ugetucb()** to get the UCB record for a specified disk. Try to continue the update using the **UPD:GEN;CONTINUE** command. If the error persists, either start the update over from the beginning of the **Enter** step, or take one of the actions:

- If this error occurred during the **Restore** process, manually restore the partitions containing the new generic (for the backup partition update method) or the disks containing the new generic (for the offline disk update method) to the old generic. Then, manually execute the **applhook** process.
- If this error occurred during the **Commit** process, manually restore the partitions containing the old generic (for the backup partition update method) or the disks containing the old generic (for the offline disk update method) to the new generic. Then, manually execute the **applhook** process.
- If this error occurred during any other System Update process, start the update over from the beginning of the **Enter** step.

614xxy     ECDMAN ugmamirids() error.

This error occurred when System Update used the ECD function **ugetrec()** to get the pointer to the UCBs for the two disks that are associated with the update. Try to continue the update using the **UPD:GEN;CONTINUE** command.

615xxy     ECDMAN ursvucd() error.

This error occurred when System Update used the ECD function **ursvucb()** to reserve a UCB. The disk that System Update is trying to update must first be reserved so that no other processes can write to it. This is done by reserving the disk's UCB. The **ursvucb()** function may have failed because another process has already reserved the disk that is trying to be reserved. Check to see if the disk is already reserved. If it has been reserved, execute the command on a **UNIX®** terminal to unreserve the disk: **/etc/udgnnm MHD x** where **x** is the disk number that needs to be unreserved. Then, try to continue the update using the **UPD:GEN;CONTINUE** command.

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616xxy     ECDMAN ugsdf() error.

This error occurred when System Update used the ECD function ugsdf() to get the special device file name associated with the disk to be updated so that System Update can access that disk. Try to continue the update using the UPD:GEN;CONTINUE command. If the error persists, start the update over from the beginning of the Enter step.

617xxy     ECDMAN urelucb() error.

This error occurred when System Update used the ECD function urelucb() to release (unreserve) a reserved UCB. Try to continue the update using the UPD:GEN;CONTINUE command.

618xxy     ECDMAN ursdf() error.

This error occurred when System Update used the ECD function ursdf() to give back to the system the special device file name of the updated disk that was obtained by the ugsdf() command (see error 616xxy). Try to continue the update using the UPD:GEN;CONTINUE command.

619xxy     ECDMAN usettnum() error.

System Update no longer uses the ECD usettnum() function, so this error should never appear.

620xxy     ECDMAN usetucb() error.

System Update no longer uses the ECD usetucb() function, so this error should never appear.

621xxy     Unable to stop process with pkill.

The System Update Stop command could not stop the currently running System Update process using the pkill() function call. If the Stop command cannot kill a System Update in progress using the kill() function call, it then tries to kill it using the pkill() function call. The pkill function call may have failed because there was a bad Process ID number (PID) in the System Update log file for the process that needed to be terminated.

The Stop command looks in the log file to find the PID of the process that is currently running and calls pkill with that PID. If the PID is damaged in the log file, the pkill command may be executed manually using the correct PID of the process that needs to be terminated.

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622xxy     Unable to stop process with kill.

The System Update Stop command could not stop the currently running System Update process using the kill() function call. The kill() function call is used in the Stop command to terminate the System Update process that is currently running. The kill function call may have failed because:

- the process to be killed does not exist
- the sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID
- the Process ID (PID) of the process being terminated is damaged in the System Update log. The Stop command passes this PID as a parameter to kill()

If the System Update still needs to be stopped, execute the System Update Stop process unconditionally using the UCL argument on its command line.

**CAUTION:** if Stop is executed unconditionally, the System Update process will be terminated by a more extreme method than a kill (pkill). Some system resources in use by the process may not be automatically released.

623xxy     System error killed the process.

A System Update process was terminated due to a phase 1 signal. System Update may not get a chance to print this error message when the interrupt occurs. If the System Update process is continued using the UPD:GEN;CONTINUE command, the Continue command will put this error code in the End entry of the System Update log file.

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ID ..... APP:SUPR-MENU-PG  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

## SYSTEM UPDATE PROCEDURE MENU PAGE APPENDIX

### 1. Introduction

This appendix contains the System Update Menu Page error codes. This appendix describes all the System Update menu page error conditions that can occur when installing a System Update using the System Update menu page. These error conditions are not affiliated in any way with the error conditions output by the System Update processes. System Update error conditions are described in the APP:SUPR appendix. The System Update menu page error conditions are divided into five categories: System Update log file errors (1-199), UNIX® RTR system call errors (200-399), System Update menu page internal errors (400-599), Craft user errors (600-799), and general warning messages (800-999).

The sections describe, in detail, each error condition and the actions that may be taken to correct the error. For all error conditions corresponding to System Update processes, the actions should be taken in the order they are listed here.

1. After correcting the condition that caused the error, try to continue the update using the 704 menu page poke for the **Continue** command.
2. If the **Continue** does not work, try finishing the update manually using input command on the Manual Input Command Line.
3. If the update cannot be finished manually, remove the System Update log file (/etc/log/suprlog), terminate the System Update menu page, and start the update over from the very beginning of the System Update procedures (the **Enter** command). The update may be installed using either manual procedures or menu driven procedures (System Update menu page). Make sure that the system is in a sane state before re-starting the update.

### 2. System Update Log File Errors

These error conditions occur when System Update is accessing the System Update log file.

- 1        The System Update `getlog()` function failed when the **Continue** command was specified. The `getlog()` function was called to get the last log entry in the System Update log file to determine which command is to be continued. If continuing the update does not work, the log file may be damaged.

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2 When the Continue command was specified, the last log entry in the System Update log file was obtained in order to determine which command is to be continued. Either no log entries were found in the log file or only the LOGFIRST entry was found which indicates that no command was executed far enough to be able to be continued. Try to execute the desired command from the beginning of that command. If continuing the update does not work, the log file may be damaged.

3 When the Continue command was specified, the last log entry in the System Update log file was obtained in order to determine which command is to be continued. The process type in the log entry found contains a bad value. Therefore, the process being continued cannot be determined. Valid process types are:

- b = Backout command
- c = Commit command
- e = Enter command
- p = Proceed command
- r = Restore command

If continuing the update does not work, the log file may be damaged.

4 The System Update log file was being searched in order to determine which System Update process last completed successfully so that a visual indication of the successfully completed commands can be displayed in reverse video on the System Update Menu Page. A bad process type was found in the log entry corresponding to the last completed process. Valid process types are:

- b = Backout process
- c = Commit process
- e = Enter process
- p = Proceed process
- r = Restore process

The log file may be damaged.

5 The System Update menu page was trying to get, from the Begin Enter entry in the System Update log file, the Enter command line arguments that were previously specified. An invalid sequence option was found in the Begin Enter log entry. Valid sequence options are:

- f = single sequence (first sequence)
- s = double sequence (second sequence)
- t = triple sequence (third sequence)

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the OP:GEN:READLOG command. Look at the Begin Enter log entry and make sure that the sequence options are listed correctly. If not, remove the log file and start the update over from the beginning of the Enter step. If the sequence options are correct, try to finish the update manually using MML input commands.

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- 6      The System Update menu page was trying to get, from the Begin Enter entry in the System Update log file, the Enter command line arguments that were previously specified. An invalid update method was found in the Begin Enter log entry. Valid update methods are:
- b = backup partition update method
  - o = offline disk update method
- The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the OP:GEN:READLOG command. Look at the Begin Enter log entry and make sure that the sequence options are listed correctly. If not, remove the log file and start the update over from the beginning of the Enter step. If the sequence options are correct, try to finish the update manually using MML input commands.
- 7      When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a mount tape and continue message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the mount tape and continue signal from the Enter command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, the fake disk log entry could not be found in the log file. Terminate the menu page and try to bring it back up again. The mount tape and continue message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.
- 8      When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a mount tape and continue message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the mount tape and continue signal from the Enter command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, an invalid disk pair number was found in the fake disk log entry. The disk pair number found was a number less than one. Valid values are 1 and greater. Terminate the menu page and try to bring it back up again. The mount tape and continue message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the

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update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.

- 9 When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a mount tape and continue message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the mount tape and continue signal from the Enter command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, an invalid disk pair number was found in the fake disk log entry. The disk pair number found was a number that is greater than the total number of disks being updated. Terminate the menu page and try to bring it back up again. The mount tape and continue message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.

### 3. UNIX® RTR System Call Errors

These error conditions occur when a UNIX® RTR system call executed by the System Update menu page fails. More information about these UNIX® RTR System Calls can be found in the System Error Codes. The information for these system calls may be found in the *UNIX® RTR Operating System* manuals.

- 200 The function sendpw() failed when the menu page was sending DAP a message to free and initialize the System Update Menu Page. Try to bring up the System Update menu page again by typing the 107 menu poke.
- 201 When the TERM PAGE poke was requested, the function sendpw() failed. The menu page was sending DAP a message to free the System Update Menu Page before it terminated so that the menu page would terminate cleanly. Try to terminate the menu page again using the TERM PAGE poke.
- 202 When the TERM PAGE poke was requested, the function sendpw() failed. The menu page was sending DAP a message to free Enter Arguments Page 1 before it terminated the menu page so that the menu page would terminate cleanly. Try to terminate the menu page again using the TERM PAGE poke.
- 203 When the TERM PAGE poke was requested, the function sendpw() failed. The menu page was sending DAP a message to free Enter Arguments Page 2 before it terminated the menu page so that the menu page would terminate cleanly. Try to terminate the menu page again using the TERM PAGE poke.

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- 204 The `getenv()` function failed when the menu page tried to get the terminal type from the environment. Try to bring up the System Update menu page again by typing the 107 poke.
- 205 The `sendpw()` function failed when the menu page tried to send DAP a message to display one of the System Update pages.
- page number 0 = System Update Menu Page  
page number 1 = Enter Arguments Page 1  
page number 2 = Enter Arguments Page 2
- Try to display the page again by typing the appropriate poke.
- 206 The `msgenab()` function failed when the menu page tried to enable message reception. Try to bring up the System Update menu page again by typing the 107 poke.
- 207 The `recvw()` function failed when receiving or waiting for a message from DAP indicating that a poke was requested from the System Update Menu Page. Re-request the poke that failed.
- 208 The `sendpw()` function failed when sending a message to DAP to display one of the PDS/MML input command lines in the display area of the System Update Menu Page. Re-request the poke for the command that is desired to be displayed.
- 209 The `recvw()` function failed when receiving or waiting for a poke on one of the Enter Arguments pages. Try to specify the desired poke again.
- 210 The `recvw()` function failed when receiving or waiting for an argument to the Enter command line to be input by the user. Re-request the poke to the desired argument and then try to specify the argument contents again.
- 211 The `sendpw()` function failed when sending a pokeop message to DAP so that a poke on the System Update Menu Page can be processed. Try to request the desired poke again.
- 212 The `open()` function failed when the System Update log file was being opened for reading. The menu page was going to read the log file entries to determine which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.
- 213 The `read()` function failed when reading the first log entry in the System Update log file. It was being read when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

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- 214 The `lseek()` function failed when seeking to the last log entry in the System Update log file. The `lseek()` function was called when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.
- 215 The `read()` function failed when reading the last log entry in the System Update log file. It was being read when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.
- 216 The `lseek()` function failed when seeking backwards to the next log entry in the System Update log file. The `lseek()` function was called when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.
- 217 The `read()` function failed when reading the next log entry in the System Update log file. It was being read when the menu page was in the process of determining which System Update process last completed successfully in order to visually indicate the successfully completed commands in reverse video on the System Update Menu Page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.
- 218 The function `sendpw()` failed when the menu page was sending DAP a message to free and initialize Enter Arguments Page 2. Try to bring up the System Update menu page again by typing the 107 menu poke.
- 219 The `lcall()` function failed when the Restore process was attempting to be executed. Try to execute the Restore process again. If this error still occurs, try to finish the update manually using PDS/MML input commands.
- 220 The `lcall()` function failed when the Stop process was attempting to be executed. Try to execute the Stop process again. If this error still occurs, try to execute the Stop process manually using the Craft PDS/MML input command. **NOTE:** The execution and termination messages for the Stop process will not be displayed on the System Update menu page if the Stop process is executed manually.
- 221 The `lcall()` function failed when the application process was attempting to be executed. Try to execute the application process again. If this error still occurs, try to execute the application process manually using the Craft input command. **NOTE:** The execution and termination messages for the application process will not be displayed on the System Update menu page if the application process is executed manually.

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- 222 The `lcall()` function failed when the `Backout` process was attempting to be executed. Try to execute the `Backout` process again. If this error still occurs, try to finish the update procedures manually using Craft input commands. **NOTE:** The execution and termination messages for the System Update commands will not be displayed on the System Update menu page if the commands are executed manually.
- 223 The `lcall()` function failed when the `Commit` process was attempting to be executed. Try to execute the `Commit` process again. If this error still occurs, try to execute the `Commit` process manually using the Craft input command. **NOTE:** The execution and termination messages for the `Commit` process will not be displayed on the System Update menu page if the `Commit` process is executed manually.
- 224 The `lcall()` function failed when the `Continue` process was attempting to be executed. Try to execute the `Continue` process again. If this error still occurs, finish the update manually using Craft input commands.
- 225 The `vcall()` function failed when the `Enter` process was attempting to be executed. Try to execute the `Enter` process again. If this error still occurs, finish the update manually using Craft input commands.
- 226 The `lcall()` function failed when the `Proceed` process was attempting to be executed. Try to execute the `Proceed` process again. If this error still occurs, try to finish the update manually using Craft input commands. **NOTE:** The execution and termination messages for the System Update commands will not be displayed on the System Update menu page if the commands are executed manually.
- 227 The `lcall()` function failed when the `Readlog` process was attempting to be executed. Try to execute the `Readlog` process again. If it still does not work, try to execute the `Readlog` process manually using the Craft input command. **NOTE:** The execution and termination messages for the `Readlog` process will not be displayed on the System Update menu page if the `Readlog` process is executed manually.
- 228 The function `sendpw()` failed when the menu page was sending DAP a message to free and initialize Enter Arguments Page 1. Try to bring up the System Update menu page again by typing the 107 menu poke.
- 229 When the System Update menu page is first brought up, it figures out which System Update commands have already been successfully executed so that it can display those menu numbers in reverse video on the menu page. It does this by reading the System Update log file. This error occurred when the menu page was trying to seek to the very first entry in the log file. The `lseek()` command failed. Try to bring up the menu page again. If the error persists, either try to continue the update manually using MML input commands, or remove the log file and start the update over from the beginning of the `Enter` step.

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- 230 When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a mount tape and continue message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the mount tape and continue signal from the Enter command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, the open() command failed when the menu page was trying to open the log file. Terminate the menu page and try to bring it back up again. The mount tape and continue message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.
- 231 When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a mount tape and continue message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the mount tape and continue signal from the Enter command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, the lseek() command failed when the menu page was trying to seek to the first entry in the log file. Terminate the menu page and try to bring it back up again. The mount tape and continue message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.
- 232 When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a mount tape and continue message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the mount tape and continue signal from the Enter command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, the read() command failed when the menu page was trying to read the first entry in the log file. Terminate the menu page and try to bring it back up again. The

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mount tape and continue message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.

233 When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a mount tape and continue message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the mount tape and continue signal from the Enter command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, the lseek() command failed when the menu page was trying to seek to the fake disk entry in the log file. Terminate the menu page and try to bring it back up again. The mount tape and continue message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.

234 When it is time for a user to mount a tape and continue the update during the Enter command, the Enter command sends a signal to the menu page in order to tell the menu page that a mount tape and continue message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the System Update log file. When the menu page receives the mount tape and continue signal from the Enter command, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the Enter command line in the display area of the menu page. In this case, the read() command failed when the menu page was trying to read the fake disk entry in the log file. Terminate the menu page and try to bring it back up again. The mount tape and continue message should be displayed and the MML Enter input command line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the Enter command, or try to continue the update manually using MML input commands.

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#### 4. System Update Menu Page Internal Errors

These error conditions occur when the System Update menu page gets "mixed up" internally.

- 400 One of the three System Update pages was attempting to be displayed using the internal `dispage()` function which failed because a bad page number corresponding to the page to be displayed was passed to this function.

page number 0 = System Update Menu Page  
page number 1 = Enter Arguments Page 1  
page number 2 = Enter Arguments Page 2

Try to display the page again by typing the appropriate poke.

- 401 While waiting for a poke to be specified on the System Update Menu Page, the `recvw()` function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Try to specify the desired poke again.
- 402 The Stop command was requested, but the `Execcmd` variable, which contains the poke number of the current executing System Update command, contains a bad poke number. Therefore, the menu page does not know which command to stop. Try to specify the Stop command again.
- 403 The application process was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (`MML = 1`, `PDS = 2`). Try to request the application process again. If this error still occurs, execute the application manually using the `PDS/MML` input command.
- 404 While waiting for a poke to be specified on one of the Enter Arguments pages, the `recvw()` function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Try to specify the desired poke again.
- 405 A poke number could not be found in the text portion of the poke message sent from DAP to the menu page when the user requested a poke from one of the Enter Arguments pages. Therefore, the specified poke could not be processed. DAP may have sent the menu page a damaged message. Try to specify the desired poke again.
- 406 While waiting for an argument to be specified on one of the Enter Arguments pages, the `recvw()` function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Specify the poke corresponding to the desired argument and then try to specify the argument again.

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- 407 An invalid number of literal strings were found in the text portion of the poke message sent from DAP to the menu page when the user specified arguments contents on one of the Enter Arguments pages. Therefore, the specified poke or literal string could not be processed. DAP may have sent the menu page a damaged message. Try to specify the desired argument poke and argument contents again.
- 408 The internal function `checkargs()` checks to make sure that all of the mandatory Enter command line arguments have been specified. If all of them have not been specified, `checkargs()` returns the Enter Arguments page number of the page that contains the poke for the argument that was not specified:
- page number 1 = Enter Arguments Page 1  
page number 2 = Enter Arguments Page 2
- The appropriate Enter Arguments page is displayed depending on the return value from `checkargs` so that the missing argument can be specified. `Checkargs` returned a bad page number and therefore the appropriate Enter Arguments page cannot be displayed. Make sure that all of the mandatory Enter command line arguments have been specified then type the poke 753 to return to the System Update Menu Page.
- 409 When formatting the PDS Enter input command line, the bootdisk specified was searched for in the Enter arguments structure. It could not be found. Since it is mandatory for a bootdisk to be specified on the Enter command line, the PDS Enter input command line could not be formatted and therefore could not be displayed in the display area of the System Update Menu Page. Display Enter Arguments Page 2 and make sure that a bootdisk has been specified.
- 410 When formatting the PDS Enter input command line, a sequence option specified was searched for in the Enter arguments structure. It could not be found. Display Enter Arguments Page 2 again and respecify sequence options for all the disks specified.
- 411 When formatting the PDS Enter input command line that is to be displayed in the display area of the System Update Menu Page, too many lines were used for the command. The display area only contains 13 lines and more than 13 lines were used to format the Enter input command line.
- 412 After formatting the PDS Enter input command line, not all of the disks specified were included in the command line (the number of disks formatted into the command line did not match the number of disks that were specified). The counter that contains the number of disks specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all of the Enter command line arguments.
- 413 When formatting the MML Enter input command line, the bootdisk specified was searched for in the Enter arguments structure. It could not be found. Since it is mandatory for a bootdisk to be specified on the Enter command line, the MML Enter input command line could not be formatted and therefore could not be displayed in the display area of the System Update Menu Page. Display Enter Arguments Page 2 and make sure that a bootdisk has been specified.

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- 414 When formatting the MML Enter input command line, a sequence option specified was searched for in the Entry arguments structure. It could not be found. Display Enter Arguments Page 2 again and re-specify sequence options for all the disks specified.
- 415 When formatting the MML Enter input command line that is to be displayed in the display area of the System Update Menu Page, too many lines were used for the command. The display area only contains 12 lines and more than 12 lines were used to format the Enter input command line.
- 416 After formatting the MML Enter input command line, not all of the disks specified were included in the command line (the number of disks formatted into the command line did not match the number of disks that were specified). The counter that contains the number of disks specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all of the Enter command line arguments.
- 417 When the Enter input command line was being formatted in order to be displayed in the display area of the System Update Menu Page, the variable containing the input mode of the system was found to be damaged (it contained something other than PDS or MML). Since the menu page does not know which format to use, it cannot display the Enter input command line. Terminate the menu page, bring up the menu page again, and re-specify all of the Enter command line arguments.
- 418 When deleting a specified disk, an invalid poke number corresponding to the disk being deleted was found. Try to type in the poke again for the disk being deleted, and then hit the Return key to delete the previously specified disk. If that still does not work, terminate the menu page, bring up the menu page again, and re-specify all of the Enter command line arguments.
- 419 When specifying a disk, an invalid poke number corresponding to the disk being specified was found. Try to type in the poke again for the disk being specified, and then type in the full pathname of the desired disk. If that still does not work, terminate the menu page, bring up the menu page again, and re-specify all of the Enter command line arguments.
- 420 A specified tape sequence option was being added to the Enter arguments structure when a bad tape sequence option poke was found in the variable that saves the poke last specified. Try to specify the tape sequence option poke again and then re-specify the tape sequence option argument.
- 421 A previously specified tape sequence option was being deleted from the Enter arguments structure when a bad tape sequence option poke was found in the variable that saves the poke past specified. Try to specify the tape sequence option poke again and then try to delete the previously specified tape sequence option.
- 422 A bad poke number was specified on one of the Enter Arguments pages. Specify only a poke number that is on the page currently being displayed.

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- 423 The System Update menu page process received a SIGCLD signal. When the function `qwait()` was executed to find the process id of the child that terminated, the `qwait()` function returned a process id of 0 (zero) which indicates that no child process terminated. If the rest of the System Update cannot be performed using the menu page because of this error, finish the update manually using PDS/MML Craft input commands.
- 424 The System Update menu page process received a SIGCLD signal. When the function `qwait()` was executed to find the process id of the child that terminated, the `qwait()` function returned a process id of -1 which indicates that no child existed that could terminate. If the rest of the System Update cannot be performed using the menu page because of this error, finish the update manually using PDS/MML Craft input commands.
- 425 The Enter poke was specified and the menu page process executed the `checkargs()` function to make sure that all of the mandatory Enter command line arguments have been specified. If at least one of these arguments have not been specified, `checkargs()` returns the page number of the Enter Arguments page that needs to be displayed so that the missing argument can be specified. In this case, `checkargs` returned an invalid Enter Arguments page number. Valid page numbers are:
- page number 1 = Enter Arguments Page 1
  - page number 2 = Enter Arguments Page 2
- Try to specify the Enter poke again.
- 426 The application process terminated unsuccessfully with an error code (a value other than one). Fix the error and then execute the application process again.
- 427 The Backout process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD:G-BKOUT error message that was printed on the ROP by the Backout process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, APP:SUPR, to find the exact cause of the error. Fix the error and then continue the Backout process using the Continue poke.
- 428 The Commit process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD:G-COMMIT error message that was printed on the ROP by the Commit process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, APP:SUPR, to find the exact cause of the error. Fix the error and then continue the Commit process using the Continue poke.
- 429 The Continue process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD:G-CONT error message that was printed on the ROP by the Continue process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, APP:SUPR, to find the exact cause of the error. Fix the error and then re-execute the Continue process.

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- 430 The Enter process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD:G-ENTER error message that was printed on the ROP by the Enter process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, APP:SUPR, to find the exact cause of the error. Fix the error and then continue the Enter process using the Continue poke.
- 431 The Proceed process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD:G-PROCEED error message that was printed on the ROP by the Proceed process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, APP:SUPR, to find the exact cause of the error. Fix the error and then continue the Proceed process using the Continue poke.
- 432 The Readlog process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the OP:G-READLOG error message that was printed on the ROP by the Readlog process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, APP:SUPR, to find the exact cause of the error. Fix the error and then re-execute the Readlog process.
- 433 The Restore process terminated unsuccessfully with an error code (a value other than one). To determine the exact System Update error that occurred, look at the UPD:G-RESTORE error message that was printed on the ROP by the Restore process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, APP:SUPR, to find the exact cause of the error. Fix the error and then continue the Restore process using the Continue poke.
- 434 The Stop process terminated unsuccessfully with an error code (a value other than one). The process that was attempted to be stopped is still executing. To determine the exact System Update error that occurred, look at the STOP:GEN error message that was printed on the ROP by the Stop process. This message contains a System Update error code. Look up this error code in the SUPR Appendix, APP:SUPR, to find the exact cause of the error. Fix the error if possible and then try to re-execute the Stop process.
- 435 A child process terminated, but the process id of the terminated child that was obtained via the `qwait()` function does not match any of the process ids that were saved when each child was executed. If the update cannot be finished using the menu page because of this error, finish the update manually using PDS/MML Craft input commands.
- 436 The Backout command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Backout command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.

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- 437 The **Backout** command was being formatted in order to be displayed when a bad value was found in the **Ucl** flag variable. Try to request the **Backout** command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.
- 438 The **Commit** command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the **Commit** command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.
- 439 The **Commit** command was being formatted in order to be displayed when a bad value was found in the **Ucl** flag variable. Try to request the **Commit** command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.
- 440 The **Continue** command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the **Continue** command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.
- 441 A command is being continued. When the command begins execution, a message indicating that this command is executing is printed on the messages line of the menu page and its input command line is displayed in the display area of the System Update Menu Page. The appropriate message and command line are printed depending on the command that was continued. The menu poke number for the continued command is saved in an internal variable which appears to be damaged because an invalid menu poke number was found. Therefore, the execution message and the input command cannot be displayed. This may not disrupt the rest of the update. The System Update command is still executing. If problems arise, finish the update manually using Craft PDS/MML input commands.
- 442 The **Proceed** command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the **Proceed** command again. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.
- 443 The **UCL** flag (an internal variable) contains an invalid value. This flag indicates whether or not the **UCL** argument was requested for the last command specified (which in this case is the **Proceed** command). Valid values are:
- 0 = **UCL** argument was not requested
  - 1 = **UCL** argument was requested
- Try to specify the **Proceed** command first without any arguments. If arguments are desired, specify them next. If this error still occurs, finish the update manually using Craft PDS/MML input commands.

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- 444 The Retro flag (an internal variable) contains an invalid value. This flag indicates whether or not the RETRO argument was requested for the Proceed command. Valid values are:
- 0 = RETRO argument was not requested
  - 1 = RETRO argument was requested
- Try to specify the Proceed command first without any arguments. If arguments are desired, specify them next. If this error still occurs, finish the update manually using Craft PDS/MML input commands.
- 445 The Readlog command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Readlog command again. If this error still occurs, execute the Readlog command manually using the PDS/MML Craft input command.
- 446 The Restore command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Restore command again.
- 447 The UCL flag (an internal variable) contains an invalid value. This flag indicates whether or not the UCL argument was requested for the last command specified (which in this case is the Restore command). Valid values are:
- 0 = UCL argument was not requested
  - 1 = UCL argument was requested
- Try to specify the Restore command first without any arguments. If arguments are desired, specify them next. If problems still arise, finish the update manually using Craft PDS/MML input commands.
- 448 The Proceed command was being formatted with the Retro argument in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Proceed command without any arguments. Then, if arguments (such as Retro) are desired, specify them next. If this error still occurs, finish the update procedures manually using PDS/MML Craft input commands.
- 449 The Proceed command was being formatted with the Retro argument in order to be displayed when a bad value was found in the UCL flag (internal variable) which indicates whether or not the UCL argument was requested for the last command specified (which in this case is the Proceed command). Valid values are:
- 0 = UCL argument was not requested
  - 1 = UCL argument was requested
- Try to specify the Proceed command first without any arguments. If arguments are desired, specify them next. If this error still occurs, finish the update manually using Craft PDS/MML input commands.

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450 The Stop command was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1, PDS = 2). Try to request the Stop command again. If this error still occurs, execute the Stop command manually using the PDS/MML Craft input command.

451 The UCL flag (an internal variable) contains an invalid value. This flag indicates whether or not the UCL argument was requested for the last command specified (which in this case is the Stop command). Valid values are:

- 0 = UCL argument was not requested
- 1 = UCL argument was requested

Try to specify the Stop command first without any arguments. If arguments are desired, specify them next. If this error still occurs, execute the Stop command manually using the Craft PDS/MML input command.

452 After the menu page poke (107) was requested while on one of the Enter Arguments pages which displayed the System Update Menu Page, a poke was requested from the System Update Menu Page. In order to process this poke, the poke number must be converted to its corresponding literal string name using the internal getname() function which could not find the corresponding literal string name. Try to request the desired poke number again.

453 When a System Update process is continued, the Continue command executes the System Update process and returns the process id and the process type of the continued process to the menu page. The menu page saves the process id in one of the process id variables depending on the process being continued (indicated by the process type). In this case, a bad process type was received from the Continue command. Valid process types are:

- b = Backout process
- c = Commit process
- e = Enter process
- p = Proceed process
- r = Restore process

Therefore, the process id of the continued process could not be saved. Since the menu page determines when a process terminates using the saved process ids of executed processes, the completion message for the continued process cannot be printed and the menu page will never know when a process terminates. This may or may not be a problem depending on how far the update has gotten. If the Enter command was continued, the Proceed command will fail since the menu page does not know that the Enter command has completed. In all other cases, the update should still work except that the completion message for the continued command will not be displayed on the menu page (but, System Update does display the completion message on the ROP).

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- 454 The menu page determined the System Update command that was last successfully completed in order to visually display the appropriate commands that have completed in reverse video on the System Update Menu Page and to keep track internally of which System Update commands have already been executed. But, the variable containing the menu number corresponding to the last successfully completed command contains an invalid menu number. Valid menu numbers of successfully completed System Update processes are:

- 701 = Enter process
- 702 = Proceed process
- 703 = Commit process
- 707 = Restore process
- 708 = Backout process

Since the menu page has no way of knowing which System Update processes have been successfully executed and which have not, the menu page cannot continue with the update and therefore terminates with an error. Try to bring up the System Update menu page again.

- 455 The System Update menu page terminated itself due to an error occurring. The error code that corresponds to the error that occurred can be found printed on the ROP. Fix the error, bring up the System Update menu page again, and try to finish the update.

- 456 The Lastcmd variable which contains the menu number of the last command that was specified, contains an invalid menu number. When the Execute poke is requested, the command to be executed is obtained from the Lastcmd variable. Since the Lastcmd variable contains an invalid menu number, no process can be executed. Re-specify the desired command that is to be executed, and then type in the Execute poke again.

- 457 The unconditional flag for the Restore command contains an invalid value. Valid values are:

- 0 = the Restore command is to be executed conditionally
- 1 = the Restore command is to be executed unconditionally

The Restore command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Restore command again.

- 458 The unconditional flag for the Stop command contains an invalid value. Valid values are:

- 0 = the Stop command is to be executed conditionally
- 1 = the Stop command is to be executed unconditionally

The Stop command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Stop command again.

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459 The unconditional flag for the Backout command contains an invalid value.  
Valid values are:

- 0 = the Backout command is to be executed conditionally
- 1 = the Backout command is to be executed unconditionally

The Backout command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Backout command again.

460 The unconditional flag for the Commit command contains an invalid value.  
Valid values are:

- 0 = the Commit command is to be executed conditionally
- 1 = the Commit command is to be executed unconditionally

The Commit command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Commit command again.

461 The Enter command cannot be executed because the Ucl variable in the Enter arguments structure contains an invalid value. Valid values are:

- UCL = the Enter command is to be executed conditionally
- NOTSET = the Enter command is to be executed unconditionally

Re-specify YES or NO for the Ucl argument on Enter Arguments Page 1. Then, try to execute the Enter command again.

462 The Enter command cannot be executed because the DFC preference variable in the Enter arguments structure contains an invalid value. Valid values are:

- 0 = DFC 0
- 1 = DFC 1
- NOTSET = no preference

Re-specify the DFC preference on Enter Arguments Page 1. Then, try to execute the Enter command again.

463 The Enter command cannot be executed because the variable in the Enter arguments structure that indicates whether or not backup partitions are to be updated contains an invalid value. Valid values are:

- NOBKUPD = do not update the backup partitions
- NOTSET = update backup partitions

Re-specify whether or not backup partitions are to be updated on Enter Arguments Page 1. Then, try to execute the Enter command again.

464 The Enter command cannot be executed because the update method variable in the Enter arguments structure contains an invalid value. Valid values are:

- BKPRT = backup partition update method
- OFLDISK = offline disk update method

Re-specify the update method on Enter Arguments Page 1. Then, try to execute the Enter command again.

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- 465      The Enter command cannot be executed because the tape sequence option variable for the bootdisk in the Enter arguments structure contains an invalid value. Valid values are:
- SGLSEQ = single tape sequence
  - DBLSEQ = double tape sequence
  - TPLSEQ = triple tape sequence
- Re-specify the tape sequence option on Enter Arguments Page 2. Then, try to execute the Enter command again.
- 466      The Enter command cannot be executed because the bootdisk could not be found in the Enter arguments structure (System Update will not work unless a bootdisk is being updated in addition to the other disks). Make sure a bootdisk was specified. If not, specify the bootdisk on Enter Arguments Page 2 and attempt to execute the Enter command again.
- 467      The unconditional flag for the Proceed command contains an invalid value. Valid values are:
- 0 = the Proceed command is to be executed conditionally
  - 1 = the Proceed command is to be executed unconditionally
- The Proceed command cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the Proceed command again.
- 468      The retrofit flag for the Proceed command contains an invalid value. Valid values are:
- 0 = execute the Proceed command without the RETRO argument
  - 1 = execute the Proceed command with the RETRO argument
- The Proceed command cannot be executed since it cannot be determined if it is to be executed with or without the RETRO argument. Try to specify and execute the Proceed command again.
- 469      When the System Update menu page is first displayed, the System Update log file is read in order to determine which System Update process last completed successfully. The menu number corresponding to that process is saved in the lastcmd variable. In this case, the lastcmd variable was found to contain an invalid menu number. Since the last System Update process that last completed successfully could not be determined, the System Update menu page terminated because it needs this information to run properly. Try to bring up the System Update menu page again. If errors still persist, finish the update manually using Craft PDS/MML input commands. If this still does not work, the System Update log file may be damaged. Return the system to its original sane state, remove the System Update log file, and then start the update from the very beginning (the Enter command).

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- 470 If the System Update menu page is terminated while a System Update process is still executing and the menu page is brought back up before the System Update process completes, the menu page reads the last entry written to the log file and sets an internal variable to indicate which process is executing. The currently executing process is determined by the value in the process type field in the last log entry. In this case, an invalid process type was found. Valid process types are:

- e = Enter process
- p = Proceed process
- c = Commit process
- r = Restore process
- b = Backout process

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the `OP:GEN:READLOG` command. Look at the `Begin Enter` log entry and make sure that the process type for the last entry is correct. If not, remove the log file and start the update over from the beginning of the `Enter` step. If the process type is correct, try to finish the update manually using MML input commands.

- 471 When the menu page is first brought up, it reads the `Begin` entries in the System Update log file to determine the command line arguments that were previously specified for various System Update processes that either were executing or are executing. In this case, a `Begin` log entry was read which contains an invalid process type. Valid process types are:

- e = Enter process
- p = Proceed process
- c = Commit process
- r = Restore process
- b = Backout process

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the `OP:GEN:READLOG` command. Look at the `Begin` log entries and make sure that the process types for the entries are correct. If not, remove the log file and start the update over from the beginning of the `Enter` step. If the process types are correct, try to finish the update manually using MML input commands.

- 472 If the System Update menu page was terminated while the System Update `Enter` process was executing and the menu page was brought back up before the `Enter` process terminated, the menu page reads the System Update log file to determine the `Enter` command line arguments that were previously specified. In this case, not all of the mandatory `Enter` command line arguments could be determined. Try to bring up the menu page again. If the error persists, read the log file using the `OP:GEN:READLOG` command. Look at the `Begin Enter` log entry and make sure that the mandatory command line arguments are correct. If not, remove the log file and start the update over from the beginning of the `Enter` step. If the process types are correct, try to finish the update manually using MML input commands.

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- 473 If the System Update menu page was terminated while the System Update Enter process was executing and the menu page was brought back up before the Enter process terminated, the menu page reads the System Update log file to determine the Enter command line arguments that were previously specified. In this case, the Begin Enter log entry, which contains the Enter command line arguments, could not be found in the log file. Try to bring up the menu page again. If the error persists, read the log file using the OP:GEN:READLOG command. Look at the Begin Enter log entry and make sure that the command line arguments were specified correctly. If not, remove the log file and start the update over from the beginning of the Enter step. If the command line arguments were specified correctly, try to finish the update manually using MML input commands.
- 474 If the System Update menu page was terminated while a System Update process was executing and the menu page was brought back up before the process terminated, the menu page determines which command is currently executing and sets an internal variable to the process id of the currently executing process. In this case, a process is executing, but the menu page cannot figure out which one since all of the internal variables containing the process ids of the System Update process all indicate that there is no process executing. Try to bring up the menu page again. If the error persists, wait until the currently executing System Update process terminates. Then, try to bring up the menu page.

## 5. User Errors

These error conditions occur when the error may have been caused by the user.

- 600 The poke to terminate the System Update menu page was requested when one of the System Update processes or the application process was executing. The menu page can only be terminated if there are no processes currently executing. Wait until the executing process terminates and then try to terminate the menu page again using the TERMPAGE poke.
- 601 More than three pokes were specified on the CMD< line of the System Update Menu Page. Specify the correct number of pokes (one, two, or three) separated by commas.
- 602 The RETRO poke was specified on the CMD< line of the System Update Menu Page. System Update does not currently handle this flag yet. Therefore, the menu page does not allow it to be specified.
- 603 The first poke that was specified on the CMD< line of the System Update Menu Page is invalid. It must be one of the pokes that are displayed on that page. Pokes from the two Enter Arguments pages cannot be specified from the System Update Menu Page.
- 604 The Enter command was requested when it has already successfully completed. The Enter command cannot be executed more than once in one update. Either execute the Proceed and/or Commit commands or execute the Backout and/or Restore commands. If the update needs to be started from the very beginning of the update procedures, remove the System Update log file (/etc/log/supr log) and then execute the Enter command.

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- 605 The Commit command was requested when it has already successfully completed. The Commit command cannot be executed more than once in one update. If the update needs to be started from the very beginning of the update procedures, remove the System Update log file (/etc/log/suprlog) and then execute the Enter command.
- 606 The Stop command can be used to stop only the System Update processes: Backout, Commit, Continue, Enter, Proceed, and Restore. The Stop command was erroneously executed to stop either the Readlog process or the Stop process itself which are not allowed to be stopped by the Stop command.
- 607 The Stop command was requested when no System Update processes that can be stopped are executing.
- 608 Only one or two pokes are allowed to be specified on the CMD< line of the System Update Menu Page at one time (the command poke and the UCL flag if desired): Backout, Commit, Enter, Restore, and Stop. A third poke was specified which is not allowed. Re-request the desired command specifying only the command poke and the UCL flag if desired.
- 609 Two pokes were specified on the CMD< line of the System Update Menu Page for one of the commands: Backout, Commit, Enter, Restore, or Stop. The first poke was the poke for the command itself. The only poke value allowed for the second poke for these commands is the UCL poke (using either the UCL poke number 710 or the "UCL" or "ucl" literal string) since this is the only argument allowed on these command lines. In this case, something other than the UCL poke or the "UCL" or "ucl" literal string was specified. Re-request the desired command.
- 610 The Proceed command was requested when it has already successfully completed. The Proceed command cannot be executed more than once in one update. Either execute the Commit command or execute the Restore command. If the update needs to be started from the very beginning of the update procedures, remove the System Update log file (/etc/log/suprlog) and then execute the Enter command.
- 611 The RETRO poke or the "RETRO" or "retro" literal string was specified as the second poke on the CMD< line of the System Update Menu Page when the Proceed command was specified as the first poke. The menu page does not allow this flag since System Update does not handle it yet.
- 612 The Proceed command was specified with an argument on the CMD< line of the System Update Menu Page. The only argument Proceed allows is the UCL poke or the "UCL" or "ucl" literal string. The argument specified was something other than UCL.
- 613 Three pokes were specified on the CMD< line of the System Update Menu Page when only two are allowed at one time.

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- 614 The third poke specified on the CMD< line of the System Update Menu Page was found to be invalid. Since the first poke specified corresponded to the Proceed command, the other two pokes have to correspond with the UCL or RETRO arguments since these are the only arguments that the Proceed command allows. In this case, the third poke was something other than the UCL or the RETRO argument.
- 615 Three pokes are not allowed to be specified on the CMD< line of the System Update Menu Page at the same time when the first poke corresponds to the application process.
- 616 Only one poke is allowed to be specified on the CMD< line of the System Update Menu Page when that poke corresponds to: Enter Args1, Enter Args2, Continue, Execute, Readlog, and Termpage. In this case, more than one poke was specified.
- 617 The Retro poke was specified on the CMD< line of the System Update Menu Page, but the last command specified was not the Proceed command. The Retro poke is only allowed to be specified for the Proceed command.
- 618 Two pokes were specified on the CMD< line of the System Update Menu Page. The first corresponded to the Retro flag for the Proceed command. The only other poke that is allowed to be specified for the Proceed command corresponds to the UCL flag. In this case the second poke did not correspond to the UCL poke or literal string.
- 619 Three pokes are not allowed to be specified on the CMD< line of the System Update Menu Page when the first poke corresponds to the UCL poke. Only two pokes are allowed: the UCL poke and the poke or literal string corresponding to the Retro flag (only if the last command currently being displayed in the display area is the Proceed command).
- 620 Until System Update is changed to handle the Retro flag on the Proceed command line, the System Update menu page will not allow the user to specify the Retro poke. In this case, the UCL poke was specified on the CMD< line of the System Update Menu Page. A second poke was also specified on the CMD< line. A second poke is not allowed to be specified since the only valid value allowed with the UCL poke is the Retro poke and System Update does not handle it yet.
- 621 When System Update is changed to handle the Retro flag on the Proceed command line and the UCL poke is specified on the CMD< line of the System Update Menu Page along with a second poke, the second poke must correspond to the Retro flag since that is the only argument that can be specified with the UCL argument.
- 622 The UCL and Retro flags were specified on the CMD< line of the System Update Menu Page, but the last command specified was not the Proceed command. The Retro argument is only allowed to be specified for the Proceed command.
- 623 The UCL poke was specified on the CMD< line of the System Update Menu Page, but the last command specified does not accept the UCL argument on its command line.

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- 624 The number zero (0) was specified for the update method on the Enter command line. Zero does not correspond to a valid update method argument. If the offline disk method is desired, type the letter O. If the backup partition method is desired, type the letter B.
- 625 An invalid update method was specified for the Enter command line. Specify the letter O for the offline disk method and the letter B for the backup partition method.
- 626 An invalid tape device was specified. Either the full pathname or "mt0", "mT0", "mt1", or "mT1" may be used to specify the tape device.
- 627 The specified tape device either does not exist or cannot be accessed for reading.
- 628 A dfc preference cannot be specified until an update method has been specified. This is done for error checking since a dfc preference can only be made if using the offline disk update method.
- 629 A dfc preference was specified when the update method specified was not the offline disk method. A DFC preference can only be specified when using the offline disk update method.
- 630 An invalid dfc preference was specified. Type 0 (zero) for DFC 0, 1 (one) for DFC 1, or 2 (two) to specify no preference.
- 631 It cannot be specified whether or not the backup partitions will be updated until an update method has been specified. In this case, an update method has not yet been specified. This is done for error checking since it can be specified that the backup partitions will or will not be updated only when using the offline disk update method.
- 632 It was specified that the backup partitions will or will not be specified when the update method specified was not the offline disk method. It can be specified that the backup partitions will or will not be updated only when using the offline disk update method.
- 633 When requesting that the backup partitions will or will not be updated, an invalid argument value was specified. Type N if the backup partitions are not to be updated, type Y if the backup partitions are to be updated.
- 634 When specifying whether or not the Enter command is to be executed unconditionally, an invalid argument value was specified. To execute the Enter command unconditionally, type Y. To execute the Enter command conditionally, type N.
- 635 All of the mandatory Enter command line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that the update method has not yet been specified.
- 636 All of the mandatory Enter command line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that the tape device has not yet been specified.

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- 637 All of the mandatory **Enter** command line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that a tape sequence option was specified for a disk that was not specified. Either remove all tape sequence option specifications, or specify the corresponding disks to be updated.
- 638 When the tape sequence option becomes a mandatory **Enter** command line argument, this error message will be printed when a disk to be updated has been specified, but its corresponding tape sequence option has not been specified. Either remove the disk to be updated specification or specify its corresponding tape sequence option.
- 639 A disk to be updated was not specified. It is mandatory that at least one disk is specified. This disk must be a bootdisk.
- 640 It is a System Update requirement that one of the specified disks to be updated has to be the bootdisk (currently called **/dev/vtoc**). The bootdisk could not be found and therefore is assumed to have not yet been specified.
- 641 A full pathname was not specified for the specified disk to be updated.
- 642 The specified disk to be updated does not exist, cannot be accessed for reading, or cannot be accessed for writing. Make sure the correct disk has been specified.
- 643 A bad tape sequence option was specified. The only valid tape sequence options are:  
    S = single tape sequence option  
    D = double tape sequence option  
    T = triple tape sequence option  
Specify the tape sequence option again using a correct value.
- 644 The **Commit** command was specified before the **Enter** command was executed. First execute the **Enter** and **Proceed** commands and then execute the **Commit** command.
- 645 The **Commit** command was specified before the **Proceed** command was executed. Execute the **Proceed** command and then execute the **Commit** command.
- 646 The **Proceed** command was specified before the **Enter** command was executed. Execute the **Enter** command and then execute the **Proceed** command.
- 647 The first poke that was specified on the **CMD<** line of the System Update Menu Page was invalid. The only pokes allowed are the pokes that are being displayed on the current page. Try to specify the desired poke again.
- 648 A System Update process was attempted to be continued when the continue flag in the System Update log file for that process indicates that this process is not continuable. Make sure that the last command executed really needs to be continued.

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- 649 The UCL argument was specified. But, a command that the UCL argument is for has not yet been specified. Specify the command that is to be executed. If the UCL argument is desired,
- 650 The UCL argument was specified. But, the last command specified that the UCL argument is for does not allow the UCL argument on its command line. Specify the desired command and the UCL argument again. specify it next.
- 651 The Commit command cannot be executed because it has already been successfully executed. If the Commit command was not really executed previously, try to execute the Commit command manually using the Craft PDS/MML input command. If this error still occurs, terminate the System Update menu page, remove the System Update log file, return the system to a sane state, and start the entire update over again from the very beginning of the Enter command.
- 652 The Enter command cannot be executed because it has already been successfully executed. If the Enter command was not really executed previously, try to execute the Enter command manually using the Craft PDS/MML input command. If this error still occurs, terminate the System Update menu page, remove the System Update log file, return the system to a sane state, and start the entire update over again from the very beginning of the Enter command.
- 653 The Proceed command cannot be executed because it has already been successfully executed. If the Proceed command was not really executed previously, try to execute the Proceed command manually using the Craft PDS/MML input command. If this error still occurs, terminate the System Update menu page, remove the System Update log file, return the system to a sane state, and start the entire update over again from the very beginning of the Enter command.
- 654 The Execute menu poke was requested before the System Update or application command that is to be executed was specified. Type the menu poke that corresponds to the process to be executed, and then type the Execute menu poke.
- 655 The application process was requested while a previous call to the application process is still executing. Only one application process can be executing at a time. Wait for the first application process to terminate. Then execute the next application process call.
- 656 The Backout command was attempted to be executed while another System Update command (Commit, Continue, Enter, Proceed, or Restore) was executing that would conflict with the Backout command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Backout command again.
- 657 The Commit command was attempted to be executed while another System Update command (Backout, Continue, Enter, Proceed, or Restore) was executing that would conflict with the Commit command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Commit command again.

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- 658 The Continue command was attempted to be executed while another System Update command (Backout, Commit, Enter, Proceed, or Restore) was executing that would conflict with the Continue command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Continue command again.
- 659 The Enter command was attempted to be executed while another System Update command (Backout, Commit, Continue, Proceed, or Restore) was executing that would conflict with the Enter command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Enter command again.
- 660 The Proceed command was attempted to be executed while another System Update command (Backout, Commit, Continue, Enter, or Restore) was executing that would conflict with the Proceed command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Proceed command again.
- 661 The Restore command was attempted to be executed while another System Update command (Backout, Commit, Continue, Enter, or Proceed) was executing that would conflict with the Restore command. Wait for the executing System Update command to terminate or terminate it manually using the Stop command, and then try to execute the Restore command again.
- 662 Enter Arguments Page 1 was attempted to be displayed while the Enter command was executing. Since arguments for the Enter command cannot be changed, added, or deleted after the Enter command has begun its execution, the System Update menu page prevents the user from going to Enter Arguments Page 1 in case the user tries to change, add, or delete Enter command line arguments.
- 663 Enter Arguments Page 2 was attempted to be displayed while the Enter command was executing. Since arguments for the Enter command cannot be changed, added, or deleted after the Enter command has begun its execution, the System Update menu page prevents the user from going to Enter Arguments Page 2 in case the user add, or deleted Enter command line arguments.
- 664 A double tape sequence was specified on Enter Arguments Page 2. But, a Corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.
- 665 After formatting the MML Enter input command line, not all the sequence options specified were included in the command line (the number of sequence options formatted into the command line did not match the number of sequence options that were specified). The counter that contains the number of sequence options specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all the Enter command line arguments.

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- 666 A triple tape sequence was specified on Enter Arguments Page 2. But, a corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.
- 667 After formatting the PDS Enter input command line, not all the sequence options specified were included in the command line (the number of sequence options formatted into the command line did not match the number of sequence options that were specified). The counter that contains the number of sequence options specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all the Enter command line arguments.
- 668 The backup partition method was attempting to be specified using the poke on Enter Arguments Page 1. But, a dfc preference was previously specified which is valid only for the offline disk method. If the backup partition method is still desired, delete the dfc preference that was specified and then re-specify the backup partition method.
- 669 The backup partition method was attempting to be specified using the poke on Enter Arguments Page 1. But, the update backup partition option was previously specified which is valid only for the offline disk method. If the backup partition method is still desired, delete the update backup partition option that was specified and then re-specify the backup partition method.
- 670 A single tape sequence was specified on Enter Arguments Page 2. But, a corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.
- 671 When executing the System Update Enter command using pokes on the System Update menu page, the log file must be either empty or non-existent. It may not contain log entries from a previous update session. In this case, the log file contains entries. Remove the log file and terminate the menu page. Bring up the menu page again and re-execute the Enter command.

## 6. Warning Messages

These warning messages are printed when an error occurs that may not affect the outcome of the update.

- 800 The function sendpw() failed when the menu page was sending DAP a message to display a message on the messages line of one of the menu page screens:

SUPRPG = System Update Menu Page  
ARGSPG1 = Enter Arguments Page 1  
ARGSPG2 = Enter Arguments Page 2

Look for the message on the ROP. The message was also printed there.

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- 801 The menu page was trying to change a portion of a page either from normal video to reverse video or from reverse video to normal video. A bad video flag (VFLAG) specifying how to display the page (normal video or reverse video) was passed to the internal function `chgvideo()`.
- 802 The menu page was trying to send a message to DAP to change a portion of a page from normal video to reverse video when the `sendpw()` function failed.
- 803 The menu page was trying to send a message to DAP to change a portion of a page from reverse video to normal video when the `sendpw()` function failed.
- 804 The `sendpw()` function failed when a message was sent to DAP to blank out the messages line on one of the three System Update pages.
- SUPRPG = System Update Menu Page  
ARGSPG1 = Enter Arguments Page 1  
ARGSPG2 = Enter Arguments Page 2
- 805 One of the Enter Arguments pages was displayed. The menu page found that the UCL argument was previously specified and tried to send a message to DAP to display a Y next to the UCL argument poke on Enter Arguments Page 1 to indicate that this argument has previously been specified. The `sendpw()` function failed when sending DAP this message. Try to specify the UCL argument using the poke on Enter Arguments Page 1.
- 806 An attempt was made to blank out the messages line of the Enter Arguments page that is currently being displayed in order to erase a message that may have previously been displayed. The variable that saves the page that is currently being displayed contains a bad value. The messages line of the current Enter Arguments page cannot be blanked out since it is unknown which Enter Arguments page is being displayed.
- 807 The application process completed and the variable `Execcmd` indicated that a System Update command is currently executing. The internal function `chkexec()` was executed to find the name of the System Update process that is currently executing. But, `chkexec` could not find the name of the process currently executing. Therefore, the execution message of the currently executing System Update process could not be re-displayed on the messages line of the System Update Menu Page.
- 808 The `sendpw()` function failed when sending a message to DAP to display the mount tape and continue message on the messages line of the System Update Menu Page. After mounting the tape, try to continue the update using the continue poke on the menu page.
- 809 The `sendpw()` function failed when sending a message to DAP to blank out a line in the display area of the System Update Menu Page.

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- 810 The `sendpw()` function failed when sending a message to DAP to either blank out a previously specified invalid Enter command line argument from one of the Enter Arguments pages or draw an underline on one of the Enter Arguments pages to indicate where an argument is to be specified. If an argument was being blanked out, try to correct the invalid argument using the pokes on the appropriate Enter Arguments page. If an argument poke was specified, but the underline was not drawn where the argument is to be specified, type in the argument where the underline should have been drawn (the cursor should appear in the correct input area). The menu page should accept it.
- 811 When the poke corresponding to the Enter argument that indicates whether or not backup partitions are to be updated is specified, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.
- 812 When the poke corresponding to the Enter argument that indicates whether or not backup partitions are to be updated is specified, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.
- 813 The Readlog command or the application command was executed while there may have been another System Update executing at the same time, or the Stop command was executed but completed unsuccessfully. When one of these three conditions occur, the execution message and the command line of the command that is currently executing is re-displayed since it was overwritten by the Readlog, Stop, or application message and command line. The internal variable `Execcmd` contains the poke menu number that corresponds to the executing command. In this case, `Execcmd` contained an invalid menu number. Therefore, the currently executing command and its execution message could not be displayed. This may not affect the outcome of the update (just the display on the menu page).

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- 814 The Enter input command line was attempting to be re-displayed for one of three reasons:
- 1) The readlog command was executed while the Enter command was executing at the same time (when the Readlog process completes, the command line for the Enter command is re-displayed since the Readlog command line overwrote the Enter command line),
  - 2) The Stop command was executed but completed unsuccessfully (since the Stop command line overwrote the Enter command line, the Enter command line is re-displayed since it is still executing), or
  - 3) The application process was executed while the Enter command was executing at the same time (since the application command line overwrote the Enter command line, the Enter command line is re-displayed since it is still executing).
- But, the Enter command line cannot be displayed because not all of the mandatory arguments can be found in the Enter Arguments structure. This may not affect the outcome of the update (just the display on the menu page).
- 815 After opening and reading the contents of the System Update log file, the log file is closed. But, the close failed. This should not affect the outcome of the update.
- 816 When the poke corresponding to the Enter argument that specifies a DFC (Disk File Controller), the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw( ) function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.
- 817 When the poke corresponding to the Enter argument that specified a DFC (Disk File Controller), the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw( ) function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.
- 818 When the poke corresponding to the Enter argument that specifies a disk to be updated is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw( ) function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

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- 819 When the poke corresponding to the Enter argument that specified a disk to be updated is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw( ) function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.
- 820 If a disk to be updated was not specified using a full pathname (starting with a slash '/'), the invalid disk pathname specified is blanked from the page. In order to do this, the indicator name corresponding to the disk menu number specified is needed (the menu page sends a message to DAP with this information and then DAP blanks out the appropriate argument). In this case, the indicator name corresponding to the disk menu number specified cannot be obtained and therefore the invalid disk pathname cannot be blanked out. Specify the valid disk pathname by typing the desired disk poke again and then typing the correct disk pathname in the input field indicated by the blinking cursor. If it is desired to not correct the invalid disk pathname, the invalid pathname displayed should not affect the update (the invalid disk pathname remains on the screen but is ignored by the menu page).
- 821 The specified disk to be updated either does not exist or cannot be accessed for reading and/or writing, therefore, it is an invalid argument. The invalid disk specified was attempted to be blanked from the page. In order to do this, the indicator name corresponding to the disk menu number specified is needed (the menu page sends a message to DAP with this information and then DAP blanks out the appropriate argument). In this case, the indicator name corresponding to the disk menu number specified cannot be obtained and therefore the invalid disk pathname cannot be blanked out. Specify the valid disk pathname by typing the desired disk poke again and then typing the correct disk pathname in the input field indicated by the blinking cursor. If it is desired to not correct the invalid disk pathname, the invalid pathname displayed should not affect the update (the invalid disk pathname remains on the screen but is ignored by the menu page).
- 822 When the poke corresponding to the Enter argument that specifies a disk to be updated is requested, an underline (the maximum length that the disk pathname can be) is drawn immediately after the poke number and its description to indicate where the disk argument is to be typed. The cursor is positioned at the beginning of the underline. Because of an internal error, this underline cannot be drawn. The cursor should still be positioned where the underline should have been drawn. This should not affect the outcome of the update. Go ahead and type in the disk pathname where is cursor is positioned.

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- 823 When the poke corresponding to the Enter argument that specifies a sequence option is requested, an underline (the maximum length that the sequence option input can be) is drawn immediately after the poke number and its description to indicate where the sequence option argument is to be typed. The cursor is positioned at the beginning of the underline. Because of an internal error, this underline cannot be drawn. The cursor should still be positioned where the underline should have been drawn. This should not affect the outcome of the update. Go ahead and type in the sequence option argument where the cursor is positioned.
- 824 When the poke corresponding to the immediately following the poke and its description. An internal error prohibited the movement of the cursor. Use the arrow keys to move the cursor to the desired disk input field. An underline may have been drawn to indicate the appropriate input field. Then type the desired disk pathname.
- 825 When the poke corresponding to the Enter argument that specifies a sequence option is requested, the cursor is moved to the input field for that sequence option immediately following the poke and its description. An internal error prohibited the movement of the cursor. Use the arrow keys to move the cursor to the desired sequence option input field. An underline may have been drawn to indicate the appropriate input field. Then type the desired sequence option argument.
- 826 When the poke corresponding to the Enter argument that specifies an update method is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.
- 827 When the poke corresponding to the Enter argument that specified an update method is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.
- 828 When the poke corresponding to the Enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending a cursor down message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

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- 829 When the poke corresponding to the Enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending a cursor right message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.
- 830 When the poke corresponding to the Enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.
- 831 When the poke corresponding to the Enter argument that specifies a tape device is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.
- 832 When the poke corresponding to the Enter argument that specifies a tape device is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.
- 833 When the poke corresponding to the Enter argument that specifies conditional or unconditional execution is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

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- 834 When the poke corresponding to the Enter argument that specifies conditional or unconditional execution is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the Enter argument is specified, the cursor is moved back up to the CMD< line so that the next Enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the `sendpw()` function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.
- 835 When the Enter command is executed, the Enter command line is formatted to a form that is suitable for printing on the ROP. While formatting the Enter command line, the `malloc()` function is used to allocate space needed for the formatting procedures. The `malloc()` function failed. This should not affect the outcome of the update (the Enter command line that is executing just will not be displayed on the ROP).
- 836 When the Enter command is executed, the Enter command line is formatted to a form that is suitable for printing on the ROP. While formatting the Enter command line, the `realloc()` function is used to allocate space needed for the formatting procedures. The `realloc()` function failed. This should not affect the outcome of the update (the Enter command line that is executing just will not be displayed on the ROP).
- 837 The internal buffer array Buffer contains the input command line for the command that was last specified on the System Update menu page. In this case, the Enter command line should reside in the Buffer array since it was the last command specified. But, when the Enter command line was being formatted to a form that is suitable for displaying on the ROP, the Buffer array was found to contain all blanks. Since the Enter command cannot be found in the Buffer array, it cannot be formatted, and therefore cannot be displayed on the ROP. This should not affect the outcome of the update (the Enter command that is executing just will not be displayed on the ROP).

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ID ..... APP:SYSERR  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

| System Error Code Numbers |                            |
|---------------------------|----------------------------|
| Code                      | Description                |
| 1                         | Not super-user.            |
| 2                         | No such file or directory. |
| 3                         | No such process.           |
| 4                         | Interrupted system call.   |
| 5                         | I/O error.                 |
| 6                         | No such device or address. |
| 7                         | Argument list too long.    |
| 8                         | Exec file format error.    |
| 9                         | Bad file number.           |
| 10                        | No children.               |
| 11                        | No more processes.         |
| 12                        | Not enough core.           |
| 13                        | Permission denied.         |
| 14                        | Bad address.               |
| 15                        | Block device required.     |
| 16                        | Mount device busy.         |
| 17                        | File exists.               |
| 18                        | Cross-device link.         |
| 19                        | No such device.            |
| 20                        | Not a directory.           |
| 21                        | Is a directory.            |
| 22                        | Invalid argument.          |
| 23                        | File table overflow.       |
| 24                        | Too many open files.       |
| 25                        | Not a typewriter.          |
| 26                        | Text file busy.            |
| 27                        | File too large.            |
| 28                        | No space left on device.   |
| 29                        | Illegal seek.              |
| 30                        | Read only file system.     |

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| System Error Code Numbers (continued) |                                               |
|---------------------------------------|-----------------------------------------------|
| Code                                  | Description                                   |
| 31                                    | Too many links.                               |
| 32                                    | Broken pipe.                                  |
| 33                                    | File is "temped."                             |
| 34                                    | Trap to lower execution level kernel process. |
| 35                                    | No message.                                   |
| 36                                    | Not allocated.                                |
| 37                                    | Mount audit failure.                          |
| 38                                    | Mount umount failed due to current audit.     |
| 39                                    | First access of logical block.                |
| 40                                    | Fmove failed.                                 |
| 41                                    | No extents.                                   |
| 42                                    | Pathname too long.                            |
| 43                                    | No entries left.                              |
| 44                                    | Invalid operation.                            |
| 45                                    | Failure as a result of an audit.              |
| 46                                    | Disk limp mode indication.                    |
| 47                                    | Unable to open /dev/ecd.                      |
| 48                                    | Conflict with current system status.          |
| 49-50                                 | Not used at present.                          |
| 51                                    | Message type not recognized.                  |
| 53                                    | Library file doesn't exist.                   |
| 54                                    | All process slots in use (pstart fail).       |
| 55                                    | Insufficient memory for kernel process.       |
| 56                                    | All sde allocated or no swap space left.      |
| 57                                    | Unable to read a pfile or a library file.     |
| 58                                    | Segment too big for address space.            |
| 59                                    | Can't add shared segment to process.          |

**NOTE:** Some of the system error codes from 60 to 87 may be generated from either the process manager or fault recovery.

| System Error Code Numbers (continued) |                                                                                                |
|---------------------------------------|------------------------------------------------------------------------------------------------|
| Code                                  | Description                                                                                    |
| 60                                    | FLTRCV: Invalid emt value for this driver.<br>PMGR: Incarnation count too big for one process. |
| 61                                    | FLTRCV: Iomap error.                                                                           |
| 62                                    | FLTRCV: Hardware not oos or reserved.<br>PMGR: Can't acquire PCB of terminating process.       |
| 63                                    | FLTRCV: Not pseudo unit.<br>PMGR: PMGR faulted, entered fault routine.                         |

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| System Error Code Numbers (continued) |                                                                                                      |
|---------------------------------------|------------------------------------------------------------------------------------------------------|
| Code                                  | Description                                                                                          |
| 64                                    | FLTRCV: Pointer not valid.<br>PMGR: NUB faulted, entered fault routine.                              |
| 65                                    | FLTRCV: No mate unit.                                                                                |
| 66                                    | FLTRCV: Not a legitimate start UCB.                                                                  |
| 67                                    | FLTRCV: Bad eqid entry.<br>PMGR: Bad ACK resulting from copyseg OST.                                 |
| 68                                    | FLTRCV: Bad search level entry.<br>PMGR: Pfile (LDP output) doesn't exist.                           |
| 69                                    | FLTRCV: Could not find eqid unit.                                                                    |
| 70                                    | FLTRCV: Unit not out of service.<br>PMGR: Can't open dump file.                                      |
| 71                                    | FLTRCV: Unit already reserved.                                                                       |
| 72                                    | FLTRCV: No idle MDCT entry.<br>PMGR: Can't get capability of working directory.                      |
| 73                                    | FLTRCV: Backup not available.<br>PMGR: Unable to close a file.                                       |
| 74                                    | FLTRCV: UCB type incorrect.                                                                          |
| 75                                    | FLTRCV: Not a "cu" ucb.                                                                              |
| 76                                    | FLTRCV: Invalid MCH order.<br>PMGR: Message from unauthorized process.                               |
| 77                                    | FLTRCV: Pcpmd driver busy. Try again later.<br>PMGR: Created process has segment index overlay.      |
| 78                                    | FLTRCV: Micro-assist code in offline slave failed.<br>PMGR: Unable to lock shared library in memory. |
| 79                                    | FLTRCV: Pointer not pointing to a ucb.<br>PMGR: Shared library already locked in memory.             |
| 80                                    | FLTRCV: Invalid pcpmd driver command.<br>PMGR: The term. has already taken place (by proad).         |
| 81                                    | FLTRCV: Can't fault the driver.<br>PMGR: Pfile calls for PAS, no PAS in system.                      |
| 82                                    | FLTRCV: CONFIG fail return.<br>PMGR: The fork request failed pcreate - super.                        |
| 83                                    | FLTRCV: Processor not duplexed.<br>PMGR: Can't create because in disk limp mode.                     |
| 84                                    | FLTRCV: Mate processor not active.<br>PMGR: Segid and index do not specify same module.              |

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| System Error Code Numbers (continued) |                                                                                                                |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Code                                  | Description                                                                                                    |
| 85                                    | FLTRCV: Invalid argument.<br>PMGR: Bad pcb index - when EMM index must be less than partition boundary.        |
| 86                                    | FLTRCV: MCH hardware error.<br>PMGR: Pfile does not specify pcb segment.                                       |
| 87                                    | FLTRCV: Execmch function didn't process expected number of bytes.<br>PMGR: An ack message was lost or delayed. |
| 88                                    | Kernel function returned fail.                                                                                 |
| 89                                    | Timeout on reading offline.                                                                                    |
| 90                                    | Error in online processor.                                                                                     |
| 91                                    | Failure in offline processor.                                                                                  |
| 92                                    | Is not same in both processors.                                                                                |
| 93                                    | on-line master processor was specified.                                                                        |
| 94                                    | Stop DMA routine failed.                                                                                       |
| 95                                    | Start DMA routine failed.                                                                                      |
| 96                                    | Unequipped UCB specified or accessed.                                                                          |
| 97                                    | Not a top UCB.                                                                                                 |
| 98                                    | No match found.                                                                                                |
| 99                                    | Bad tag value.                                                                                                 |
| 100                                   | Offline CU MRFed.                                                                                              |
| 101-119                               | Not used at present.                                                                                           |
| 120                                   | lla_nsgrid error.                                                                                              |
| 121                                   | lla_rdget error.                                                                                               |
| 122                                   | lla_uprid error.                                                                                               |
| 123                                   | lla_opnsq error.                                                                                               |
| 124                                   | lla_attrid error.                                                                                              |
| 125                                   | lla_delete error.                                                                                              |
| 126                                   | lla_sinfo error.                                                                                               |
| 127                                   | lla_get error.                                                                                                 |
| 128                                   | lla_gtrid error.                                                                                               |
| 129                                   | Update bit not set.                                                                                            |

**NOTE:** The system error codes from 130 to 133 are available in Release 6 only.

| System Error Code Numbers (continued) |                                                     |
|---------------------------------------|-----------------------------------------------------|
| Code                                  | Description                                         |
| 130                                   | The online CU RID was not provided for update.      |
| 131                                   | No DMA RIDS under the CU.                           |
| 132                                   | Online parity error detected by cpblkp instruction. |

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| System Error Code Numbers (continued) |                                                                                                         |
|---------------------------------------|---------------------------------------------------------------------------------------------------------|
| Code                                  | Description                                                                                             |
| 133                                   | Other store time out during update.                                                                     |
| 248                                   | Tried to write in a file manager's protected file system.                                               |
| 249                                   | The corresponding fields of an I/O message with duplication do not match.                               |
| 250                                   | The device being accessed is currently not active, but is equipped.                                     |
| 251                                   | The device being accessed is in disk independent operation.                                             |
| 252                                   | An I/O message type not recognized by the I/O driver.                                                   |
| 253                                   | The driver has temporarily failed to process this message; it will be retried.                          |
| 254                                   | The device has failed to perform the requested I/O. Retrying the I/O request will probably not succeed. |

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ID ..... APP:TAPE-LIB  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

TAPE LIBRARY ERROR APPENDIX

| Code | Function    | Description                                                                               |
|------|-------------|-------------------------------------------------------------------------------------------|
| -1   | E_CLOSE     | The close() system call failed. Could not close the tape special device file.             |
| -2   | E_INVALTP   | Invalid tape special device file input argument.                                          |
| -3   | E_INVALSES  | Invalid session input argument.                                                           |
| -4   | E_INVALVOL  | Invalid volume input argument.                                                            |
| -5   | E_LSEEK     | The lseek() system call failed.                                                           |
| -6   | E_MKNOD     | The mknod() system call failed. Could not create a temporary tape special device file.    |
| -7   | E_NOMULVOL  | Data read is not in multi-volume format.                                                  |
| -8   | E_NOSESSION | Specified session is not on tape.                                                         |
| -9   | E_NOVOLUME  | Specified volume is not on tape.                                                          |
| -10  | E_OPENNORWD | The open() system call failed. Could not open the no-rewind tape special device file.     |
| -11  | E_OPENRWD   | The open() system call failed. Could not open the rewind tape special device file.        |
| -12  | E_READ      | The read() system call failed. Could not read tape header.                                |
| -13  | E_SESORDER  | Multi-volume tape sessions are not sequential.                                            |
| -14  | E_SETIO     | The setio() system call failed.                                                           |
| -15  | E_STAT      | The stat() system call failed for the tape special device file.                           |
| -16  | E_UNLINK    | The unlink() system call failed. Could not remove the temporary tape special device file. |
| -17  | E_VOLORDER  | Multi-volume tape volumes are not in ascending order.                                     |

This appendix contains the error codes returned by the functions in the tape library.

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ID ..... APP:UTIL-ID  
WORK CENTER.. MOC  
GENERIC ..... 4AP12 and later  
APPLICATION .. 4E,3B  
TYPE ..... Output

# UTILITY ID

**NOTE:** These UIDs are in hexadecimal notation.

| UID    | 3B NAME           | DESCRIPTION                                |
|--------|-------------------|--------------------------------------------|
| 0x0004 | /bootfiles/fmprc  | file manager                               |
| 0x0005 | /bootfiles/3bpmgr | 3B process manager                         |
| 0x0008 | /bootfiles/3bnub  | the kernel                                 |
| 0x000f | /prc/cdi          | memory driver                              |
| 0x0010 | /bin/getty        | set terminal type, modes, speed, and line  |
| 0x0011 | /prc/unix         | UNIX® initialization process               |
| 0x0012 | /etc/login        | sign on                                    |
| 0x0013 | /bin/sh           | shell, the standard command                |
| 0x0014 | /etc/update       | updates file system every 5 minutes        |
| 0x0015 | /etc/cron         | task scheduler                             |
| 0x0016 | /prc/pkillp       | supervisor process to kill other processes |
| 0x0017 | /prc/fda          | FIFO driver                                |
| 0x0018 | /etc/clrfs        | constructs file system                     |
| 0x0019 | /etc/clri         | clear inodes                               |
| 0x001a | /bin/df           | report number of free disk blocks          |
| 0x001b | /etc/dggnm        | assigns diagnostic file name               |
| 0x001c | /etc/fsdb         | file system debugger                       |
| 0x001d | /etc/ichk         | file system consistency check              |
| 0x001f | /etc/mknod        | builds a special file                      |
| 0x0020 | /mount            | mounts file system                         |
| 0x0021 | /bin/ps           | report process status                      |
| 0x0022 | /etc/udggnm       | generates the file set up by dggnm         |
| 0x0023 | /etc/umount       | unmounts file system                       |
| 0x0024 | /etc/vcp          | volume disk copy process                   |
| 0x0041 | /prc/cdn          | ECD manager                                |
| 0x0042 | /diag/dgnc/mira   | maintenance input request administrator    |

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| UID    | 3B NAME                      | DESCRIPTION                                         |
|--------|------------------------------|-----------------------------------------------------|
| 0x0043 | /cft/shl/cmds/STOP/DMQ       | stop diagnostics                                    |
| 0x0044 | /cft/shl/cmds/ALW/DMQ        | allow diagnostics                                   |
| 0x0045 | /cft/shl/cmds/DGN            | diagnose hardware unit                              |
| 0x0046 | /cft/shl/cmds1/EX            | PDS interactive diagnostic                          |
| 0x0047 | /cft/shl/cmds/INH/DMQ        | inhibit diagnostic maintenance                      |
| 0x0048 | /cft/shl/cmds<br>/EX/LDPARM  | PDS interactive diagnostic control command          |
| 0x0049 | /cft/shl/cmds/EX/LOOP        | PDS interactive diagnostic control command          |
| 0x004a | /cft/shl/cmds/EX/PAUSE       | PDS interactive diagnostic control command          |
| 0x004b | /cft/shl/cmds/RMV            | remove hardware unit                                |
| 0x004c | /cft/shl/cmds/RST            | restore hardware unit                               |
| 0x004d | /cft/shl/cmds/OP/DMQ         | status of diagnostic maintenance                    |
| 0x004e | /cft/shl/cmds/EX/STEP        | PDS interactive diagnostic control command          |
| 0x004f | /cft/shl/cmds/EX/STOP        | PDS interactive diagnostic control command          |
| 0x005f | /diag/dgnc/inhtimer          | inhibit diagnostic timer                            |
| 0x0060 | /diag/dgnc/ppdiamon          | peripheral diagnostic monitor                       |
| 0x0062 | /diag/dgnc/tlp               | trouble location process                            |
| 0x0063 | /diag/dgnc/dfdiag            | DFC diagnostics control                             |
| 0x0064 | /diag/dgnc/iodiag            | I/O diagnostics control                             |
| 0x0065 | /diag/dgnc/iormv             | I/O diagnostics remove process                      |
| 0x0066 | /diag/dgnc/dfrmv             | remove process for DFC                              |
| 0x0067 | /diag/dgnc/cudiagc           | control unit diagnostics                            |
| 0x006c | /diag/dgnc/dgntimer          | diagnostic timer                                    |
| 0x0082 | /prc/cdm                     | kernel interface hardware user processes            |
| 0x0083 | /bootfiles/eih               | error interrupt handler                             |
| 0x0084 | /cft/misc/rmf                | prints error messages and postmortem dumps          |
| 0x0085 | /bootfiles/pcpau.d.g         | PCP audit                                           |
| 0x0086 | /bootfiles/inhadm            | inhibit administration process                      |
| 0x0087 | /etc/adp.af                  | automatic diagnostic process after fault<br>process |
| 0x0088 | /cft/shl/cmds<br>/OP/CFGSTAT | output device status or configuration status        |
| 0x008a | /etc/fsmon                   | file system overflow monitor                        |
| 0x008b | /prc/ularp                   | UNIX® level automatic restart process               |
| 0x008f | /etc/adp.ab                  | automatic diagnostic process after boot branch      |

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| UID    | 3B NAME                         | DESCRIPTION                               |
|--------|---------------------------------|-------------------------------------------|
| 0x0090 | /cft/shl/cmds/ALW/REX           | allow routine exerciser                   |
| 0x0091 | /cft/shl/cmds/INH/REX           | inhibit REX on a specified unit           |
| 0x0092 | /cft/shl/cmds<br>/OP/REXINH     | output REX inhibited units                |
| 0x0093 | /cft/shl/cmds<br>/ALW/CONFLOG   | allow configuration log                   |
| 0x0094 | /cft/shl/cmds<br>/INH/ERRCHK    | inhibit errint, errsrc, hdwchk and sftchk |
| 0x0095 | /cft/shl/cmds<br>/INH/CONFLOG   | inhibit configuration log                 |
| 0x0096 | /cft/shl/cmds/SW/CU             | switch control units                      |
| 0x0097 | /unixutil/cu/curstrmv           | CU restore or remove process              |
| 0x0098 | /cft/shl/cmds<br>/DUMP/CACHE    | dump off-line cache into memory           |
| 0x0099 | /cft/shl/cmds<br>/OP/MEMERRS    | formatted memory error summary            |
| 0x00c0 | /prc/bdf                        | IOP driver process                        |
| 0x00c0 | /prc/bdf                        | IOP driver process                        |
| 0x00c0 | /prc/bdf                        | IOP driver process                        |
| 0x00c1 | /bootfiles/dkdrv                | disk driver                               |
| 0x00c2 | /prc/scsd                       | SCSD driver                               |
| 0x00c4 | /prc/s_update                   | disk restore                              |
| 0x00c9 | /cft/shl/cmds/CMPR/MHD          | compare moving head disks                 |
| 0x00ca | /prc/s_dskutil                  | disk compare                              |
| 0x00cd | /cft/shl/cmds<br>/OP/MHD/INFO   | display moving head disk information      |
| 0x00ce | /cft/shl/cmds/INIT/MHD          | initialize a moving head driver           |
| 0x00ce | /cft/shl/cmds<br>/LOAD/DFC/PUMP | download pumpcode to DFC RAM              |
| 0x00cf | /cft/shl/cmds<br>/OP/DFCELOG    | dump error log                            |
| 0x00d0 | /cft/shl/cmds<br>/SET/IODRV     | sets I/O driver options                   |
| 0x00d1 | /cft/shl/cmds/OP/IODRV          | display active I/O driver options         |
| 0x00d2 | /cft/shl/cmds<br>/SW/PORTSW     | port switch                               |
| 0x00d3 | /cft/shl/cmds/ALW/SCSD          | allows SCSD points and signal             |

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| UID    | 3B NAME                           | DESCRIPTION                                          |
|--------|-----------------------------------|------------------------------------------------------|
| 0x00d3 | /cft/shl/cmds<br>/RESET/FANALM    | reset fan alarm                                      |
| 0x00d4 | /cft/shl/cmds/INH/SCSD            | inhibits SCSD function                               |
| 0x00d5 | /cft/shl/cmds/OP/SCSD             | display SCSD points                                  |
| 0x00d6 | /cft/shl/cmds/ORD/SCSD            | set, clear, or flash points                          |
| 0x00d7 | /cft/shl/cmds<br>/DUMP/MHD/VTOC   | dumps volume table of contents                       |
| 0x00d8 | /cft/shl/cmds<br>/DUMP/MHD/DEFECT | dumps defect tables                                  |
| 0x00d8 | /cft/shl/cmds<br>/LOAD/MHD/DEFECT | loads a defect table                                 |
| 0x00d9 | /cft/shl/cmds<br>/DUMP/MHD/BLOCK  | dumps a disk block                                   |
| 0x00da | /cft/dap/dkdip                    | display disk configuration and status                |
| 0x0102 | /usr/bin/perform                  | a parser for ucm                                     |
| 0x0102 | /cft/shl/cmds1/UPD                | invokes a field update action                        |
| 0x0103 | /prc/prchk                        | tests whether the target process can be reclaimed    |
| 0x0104 | /prc/dufr                         | overwrites memory image of non-killable process      |
| 0x0105 | /prc/kop                          | overwrites the tv segment                            |
| 0x0106 | /usr/bin/idump                    | displays information of COFF and tracking problems   |
| 0x0106 | /prc/oild                         | creates a new updateable object file                 |
| 0x0107 | /prc/ogen                         | creates a file to be used by oild and dufr           |
| 0x0109 | /prc/bldboot                      | creates boot image                                   |
| 0x010b | /prc/cdcmpr                       | compares text segments of disk and core image        |
| 0x0111 | /prc/gspovmon                     | overload monitor for GRASP                           |
| 0x0112 | /prc/gspac                        | controls execution of generic access package (GRASP) |
| 0x0113 | /cft/shl/cmds/OP/UTIL             | lists GRASP breakpoints, status and trace            |
| 0x0114 | /prc/gspop                        | outputs GRASP messages                               |

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| UID    | 3B NAME                | DESCRIPTION                                               |
|--------|------------------------|-----------------------------------------------------------|
| 0x0117 | /prc/pldmon            | updates maintenance times in all PMDB maintenance records |
| 0x011d | /etc/mkdsk             | make disk                                                 |
| 0x011e | /bin/isgen             | builds boot image on disk                                 |
| 0x011f | /usr/bin/browse        | tool for examining database                               |
| 0x0121 | /usr/bin/sdpcopy       | copies database files                                     |
| 0x0124 | /prc/kopf              | times for automatic backout using kop                     |
| 0x0125 | /cft/shl/cmds          | monitors SCANS-2 file receive process                     |
|        | /IN/REMOTE             |                                                           |
| 0x012b | /prc/bwmint            | interface for field update session                        |
| 0x012d | /prc/filerecv          | receives and assembles transmitted files                  |
| 0x012e | /prc/bwmcldr           | clear BWM from the field update directory                 |
| 0x012f | /prc/bwmvfy            | verifies check sums                                       |
| 0x0132 | /usr/bin/pl_aux        | data dictionary for the plant measurements database       |
| 0x0133 | /usr/bin/ibrowse       | active process debugger                                   |
| 0x0134 | /usr/bin/lla_audits    | audits ECD                                                |
| 0x0162 | /cft/shl/cmds/VFY/TAPE | invoke tape verification process                          |
| 0x0163 | /audprc/pmsaud         | audits plant measurements database                        |
| 0x0185 | /cft/shl/cmds/OP/FNAME | audit command process                                     |
| 0x0186 | /prc/klmon             | kernel monitoring process                                 |
| 0x0187 | /bootfiles/simprc      | system integrity monitor                                  |
| 0x0188 | /prc/suovprc           | supervisor/user lockout monitor                           |
| 0x0190 | /etc/sdlrtc            | synchronous data link restore tool                        |
| 0x0191 | /etc/sdlrtn            | synchronous data link restore tool                        |
| 0x0192 | /prc/fsaudit           | file system audit                                         |
| 0x01a2 | /audprc/ecdaud         | ECD audits                                                |
| 0x01c4 | /prc/cdq               | communicates with spy processes                           |
| 0x01c5 | /bin/cmpr              | compares text segments of disk and core image             |
| 0x01c6 | /prc/ftrc              | function trace                                            |
| 0x01c7 | /prc/ucm               | field update controller                                   |
| 0x01da | /prc/fudisplay         | displays specified update or BWM records                  |
| 0x01db | /prc/fupurge           | removes records of official and reclaimed BWMs            |

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| UID    | 3B NAME                     | DESCRIPTION                                 |
|--------|-----------------------------|---------------------------------------------|
| 0x01dc | /prc/fuomit                 | omits incomplete update records             |
| 0x01dd | /usr/bin/fu_aux             | field update database generator             |
| 0x0200 | /bin/errport                | errport user process                        |
| 0x0202 | /cft/dap/cia                | critical indicators administrator           |
| 0x0203 | /cft/dap/dap                | display administration process              |
| 0x0204 | /cft/dap/poker              | DAP input process                           |
| 0x0206 | /cft/rts                    | initialize RTS and receive messages         |
| 0x0207 | /bin/shlgetty               | starts craft shells                         |
| 0x0208 | /cft/bin/cftshl             | craftshell                                  |
| 0x0208 | /cft/bin/cftshlA            | craftshell (without initialization message) |
| 0x0209 | /cft/spl/csop               | craft spooler out process                   |
| 0x020b | /cft/spl/sop                | spooler output process                      |
| 0x020d | /bin/cdgetty                | starts poker                                |
| 0x020f | /bin/splgetty               | starts spooler                              |
| 0x0210 | /cft/dap/inph               | test process for DAP                        |
| 0x0211 | /cft/dap/msgh               | test process for DAP                        |
| 0x0211 | /etc/rex                    | routine diagnostic exerciser                |
| 0x0212 | /etc/ccdate                 | identify source version of code             |
| 0x0214 | /cft/shl/cmds/OP/LOG        | prints log file entries                     |
| 0x0216 | /cft/dap/starter            | start reader on C/D input                   |
| 0x0217 | /cft/shl/cmds1/TST          | test command for pdshl                      |
| 0x0218 | /prc/bdg                    | DAP driver                                  |
| 0x0218 | /cft/bin/csdip              | craft spooler dialog input process          |
| 0x0219 | /cft/dap/fmctrl             | runs 105 and 106 pages                      |
| 0x021b | /bin/ciagetty               | starts cia process                          |
| 0x021d | /cft/misc/rpttime           | time stamp for log files                    |
| 0x021e | /cft/shl/cmds<br>/CLR/IMCAT | clears imcatlog from core                   |
| 0x0220 | /bin/dlggetty               | starts dialog shell                         |
| 0x0221 | /cft/shl/cmds/DLGAUTH       | dialog authority file commands              |
| 0x0222 | /cft/shl/cmds/VFYAUTH       | checks authority file                       |
| 0x0223 | /cft/bin/Adlgshl            | asynchronous dialog shell                   |
| 0x0224 | /cft/bin/Sdlgshl            | synchronous dialog shell                    |
| 0x0226 | /cft/shl/cmds/CLK           | sets or prints system clock                 |
| 0x0227 | /cft/shl/cmds/UPD/OMDB      | output messages database                    |

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| UID    | 3B NAME                     | DESCRIPTION                                        |
|--------|-----------------------------|----------------------------------------------------|
| 0x0228 | /cft/shl/cmds<br>/CLR/ACKDB | acknowledgements database                          |
| 0x0241 | /bin/banner                 | prints a banner                                    |
| 0x0242 | /bin/pkill                  | creates a process to kill other processes          |
| 0x0243 | /bin/pkillp                 | kills processes executing under pathname           |
| 0x0245 | /bin/cat                    | lists and concatenates UNIX® files                 |
| 0x0246 | /bin/chgrp                  | change group                                       |
| 0x0247 | /bin/chmod                  | change mode of file                                |
| 0x0248 | /bin/chown                  | change owner of file                               |
| 0x0249 | /bin/cmp                    | compare two files                                  |
| 0x024b | /bin/cpio                   | format of cpio archive                             |
| 0x024c | /bin/cx                     | core image debugger                                |
| 0x024d | /bin/crypt                  | generate encryption file                           |
| 0x024e | /bin/date                   | print and set the date                             |
| 0x024f | /bin/dd                     | convert and copy a file                            |
| 0x0250 | /bin/diff                   | differential file comparator                       |
| 0x0251 | /bin/dlsum                  | sum bytes in field mode                            |
| 0x0252 | /bin/du                     | summarize disk usage                               |
| 0x0253 | /bin/echo                   | repeat string                                      |
| 0x0254 | /bin/ed                     | line editor                                        |
| 0x0255 | /bin/env                    | set environment for command execution              |
| 0x0256 | /bin/expr                   | evaluate arguments as an expression                |
| 0x0257 | /bin/falloc                 | allocate space for an external file                |
| 0x0258 | /bin/fgrep                  | search a file for a pattern                        |
| 0x0259 | /bin/find                   | find files                                         |
| 0x025a | /bin/fmove                  | move file into contiguous space                    |
| 0x025b | /bin/fsiz                   | prints size of files                               |
| 0x025c | /bin/grep                   | search a file for a pattern                        |
| 0x025e | /bin/id                     | print user, group, fair share group IDs and names  |
| 0x025f | /bin/kill                   | send a signal to a process or a group of processes |
| 0x0260 | /bin/killp                  | kill user processes using a full pathname          |
| 0x0263 | /bin/line                   | read one line                                      |

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| UID    | 3B NAME          | DESCRIPTION                               |
|--------|------------------|-------------------------------------------|
| 0x0264 | /bin/ln          | link files                                |
| 0x0265 | /bin/logdir      | get login directory                       |
| 0x0266 | /bin/ls          | list contents of directory                |
| 0x0267 | /bin/cp          | copy files                                |
| 0x0267 | /bin/mv          | move a file                               |
| 0x0268 | /bin/mail        | send mail to users or read mail           |
| 0x0269 | /usr/lib/makekey | generates encryption key                  |
| 0x026a | /bin/mesg        | permit or deny messages                   |
| 0x026b | /bin/mkdir       | make a directory                          |
| 0x026c | /usr/bin/mop     | mount off-line partition                  |
| 0x026d | /bin/closewd     | close window                              |
| 0x026d | /bin/newgrp      | log in to a new group                     |
| 0x026e | /bin/news        | print news items                          |
| 0x026e | /bin/openwd      | open window                               |
| 0x026f | /bin/nice        | change priority of a process              |
| 0x0270 | /bin/nohup       | run a command immune to hangups and quits |
| 0x0271 | /bin/od          | octal dump                                |
| 0x0272 | /bin/passwd      | user information file                     |
| 0x0273 | /bin/pio         | I/O to a traced process image             |
| 0x0274 | /bin/pr          | print files                               |
| 0x027a | /bin/pwd         | print working directory name or path      |
| 0x027b | /bin/rm          | remove files                              |
| 0x027c | /bin/rmdir       | remove directories                        |
| 0x027e | /bin/run         | run kernel processes                      |
| 0x027f | /bin/sdiff       | side-by-side difference program           |
| 0x0280 | /bin/sleep       | suspend execution for interval            |
| 0x0281 | /bin/sort        | sort and/or merge files                   |
| 0x0282 | /bin/split       | split a file into pieces                  |
| 0x0283 | /bin/stat        | get file status                           |
| 0x0284 | /bin/stty        | set the options for a terminal            |
| 0x0285 | /bin/su          | change user ID                            |
| 0x0286 | /bin/sum         | print checksum and block count of a file  |
| 0x0288 | /bin/sync        | update super-block                        |
| 0x0289 | /bin/tail        | deliver the last part of a file           |
| 0x028a | /bin/tee         | pipe fitting                              |

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| UID    | 3B NAME                          | DESCRIPTION                                                         |
|--------|----------------------------------|---------------------------------------------------------------------|
| 0x028b | /bin/time                        | get time                                                            |
| 0x028c | /bin/touch                       | update access and modification times of a file                      |
| 0x028d | /bin/tty                         | terminal device interface                                           |
| 0x028e | /bin/uname                       | print name of current system                                        |
| 0x028f | /bin/wc                          | word count                                                          |
| 0x0290 | /bin/who                         | who is on the system                                                |
| 0x0291 | /bin/write                       | write on a terminal                                                 |
| 0x0292 | /bin/sed                         | stream editor                                                       |
| 0x0293 | /usr/bin/asa                     | interpret the asa control character                                 |
| 0x02c0 | /cft/shl/cmds<br>/COPY/ACTDISK   | copies a file to an OOS disk                                        |
| 0x02c1 | /prc/mntfs                       | mounts file systems in an OOS disk                                  |
| 0x02c3 | /usr/bin/PDSed                   | PDS editor                                                          |
| 0x02c4 | /cft/shl/cmds<br>/ALW/FILESYS    | file system maintenance                                             |
| 0x02c5 | /prc/pmdbcopy                    | copies plant measurements database from core to disk                |
| 0x02c6 | /cft/shl/cmds/OP/PMCR            | invokes pmcrman                                                     |
| 0x02c7 | /prc/pmcrcol                     | updates common records                                              |
| 0x02c8 | /prc/pmcrrrep                    | generates PMS reports                                               |
| 0x02c9 | /prc/pmcrman                     | process that controls execution of pmrcol and pmcrrrep              |
| 0x02ca | /prc/cspdisk                     | copies a file to a spool disk                                       |
| 0x02cb | /prc/cpoosf                      | copies a file from an OOS disk                                      |
| 0x02cc | /cft/shl/cmds<br>/COPY/CPSPDISK  | invokes cspdisk                                                     |
| 0x02cd | /cft/shl/cmds<br>/COPY/CP00SF    | invokes cpoosf                                                      |
| 0x02ce | /cft/shl/cmds/CLR/PTN            | invokes clearptn                                                    |
| 0x02cf | /prc/clearptn                    | clears out a partition                                              |
| 0x02d0 | /usr/bin/chk_pmdb                | checks plant measurements database against ecd database.            |
| 0x02d1 | /cft/shl/cmds<br>/COPY/BKTAPE    | copies a multi-volume DAT                                           |
| 0x02d1 | /cft/shl/cmds<br>/DUMP/BKTAPE    | dumps the first header of the logical volumes on a multi-volume DAT |
| 0x02d5 | /bin/urun                        | run user process                                                    |
| 0x02d6 | /prc/3btpwrt                     | writes disk image to tape in LDFT format                            |
| 0x02d7 | /cft/shl/cmds<br>/COPY/BKDSK/ACK | invokes tpack                                                       |

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| UID    | 3B NAME                            | DESCRIPTION                                         |
|--------|------------------------------------|-----------------------------------------------------|
| 0x02d8 | /cft/shl/cmds<br>/STOP/BKDISK      | stops the physical disk to tape writer              |
| 0x02d9 | /cft/shl/cmds<br>/COPY/BKDSK/START | invokes 3btpwrt                                     |
| 0x02da | /prc/tpack                         | acknowledge 3btpwrt that a tape is mounted          |
| 0x02db | /prc/tpstop                        | stop execution of 3btpwrt                           |
| 0x02dc | /prc/supr/continue                 | restarts execution of a system update               |
| 0x02dc | /cft/shl/cmds<br>/UPD/GEN/CONTINUE | invoke continue process                             |
| 0x02dd | /prc/supr/applhook                 | application process used during system<br>update    |
| 0x02de | /prc/supr/readlog                  | requests output of system update event log          |
| 0x02e0 | /cft/shl/cmds<br>/UPD/GEN/BACKOUT  | invoke backout process                              |
| 0x02e1 | /cft/shl/cmds<br>/UPD/GEN/COMMIT   | invoke commit process                               |
| 0x02e2 | /cft/shl/cmds<br>/UPD/GEN/ENTER    | invoke enter process                                |
| 0x02e3 | /cft/shl/cmds<br>/UPD/GEN/PROCEED  | invoke proceed process                              |
| 0x02e4 | /cft/shl/cmds<br>/OP/GEN/READLOG   | invokes readlog                                     |
| 0x02e5 | /cft/shl/cmds<br>/UPD/GEN/RESTORE  | invoke restore process                              |
| 0x02e6 | /cft/shl/cmds/STOP/GEN             | invokes stop process                                |
| 0x02e7 | /prc/supr/stop                     | stops the system update command in process          |
| 0x02e8 | /prc/supr/commit                   | overwrites old generic with new generic             |
| 0x02e9 | /prc/supr/restore                  | restores the old generic to the system              |
| 0x02e9 | /etc/mkstart                       | make disk acknowledgment program                    |
| 0x02ea | /prc/supr/backout                  | backs out of new generic to old generic             |
| 0x02eb | /prc/supr/enter                    | system update process                               |
| 0x02ec | /prc/supr/proceed                  | prepares system for booting from the new<br>generic |
| 0x02ed | /bin/prtcp                         | copies primary/backup partition                     |
| 0x02ee | /prc/supr/suprint                  | invoke a system update process                      |
| 0x02ef | /prc/supr/applproc                 | application process                                 |
| 0x02f0 | /cft/shl/cmds<br>/UPD/GEN/APPLPROC | invoke an application process                       |

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| UID    | 3B NAME                       | DESCRIPTION                                         |
|--------|-------------------------------|-----------------------------------------------------|
| 0x0301 | /usr/bin/loadf3b              | creates a flatfile from a <> file                   |
| 0x0302 | /bin/sdfinfo                  | special device file information                     |
| 0x0303 | /prc/psm                      | power switch monitor                                |
| 0x0304 | /bin/sdfrel                   | special device file release                         |
| 0x0307 | /cft/shl/cmds/RCV/MENU        | DB recent change menu                               |
| 0x0309 | /usr/bin/createecd            | creates skeleton of ECD database                    |
| 0x030a | /usr/bin/rcvecd               | recent change and verify ECD from UNIX®<br>terminal |
| 0x030b | /bin/ducb                     | display UCB in ECD                                  |
| 0x030f | /usr/bin/comparedb            | compare databases                                   |
| 0x0310 | /usr/bin/fdiff                | file differences                                    |
| 0x0311 | /usr/bin/keycmp               | key compare                                         |
| 0x0312 | /usr/bin/keycomm              | key common program                                  |
| 0x0313 | /usr/bin/keys                 | keys program                                        |
| 0x0314 | /usr/bin/newdb                | create a new database                               |
| 0x0315 | /usr/bin/printdb              | print database                                      |
| 0x0316 | /usr/bin/printfrm             | print forms                                         |
| 0x031e | /cft/shl/cmds<br>/RCV/DMTECD  | recent change and verify interface for ECD          |
| 0x0320 | /cft/shl/cmds/OP/ULARP        | ularp request processor                             |
| 0x0322 | /cft/shl/cmds/STOP/AUD        | audit stop process                                  |
| 0x0323 | /cft/shl/cmds/ALW/AUD         | allow audit                                         |
| 0x0324 | /cft/shl/cmds/AUD             | begin audit process                                 |
| 0x0325 | /etc/siof                     | system integrity output formatter                   |
| 0x0326 | /cft/shl/cmds/INH/AUD         | audit inhibitor                                     |
| 0x0327 | /cft/shl/cmds/OP/AUD          | audit report generator                              |
| 0x032a | /cft/shl/cmds<br>/CLR/EMERDMP | emergency dump                                      |
| 0x032b | /cft/shl/cmds<br>/OP/EMERSTAT | emergency status                                    |
| 0x032c | /etc/op_stat                  | audit status process                                |
| 0x032d | /cft/shl/cmds<br>/OP/AUDERR   | audit error process                                 |
| 0x032e | /cft/shl/cmds<br>/INIT/ULARP  | craft initialization to SIM                         |

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| UID    | 3B NAME                     | DESCRIPTION                                      |
|--------|-----------------------------|--------------------------------------------------|
| 0x0334 | /cft/shl/cmds/VFY/FILE      | verify file                                      |
| 0x0360 | /usr/bin/createsg           | creates skeleton of SG database                  |
| 0x0361 | /usr/bin/rcvsg              | recent change and verify SG from UNIX® terminal  |
| 0x0362 | /usr/bin/rcvecdmcr          | recent change and verify ECD from MCRT           |
| 0x0363 | /usr/bin/rcvsgmcr           | recent change and verify SG from MCRT            |
| 0x0364 | /cft/shl/cmds<br>/RCV/DMTSG | recent change and verify interface for SG        |
| 0x0365 | /usr/bin/vfydflt            | perform default file verification via vfydflt    |
| 0x0366 | /usr/bin/iopadd.p           | addition of IOP                                  |
| 0x0366 | /usr/bin/iopdel.p           | deletion of IOP                                  |
| 0x0366 | /usr/bin/links.p            | review linkage orders                            |
| 0x0366 | /usr/bin/mtadd.p            | addition of maintenance terminal                 |
| 0x0366 | /usr/bin/mtcadd.p           | addition of maintenance terminal controller      |
| 0x0366 | /usr/bin/mtcdel.p           | deletion of maintenance terminal controller      |
| 0x0366 | /usr/bin/mtdel.p            | deletion of maintenance terminal controller      |
| 0x0366 | /usr/bin/sdladd.p           | addition of SCANS distributor linkage            |
| 0x0366 | /usr/bin/sdlcadd.p          | addition of SCANS distributor linkage controller |
| 0x0366 | /usr/bin/sdlcdel.p          | deletion of SCANS distributor linkage controller |
| 0x0366 | /usr/bin/sldel.p            | deletion of SCANS distributor linkage            |
| 0x0366 | /usr/bin/slots.p            | review slot assignments on UCB                   |
| 0x0366 | /usr/bin/ttyadd.p           | addition of tty                                  |
| 0x0366 | /usr/bin/ttycadd.p          | addition of ttyc                                 |
| 0x0366 | /usr/bin/ttycdel.p          | deletion of ttyc                                 |
| 0x0366 | /usr/bin/ttydel.p           | deletion of tty                                  |
| 0x0366 | /usr/bin/vfydflt.p          | perform vfydflt process                          |
| 0x0379 | /bin/rmtgetty               | remote dialog shell                              |

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## 4ESS™/APS Input/Output Message Manual Comment Form

Lucent Technologies opinion. We would like to know how well this document meets your needs. Please check the appropriate column to indicate your opinion of the document for the categories listed on the right, and answer the questions following the table. Your comments will help us improve future issues. Thank you in advance for taking the time to fill out this form.

Generic: 4AP20

Issue: 9.4

|              | Excellent | Good | Fair | Poor |
|--------------|-----------|------|------|------|
| Ease of Use  |           |      |      |      |
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| Clarity      |           |      |      |      |
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1. How did you use this document? (Circle one.)  
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Other (specify): \_\_\_\_\_
2. Could information be organized differently to help you on the job? YES NO  
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## 4ESS™/APS Input/Output Message Error Reporting Form

Use this form to report errors and make suggestions for improving the contents of the manual or quarterly release. If an error relates to a specific message, please write your comments on a TTY output or a photocopy of the message documentation and attach it to this form.

Manual:      Input ☐      Output ☐

Generic: \_\_\_\_\_ Issue: \_\_\_\_\_

Quarterly Release (If applicable) : \_\_\_\_\_

Message ID(s): \_\_\_\_\_

Comments: \_\_\_\_\_

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