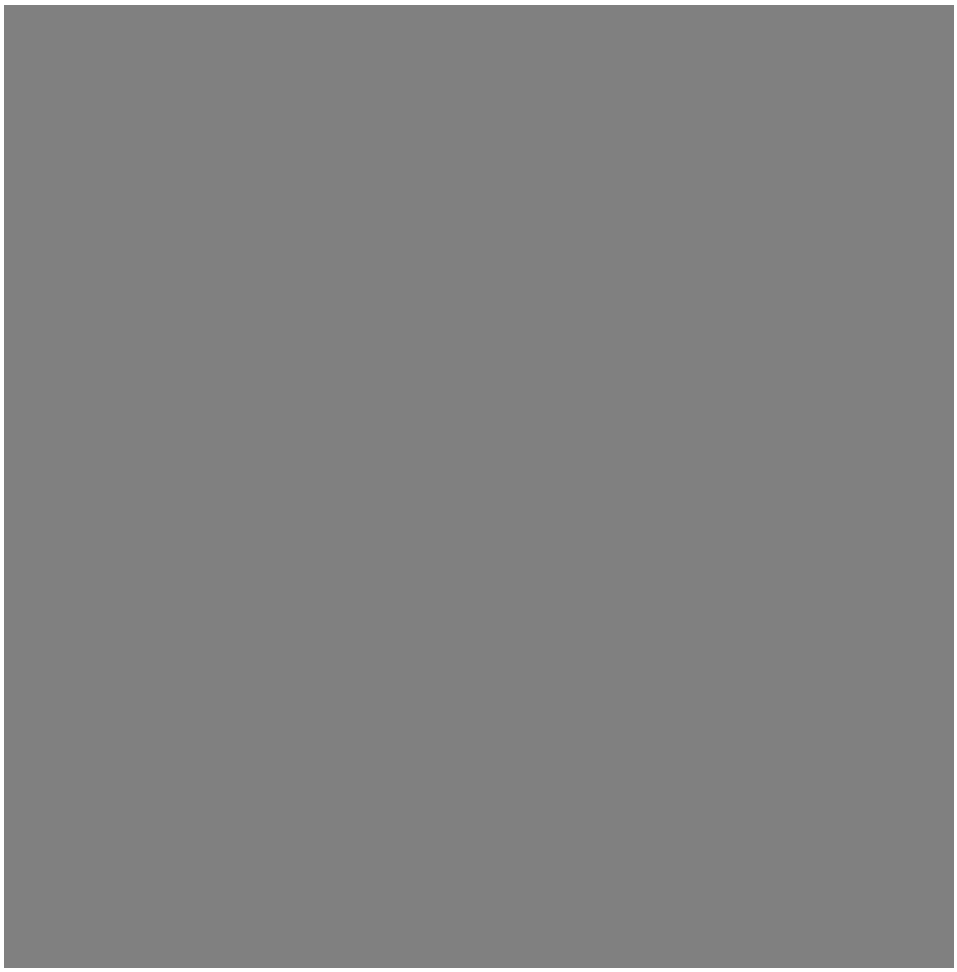
Network Operations Systems

# Business Network Management

## A Guide to DNC Logs and Alarms

NSR28 and up March 1991 Standard



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## A Guide to DNC Logs and Alarms

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# Contents

# Introduction

This practice explains how to interact with the DNC * Log service and the DNC Alarm service. These services are provided with the DNC-50, DNC-100, and DNC-500 Dynamic Network Control Systems. The practice describes the Log and Alarm services, provides user instructions on how to access, print, and manage log and alarm messages, and lists the log messages generated by the base software. The appendix to this practice lists the log messages generated by the application software. Depending on the system, the application is either BNM*, DMS-SCP*, or TABS.

## How to Use this Document

This document is organized as follows:

| | |
|---|---|
| Introduction | As well as introducing the contents and organization of this manual, Part 1 provides an overview of the user interface for DNC. It also provides instructions on how to sign on to DNC and access the log and alarm services. |
| Log Service | Part 2 describes the log service, which is a software subsystem of DNC that records a log message for each system event. Part 2 also provides user instructions for viewing, printing, and managing log messages. |
| Alarm Service | Part 3 describes the alarm service, which consists of a software subsystem of DNC and alarm indication devices. Alarms are generated in DNC when a log message is created as the result of a system fault. The log service sends such logs to the alarm service, which then processes the log as an alarm and sends appropriate signals to alarm indicating devices. Part 2 also provides user instructions for viewing, printing, and managing alarm messages. |

* DNC, BNM, and DMS-SCP are trademarks of Northern Telecom

| | |
|---|---|
| Base DNC Logs | Part 4 lists the base DNC log messages, including definitions and suggested user responses. |

When using this manual, you should first read the appropriate descriptive sections on the log and alarm services, and then consult the user procedures for instructions on how to interact with the services. Then, for assistance in interpreting and responding to logs and alarms, you should look up the log message in Part 4.

## Associated Documents

Additional reference information is found in the following documents:

- 450-1011-301 contains administrative procedures for setting up the DNC Log service and the DNC Alarm Service.
- 450-1011-501 contains troubleshooting information for cabinet systems.
- 450-1011-502 contains troubleshooting information for bay systems.

## Document Release Information

The information on the inside title page provides the release information for this issue of this document. The information includes the 10-digit identification number for the practice, plus the following additional information:

(a) **Product Release:** This code represents the software or product release number associated with the current issue of the document, plus the issue number of document. The format is NSRaa bb, where:
- NSRaa is the Network Software Release number
- bb is a sequential issue number for the document that indicates how many times the document has been released with the specified software release.

(b) **Document Release:** A rating code of Draft, Preliminary, or Standard is assigned to the document, reflecting the current status of the document.

(c) **Date:** This is the date the document was released for reproduction or printing. It is not intended to be the same as the software or product release date.

## Notational Conventions

The DNC user interface is based on commands and screen displays. The user enters commands either by pressing hardkeys, whose functions are fixed, or by pressing softkeys, whose functions vary according to the user's working context.

Names of keys in caret marks denote the name of a softkey, for example, **<Add>, <Delete>,** or **<Change>.** Softkeys change function according to the screen display.

Names of keys in UPPERCASE denote the name of a hardkey, which is a labeled key on the keyboard. Hardkeys always perform the same function.

## Change history

### NSR28

The changes introduced by NSR28 are:

- log and alarm systems can now support two ALIUs.
- hex and ASCII details of a log message can be printed out.

### NSR27

The changes introduced by NSR27 are:

- NTP converted to a new document style.
- logs for many PRUs or subsystems are included in this publication for the first time.
- the LAN field has been added to the log MMI screens.

## The User Interface

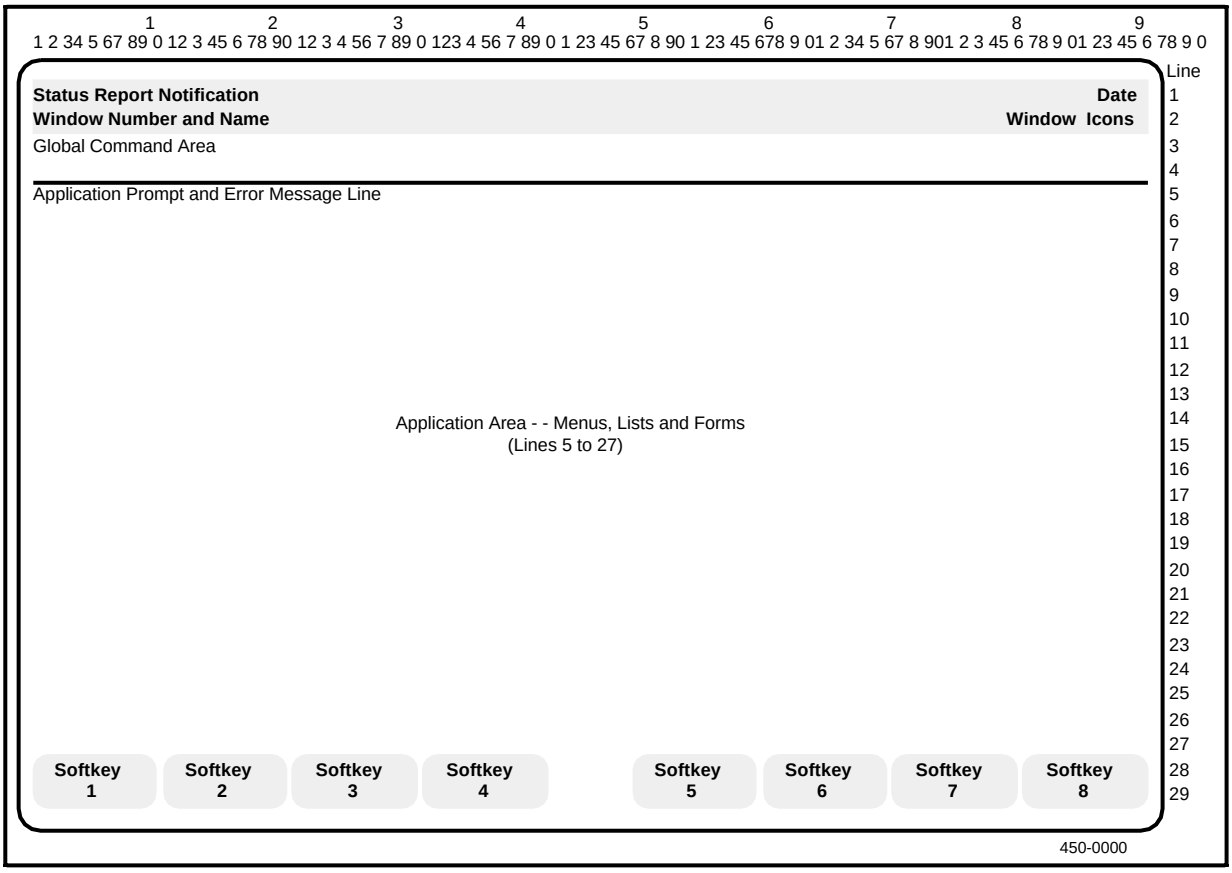
Before working with the DNC log and alarm services, you should become familiar with both the screen and keyboard layouts for your particular terminal. The two basic types of terminals available for this application are the M4000-series and the ASCII type, which is configured for VT100 * mode. These terminals are described in the remainder of this section.

### Screen Display for the M4000 Terminal

The M4000-series terminal screen consists of 29 lines and 90 columns. The screen layout (as shown in Figure 1-1) is:

* VT100 is a trademark of Digital Equipment Corporation.

**Figure 1-1**
**Screen Layout for a Meridian M4000 Terminal.**



| Lines | Content |
|---|---|
| 1 and 2 | Notification messages, window number and name |
| 3 and 4 | Prompts and error messages |
| 5 to 27 | Application area |
| 28 and 29 | Softkeys |

## Screen Display for the ASCII Terminal

The screen layout for an ASCII terminal has a display window of only 24 lines and 80 columns. Although the ASCII displays approximate the M4000 displays as closely as possible, the ASCII character format, different screen size, and other display limitations result in some difference in displays. The screen layout for an ASCII terminal (as shown in Figure 1-2) is:

| LINES | CONTENT |
|---|---|
| 1 and 2 | Notification messages, window number and name |
| 3 and 4 | Prompts and error messages |
| 5 to 22 | Application area |
| 23 and 24 | Softkeys |

## VT100 Keyboard

Figure 1-3 shows the standard keys on the VT100 keyboard. The VT100 emulation program provided by the DNC is mapped to this keyboard, although other compatible ASCII terminals have different keyboard layouts. When using an ASCII terminal other than a VT100, make sure it is configured for VT100 mode (if applicable) and use its keys as they correspond to the VT100 keyboard.

**Figure 1-2**
**Screen Layout for an ASCII Terminal.**

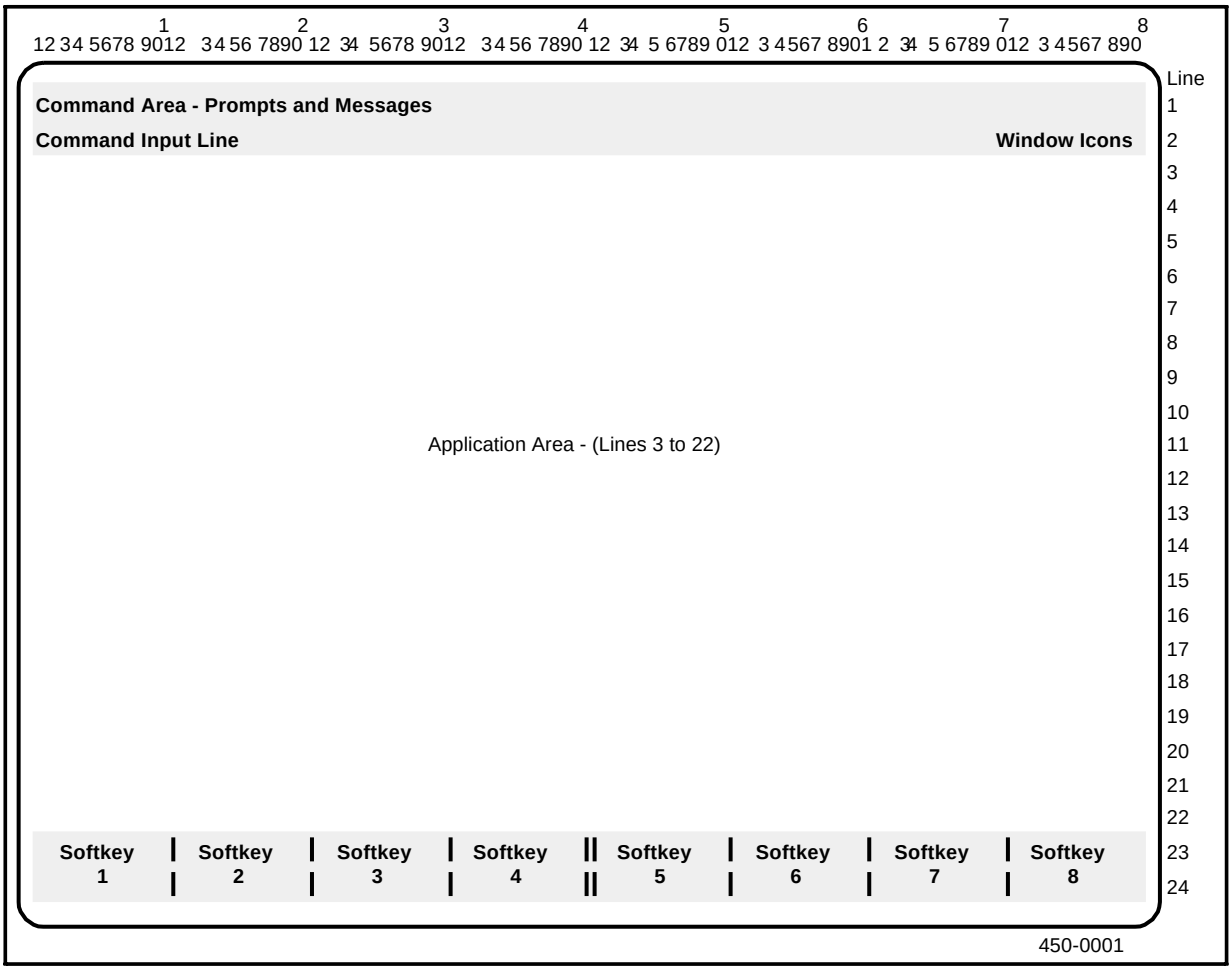
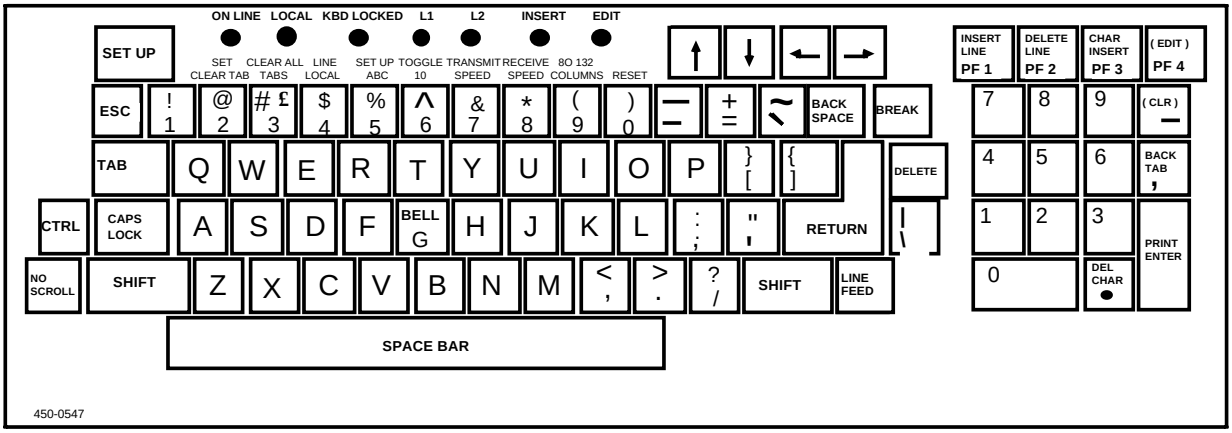



**Figure 1-3**
**VT100 Keyboard Layout.**



On the VT100 (and with the DNC VT100 emulation program), the RETURN key functions as a standard ENTER key, not as a RETURN key. The cursor arrows on this keyboard are equivalent to the M4000 arrow-key functions. The INSERT key and the delete BACKSPACE keys are not supported by VT100 emulation.

Unlike the M4000, which has keys labeled and designated for use with a DNC-type user interface, ASCII terminals require an attention key sequence to enter hardkey and softkey commands. An attention key tells the system to act on the next key entered as a command key.

Table 1-A lists the key sequences required on an ASCII terminal to emulate specific softkeys and hardkeys provided by the M4000-series terminals. The table also lists equivalent VT100 key sequences for miscellaneous terminal functions.

**Table 1-A**
**VT100 KEYBOARD FUNCTIONS**

| M4000 KEY | EQUIVALENT VT100 KEY SEQUENCE (See Note 2) |
|---|---|
| **Softkeys** | |
| Softkey 1 | ATTN 1 or PF1 |
| Softkey 2 | ATTN 2 or PF2 |
| Softkey 3 | ATTN 3 or PF3 |
| Softkey 4 | ATTN 4 or PF 4 |
| Softkey 5 | ATTN 5 |
| Softkey 6 | ATTN 6 |
| Softkey 7 | ATTN 7 |
| Softkey 8 | ATTN 8 |
| **Hardkeys** | |
| ACCEPT | ATTN a |
| ADJUST | ATTN d |
| CANCEL | ATTN x |
| CLOSE | ATTN l |
| COMMAND | ATTN c |
| HELP | ATTN h |
| MAIN MENU | ATTN m |
| MEETING | ATTN t |
| PHONE | ATTN p |
| SHARE | ATTN s |
| WINDOW | ATTN n |
| **- continued -** | |

**Table 1-A (continued)**
**VT100 KEYBOARD FUNCTIONS**

| M4000 KEY | EQUIVALENT VT100 KEY SEQUENCE (See Note 2) |
|---|---|
| **Miscellaneous Functions** | |
| ALT+HELP (service description help) | ATTN v |
| ATTN key code (see note 3) | ATTN ATTN |
| BACKTAB | ATTN b |
| ENTER | ATTN e or ATTN RETURN |
| INSERT | ATTN e or ATTN RETURN |
| RESET | ATTN i |
| SHIFT+HELP (help in data fields) | ATTN r |
| SHIFT+WINDOW (window menu) | ATTN s |
| XOFF | CTRL s (see note 3) |
| XON | CTRL q (see note 3) |

***Note 1:*** To enter a DNC command, press and release the ATTN key, then press the key that represents the command.

***Note 2:*** The key that is to be used as the ATTN key is specified in the terminal configuration. Pressing the ATTN key twice enters the key's normal function. For example, if ESC is defined as the ATTN key, press ESC twice to send the key's normal ESC code.

***Note 3:*** XON and XOFF are flow control characters. Pressing CTRL S on an ASCII terminal causes the terminal to stop accepting input from the LAN Interface unit that connects it to the DNC.

## Getting Started: Signing On and Off

This procedure describes how to sign on and sign off the DNC. You must sign on to the system before being allowed to perform any functions or use the terminals.

### Signing on

To sign on, proceed as follows:

(1) The screen should be displaying an introductory logo, and should be prompting for a sign-on name. Type in your sign-on name and press ENTER.

The system prompts for a password.

(2) Type in your password and press ENTER.

The main menu appears on the screen. You are now signed on.

## Signing off

To sign off, proceed as follows:

(1) Return the screen display to the system main menu by pressing the **<Exit>** softkey of the various menu layers.

(2) Press **<Sign Off>**, then press ENTER, to confirm the sign-off.

## Changing User ID

To sign off as one user and sign on as another user, press <Change ID>, and then type in the sign-on name and password of another user to complete the re-entry sign-on.

***Note:*** This function will NOT close any active windows.

# Log Service

A log is a message issued as a record of an event occurring in the DNC. Log messages record both normal occurrences, such as user sign-ons, and abnormal occurrences, such as error conditions and equipment failures. Logs relating to software and hardware faults are filtered and passed to the alarm service as alarm messages.

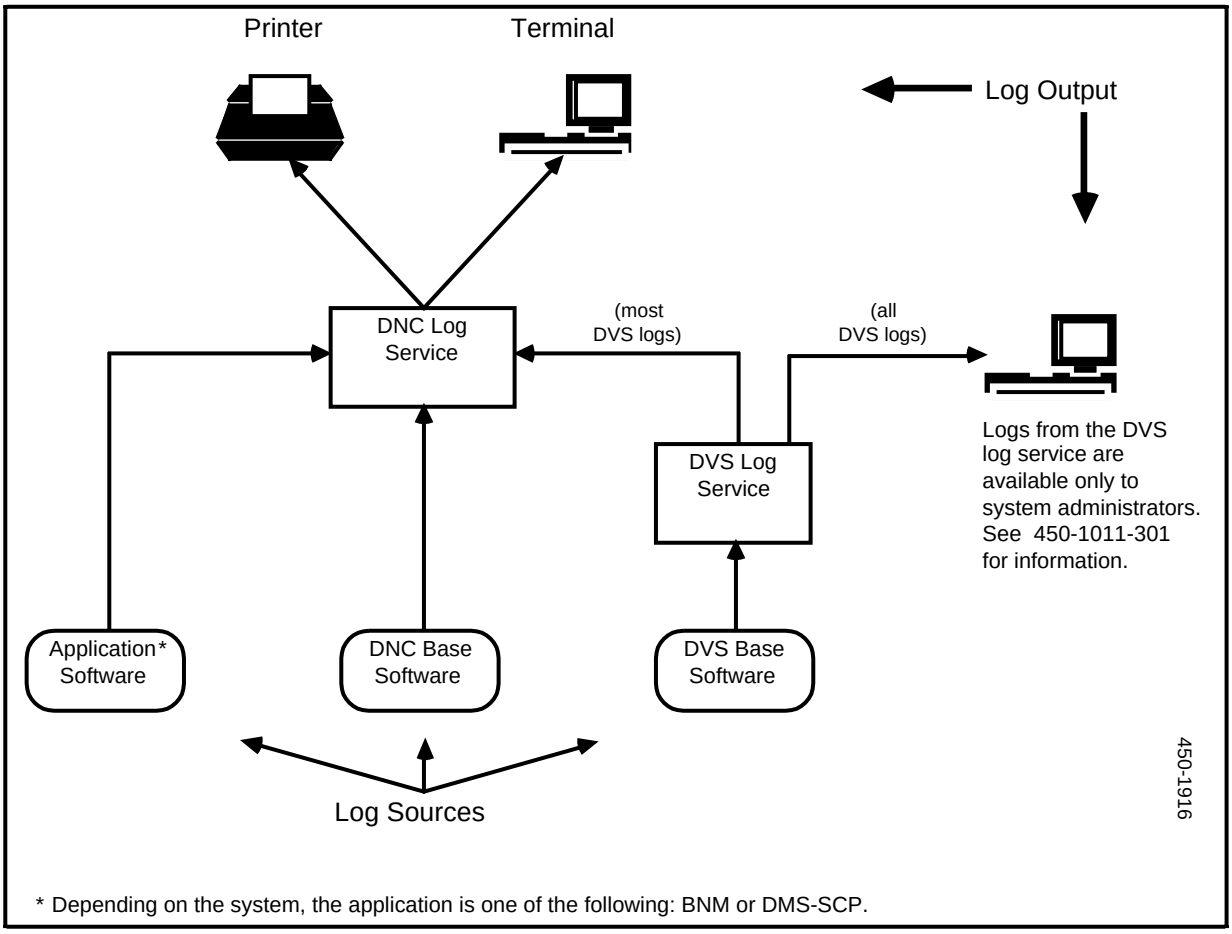
## Overview of the Log Service Available on the DNC

There are two separate log services available on the DNC: the DVS Log service and the DNC Log service. Each is controlled by its own man-machine interface.

The DVS Log service is available in all DNCs. System Administrators can use the DVS service, but other users cannot. The DNC Log service (and the companion DNC Alarm service) are available if the "LOGGER" option was selected when the system software was installed. (See 450-1011-302, 'A Guide to DNC Base Software Installation', for more information.) If the DNC Log and Alarm services are available, the system administrator can put the LOG MMI and ALARM MMI options on the main menu for any user or user group. Any user who has these options on his or her main menu can use the services.

This practice explains how to use the DNC Log service and the DNC Alarm service. The DNC Log service handles all the log messages generated by the application software, and handles most of the log messages generated by the base software. (Figure 2-1 illustrates where log messages come from and where the log output appears.) The DNC Log service forwards high-severity log messages to the DNC Alarm service.

**Figure 2-1**
**Logs: Origins and Output Devices.**




The DVS Log service is not covered in this practice, for the following reasons:

(a) Only system administrators can access the DVS Log service. Instructions on using the service are in 450-1011-301, 'A Guide to System Administrative Services'.

(b) In NSR24 and later software, most of the log messages generated by the DVS Log service are sent to the DNC Log service. (See Figure 2-1.)

## Features of the DNC Log Service

By default, whenever a log message is generated, the system sends it to the log history file. However, the system administrator can 'suppress' a log, in which case the system does not send it to the log history file.

The system administrator can set time and count thresholds for logs. If a threshold is specified, the system suppresses log messages that fall short of the threshold, that is, it generates the message, but does not send it to the log history file.

Every log has a severity. There are 15 severity levels, from critical (the most severe) to 15 (the least severe). Logs of the three highest severity levels--critical, major, and minor--cause alarms. When a high-severity log message is generated, the Log service sends the message to the Alarm service, which generates an alarm of corresponding severity.

The log history file resides on the disk storage SRU associated with the Primary Processor. The log history file is circular; it holds a configurable number of log messages, and beyond that, each new log message overwrites the oldest existing log message.

If you have the LOG MMI option on your main menu, you can access the DNC Log service. Using the service, you can display or print the messages that you are entitled to see.

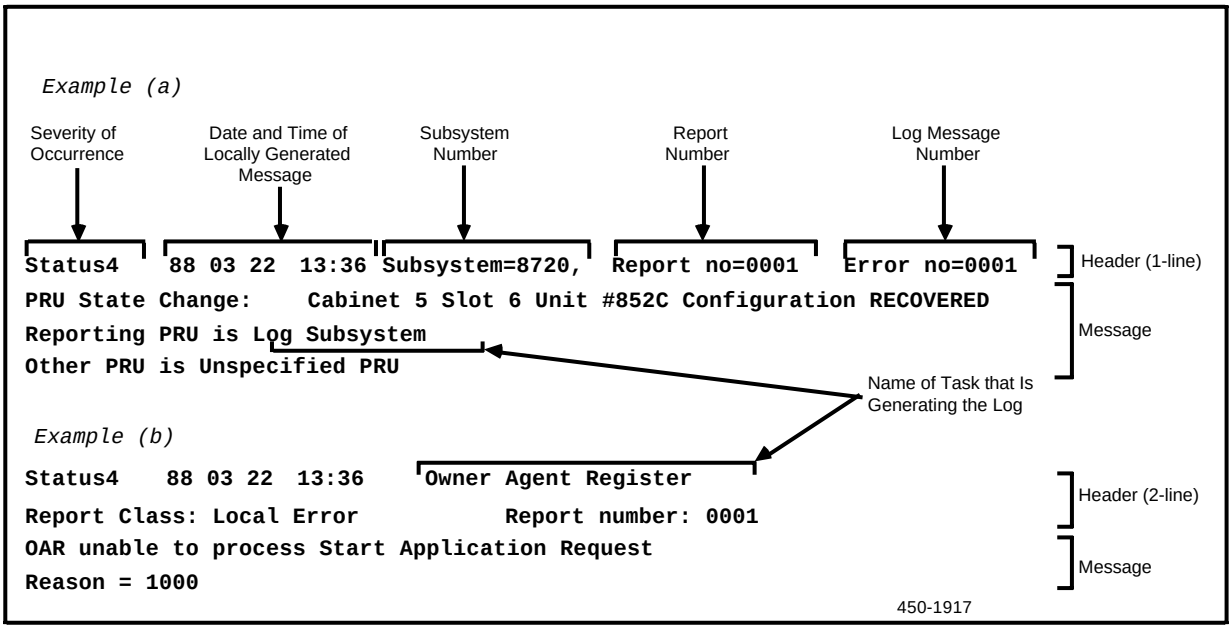
> ***Note 1:*** Each alarm message is identical to the associated high-severity log message.
>
> ***Note 2:*** Unless you are a system administrator, the messages that you are entitled to see are those generated for your own group and the broadcast messages, which are available to all users. If you are a system administrator, you are entitled to see messages generated for any user group.

The log service can be multilingual. This is possible because the text of the master copy of each log message can be defined in up to three languages. (English, French, and Spanish are typical choices.) For each log output device, the system administrator can specify the language that the system is to use when it issues log messages. If the system administrator selects a language that is unavailable, or makes no selection, the system sends the copy of the message that was defined first.

## Output from the DNC Log Service

The DNC Log service sends log messages to a log history file. At the same time, it can output the log messages on printers and terminals that the system administrator has configured as log output devices. Up to 16 log output devices can be active at one time. (For details on configuring log output devices, see 450-10110-301, 'A Guide to System Administrative Services.) Figure 2-2 illustrates formatted DNC log messages.

**Figure 2-2**
**Formatted DNC Log Messages.**




Any user can obtain a display of DNC log messages on his or her terminal. To produce the log display, the DNC Log service scans the contents of the log history file and selects the messages that the user is entitled to access. (The user's access rights are determined by the user group to which he or she belongs.) The log messages appear in shortened form, but the user can obtain the display of the full log message by selecting the shortened message on the screen and pressing the <More Details> softkey.

## Log Format

Every log message printed by a log printer is composed of two parts, a header and the message itself. Figure 2-2 illustrates formatted log messages.

A log's header is one or two lines in length, depending on the header format. As of the issue date of this document, there are six header formats. Figure 2-2 illustrates two of the formats. The formats not shown differ only slightly from those in the figure.

The log header contains information that uniquely identifies the log message. In some cases, some of the information items in the log header are labeled (for example, 'Subsystem='). The precise composition of the log header depends on the format. Every header is composed of items drawn from the following list:

(a) **Severity.** There are 15 severity levels, from 'Status15' (the lowest) to 'Critical' (the highest). The severity is included in every log header format.

(b) **Date and Time.** The date is output at the upper left of the message, in the format YY MM DD, in digits, and the time in HH:MM format. The date and time are included in every log header format.

(c) **Reporting Resource Unit (RU).** Every log header format includes an item that identifies the reporting resource unit. Depending on the header format, the reporting resource unit is identified either by its RU name or by its subsystem number.

When the RU name appears in the header, the item is not labeled. In a two-line header, the reporting RU name is the last item on line one. In a one-line header, it precedes the report number.

When the subsystem number appears in the header, the item is labeled. The four-digit hexadecimal number is the name of a message-subsystem file that is associated with a certain PRU. The message-subsystem file contains the log messages that the PRU can generate. Each message-subsystem file is named XXXX.LOG, where XXXX is the four-digit hexadecimal number. All the message-subsystem files are stored in the Helix directory named :LOCAL:PRU:LOGS:LOGDESC.

(d) **Report Number.** Report numbers are hexadecimal numbers that establish categories of log messages related to particular types of event. The report number is included in every log header format. In some formats it is labeled. In formats where it is not labeled, it is the second last item in a one-line header.

(e) **Error Number.** The error number is a hexadecimal number that is specific to a type of error condition. The error number is included in five of the six log header formats. In some formats it is labeled. In formats where it is not labeled, it is the last item in a one-line header.

(f) **Report Class.** The report class is an information item in DVS log messages. See 'Mapping of DVS Log Messages', later in this part, for more information on report classes. In two-line log header formats, this item is labeled. When it is included in a one-line header, it is the first item following the date and time.

## Mapping of DVS Log Messages

The log messages issued by the DVS Log service have been mapped to DNC format. That is, the DNC Log service has message-subsystem files containing DNC versions of the DVS log messages. When the DNC Log service receives a DVS log message, it looks up the appropriate message-subsystem file and issues the DNC version of the log.

The information items in DVS and DNC log messages do not correspond on a one-for-one basis. Therefore, when the DNC versions were generated, it was necessary

- to add group and user attributes
- to assign subsystem, report, and error numbers
- to transfer into the DNC format certain items found only in DVS logs, items such as report class.

The group and user attributes assigned to the DNC versions of DVS logs restrict access to the logs. Only members of the system administrators' user group (group 0) can access them.

The subsystem, report, and error numbers depend on the DVS log's report number and report class. The subsystem number, report number, and error number are set as follows:

If the DVS report class is 0003 (global event), then the subsystem number is set to 0003, the report number is set to the DVS report number, and the error number is set to -1.

If the DVS report class is 0004 (global error), then the subsystem number is set to 0004, the report number is set to the DVS report number, and the error number is set to the DVS error code.

If the DVS report class is neither 0003 nor 0004, and if the DVS report number is in the range 0 to 0FFF or in the range 2000 to 3FFF, then the subsystem number is set to the PRU unit number (the first four digits of the eight-digit device number), the report number is set to the DVS report class, and the error number is set to the DVS report number.

If the DVS report class is neither 0003 nor 0004, and if the DVS report number is in the range 1000 to 1FFF, then the report number is set to the DVS report class, the error number is set to the DVS report number. The subsystem number is set to the ordinal value of the first four characters of the filename. (The full file name is displayed in the Fixed String 2 field. See below.)

The DVS report class name appears in the Fixed String 1 field of the DNC version of the log. The DVS report class names are: debug log (hexadecimal code 0000), local event (hexadecimal code 0001), local error (hexadecimal code 0002), global event (hexadecimal code 0003), or global error (hexadecimal code 0004).

The name of the file that generated the message appears in the Fixed String 2 field of the DNC version of the log.

## Responding to Logs

When a log message appears on the printer, look up the message and take the indicated action. To look up a message, consult Part 4.

## Using the DNC Log Service

You access the screens controlling the DNC Log service from the main menu. See Figure 2-3 for an illustration of the Log MMI screens. Using the Log service, any user can perform the following functions:

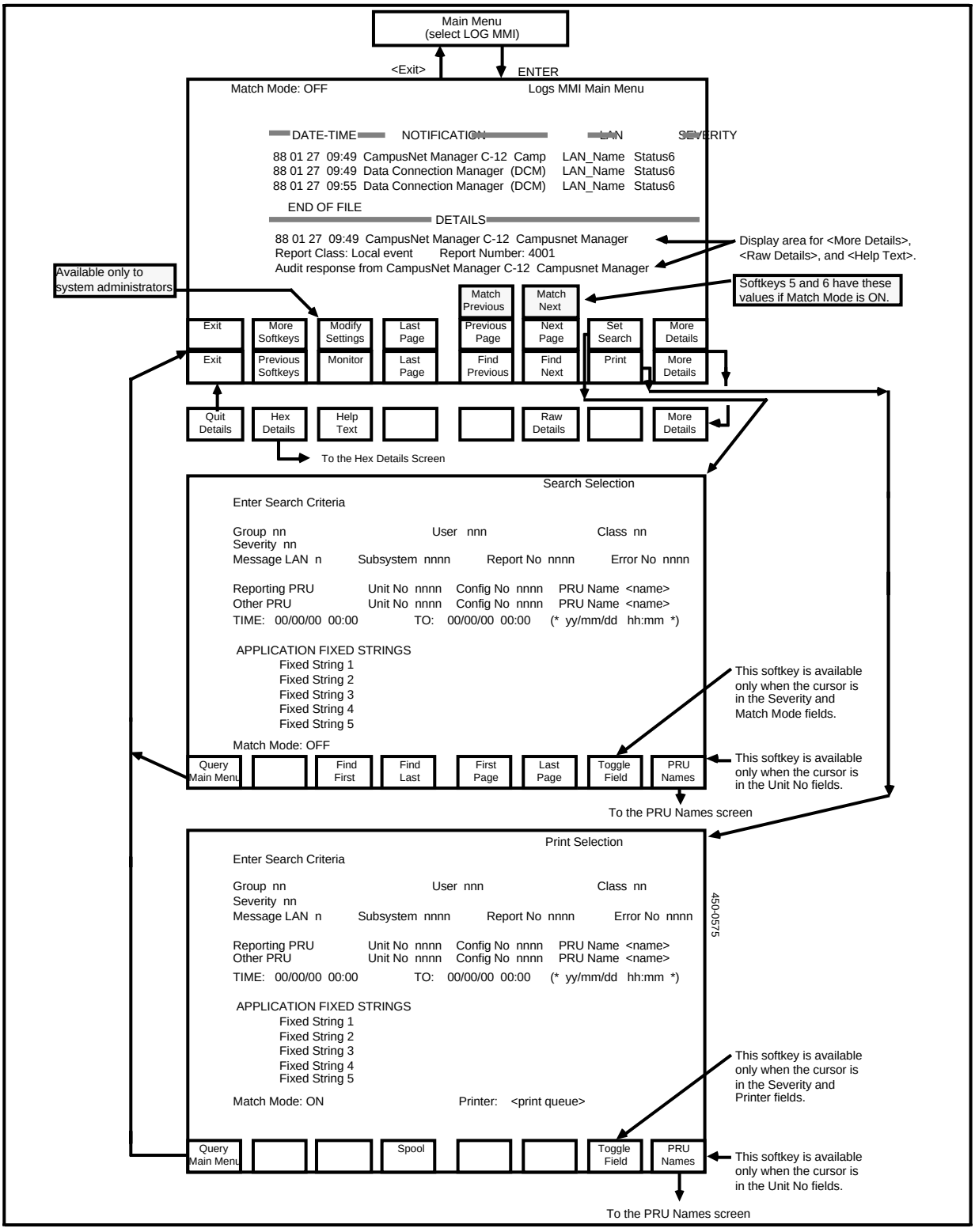
- display logs and log details
- initiate monitor mode, in which the system displays log messages as they are generated.
- display and print a log in both hex and ASCII format
- print the logs recorded in the log history file
- filter the logs that are displayed or printed, by specifying criteria to select the logs by group, class, or severity

When the user asks the log service to print or display logs from the log history file, the system scans the file and selects those messages that qualify for printing or display. (The user can specify the selection criteria that the system uses to select logs.)

In addition, if the user is a system administrator, he or she can use the DNC Log service to perform the following functions:

- change a log’s severity level
- assign a log to a different class
- specify that certain log messages should be suppressed
- specify thresholds for issuing certain logs
- display the logs that have been suppressed or thresholded.

**Figure 2-3**
**Log MMI Screens.**



## Displaying Logs

The menu structure for this section is shown in Figure 2-3.

To display logs, take the following steps:

(1) Sign on.

The main menu appears.

(2) Select Log MMI and press ENTER. (Note that the label on the main menu can be customized by the application, so that it may not say Log MMI. It may instead be 'System Log', 'DNC Logger', or some other designation.)

The Logs MMI Main Menu appears, displaying a list of logs (see Figure 2-3). In this list, each log is reported in an abbreviated form, including the following information:

- the date and time
- the program that generated the log
- the LAN number of the DNC where the program resides, shown in parentheses (displayed only if the DNC is part of a DataNet network)
- the log's severity level.

The field in the top left corner of the screen tells you that match mode is 'OFF'. This means that the screen will display all the logs that you are entitled to see. The system displays the most recent logs first, to save you from having to page all through the list to get to the most recent ones.

If you signed on as a system administrator, you are entitled to see all logs generated for all groups; if you did not sign on as a system administrator, you are entitled to see logs generated for your own group. In addition, every user is entitled to see broadcast logs.

(3) To page through the list of logs, use the **<Next Page>** and **<Previous Page>** softkeys. Following the first display, the system displays matching logs in chronological order, starting with the earliest ones.

(4) If you want the system to scan the log history file and select log messages that satisfy certain search criteria, then you must go to the Search Selection screen, specify the search criteria, and change the setting of the **Match Mode** field to 'ON'. Proceed as follows:

- Press <Set Search>.
  The system displays the Search Selection screen.
- Enter the search criteria in the fields on the screen. Press RETURN to move from field to field. (The search criteria are explained in 'Setting the Search Criteria', later in this part.)
- When the cursor reaches the Match Mode field, press <Toggle Field>.
  The value of the field changes to 'ON'.
- Press <Query Main Menu>.
  The system redisplays the Logs MMI Main Menu. Match mode is now enabled, and the fifth and sixth softkeys are now <Match Previous> and <Match Next>. You can use these softkeys to display the log messages that satisfy the search criteria.

(5) To display log messages that have been issued since you entered the Log MMI, press **<Last Page>.**

The system scans the log history file once again, and selects the logs that you are entitled to access. If match mode is enabled, it selects from that group the logs that satisfy the search criteria, and it redisplays the last page of the list.

(6) To return to the main menu, press **<Exit>.**

## Displaying Detailed Information About a Log

To display a log message in its full, formatted form, proceed as follows:

(1) Use the arrow keys to select the log on the Logs MMI Main Menu, and then press **<More Details>.**
New softkeys appear, and the system displays the full log message in formatted form in the lower portion of the Logs MMI Main Menu. (See Figure 2-2 for examples of formatted log messages.)

(2) To restore the original softkeys, press **<Quit Details>.**

## Displaying Help Text for a Log

To display help text concerning a log, proceed as follows:

(1) Use the arrow keys to select the log on the Logs MMI Main Menu, and then press **<More Details>.**
New softkeys appear.

(2) Press **<Help Text>.**
Help text appears in the lower portion of the Logs MMI Main Menu.

(3) To restore the original softkeys, press **<Quit Help Text>.**

## Displaying Raw Details

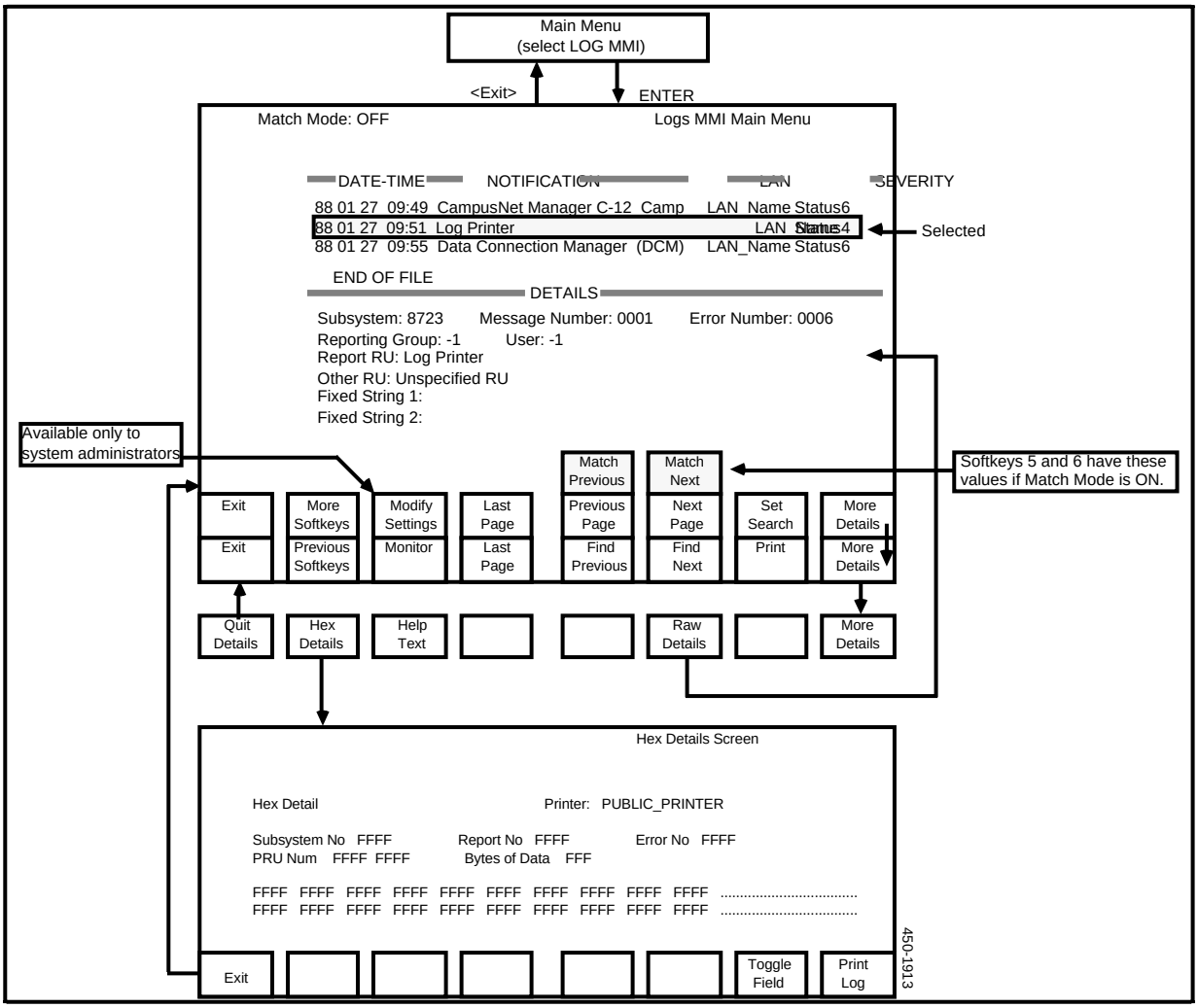
To display a log message in unformatted form, proceed as follows:

(1) Use the arrow keys to select the log on the Logs MMI Main Menu, and then press **<More Details>.**
New softkeys appear.

(2) Press **<Raw Details>.**
The unformatted log appears in the lower portion of the Logs MMI Main Menu, as shown in Figure 2-4. If the amount of information exceeds the available space, the softkey becomes **<More Raw Details>** to enable you to display the rest of the information.

(3) To restore the original softkeys, press **<Quit Details>.**

**Figure 2-4**
**Raw Details of a Log**




## Using Monitor Mode

In monitor mode, the system displays logs on the screen as they occur. To initiate monitor mode, take the following steps:

(1) Sign on.

The main menu appears.

(2) Select LOG MMI and press ENTER. (Note that the label on the main menu can be customized by the application, so that it may not say Log MMI. It may instead be 'System Log', 'DNC Logger', or some other designation.)

The Logs MMI Main Menu Appears.

(3) Press <**More Softkeys**>.

New softkeys appear.

(4) Press **<Monitor>.**

The Monitor Mode screen appears. As logs are generated, the system displays on this screen all the logs that you are entitled to access. (If you are a system administrator, you can access logs generated for all groups. If you are not a system administrator, you can access logs generated for your own user group, and the broadcast logs, which are available to all users.)

(5) To terminate monitor mode and return to the Logs MMI Main Menu, press **<Exit>.** (On an ASCII terminal, the softkey display does not appear at the bottom of the Monitor Mode Screen. To exit, press the keys that emulate softkey 1.)

## Displaying and Printing the Hex Details of a Log

To display and print the hex details of a log, proceed as follows:

(1) Use the arrow keys to select the log on the Logs MMI Main Menu, and then press <More Details>.

New softkeys appear.

(2) Press <Hex Details>.

The Hex Details screen appears as shown in Figure 2-4. On this screen the screen displays the log message in hex format and in ASCII format.

(3) If you want to print the hex and ASCII versions of the log, proceed as follows:

Ensure that the correct printer queue is selected for the print job. The name of the selected queue is displayed in the Printer field. To change the selected queue, press <Toggle Field> until the name of the desired queue appears in the field.

Press <Print Log>.

(4) To return to the Logs MMI Main Menu, press <Exit>.

## Setting the Search Criteria

The search criteria specified on the Search Selection screen determine which logs are displayed on the Logs MMI Main Menu when match mode is enabled.

The menu structure for this section is shown in Figure 2-3.

To set the search criteria that apply to you, proceed as follows:

(1) Sign on.

The main menu appears.

(2) Select LOG MMI and press ENTER. (Note that the label on the main menu can be customized by the application, so that it may not say Log MMI. It may instead be 'System Log', 'DNC Logger', or some other designation.)

The Logs MMI Main Menu appears, displaying a list of logs.

(3) Press **<Set Search>.**

The system displays the Search Selection screen.

(4) Enter the search criteria in the fields on this screen.

To advance from one field to the next on the screen, press **RETURN.** To move to the previous field, hold down **SHIFT** and press **TAB.**

The Search Selection screen lists the selection criteria. In each field you can specify a parameter value. The system uses these criteria when displaying logs for you. It scans the log history file, selects the logs that you are entitled to access, and from that group displays only those that satisfy all the parameters that you specify. If a value is not shown for a parameter on this screen, then all alarms satisfy that parameter.

The search selection parameters available to the user are:

**Group.** If you are a system administrator, you can specify a group, and then logs generated for that group are eligible for display. If you are not a system administrator, you cannot configure this parameter, and the only logs eligible for display are those generated for your own group, and the broadcast logs. (Broadcast logs have a group attribute of -1. These logs are available to all users.)

**User.** If you specify a user, then only logs generated for that user are eligible for display.

**Class.** There are 16 classes of log messages. If you specify a value in the range 1 to 16, then only logs of the specified class are eligible for display.

**Severity.** There are 15 severity levels, from 'Status15' (the lowest) to 'Critical' (the highest). If you specify a severity, then only logs of that severity are eligible for display.

To alter the value of this field, press **<Toggle Field>.**

**Message Lan.** If multiple DNCs are linked in a Local Data Net network, you can designate the DNC whose logs are to be eligible for display. To designate a particular DNC, type in its lan number, which is the value of the object index of the Log Subsystem PRU in that DNC.

**Subsystem.** Message subsystems are files containing log messages. If you specify a message subsystem, then only messages from that file are eligible for display. To specify a message subsystem, enter the subsystem number (four hexadecimal digits) in the Subsystem field. To find out a log's subsystem number, select the log on the Logs MMI Main Menu and press <More Details>. If you are a system administrator with superuser authority, you can display a list of all the message subsystem files, by listing the files in the Helix directory named :LOCAL:PRU:LOGS:LOGDESC.

**Error Number.** If you specify an error number, then only logs with that error number are eligible for display. To find out a log's error number, select the log on the Logs MMI Main Menu, and press **<More Details>.**

**Report Number.** If you specify a report number, then only logs with that report number are eligible for display. To find out a log's report number, select the log on the Logs MMI Main Menu, and press **<More Details>.**

**Reporting PRU** and **Other PRU.** If you specify a reporting PRU, then only logs generated by that PRU are eligible for display. If you specify a value in the **Other PRU** field, then only logs referring to that PRU are eligible for display.

To specify a reporting or other PRU, press **<PRU Names>** when the cursor is in the **Unit No** field. The system then displays the PRU Names screen, listing PRUs. On that screen, use the arrow keys to select the PRU, and then press **<Select>.** The Search Selection screen then reappears, with the appropriate values for the unit number and the PRU name. Alternatively, if you know the PRU's unit number, you can enter it in the **Unit No field.**

Specifying a value in the **Config No** field is optional. You need to use this field only if there are multiple instances of the PRU, and you want to specify a particular instance. Only a system administrator can obtain a PRU's configuration number.

**Time** and **To.** If a time period is specified, then only logs generated within that period are eligible for display.

**Application Fixed Strings.** A fixed string is a character string that can be used as an element of one or more log messages. You can specify up to five fixed strings. If you specify one or more fixed strings, then a log is eligible for display only if it contains the specified string or strings. Any fixed strings contained in a log message are shown in the raw-details display (see Figure 2-4). To display a log's raw details, select the log on the Logs MMI Main Menu, press **<More Details>,** and then press **<Raw Details>.**

**Match Mode.** When match mode is 'OFF', the **<Previous Page>** and **<Next Page>** softkeys are available on the Logs MMI Main Menu. When you press either of these softkeys, the system scans the log history file and displays logs that you are entitled to access, as determined by your user group. (If you are a system administrator, then you are entitled to access all logs generated for all groups. If you are not a system administrator, then you are entitled to access the logs generated for your own user group, and the broadcast logs, which are available to all users.) When match mode is 'ON', the **<Match Previous>** and **<Match Next>** softkeys are available on the Logs MMI Main Menu. When you press either of these softkeys, the system scans the log history file and displays logs that satisfy all the selection criteria currently shown on the Search Selection screen.

To alter the value of the **Match Mode** field, press **<Toggle Field>.**

(5) After entering the search selection criteria, you can initiate a search by pressing **<First Page>, <Last Page>, <Find First>,** or **<Find Last>.**

The system redisplays the Logs MMI Main Menu, scans the log history file, and displays the logs located by the search.

The logs located by the **<First Page>** and **<Last Page>** softkeys depend on whether match mode is 'ON' or 'OFF', as explained in the discussion of the **Match Mode** parameter.

When you use the **<Find First>** or **<Find Last>** softkey, the system finds first or last log message that matches the search criteria currently shown on the Search Selection screen, and displays the logs that immediately follow the matching log. (These two softkeys work this way regardless of the setting of the **Match Mode** parameter.)

(6) To return to the Logs MMI Main Menu without initiating a search, press **<Query Main Menu>.**

## Printing Selected Logs

You can have the system print logs that satisfy print criteria that you specify. The system scans the log history file, selects the logs that satisfy the criteria, formats them, and prints them in reverse chronological order (that is, the most recent logs first).

***Note:*** This procedure prints out logs only on request, and can only print logs that have been sent to the log history file. If you are the system administrator, you can define a printer as a log output device, so that the printer will print logs continuously as they occur. For information on doing this, see 450-1011-301, 'A Guide to System Administrative Services'.

The menu structure for this section is shown in Figure 2-3.

To print selected logs, proceed as follows:

(1) Sign on.

The main menu appears.

(2) Select Log MMI and press ENTER. (Note that the label on the main menu can be customized by the application, so that it may not say Log MMI. It may instead be 'System Log', 'DNC Logger', or some other designation.)

The Logs MMI Main Menu appears, displaying a list of logs.

(3) Press **<More Softkeys>.**

New softkeys appear.

(4) Press **<Print>.**

The system displays the Print Selection screen.

(5) Enter the print criteria in the fields on this screen.

To advance from one field to the next on the screen, press **RETURN.** To move to the previous field, hold down **SHIFT** and press **TAB.**

The Print Selection screen lists the selection criteria. In each field you can specify a parameter value. The system uses the criteria when printing logs for you. It scans the log history file, selects the logs that you are entitled to access, and from that group prints only those that satisfy all the parameters that you specify. If a value is not shown for a parameter on this screen, then all alarms satisfy that parameter.

The print selection parameters are:

**Group.** If you are a system administrator, you can specify a group, and then logs generated for that group are eligible for printing. If you are not a system administrator, you cannot configure this parameter, and the only logs eligible for printing are those generated for your own group, and the broadcast logs. (Broadcast logs have a group attribute of -1. These logs are available to all users.)

**User.** If you specify a user, then only logs generated for that user are eligible for printing.

**Class.** There are 16 classes of log messages. If you specify a value in the range 1 to 16, then only logs of the specified class are eligible for printing.

**Severity.** There are 15 severity levels, from 'Status15' (the lowest) to 'Critical' (the highest). If you specify a severity, then only logs of that severity are eligible for printing.

To alter the value of this field, press **<Toggle Field>.**

**Message Lan.** If multiple DNCs are linked in a Local Data Net network, you can designate the DNC whose logs are to be eligible for printing. To designate a particular DNC, type in its lan number, which is the value of the object index of the Log Subsystem PRU in that DNC.

**Subsystem.** Message subsystems are files containing log messages. If you specify a message subsystem, then only messages from that file are eligible for printing. To specify a message subsystem, enter the subsystem number (four hexadecimal digits) in the Subsystem field. To find out a log's subsystem number, select the log on the Logs MMI Main Menu and press <More Details>. If you are a system administrator with superuser authority, you can display a list of all the message subsystem files, by listing the files in the Helix directory named :LOCAL:PRU:LOGS:LOGDESC.

**Error Number.** If you specify an error number, then only logs with that error number are eligible for printing. To find out a log's error number, select the log on the Logs MMI Main Menu, and press **<More Details>.**

**Report Number.** If you specify a report number, then only logs with that report number are eligible for printing. To find out a log's report number, select the log on the Logs MMI Main Menu, and press **<More Details>.**

**Reporting PRU** and **Other PRU.** If you specify a reporting PRU, then only logs generated by that PRU are eligible for printing. If you specify a value in the **Other PRU** field, then only logs referring to that PRU are eligible for printing.

To specify a reporting or other PRU, press **<PRU Names>** when the cursor is in the **Unit No** field. The system then displays the PRU Names screen, listing PRUs. On that screen, use the arrow keys to select the PRU, and then press **<Select>.** The Search Selection screen then reappears, with the appropriate values for the unit number and the PRU name. Alternatively, if you know the PRU's unit number, you can enter it in the **Unit No** field.

Specifying a value in the **Config No** field is optional. You need to use this field only if there are multiple instances of the PRU, and you want to specify a particular instance. Only a system administrator can obtain a PRU's configuration number.

**Time** and **To.** If a time period is specified, then only logs generated within that period are eligible for printing.

**Application Fixed Strings.** A fixed string is a character string that can be used as an element of one or more log messages. You can specify up to five fixed strings. If you specify one or more fixed strings, then a log is eligible for printing only if it contains the specified string or strings. Any fixed strings contained in a log message are shown in the raw-details display (see Figure 2-4). To display a log's raw details, select the log on the Logs MMI Main Menu, press **<More Details>,** and then press **<Raw Details>.**

**Match Mode.** This is a display field. On this screen, match mode is always 'ON'. This means that when selecting logs for printing, the system first scans the log history file and selects the logs that you are entitled to access, as determined by your user group. (If you are a system administrator, then you are entitled to access all logs generated for all groups. If you are not a system administrator, then you are entitled to access the logs generated for your own user group, and the broadcast logs, which are available to all users.) From the logs that you are entitled to access, the system then selects and prints only those that satisfy the selection criteria currently shown on the Print Selection screen.

**Printer.** In this field you specify the name of the print queue that is to be used for the print job.

To alter the value of this field, press **<Toggle Field>.**

***Note:*** For information on defining print queues, refer to 450-1011-301, 'A Guide to System Administrative Services'. Only a system administrator can define print queues.

(6) After entering the print criteria, press **<Spool>** to send the job to the print queue.

(7) Return to the Logs MMI Main Menu by pressing **<Query Main Menu>.**

***Note:*** When the system redisplays the Logs MMI Main Menu, match mode is enabled, even if it was not enabled before you displayed the Print Selection screen.

# Alarm Service

## Overview of the Alarm Service

The alarm service provides an error detection system and a mechanism to signal those errors. The detection system includes:

(a) A resource manager that informs the alarm service of all hardware and software resource units that change from working to faulty condition and from loading to working condition (usually a fault recovery).

(b) A disk query facility that compares the amount of free disk space to a threshold amount at set intervals.

(c) DNC application programs that detect faults in their operation.

(d) The log service that sends high severity logs as alarms to the alarm service.

(e) Remote alarms that detect failures of the fans, power, or an auxiliary input.

The signal devices include:

(a) Every terminal that has an six-character field reserved for alarm notification messages.

(b) A designated terminal that can sound a speaker tone for audible alarms.

(c) An alarm interface unit (ALIU; see Figure 3-1) that includes light-emitting diodes (LEDs) for critical, major, and minor alarms, plus an alarm cut-off (ACO) button that can be configured via jumper options to cut off just audible alarms or both audible and visual alarms. The alarm service can communicate with up to two ALIUs.

(d) An **<ACO>** (audible cut-off) softkey in the alarms MMI that cuts off only audible alarms.

(e) In bay systems, the Frame Supervisory Panel is equipped with alarm lamps for critical, major and minor alarms and frame and fan failures. The FSP is also equipped with an ACO switch that can be optioned to cut off just audible alarms or both audible and visual alarms.

The ALIU can be connected to central office (CO) alarm systems when used with bay installations by a daisychain connection from the bays to the CO alarm system. (A connector on the ALIU is reserved for future use in connecting the ALIU to CO alarm systems; see Figures 3-2 and 3-3.) See 450-1011-301 for information on how to configure the ALIU.

The alarm service records alarms in a circular alarm history file. Using the screens of the Alarm MMI, you can perform the following functions:

- display and print alarm messages
- display and print alarm message details
- silence an audible alarm (by using the <ACO> softkey)
- make an alarm pending (indicating the operator is aware of the alarm), which shuts off any audible and visible alarms
- clear a pending alarm (indicating the alarm did not recover by itself but required operator intervention).

**Figure 3-1**
**Front Panel of an ALIU, Installed in the Option Slot of an LIU.**

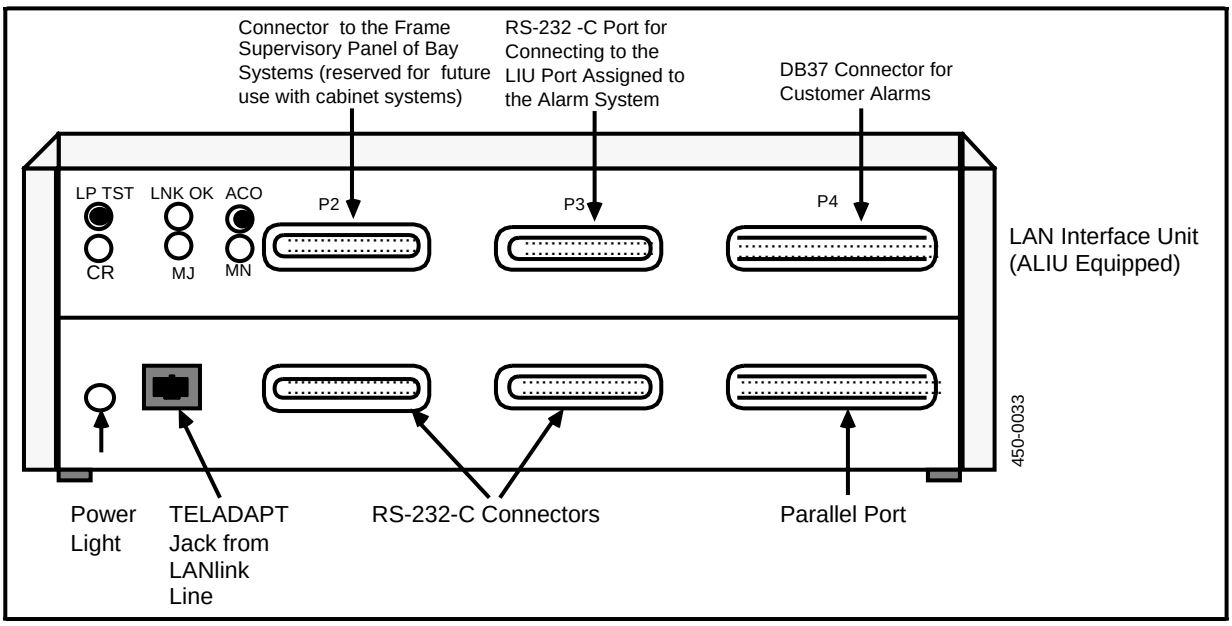


**Figure 3-2**
**Connections Between the ALIU and the Central Office Alarm System (Cabinet Systems).**

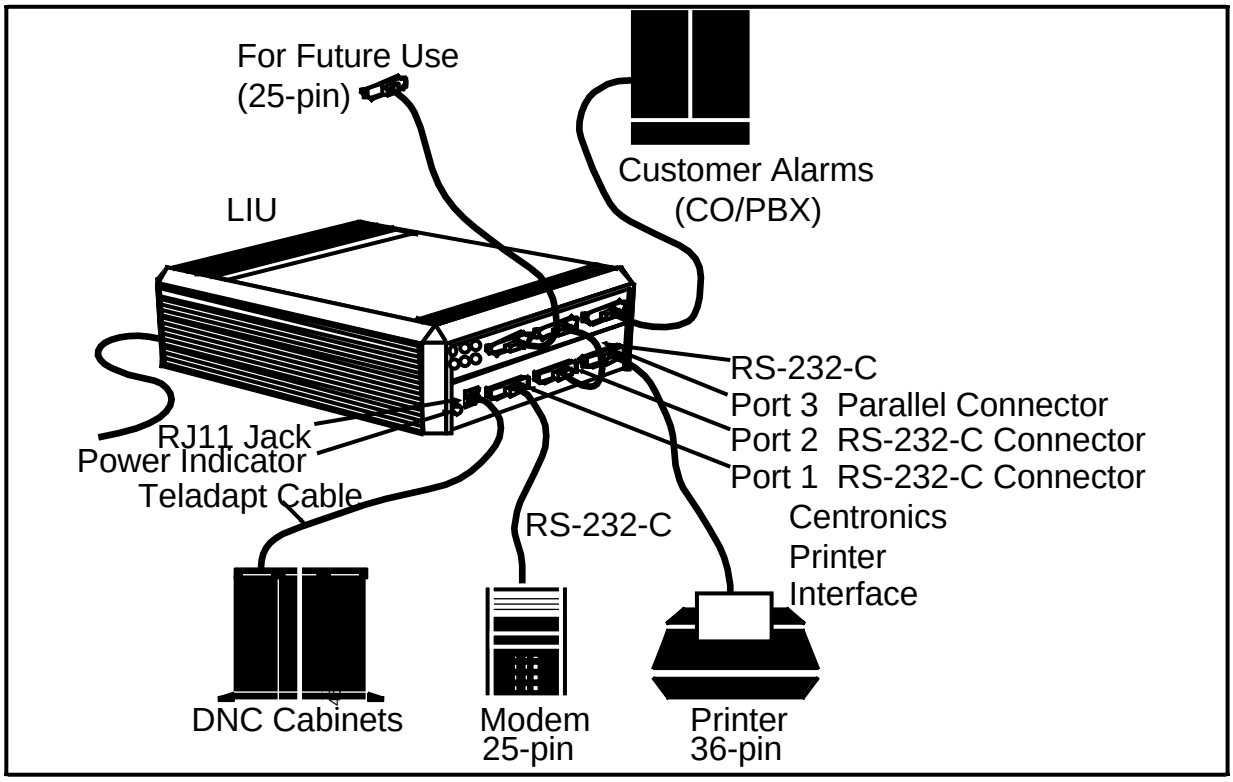
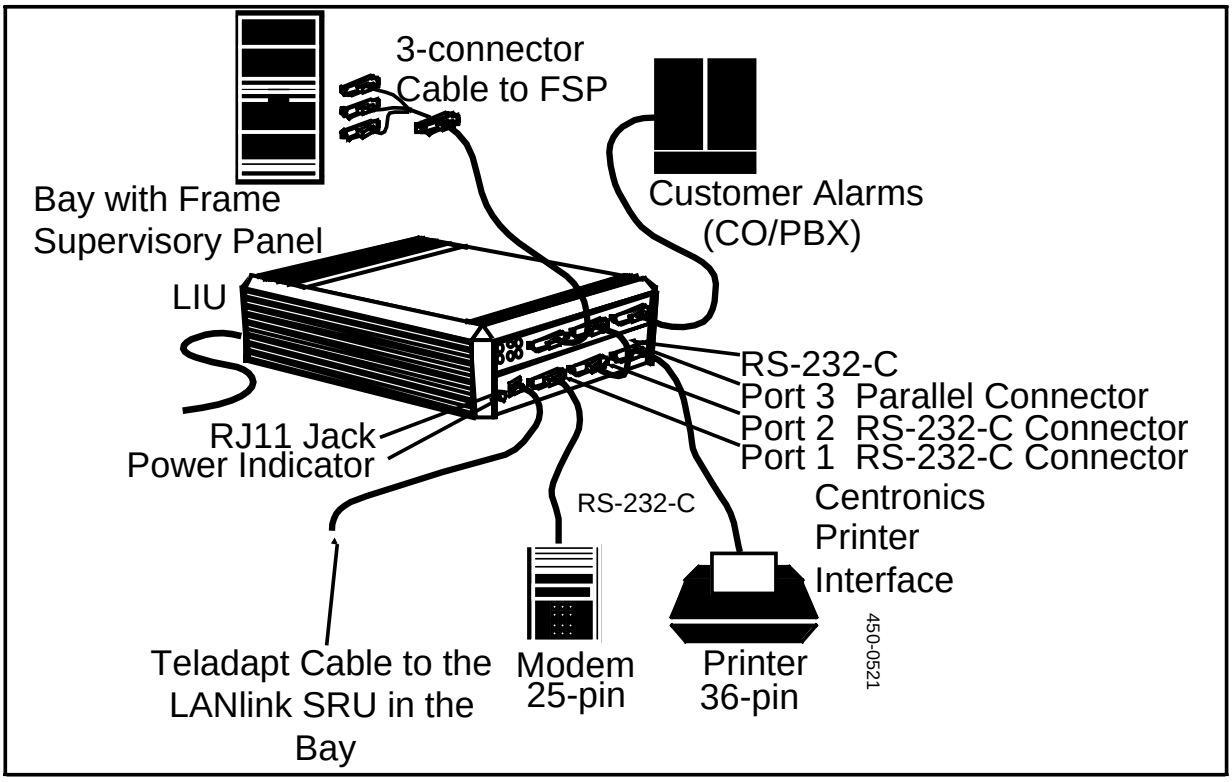


**Figure 3-3**
**Connections Between the ALIU and the Central Office Alarm System (Bay Systems).**




## Responding to Alarms

When an alarm is activated, the following actions are normally taken:

(1) Silence the audible alarm by signing on to the system, accessing the Alarm Main Menu, and pressing the <**ACO**> softkey.

(2) Display alarms contained in the alarm history file.

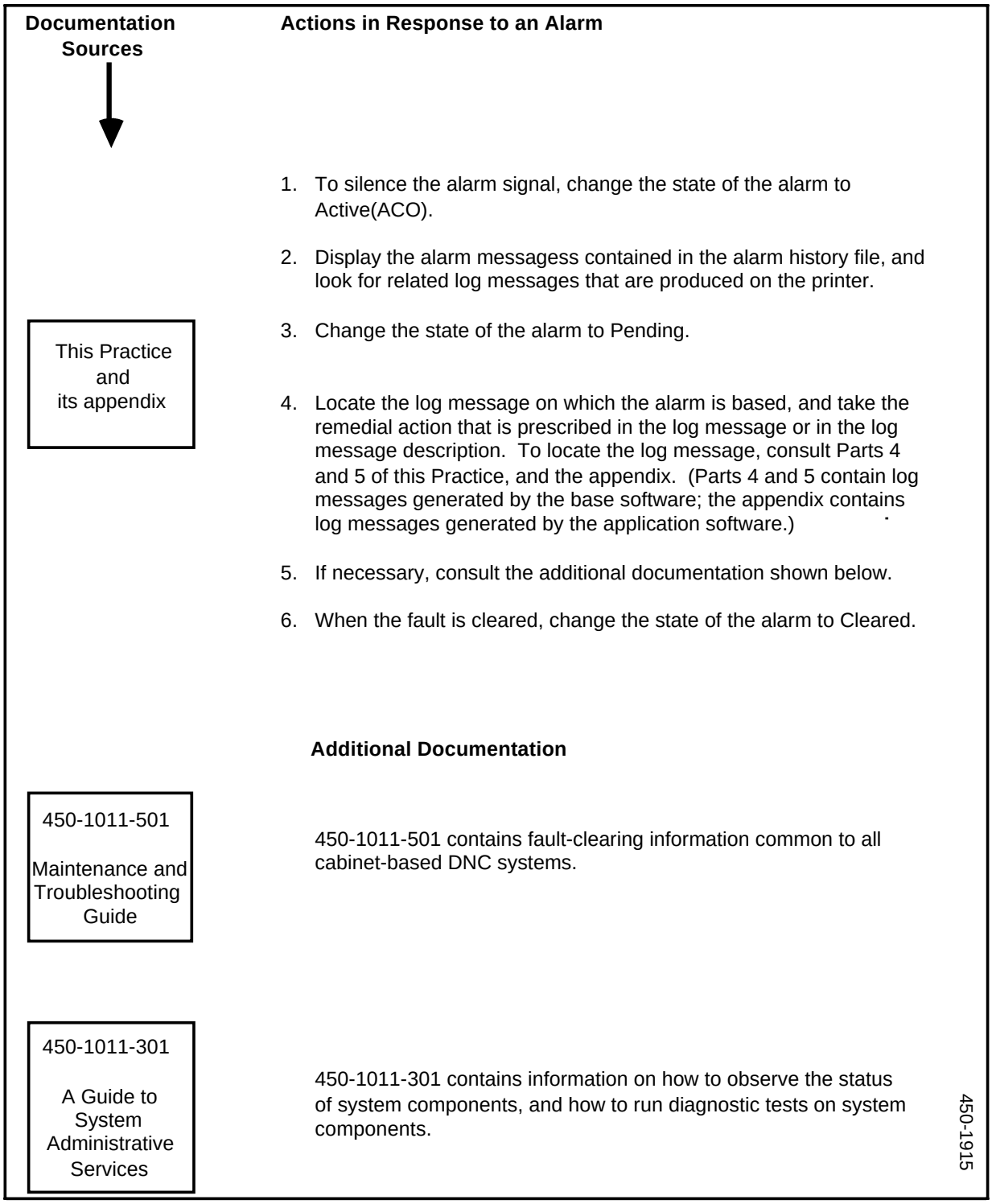
(3) Make the alarm pending, by selecting the alarm on the Alarm MMI Main Menu, pressing <**More Softkeys**>**,** and then pressing <**Make Pending**>**.**

(4) Locate the message by consulting Parts 4 and 5 and the appendix, and take the indicated action.

(5) Clear the alarm, by selecting the alarm on the Alarm MMI Main Menu , pressing <**More Softkeys**>**,** and then pressing <**Clear**>**.**

Figure 3-4 illustrates the sequence of actions to respond to an alarm, and shows the document that supports each step in the sequence.

**Figure 3-4**
**Steps to Take in Response to an Alarm**



# Using the DNC Alarm Service

## Fault Location and Recovery

When you identify a problem within the system, troubleshoot it according to 450-1011-501, 'Maintenance and Troubleshooting Guide'. If you have a bay system, also refer to 450-1011-502, 'Maintenance and troubleshooting Guide for Bay Systems'. Any faulty units should be diagnosed using the SAS Maintenance service and, if a fault persists, the faulty unit should be replaced. For information on the Maintenance service, see 450-1011-301, 'A Guide to System Administrative Services'.

Faults may be indicated by messages displayed in the following units:

- the Primary Processor's display window
- the Faulty Units screen of the SAS Maintenance service
- the log history file
- the alarm history file
- the notification area on a user's terminal screen
- the front panel of the Alarm Interface Unit (ALIU), which is an option board in a LAN Interface Unit (LIU)
- the customer's alarm indicators, if connected to the system via an ALIU
- The Frame Supervisory Panel (FSP) of a bay system.

## Displaying Alarms

The menu structure for this section is shown in Figure 3-5.

To display alarms, take the following steps:

(1) Sign on.

The Main Menu appears.

(2) Select Alarm MMI and press ENTER. (Note that the label on the main menu can be customized by the application, so that it may not say Alarm MMI. It may instead be 'Alarms', 'DNC Alarms', or some other designation.)

The Alarm MMI Main Menu appears, displaying a list of active alarms. The field in the top left corner of the screen tells you that match mode is enabled. This means that they have been selected from the alarm messages in the alarm history file because they match certain search criteria. (You can modify the search criteria. See 'Setting the Search Criteria', later in this part.) The system displays the most recent alarms first. In this list, each alarm is reported in an abbreviated form, including the following information:

- the date and time
- the program that generated the log that triggered the alarm
- the LAN number of the DNC where the program resides, shown in parentheses (displayed only if the DNC is part of a DataNet network)
- the alarm's severity level.

(3) If you want to page through the list of alarms that satisfy the search criteria, press **<Match Next>.** Following the first display, the system displays matching alarms in chronological order, starting with the earliest ones.**<Match Previous>** moves backwards through the list.

(4) If you want the system to scan the alarm history file and display all the alarms that you are entitled to access, you must go to the Search Selection screen and change the setting of the **Match Mode** parameter:

- Press <Set Search>.
  The system displays the Search Selection screen.
- Press RETURN repeatedly until the cursor arrives in the Match Mode field.
- Press <Toggle Field>.
  The value of the field changes to 'OFF'.
- Press <Query Main Menu>.
  The system redisplays the Alarm MMI Main Menu. Match mode is now disabled, and the fifth and sixth softkeys are now <Previous Page> and <Next Page>. You can use these softkeys to page through all the alarm messages that you are entitled to access. (If you are a system administrator, you can access alarms generated for all groups; if you are not a system administrator, you can access alarms generated for your own group, and broadcast alarms, which are available to all users.)

(5) If you want more details about a displayed alarm, use the arrow keys to select the alarm, and then press ,**<More Details>.**

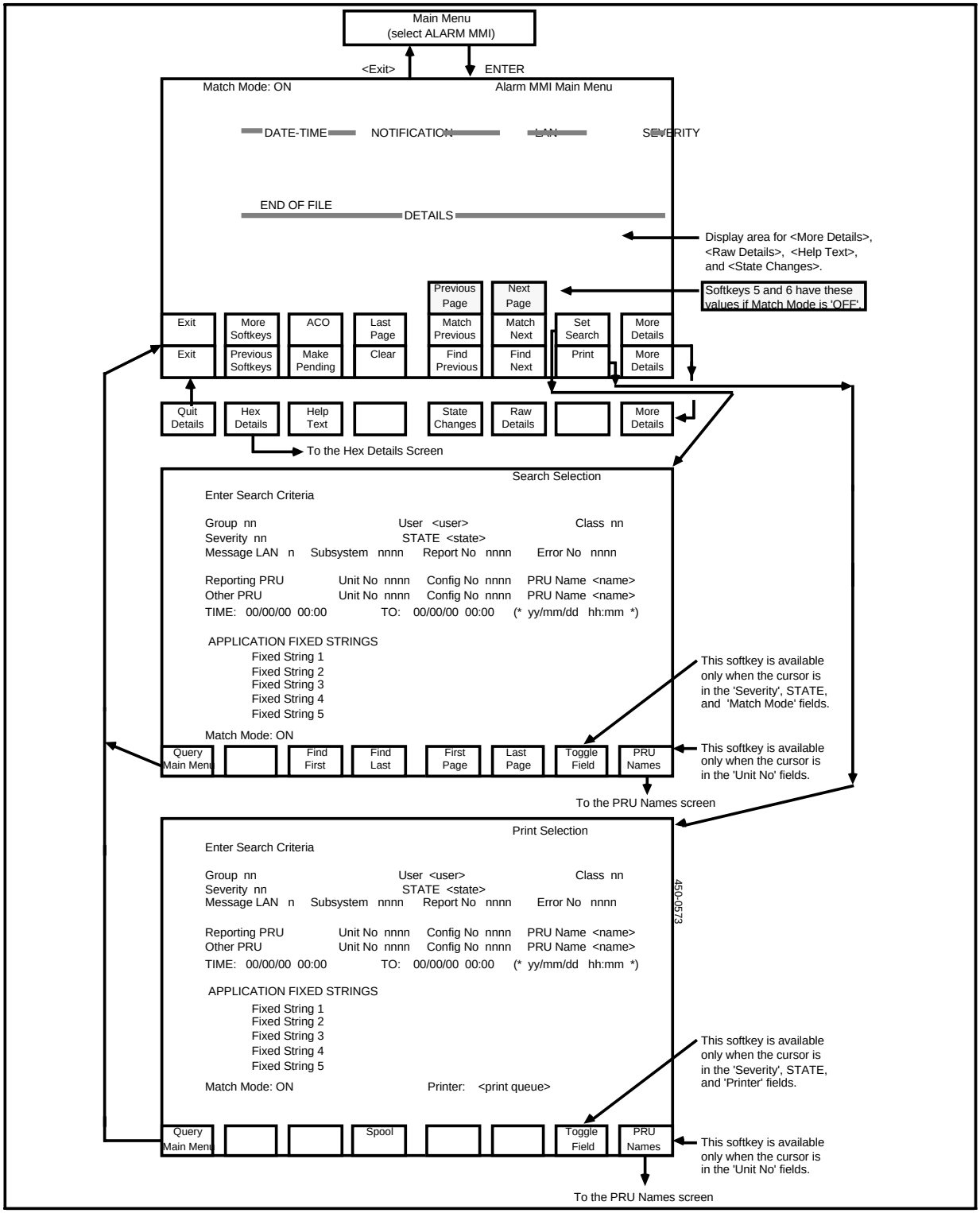
The system displays the details in the lower portion of the screen.

(6) To display alarms that have been issued since you entered the alarm MMI, press **<Last Page>.**

The system scans the alarm history file once again, and selects the alarms that you are entitled to access. If match mode is enabled, it selects from that group the alarms that satisfy the search criteria, and it displays the last page of the list.

(7) To return to the main menu, press **<Exit>.**

**Figure 3-5**
**Alarm MMI Screens**



## Displaying Detailed Information About an Alarm

To display an alarm message in its full, formatted form, use the arrow keys to select the alarm on the Alarm MMI Main Menu and then press **<More Details>.**

New softkeys appear, and detailed information appears in the lower portion of the Alarm MMI Main Menu.

To restore the original softkeys, press **<Quit Details>.**

## Displaying Help Text for an Alarm

To display help text concerning an alarm, select the alarm on the Alarm MMI Main Menu, press **<More Details>,** and then press **<Help Text>.**

Help text appears in the lower portion of the Alarm MMI Main Menu.

To restore the original softkeys, press **<Quit Help Text>.**

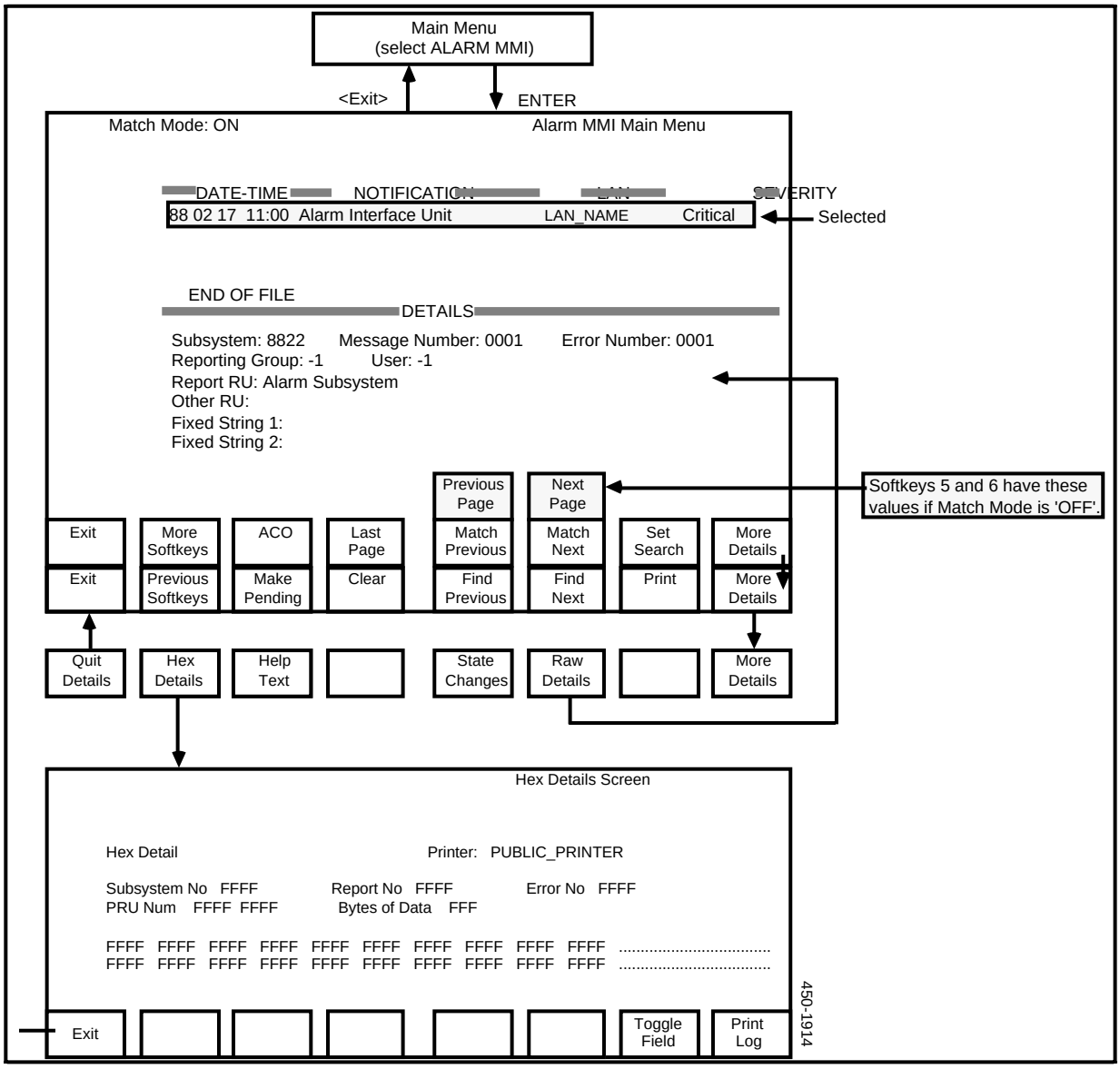
## Displaying Raw Details

To display an alarm in unformatted form, select the alarm on the Alarm MMI Main Menu, press **<More Details>,** and then press **<Raw Details>.**

The unformatted alarm appears in the lower portion of the Alarm MMI Main Menu, as shown in Figure 3-6. If the amount of information exceeds the available space, the softkey becomes **<More Raw Details>** to enable you to display the rest of the information.

To restore the original softkeys, press **<Quit Details>.**

**Figure 3-6**
**Raw Details of an Alarm**




## Displaying and Printing the Hex Details of an Alarm

To display and print the hex details of an alarm, proceed as follows:

(1) Use the arrow keys to select the alarm on the Alarm MMI Main Menu, and then press <More Details>.

New softkeys appear.

(2) Press <Hex Details>.

The Hex Details screen appears as shown in Figure 3-6. On this screen the screen displays the alarm message in hex format and in ASCII format.

(3) If you want to print the hex and ASCII versions of the alarm, proceed as follows:

Ensure that the correct printer queue is selected for the print job. The name of the selected queue is displayed in the **Printer** field. To change the selected queue, press <Toggle Field> until the name of the desired queue appears in the field.

Press <Print Log>.

(4) To return to the Alarm MMI Main Menu, press <Exit>.

## Inspecting an Alarm's State Changes

To inspect the state changes that an alarm has gone through, select the alarm on the Alarm MMI Main Menu, press **<More Details>,** and then press **<State Changes>.**

In the lower portion of the Alarm MMI Main Menu, the system displays a list of the state changes that the alarm has gone through, showing the time when each state change occurred.

## Setting the Search Criteria

The search criteria specified on the Search Selection screen determine which alarms are displayed on the Alarm MMI Main Menu when match mode is enabled.

The menu structure for this section is shown in Figure 3-5.

To set the search criteria that apply to you, proceed as follows:

(1) Sign on.

The main menu appears.

(2) Select Alarm MMI and press ENTER. (Note that the label on the main menu can be customized by the application, so that it may not say Alarm MMI. It may instead be 'Alarms', 'DNC Alarms', or some other designation.)

The Alarm MMI Main Menu appears, displaying a list of alarms.

(3) Press **<Set Search>.**

The system displays the Search Selection screen.

(4) Enter the search criteria in the fields on this screen.

To advance from one field to the next on the screen, press **RETURN.** To move to the previous field, hold down **SHIFT** and press **TAB.**

The Search Selection screen lists the selection criteria. In each field you can specify a parameter value. The system uses these criteria when displaying alarms for you. It scans the alarm history file, selects the alarms that you are entitled to access, and from that group displays only those that satisfy all the parameters that you specify. If a value is not shown for a parameter on this screen, then all alarms satisfy that parameter.

The search selection parameters are:

**Group.** If you are a system administrator, you can specify a group, and then alarms generated for that group are eligible for display. If you are not a system administrator, you cannot configure this parameter, and the only alarms eligible for display are those generated for your own group, and the broadcast alarms. (Broadcast alarms have a group attribute of -1. These alarms are available to all users.)

**User.** If you specify a user, then only alarms generated for that user are eligible for display.

**Class.** There are 16 classes of alarm messages. If you specify a value in the range 1 to 16, then only alarms of the specified class are eligible for display.

**Severity.** For alarms there are three grades of severity: critical, major, and minor. If you specify a severity, then only alarms of that severity are eligible for display.

To alter the value of this field, press **<Toggle Field>.**

**State.** An alarm can have one of three states: active, pending, and cleared. Only alarms with the specified state are eligible for display. The default value of this parameter is 'ACTIVE'.

To alter the value of this field, press **<Toggle Field>.**

**Message Lan.** If multiple DNCs are linked in a Local Data Net network, you can designate the DNC whose alarms are to be eligible for display. To designate a particular DNC, type in its lan number, which is the value of the object index of the Log Subsystem PRU in that DNC.

**Subsystem.** Message subsystems are files containing log messages. If you specify a message subsystem, then only alarms based on log messages from that subsystem are eligible for display. To specify a message subsystem, enter the subsystem number (four hexadecimal digits) in the Subsystem field. To find out an alarm's subsystem number, select the alarm on the Alarm MMI Main Menu and press <More Details>. If you are a system administrator with superuser authority, you can display a list of all the message subsystem files, by listing the files in the Helix directory named :LOCAL:PRU:LOGS:LOGDESC.

**Error Number.** If you specify an error number, then only alarms based on logs with that error number are eligible for display. To find out an alarm's error number, select the alarm on the Alarm MMI Main Menu, and press **<More Details>.**

**Report Number.** If you specify a report number, then alarms based upon logs with that report number are eligible for display. To find out a alarm's report number, select the alarm on the Alarm MMI Main Menu, and press **<More Details>.**

**Reporting PRU** and **Other PRU.** If you specify a reporting PRU, then only alarms generated by that PRU are eligible for display. If you specify a value in the **Other PRU** field, then only alarms referring to that PRU are eligible for display.

To specify a reporting or other PRU, press **<PRU Names>** when the cursor is in the **Unit No** field. The system then displays the PRU Names screen, listing PRUs. On that screen, use the arrow keys to select the PRU, and then press **<Select>.** The Search Selection screen then reappears, with the appropriate values for the unit number and the PRU name. Alternatively, if you know the PRU's unit number, you can enter it in the **Unit No** field.

Specifying a value in the **Config No** field is optional. You need to use this field only if there are multiple instances of the PRU, and you want to specify a particular instance. Only a system administrator can obtain a PRU's configuration number.

**Time** and **To.** If you specify a time period, then only alarms generated within that period are eligible for display.

**Application Fixed Strings.** A fixed string is a character string that can be used as an element of one or more alarm messages. You can specify up to five fixed strings. If you specify one or more fixed strings, then an alarm is eligible for display only if it contains the specified string or strings. Any fixed strings contained in an alarm are shown in the raw-details display. To display an alarm's raw details, select the alarm on the Alarm MMI Main Menu, press **<More Details>,** and then press **<Raw Details>.**

**Match Mode.** When match mode is 'OFF', the **<Previous Page>** and **<Next Page>** softkeys are available on the Alarm MMI Main Menu. When you press either of these softkeys, the system scans the alarm history file and displays alarms that you are entitled to access, as determined by your user group. (If you are a system administrator, then you are entitled to access all logs generated for all groups. If you are not a system administrator, then you are entitled to access the logs generated for your own user group, and the broadcast logs, which are available to all users.) When match mode is 'ON', the **<Match Previous>** and **<Match Next>** softkeys are available on the Logs MMI Main Menu. When you press either of these softkeys, the system scans the alarm history file and displays alarms that satisfy all the selection criteria currently shown on the Search Selection screen.

To alter the value of the **Match Mode** field, press **<Toggle Field>.**

(5) After entering the search selection criteria, you can initiate a search by pressing **<First Page>, <Last Page>, <Find First>,** or **<Find Last>.**

The system redisplays the Alarm MMI Main Menu, scans the alarm history file, and displays the alarms located by the search.

The alarms located by the **<First Page>** and **<Last Page>** softkeys depend on whether match mode is 'ON' or 'OFF', as explained in the discussion of the **Match Mode** parameter.

When you use the **<Find First>** or **<Find Last>** softkey, the system finds first or last alarm message that matches the search criteria currently shown on the Search Selection screen, and displays the alarms that immediately follow the matching alarm (These two softkeys work this way regardless of the setting of the **Match Mode** parameter.)

(6) To return to the Alarm MMI Main Menu without initiating a search, press **<Query Main Menu>.**

## Printing Selected Alarms

You can have the system print alarms that satisfy print criteria that you specify. The system scans the alarm history file, selects the alarms that satisfy the criteria, formats them, and prints them in reverse chronological order (that is, the most recent alarms first).

The menu structure for this section is shown in Figure 3-5.

To print selected alarms, proceed as follows:

(1) Sign on.

The main menu appears.

(2) Select Alarm MMI and press ENTER. (Note that the label on the main menu can be customized by the application, so that it may not say Alarm MMI. It may instead be 'Alarms', 'DNC Alarms', or some other designation.)

The Alarm MMI Main Menu appears, displaying a list of alarms.

(3) Press **<More Softkeys>.**

New softkeys appear.

(4) Press **<Print>.**

The system displays the Print Selection screen.

(5) Enter the print criteria in the fields on this screen.

To advance from one field to the next on the screen, press **RETURN.** To move to the previous field, hold down **SHIFT** and press **TAB.**

The Print Selection screen lists the print criteria. In each field you can specify a parameter value. The system uses the print criteria when printing alarms for you. It scans the alarm history file, selects the alarms that you are entitled to access, and from that group prints only those that satisfy all the parameters that you specify. If a value is not shown for a parameter on this screen, then all alarms satisfy that parameter.

The print selection criteria are:

**Group.** If you are a system administrator, you can specify a group, and then alarms generated for that group are eligible for printing. If you are not a system administrator, you cannot configure this parameter, and the only alarms eligible for printing are those generated for your own group, and the broadcast alarms. (Broadcast alarms have a group attribute of -1. These alarms are available to all users.)

**User.** If you specify a user, then only alarms generated for that user are eligible for printing.

**Class.** There are 16 classes of alarm messages. If you specify a value in the range 1 to 16, then only alarms of the specified class are eligible for printing.

**Severity.** For alarms there are three levels of severity: critical, major, and minor. If you specify a severity, then only alarms of that severity are eligible for printing.

To alter the value of this field, press **<Toggle Field>.**

**State.** An alarm can have one of three states: active, pending, and cleared. Only alarms with the specified state are eligible for printing. The default value of this parameter is 'ACTIVE'.

To alter the value of this field, press **<Toggle Field>.**

**Message Lan.** If multiple DNCs are linked in a Local Data Net network, you can designate the DNC whose alarms are to be eligible for printing. To designate a particular DNC, type in its lan number, which is the value of the object index of the Log Subsystem PRU in that DNC.

**Subsystem.** Message subsystems are files containing log messages. If you specify a message subsystem, then only alarms based on log messages from that subsystem are eligible for printing. To specify a message subsystem, enter the subsystem number (four hexadecimal digits) in the Subsystem field. To find out an alarm’s subsystem number, select the alarm on the Alarm MMI Main Menu and press <More Details>. If you are a system administrator with superuser authority, you can display a list of all the message subsystem files, by listing the files in the Helix directory named :LOCAL:PRU:LOGS:LOGDESC.

**Error Number.** If you specify an error number, then only alarms based on logs with that error number are eligible for printing. To find out an alarm's error number, select the alarm on the Alarm MMI Main Menu, and press **<More Details>.**

**Report Number.** If you specify a report number, then alarms based upon logs with that report number are eligible for printing. To find out a alarm's report number, select the alarm on the Alarm MMI Main Menu, and press **<More Details>.**

**Reporting PRU** and **Other PRU.** If you specify a reporting PRU, then only alarms generated by that PRU are eligible for printing. If you specify a value in the **Other PRU** field, then only alarms referring to that PRU are eligible for printing.

To specify a reporting or other PRU, press **<PRU Names>** when the cursor is in the **Unit No** field. The system then displays the PRU Names screen, listing PRUs. On that screen, use the arrow keys to select the PRU, and then press **<Select>.** The Search Selection screen then reappears, with the appropriate values for the unit number and the PRU name. Alternatively, if you know the PRU's unit number, you can enter it in the **Unit No** field.

Specifying a value in the **Config No** field is optional. You need to use this field only if there are multiple instances of the PRU, and you want to specify a particular instance. Only a system administrator can obtain a PRU's configuration number.

**Time** and **To.** If you specify a time period, then only alarms generated within that period are eligible for printing.

**Application Fixed Strings.** A fixed string is a character string that can be used as an element of one or more alarm messages. You can specify up to five fixed strings. If you specify one or more fixed strings, then an alarm is eligible for printing only if it contains the specified string or strings. Any fixed strings contained in an alarm are shown in the raw-details display. To display an alarm's raw details, select the alarm on the Alarm MMI Main Menu, press **<More Details>,** and then press **<Raw Details>.**

**Match Mode.** This is a display field. On this screen, match mode is always 'ON'. This means that when selecting alarms for printing, the system first scans the alarm history file and selects the alarms that you are entitled to access, as determined by your user group. (If you are a system administrator, then you are entitled to access all logs generated for all groups. If you are not a system administrator, then you are entitled to access the logs generated for your own user group, and the broadcast logs, which are available to all users.) From the alarms that you are entitled to access, the system then selects and prints only those that satisfy the selection criteria specified on the Print Selection screen.

**Printer.** In this field you specify the name of the print queue that is to be used for the print job.

To alter the value of this field, press **<Toggle Field>.**

***Note:*** For information on defining print queues, refer to 450-1011-301, 'A Guide to System Administrative Services'. Only a system administrator can define print queues.

(6) After entering the print criteria, press **<Spool>** to send the job to the print queue.

(7) Return to the Alarm MMI Main Menu by pressing **<Query Main Menu>.**

## Cutting off the Audible Alarm

An alarm triggers an audible signal. You can cut off the audible signal by accessing the Alarm MMI Main Menu and pressing **<ACO>** (see Figure 3-5).

The value of the STATE field for each currently active alarm changes from 'Active' to 'Active(ACO)'.

## Modifying Alarm States

There are three alarm states: active, pending, and cleared. You can change an alarm's state from active to pending, or from pending to cleared. To change an alarm's state, take the following steps:

(1) Starting on the Alarm MMI Main Menu, use the arrow keys to select the alarm, and press **<More Softkeys>.**

New softkeys appear (see Figure 3-5).

(2) If the alarm is active, you make it pending by pressing **<Make Pending>.**

The alarm's **STATE** field changes from 'Active' or 'Active(ACO)' to 'Pending'.

(3) If the alarm is pending, you can clear it by pressing **<Clear>**

The alarm's **STATE** field changes from 'Pending' to 'Cleared'.

# DNC Logs

This Part details the base DNC log messages. Where information was available, details include: the text of the message, an explanation of why it occurred, and any recommended action to take.

## How Messages are Organized in the DNC

In a DNC system, log messages are recorded in message-subsystem files, one for each program resource unit (PRU) that is loaded into the system. Each message-subsystem file is named XXXX.LOG, where XXXX is a four-digit hexadecimal number. For example, the log messages that can be generated by the Owner Agent Register PRU are found in the message-subsystem file 800C.LOG.

## Locating Messages in this Practice

Each message-subsystem file is listed under a level 2 heading in the format: PRU name (subsystem number); for example: Owner Agent Register (800C). PRUs are arranged in order of subsystem number, not PRU name. The PRU name (subsystem number) appears in the page header for your convenience.

If you only know the PRU name, use Table 4-A to locate its corresponding subsystem number. Table 4-A lists all DNC PRUs and subsystems in alphabetical order.

Within each PRU, log messages are sequenced by report number and error number, using a level 3 heading with the format: Report No./Error No.; for example: 0002/0001. The **report number** is a four-digit hexadecimal number that relates to a particular event type in the DNC system. The **error number** is a four-digit hexadecimal number that is assigned to a particular error type in the DNC system.

**Table 4-A**
**SUBSYSTEM NUMBERS ASSOCIATED WITH DNC SOFTWARE**

| PRU/SUBSYSTEM NAME | CORRESPONDING SUBSYSTEM NUMBER |
|---|---|
| ASCII Connection Agent | 803D |
| Administration | 8004 |
| Alarm PRU | 8722 |
| Audit Manager | 8012 |
| Base Scheduler | 8531 |
| Bus Controller | 8006 |
| CampusNet Manager | 8700 |
| DCR Common Logs | 5000 |
| DNC Application Scheduler | 8531 |
| DNC Logger | 8720 |
| DNC Network Emulator Tools | 853E |
| DNC NOP I/F Level 3.3 | 8220 |
| DNC Operational Measurement | 006D |
| DNC Report Generator | 851D |
| Data Connection Manager | 8021 |
| DVS Global Errors | 0004 |
| DVS Global Events | 0003 |
| DVS System Local Events and Errors | 0001 |
| DVS System Logs | 800B |
| DVS System Miscellaneous Errors | 0002 |
| File Transfer System | not applicable |
| Forms Generator | 0011 |
| Foreign Operating System Manager | 8020 |
| General DNC & SCP Logs | 0000 |
| Generic Job Manager | 852E |
| Global Task Master | 8009 |
| High Speed Line Manager | 8007 |
| Initialization Manager/SO | 800D |
| LIU Port - LAPB/SDLC L2 | C302 |
| Local Task Master | 800A |

**- continued -**

**Table 4-A (continued)**
**SUBSYSTEM NUMBERS ASSOCIATED WITH DNC SOFTWARE**

| PRU/SUBSYSTEM NAME | CORRESPONDING SUBSYSTEM NUMBER |
|---|---|
| Log Printer | 8723 |
| Maintenance High Level Protocol Handler | 8005 |
| Name Address Manager (NAM) | 8052 |
| Owner Agent Registrar | 800C |
| PAD | 8205 |
| Primary File Server Sub-P | 8800 |
| Printer Manager | 8035 |
| Printer Queue Manager | 8046 |
| RDVCHNL (RDV3274) | 0058 |
| RDVMCS | 802A |
| RDVMCS | 8032 |
| RDVMCS | 8068 |
| RDVMCS | 8069 |
| RSS (Remote Screen Share) | 8605 |
| Remote Access Manager Sub | 8603 |
| Remote Disk Admin. Agent | 8053 |
| Remote File Transfer | 0024 |
| Remote OAR Sub-PRU | 8604 |
| Resource Manager | 8008 |
| SAS - Command Interpreter | 8029 |
| SASI/SCSI Device Driver | 8013 |
| Save/Restore | 8710 |
| SDM Table Editor | 85BF |
| Screen Activities Manager | 8022 |
| Security Agent Sub-PRU | 8039 |
| Simple Forms Handler | 0019 |
| Simple Forms Handler | 8023 |
| Spooler User Interface | 8047 |
| Synchronization Manager | 802E |
| System Administrative Services | 8029 |

**- continued -**

**Table 4-A (continued)**
**SUBSYSTEM NUMBERS ASSOCIATED WITH DNC SOFTWARE**

| PRU/SUBSYSTEM NAME | CORRESPONDING SUBSYSTEM NUMBER |
|---|---|
| T1 Manager | 802D |
| TNAP Sub-PRU | 8602 |
| Virtual Screen Manager | 8024 |
| Voice Interface Single Board Computer | 8698 |
| Voice Interface Resource Manager | 8699 |
| Voice Interface Monitoring & Diagnostic Software | 869A |
| XMS Command Interpreter | 8006 |

## Advice on Text Format

Log message text was obtained from several sources and therefore reflects several text formats. Generally, log message text is shown in “raw” format, which is the format in which they are stored in the message-subsystem files. PRUs listing messages in the format described in Table 4-B below will be easier to read than PRUs that list messages in “raw” format.

When the log service sends a log message to an output device, some of the information shown in the raw format may be omitted. The format of the log message header determines what information is sent to the output device. The system designer can choose from several header formats when designating the format that is to be used for all log messages from a subsystem.

In some sub-systems, the message may contain some identifier to indicate the placement of a system variable in the message. These identifiers are explained in the table below.

**Table 4-B**
**Explanation of Identifiers**

| Identifier | Meaning |
|---|---|
| <Reporter> | Insert the reporting RU's name in the message |
| <Other> | Insert the other RU's name in the message |
| <Error Type> | Insert the error type in the message |
| <Hex Value> | Insert the integer contained in the other additional information field in the message as a Hex number. |
| <Dec Value> | Insert the integer contained in the other additional information field in the message as a Decimal number. |
| <Long Hex> | Insert the long integer contained in the other additional information field in the message as a Hex number. |
| <Long Dec> | Insert the long integer contained in the other additional information field in the message as a Decimal number. |
| <String n> | Insert the string contained in the other additional information field into the message. The value of 'n' is the length of the string inserted. |
| <Object Name> | Insert the object name as a string in the message. |

A message may include a vertical list of sub-strings, one of which will be inserted into the message. These sub-strings are called the dictionary message string.

**Example:**

The weather is

cold
warm
hot

The formatted message would appear as one of the following messages:

- The weather is cold
- The weather is warm
- The weather is hot

## Superuser Assumption

Where the Action refer to tasks that require superuser authority, it is assumed the superuser has been fully trained and is familiar with the Helix directory structure and command syntax.

# General DNC & SCP Logs (0000)

## 0000/0001

**Message:** @1 @FS2//
@FS3: Traceback of routine execution//
@&72* @LH// @&38*// @&38*// @&38*// @&38*// @&38*// @&38*//
@&38*// @&38*//

**Explanation:** This log is generated when an application invokes the SWERR procedure from unit SWERRUI.

## 0001/0002

**Message:** @FS1 @ID Locale: @ID Procedure: @FS2 Line: @ID//
Called from: @&10* Line: @ID//Called from: @&10* Line: @ID//
Called from: @&10* Line: @ID//Called from: @&10* Line: @ID//
Called from: @&10* Line: @ID//Called from: @&10* Line: @ID//
Called from: @&10* Line: @ID//Called from: @&10* Line: @ID//
Called from: @&10* Line: @ID//Called from: @&10* Line: @ID//

**Explanation:** This log is generated when an application invokes the SWERR procedure from unit SWERRLOG. This log occurs when the exception entry of either a PRU's Boss task, or the exception entry of the kernel is invoked. It indicates a faulty piece of software.

**Action:** Contact your NT representative.

## 0002/0003

**Message:** System Reboot requested by @&18*

**Explanation:** This log records a user request for a system reboot.

**Action:** There is no recommended action.

# DVS System Local Events and Errors (0001)

## 4001/FFFF

**Message:** Audit response from @1.

## 4002/FFFF

**Message:** Received return of @^ from @2

## DVS System Miscellaneous Errors (0002)

This section lists messages in five categories (report numbers) as follows:

| | |
|---|---|
| 4101 | VTP Errors |
| 4102 | Helix File Server Errors |
| 4103 | Administration Errors |
| 4104 | Administration Errors |
| 4105 | Simple Forms Handler Errors |

These messages may be reported by any PRU.

### 4101/0001

**Message:** VTP error. Timeout. Return Code = 1.

### 4101/0002

**Message:** VTP error. Rnacked. Physical address does not exits or is not alive.//Return Code = 2.

### 4101/0003

**Message:** VTP error. Local transmit failed - destination pool ID bad.//Return Code = 3.

### 4101/0005

**Message:** VTP error. No transmit buffer.

### 4101/000E

**Message:** VTP error. No transmit control structure.

### 4101/0010

**Message:** VTP error. Nacked. Soft destination will not accept packet. Return Code = 16.

### 4101/0011

**Message:** VTP error. Physical destination is nonexistent or dead. Return Code = 17.

### 4102/0001

**Message:** Helix error. Mixing I/O operation types. Return Code = 1.

### 4102/0014

**Message:** Helix error. Attempt to write illegal character. Return Code = 20.

### 4102/0028

**Message:** Helix error. Attempt to do I/O operation on unopened file variable.//Return Code = 40.

### 4102/0029

**Message:** Helix error. Attempting open on file already open.//Return Code = 41.

### 4102/002A

**Message:** Helix error. Attempt to commit an uncommitable file.//Return Code = 42.

### 4102/002B

**Message:** Helix error. Attempting seek on stream device or untyped file.//Return Code = 43.

### 4102/002C

**Message:** Helix error. Bad file set ID. Return Code = 44.

### 4102/002D

**Message:** Helix error. Server not found. Return Code = 45.

### 4102/002E

**Message:** Helix Error. Illegal cross of file systems. Return Code = 46.

### 4102/002F

**Message:** Helix Error. Attempt to logon when already logged on.//Return Code = 47.

### 4102/0030

**Message:** Client Helix has no more heap or table space. Return Code = 48.

### 4102/0033

**Message:** Tasking Error. Time-out on ACCEPT exhausted (trTIMEOUT)//Return Code = 51.

### 4102/0036

**Message:** Tasking Error. Bad control block handle or bad task id (trTID)//Return Code = 54.

### 4102/0037

**Message:** Tasking Error. Receiver in rendezvous failed (trREPLYERR)//Return Code = 55.

### 4102/0039

**Message:** Tasking Error. Invalid wait-time (trTIME)//Return Code = 57.

### 4102/003B

**Message:** Tasking Error. Unable to initiate task (trINIT)//Return Code = 59.

### 4102/0041

**Message:** Tasking Error. No pool was associated with this task,//or invalid MakePool (trPOOL)//Return Code = 65.

### 4102/0043

**Message:** Tasking Error. Illegal operation in mini task (trMINI)//Return Code = 67.

### 4102/0047

**Message:** Tasking Error. No appropriate buffers are currently available (trBUFFER)//Return Code = 71.

### 4102/0048

**Message:** Tasking Error. Could not transmit to the network (trNOXMIT)//Return Code = 72.

### 4102/0049

**Message:** Tasking Error. Stack overflow (trSTOFL)//Return Code = 73.

### 4102/004A

**Message:** Tasking Error. Invalid data buffer description in Push/Pull (trDATA)//Return Code = 74.

### 4102/004B

**Message:** Tasking Error. Entry type mismatch on remote rendezvous (trTYPE)//Return Code = 75.

### 4102/004C

**Message:** Tasking Error. Entry not found in remote rendezvous,//or Push/Pull invoked when not in an entry (trENTRY)//Return Code = 76.

### 4102/004D

**Message:** Tasking Error. Communication failure in remote rendezvous (trNONET)//Return Code = 77.

### 4102/004E

**Message:** Tasking Error. Invalid locale number (trLOCALE)//Return Code = 78.

### 4102/004F

**Message:** Tasking Error. Interval timer error (trTIMER)//Return Code = 79.

### 4102/0064

**Message:** Helix Error. Mismatch in interface between workstation and fileserver.//Return Code = 100.

### 4102/0065

**Message:** Helix Error. Illegal characters in pathname. Return Code = 101.

### 4102/0066

**Message:** Helix Error. Attempting open on nonexistent object. Return Code = 102.

### 4102/0067

**Message:** Helix Error. Unable to create a directory. Return Code = 103.

### 4102/0068

**Message:** Helix Error. Attempting to create a file with an already existing name.//Return Code = 104.

### 4102/0069

**Message:** Helix Error. STDREAD or STDWRITE not on a natural block boundary.//Return Code = 105.

### 4102/006A

**Message:** Helix Error. Attempting I/O operation outside file limit.//Return Code = 106.

### 4102/006B

**Message:** Helix Error. Unable to access file as other user has it locked.//Return Code = 107.

### 4102/006C

**Message:** Helix Error. Bad object type. Return Code = 108.

### 4102/006D

**Message:** Helix Error. Attempt to write to a file with only read access.//Return Code = 109.

### 4102/006E

**Message:** Helix Error. Bad password provided. Return Code = 110.

### 4102/006F

**Message:** Helix Error. No server support for desired operation.//Return Code = 111.

### 4102/0070

**Message:** Helix Error. Client unable to communicate with server.//Return Code = 112.

### 4102/0071

**Message:** Helix Error. Server has exhausted its resources.//Return Code = 113.

### 4102/0072

**Message:** Helix Error. Parity error in reading data from server.//Return Code = 114.

### 4102/0073

**Message:** Helix Error. Attempt to write to a write protected device.//Return Code = 115.

### 4102/0074

**Message:** Helix Error. Attempt to access a file as a directory.//Return Code = 116.

### 4102/0075

**Message:** Helix Error. Cannot write on an RC instance of object.//Return Code = 117.

### 4102/0076

**Message:** Helix Error. Illegal access specification in pathname.//Return Code = 118.

### 4102/0077

**Message:** Helix Error. Bad remote pointer. Return Code = 119.

### 4102/0078

**Message:** Helix Error. Timeout on close/commit of trans file set.//Return Code = 120.

### 4102/0079

**Message:** Helix Error. Attempted file commit with no time server on node.//Return Code = 121.

### 4102/0082

**Message:** Helix Error. No recognizable directory on floppy.//Return Code = 130.

### 4102/0083

**Message:** Helix Error. Overrun of limit of 77 files per floppy.//Return Code = 131.

### 4102/0084

**Message:** Helix Error. No room on volume. Return Code = 132.

### 4102/0085

**Message:** Helix Error. New volume mounted. Volume name mismatch.//Return Code = 133.

### 4102/0086

**Message:** Helix Error. Timeout on volume. Device gone away.//Return Code = 134.

### 4102/0096

**Message:** Helix Error. Failure in communication link between sites.//Return Code = 150.

### 4102/0097

**Message:** Helix Error. Some type of server failure at a remote site.//Return Code = 151.

### 4102/0098

**Message:** Helix Error. File ID not recognized by the server.//Return Code = 152.

### 4102/0099

**Message:** Helix Error. S/W Consistency check failure.//Return Code = 153.

### 4102/009A

**Message:** Helix Error. File set transaction id invalid.//Return Code = 154.

### 4102/009B

**Message:** Helix Error. Volume id of FID is not for this server.//Return Code = 155.

### 4102/009C

**Message:** Helix Error. The spares field input are not zero.//Return Code = 156.

### 4102/009D

**Message:** Helix Error. The UNIX object type specified is not valid.//Return Code = 157.

### 4102/009E

**Message:** Helix Error. The exclusive option was set but the file already exists.//Return Code = 158.

### 4102/009F

**Message:** Helix Error. Source pathname is invalid.//Return Code = 159.

### 4102/00A0

**Message:** Helix Error. Illegal parameter submitted to FOS I/F.//Return Code = 160.

### 4102/00A1

**Message:** Helix Error. The destination pathname is invalid.//Return Code = 161.

### 4102/00A2

**Message:** Helix Error. The volume id of the destination FID is not for this server.//Return Code = 162.

### 4102/00A3

**Message:** Helix Error. Invalid input parameter.//Return Code = 163.

### 4102/00A4

**Message:** Helix Error. Bad password input.//Return Code = 164.

### 4102/00A5

**Message:** Helix Error. Bad volume control parameter.//Return Code = 165.

### 4102/00A6

**Message:** Helix Error. Agent_ID on logout is invalid.//Return Code = 166.

### 4102/00A7

**Message:** Helix Error. No STD delete of directory blocks.//Return Code = 167.

### 4102/00A8

**Message:** Helix Error. Instance key is invalid.//Return Code = 168.

### 4102/00A9

**Message:** Helix Error. Read error occurs in user data.//Return Code = 169.

### 4102/00AA

**Message:** Helix Error. Write error occurs in user data.//Return Code = 170.

### 4102/00AB

**Message:** Helix Error. Agent or object id does not exist.//Return Code = 171.

### 4102/00AC

**Message:** Helix Error. Length of FOS command is incorrect.//Return Code = 172.

### 4102/00AD

**Message:** Helix Error. Volume ID of source FID is not for this server.//Return Code = 173.

### 4102/00AE

**Message:** Helix Error. Permission denied.//Return Code = 174.

### 4103/0001

**Message:** Admin error. Bad parameter used on entry. Return Code = 1.

### 4103/0002

**Message:** Admin error. Object versions mismatch. Return Code = 2.

### 4103/0003

**Message:** Admin error. Cannot notify a task of an update. Return Code = 3.

### 4103/0004

**Message:** Admin error. Object not marked. Return Code = 4.

### 4103/0005

**Message:** Admin error. Object marked by another session. Return Code = 5.

### 4103/0006

**Message:** Admin error. Object marked by user profile editor. Return Code = 6.

### 4103/0007

**Message:** Admin error. Commit session in progress. Return Code = 7.

### 4103/0008

**Message:** Admin error. Notification list is full. Return Code = 8.

### 4103/0009

**Message:** Admin error. Disk I/O error obtained. Return Code = 9.

### 4103/000A

**Message:** Admin error. Tasking error obtained. Return Code = 10.

### 4103/000B

**Message:** Admin error. No match on object name. Return Code = 11.

### 4103/000C

**Message:** Admin error. Admin primitive failed. Return Code = 12.

### 4103/000D

**Message:** Admin error. Bad file/core data encountered by Admin. Return Code = 13.

### 4104/0001

**Message:** Admin error. Bad parameter used on entry. Return Code = 1.

### 4104/0002

**Message:** Admin error. Object versions mismatch. Return Code = 2.

### 4104/0003

**Message:** Admin error. Cannot notify a task of an update. Return Code = 3.

### 4104/0004

**Message:** Admin error. Object not marked. Return Code = 4.

### 4104/0005

**Message:** Admin error. Object marked by another session. Return Code = 5.

### 4104/0006

**Message:** Admin error. Object marked by user profile editor. Return Code = 6.

### 4104/0007

**Message:** Admin error. Commit session in progress. Return Code = 7.

### 4104/0008

**Message:** Admin error. Notification list is full. Return Code = 8.

### 4104/0009

**Message:** Admin error. Disk I/O error obtained. Return Code = 9.

### 4104/000A

**Message:** Admin error. Tasking error obtained. Return Code = 10.

### 4104/000B

**Message:** Admin error. No match on object name. Return Code = 11.

### 4104/000C

**Message:** Admin error. Admin primitive failed. Return Code = 12.

### 4104/000D

**Message:** Admin error. Bad file/core data encountered by Admin. Return Code = 13.

### 4105/0001

**Message:** SFH error. Bad access ID. Return Code = 1.

### 4105/0002

**Message:** SFH error. Form not current form. Return Code = 2.

### 4105/0003

**Message:** SFH error. Bad field number. Return Code = 3.

### 4105/0004

**Message:** SFH error. Bad soft key number. Return Code = 4.

### 4105/0005

**Message:** SFH error. Forms file not on system. Return Code = 5.

### 4105/0006

**Message:** SFH error. Bad form name. Return Code = 6.

### 4105/0007

**Message:** SFH error. Error reading form file. Return Code = 7.

### 4105/0008

**Message:** SFH error. Too many applications using the SFH. Return Code = 8.

### 4105/0009

**Message:** SFH error. Wrong revision level or file name doesn't match the package name.//Return Code = 9.

### 4105/000A

**Message:** SFH error. Too many files. Return Code = 10.

### 4105/000B

**Message:** SFH error. Too many forms. Return Code = 11.

### 4105/000C

**Message:** SFH error. No form memory. Return Code = 12.

### 4105/000D

**Message:** SFH error. No apprec. memory. Return Code = 13.

### 4105/000E

**Message:** SFH error. Attempt to position cursor outside of a field.//Return Code = 14.

### 4105/000F

**Message:** SFH error. Get_form_info was invoked with an invalid data type.//Return Code = 15.

### 4105/0010

**Message:** SFH error. SFH already doing form collection when form collection was requested.//Return Code = 16.

### 4105/0011

**Message:** SFH error. Field collection invoked on an output only field.//Return Code = 17.

### 4105/0012

**Message:** SFH error. Invoking a feature not yet implemented.//Return Code = 18.

### 4105/0013

**Message:** SFH error. Too many fields highlighted.//Return Code = 19.

### 4105/0014

**Message:** SFH error. Illegal video attribute passed to SFH.//Return Code = 20.

### 4105/0015

**Message:** SFH error. SFH_INITIALIZE couldn't find an SFH.//Return Code = 21.

### 4105/0016

**Message:** SFH error. Application tried to call SFH_INITIALIZE more than once. Return Code = 22.

### 4105/0017

**Message:** SFH error. Application passed garbage in sac. Return Code = 23.

### 4105/0018

**Message:** SFH error. SFH entry invoked before STOP_FORM completed.//Return Code = 24.

### 4105/0019

**Message:** SFH error. Communication failure between SFH and terminal.//Return Code = 25.

### 4105/001A

**Message:** SFH error. Entry invoked after stop_form before stop_form finished.//Return Code = 26.

## DVS Global Events (0003)

### 0001/FFFF

**Message:** @1 is operational//Revision @^

### 0002/FFFF

**Message:** @1 is non-operational

### 0003/FFFF

**Message:** @1 reports//@2 has become operational

### 0004/FFFF

**Message:** @1 reports//@2 has become non-operational

### 0005/FFFF

**Message:** @1 reports//@2 appears OK

### 0006/FFFF

**Message:** System initialization complete

### 0007/FFFF

**Message:** @1 reports//@2 enabled

### 0008/FFFF

**Message:** @1//registers with Resource Manager

### 0009/FFFF

**Message:** @1//deregisters from Resource Manager

### 000A/FFFF

**Message:** @1 requests that it be reloaded if it crashes.

### 000B/FFFF

**Message:** System time set through SAS.

### 000C/FFFF

**Message:** Routing Table has been updated.

### 000D/FFFF

**Message:** @2//taken out of service.

### 000E/FFFF

**Message:** @2 is offline.

## DVS Global Errors (0004)

### 0001/0007

**Message:** @1 is dying.//@MNo|Run|Tasking|IO|User|Peripheral IO|| Error = @ID

### 0001/0064

**Message:** @1 is dying.//See hex detail.

### 0002/0001

**Message:** Message received from unknown node: @LH @LH//Other dying

### 0002/0002

**Message:** Timeout transmitting message to @2.//@2 is dying.

### 0002/0003

**Message:** Message transmitted to @2 RNAK'ed.//@2 is dying.

### 0002/0004

**Message:** Invalid op-code received from @2: @IH//@2 is dying.

### 0002/0005

**Message:** @1 received a bad command from @2.//See hex detail.

### 0002/0006

**Message:** FOS error: @ID. @2 is set to FAULTY.

### 0002/0007

**Message:** @2 is dying.//@MNo|Run|Tasking|IO|User|Peripheral IO|| Error = @ID

### 0002/000B

**Message:** Error detected in audit of @2.

### 0002/000C

**Message:** LANLINK error detected in @2.

### 0002/0064

**Message:** @2 is dying.

### 0002/00C8

**Message:** Could not contact @2.//Declared faulty.

### 0002/00C9

**Message:** @2 failed audit

### 0002/00CA

**Message:** Non-zero return code from @2.

### 0002/0190

**Message:** Catastrophic error in Global Task Master, cause = @ID

### 0003/0002

**Message:** Timeout transmitting message to @2.//@2 is dying.

### 0003/0003

**Message:** Message transmitted to @2 RNAK'ed.//@2 is dying.

### 0003/0004

**Message:** Invalid op-code received from @2: @ID//@2 is dying.

### 0003/0005

**Message:** @1 received a bad command from @2.//@2 is set FAULTY.//See hex detail.

### 0003/0006

**Message:** @2 is dying.//Global FOS return code: @ID

### 0003/0007

**Message:** @2 is dying.//@MNo|Run|Tasking|IO|User|Peripheral IO|| Error = @ID

### 0003/0008

**Message:** @2 is dying.//PRU failed to respond to audit.

### 0003/0009

**Message:** @2 is dying.//PRU failed to respond to @1.

### 0003/000A

**Message:** @2 sent unexpected message.

### 0003/000B

**Message:** Error detected in audit of @2.

### 0003/000D

**Message:** Unable to initialize @2.

### 0003/000E

**Message:** Unable to boot @2//May require human intervention.

### 0003/000F

**Message:** @2//has reset while in an operational state//Device declared faulty

### 0003/0010

**Message:** Initialization request with a serious error received from//@2//Device declared faulty

### 0003/0064

**Message:** @2 is dying.

### 0004/0002

**Message:** @2 Error.//Timeout transmitting message to @2.

### 0004/0003

**Message:** @2 Error.//Message transmitted to @2 RNAK'ed.

### 0004/0004

**Message:** @2 Error.//Invalid op-code received from @2: @ID

### 0004/0005

**Message:** @1 received a bad command from @2.//See hex detail.

### 0004/0006

**Message:** @2 Error//Global FOS return code: @ID

### 0004/0007

**Message:** @2 Error//@MNo|Run|Tasking|IO|User|Peripheral IO|| Error = @ID

### 0004/0008

**Message:** @2 Error.//PRU failed to respond to audit.

### 0004/0009

**Message:** @2 Error.//PRU failed to respond to @1.

### 0004/000A

**Message:** @2 sent unexpected message.

### 0004/000B

**Message:** Error detected in audit of @2.

### 0004/000D

**Message:** Unable to initialize @2.

### 0004/000E

**Message:** Unable to boot @2.//May require human intervention.

### 0004/0064

**Message:** @2 Error.

### 0005/0008

**Message:** Tape overflow - attempt to write past tape capacity.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0010

**Message:** Attempt to write to a write-protected tape.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/001C

**Message:** Tape accessed by unknown Client.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0032

**Message:** Tape drive not ready for command.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0033

**Message:** An unexpected file mark was detected.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0034

**Message:** The tape controller cannot read/write this tape.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0035

**Message:** No tape in the drive.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0036

**Message:** Attempt to read past end of medium.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0037

**Message:** Open failed - tape already open.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0038

**Message:** Unit attention - medium changed.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0039

**Message:** Client buffer is too small for size requested.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/003A

**Message:** The Tape Server cannot allocate enough buffers.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/003B

**Message:** Tape accessed with incorrect mode.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/003C

**Message:** Tape command was incorrect.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/003D

**Message:** Tape hardware fault detected.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/003E

**Message:** Repeat the command.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0040

**Message:** Tape drive busy with command.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0041

**Message:** Attempt to read blank tape.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

### 0005/0064

**Message:** Tape Controller returned undocumented error code.//TAPE write count: @LH read count: @LH //TAPE error count: @LH underrun count: @LH

## Forms Generator (0011)

### 0002/1000

**Message:** FORMGEN> Form files wrong version.

### 0002/1001

**Message:** FORMGEN> Load of message strings failed.

### 0002/1002

**Message:** FORMGEN> Memory block size not equal to form size.

### 0002/1003

**Message:** FORMGEN> Invalid Parameter return code from rm_bulk_query.

### 0002/1004

**Message:** FORMGEN> Bad task return code from 'rm_bulk_query'//entry invocation.

### 0002/1005

**Message:** FORMGEN> Not all SFH form caches were updated with the//newest Corporate Herald form.

### 0002/1006

**Message:** FORMGEN> Internal error displaying softkeys.

### 0002/1007

**Message:** FORMGEN> Internal error - softkey not implemented.

### 0002/1008

**Message:** FORMGEN> Internal error - define for field not implemented.

### 0002/1009

**Message:** FORMGEN> Read_block: read result not equal to block size given.

### 0002/100A

**Message:** FORMGEN> Option record does not exist.

### 0002/100B

**Message:** FORMGEN> Package tail data load error, bad form.

### 0002/100C

**Message:** FORMGEN> Unable to obtain requested block of memory.

### 0002/100D

**Message:** FORMGEN> No menu label found.

### 0002/100E

**Message:** FORMGEN> WARNING - not all message strings were found.

### 0002/100F

**Message:** FORMGEN> WARNING - there are extra message strings in the form.

# Simple Forms Handler (0019)

## PRU Profile

The reader is referred to the corresponding log message, explanation and action in the other SFH PRU, number 8023. Six of the seven logs in 0019 are duplicated in 8023; the first log message here is unique.

### 0002/1000

**Message:** SFH reports an error response from a terminal//Error Condition: @IH Failing Command Location Index: @IH//Failing Command: @IH Failing Parameter Location: @ID//Src Phys Addr: @LH, Src Soft Addr: @LH

### 0002/1001

**Message:** SFH reports it is unable to allocate memory.//Initialization data requires a segment size exceeding the XMS limit

### 0002/1002

**Message:** SFH reports it is unable to allocate memory//due to an XMS SEGALLOC failure

### 0002/1003

**Message:** SFH reports it is unable to initialize memory//due to an XMS NEWHEAP failure

### 0002/1004

**Message:** SFH reports it is unable to initialize memory//due to an XMS NEWVAR failure

### 0002/1005

**Message:** SFH reports initialization data requiring a data structure size exceeding its logical limit

### 0002/1006

**Message:** SFH reports an unknown command/response received at its input address

## Remote File Transfer (0024)

### 0001/1102

**Message:** FH_IN (Host=@ID IO=@ID) Tasking Error in attempt to SEND to IFTA.

### 0001/1103

**Message:** FH_IN @ID could not open file @&130*.

### 0001/1104

**Message:** FH_IN @ID. Error in writing file @&130*.

### 0001/1121

**Message:** Task variable is NIL.

### 0001/1122

**Message:** Task Result is not zero.

### 0001/1128

**Message:** Invalid Record Type @ID.

### 0001/1129

**Message:** OUT @ID Output_Ready1: Error SENDING to IFTA.

### 0001/112A

**Message:** OUT @ID Output_Ready2: Error SENDING to IFTA.

### 0001/112B

**Message:** Unavailable Path - URH_Out: @&130*.

### 0001/112C

**Message:** FH_OUT @ID could not open file @&130*.

### 0001/1147

**Message:** Tasking Error in Attempt to SEND.

### 0001/1149

**Message:** Error SENDing to OUTPUT TASK

### 0001/114D

**Message:** Tasking error in attempt to SEND to Gateway.

### 0001/1150

**Message:** DLC Port @ID is non-operational.

### 0001/1153

**Message:** Could not open Helix Directory @&130*.

### 0001/1154

**Message:** Could not erase @&130*.

### 0001/1155

**Message:** Could not open file @&130*.

### 0001/1156

**Message:** Could not read file @&130*.

### 0001/1301

**Message:** CLI Resource Limit://Tried to exceed the maximum number of configured users.

### 0002/1000

**Message:** FILE SYSTEM I/O ERROR @ID://Invoking @&10* from @&18*.//Operating on file @&22*.

### 0002/1001

**Message:** TASKING ERROR @ID://Invoking @&18* from @&18*.

### 0002/1002

**Message:** LOGON ERROR @ID://Could not log on to @&22*.//Invoking @&10* from @&18*.

### 0002/1003

**Message:** Unsuccessful LOCATE for @&12* -- { @&26* }.

### 0002/1100

**Message:** Could not obtain heap for Input Task @ID.

### 0002/1101

**Message:** Could not INITIATE Input Task @ID.

### 0002/1105

**Message:** ERROR @ID://Could not initialize the 3780 Service Driver.

### 0002/1106

**Message:** This Service Driver is not configured to be active.//Host number = @ID.

### 0002/1107

**Message:** Could not find the RFT Master PRU.

### 0002/1108

**Message:** Could not find the Host Agent (HAG) PRU.

### 0002/1123
**Message:** Fatal Error, DSM_OUT_RIB is NIL.

### 0002/1124
**Message:** Fatal Error, DSM_OUT_QINFO is NIL.

### 0002/1125
**Message:** FH_OUT_INIT: Fatal Error, FH_RIB is NIL.

### 0002/1126
**Message:** Could not obtain heap for Output Task @ID.

### 0002/1127
**Message:** Could not INITIATE Output Task @ID.

### 0002/1141
**Message:** No Rib Buffers available.

### 0002/1142
**Message:** No Heap available.

### 0002/1143
**Message:** No Send Buffers available.

### 0002/1144
**Message:** IFTA: Could not obtain a heap.

### 0002/1145
**Message:** IFTA: Could not obtain IO_SERV_DATA record from MYHEAP.

### 0002/1146
**Message:** Could not obtain buffer pool.

### 0002/1148
**Message:** Could not obtain SIB for Parsing.

### 0002/114A
**Message:** Heap Manager initialization failure.

### 0002/114B
**Message:** Cannot SEND to HAG_HELPER.

### 0002/114C
**Message:** Could not obtain RJE Service Data.

### 0002/114E
**Message:** Segment request too large, UNIV_SEG_KB = @ID.

### 0002/114F

**Message:** Segment request too large, BUFF_KB = @ID.

### 0002/1151

**Message:** Segment request too large,//BM_SEG_SIZE = @ID.

### 0002/1152

**Message:** Could not obtain buffer pool of size @ID.

### 0002/1203

**Message:** ERROR @ID://Could not initialize the Information Manager.

### 0002/1204

**Message:** Could not read Configuration Data.

### 0002/1205

**Message:** ERROR @ID://Could not initialize the Control Point task.

### 0002/1206

**Message:** ERROR @ID://Could not initialize the Application Manager.

### 0002/1207

**Message:** ERROR @ID://Could not register with the Name Server.

### 0002/1208

**Message:** ERROR @ID://Could not initialize the Queue Manager.

### 0002/1209

**Message:** An unknown application type tryed to register with RFT.

### 0002/1210

**Message:** Attempted to exceed the maximum allowable applications.

### 0002/1211

**Message:** Attempted to deregister an application that was not registered.

### 0002/1212

**Message:** Internal number of available applications is corrupted.

### 0002/1213

**Message:** ERROR @ID://Could not register with the Resource Manager against the RFT Master.

### 0002/1214

**Message:** The Application Manager detected that an application abnormally ended.

### 0002/1215

**Message:** FILE SYSTEM I/O ERROR @ID://Could not write to the RFT log file.

### 0002/1300

**Message:** ERROR @ID://Could not initialize the CLI Control Point.

### 0002/1302

**Message:** RFT CLI is unavailable://There are no configured users.

### 0002/1303

**Message:** Could not obtain configuration data from the RFT Master.

### 0002/1304

**Message:** ERROR @ID://Failed to deregister the CLI from the RFT Master.

### 0002/1305

**Message:** ERROR @ID://Could initialize CLI SIT services.

### 0002/1306

**Message:** ERROR @ID://Could not initialize CLI SIT memory segment.//Not enough memory available on this SRU.

### 0002/1307

**Message:** FILE SYSTEM I/O ERROR @ID://Could not open the reserved word list.

### 0002/1308

**Message:** Tried to exceed the maximum number of allowable reserved words (@&ID).

### 0002/1309

**Message:** The CLI has detected that a Level-C application has ended abnormally.

### 0002/1310

**Message:** There is an error in the CLI Reserved Word file.//Length overlap at line @ID.

### 0002/1400

**Message:** Could not register @&12* with resource manager.

### 0002/1401

**Message:** Could not @&12* @&26* @LD.

### 0002/1500

**Message:** Could not @&12* @&26* for RIP[@LD]; RC=@ID.

### 0002/1501

**Message:** RIP TASKING ERROR://@&12* @&26* for RIP[@LD]; RC=@ID.

### 0002/1502

**Message:** RIP I/O ERROR://@&12* @&26* occured in RIP[@LD]; RC=@ID.

# RDVCHNL (RDV3274) (0058)

### 0001/1011

**Message:** Reset Contention - Discarding Reset Key

### 0001/1027

**Message:** Failed to Locate HAG

### 0002/1001

**Message:** Error in Indirect Send - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1002

**Message:** Error in get xmit info - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1003

**Message:** Error in Indirect Send - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1004

**Message:** Heap allocation failed - getting size @LD with @LD available

### 0002/1005

**Message:** Get a Heap allocation of size @LD failed

### 0002/1006

**Message:** A pointer value of Nil is being returned

### 0002/1007

**Message:** Pointer has already been returned

### 0002/1008

**Message:** Buffer Manager is getting frames again F_Buf_Count is @LD

### 0002/1009

**Message:** Buffer Manager is out of frames F_Buf_Count is @LD

### 0002/1010

**Message:** Buffer Manager could not return VTP Buffer

### 0002/1012

**Message:** Error in Get Rcv Full - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1013

**Message:** Bad Fos Command @LD Rcv errorCode = @LD at address @LH @LH

### 0002/1014

**Message:** Error in Indirect Send - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1015

**Message:** Error VTP Xmit Handler - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1016

**Message:** Alpha Error @ VSSADDR @LH Error Code @LD Header = @LD Para Loc = @LD

### 0002/1017

**Message:** Unexpected Alpha response @LD Resp Reason @LD Input Mode @LD VSSADDR @LH

### 0002/1018

**Message:** Error in Indirect Send - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1019

**Message:** Error VTP Xmit Handler - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1020

**Message:** Error in Share Pool - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1021

**Message:** Error in Indirect Send - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1022

**Message:** Error VTP Xmit Handler - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1023

**Message:** Error in Indirect Send - errorCode = @LD at address @LH @LH, Other @LH

### 0002/1024

**Message:** Error VTP Xmit Handler - errorCode = @LD at address @LH @LH, Other @LH

**0002/1025**

**Message:** No Reply to Data Connect.

**0002/1026**

**Message:** No Setup received from CCE

**0002/1028**

**Message:** Bad return code @LD from RM Register

**0002/1029**

**Message:** Bad return code @LD from RM Request on HAG

**0002/1030**

**Message:** Unable to get a heap for DET @LD

**0002/1031**

**Message:** Unable to get a heap from segment

**0002/1032**

**Message:** Heap block allocation failed

**0002/1033**

**Message:** Could not allocate segment of size @LD

**0002/1034**

**Message:** Unable to get a heap from segment

**0002/1035**

**Message:** Failure in pVTP_Pool_Create return code = @LD

**0002/1036**

**Message:** Unable to send service data to HAG - TaskResult = @LD

**0002/1037**

**Message:** Hag has rejected the service data rc = @LD ServType = @LD Capacity = @LD

**0002/1038**

**Message:** Hag has rejected the service data rc = @LD ServType = @LD Capacity = @LD

**0002/1039**

**Message:** Invalid DE Index Number

**0002/1040**

**Message:** Admin Read Failure RC = @LD

### 0002/1041

**Message:** Bad RM Update

### 0002/1042

**Message:** Task communication failure with HAG Update_Svc_Load
TaskResult = @LD

### 0002/1043

**Message:** Unable to register DE with the name server

## DNC Operational Measurement (006D)

### 0000/0001

**Message:** @1 @FS2//@FS3: SDM Problem//Cannot open table: @&32*//

### 0000/0002

**Message:**@1 @FS2//@FS3: SDM Problem//Table: @&32* does not have key value: @&32*//

**Explanation:** This log occurs when a key can not be found in an SDM table.

### 0000/0003

**Message:**@1 @FS2//@FS3: Task Exception Error//Error Class: @ID//Error Type : @ID//Task Name: @&22*//

**Explanation:** This log occurs when a task exception occurs.

### 0000/0004

**Message:** @1 @FS2//@FS3: Memory Error//Could not get memory for @&42*//Size Requested (in bytes): @LD//Memory Manager Return Status: @MSuccess|Warning|Error|Fatal||//Task Action: @MContinuing|Aborting||

**Explanation:** This log occurs when a task can not get memory from the memory manager.

### 0000/0005

**Message:**@1 @FS2//@FS3: Task Error//Task error occurred: @&42*//Entry Name: @&22*//Task Error Number: @ID//

**Explanation:** This log occurs when a task gets a non 0 task result when doing a tasking operation.

### 0000/000A

**Message:**@1 @FS2//@FS3: Name Server Error//Unable to @Mregister|deregister|| name: @&26*//on server level: @&10*//

**Explanation:** This log occurs when an non successful register or deregister name server request is made.

### 0000/000B

**Message:**@1 @FS2//@FS3: Memory Error//Could not free memory for @&42*//@-4*Memory Manager Return Status: @MSuccess|Warning|Error|Fatal||//Task Action: @MContinuing|Aborting//

**Explanation:** This log occurs when a memory manager error occurs when freeing memory.

### 0000/000C

**Message:**@1 @FS2//@FS3: Path Create Error//Could not create file path//@&130*//

**Explanation:** This log occurs when a file path can not be created.

### 0000/000D

**Message:**@1 @FS2//@FS3: File I/O Error//Error on file://@&130*//Error number: @ID//occurred while @&52*//

**Explanation:** This log occurs when an I/O error occurs.

### 0000/000E

**Message:**@1 @FS2//@FS3: Locate Error//Can not locate @&32*//Locate Name: @&26*//

**Explanation:** This log occurs when a name server locate is unsuccessful.

### 0000/000F

**Message:**@1 @FS2//@FS3: SDM Error//Cannot @Mregister|deregister against table @&32*//

**Explanation:** This log occurs when a sdm notification returns a warning status code for a register or deregister attempt.

### 0000/0010

**Message:**@1 @FS2//@FS3: SDM Error//Error reading record from table @&32*//

**Explanation:** This log occurs when an sdm error occurs while reading a table.

### 0000/0011

**Message:**@1 @FS2//@FS3: Component Request Failure//Request to @&22*//Request: @&42//Error Number: @ID//

**Explanation:** This log occurs when component fails in processing a request.

### 0000/001A

**Message:**@1 @FS2//@FS3: Interface Error//Value too large for a single precision register//Value: @LD//Function: @MAdd|Set||//

**Explanation:** This log occurs when a value > 32767 is passed in an add_to or set procedure operation on a single precision register.

### 0000/001B

**Message:**@1 @FS2//@FS3: Registration Error//Registration with OM collector failed because://@MSuccess|Already Registered|OM Collector registration limit has been reached|OM Collector was not active|OM Collector could not get OMCA group information|OM Collector can not get memory for OM data||//

**Explanation:** This log occurs when the OMCA can not register with the OMC.

### 0000/001C

**Message:**@1 @FS2//@FS3: Interface Error//@MKey|Register|| index: @ID is out of the valid index range for//Group: @&10*//Valid Range is 0 to @ID//

**Explanation:** This log occurs when a register or key index used to access a group is out of the range specified when the group was allocated.

### 0000/001D

**Message:**@1 @FS2//@FS3: Configuration Update//Configuration Data for the @&32*//has been successfully updated to @&22*//

**Explanation:** This log occurs when any of the OMC configuration data in OMC_config has been updated.

### 0000/001E

**Message:**@1 @FS2//@FS3: Configuration Update Failure//Configuration Data for the @&32*//could not be updated to @&22*//

**Explanation:** This log occurs when any of the OMC configuration data in OMC_config could not be updated.

### 0000/001F

**Message:**@1 @FS2//@FS3: ABORTING//

**Explanation:** This log occurs when OMC can not recover from an error and is aborting the PRU.

### 0000/0020

**Message:**@1 @FS2//@FS3: OMCA Error//Register Definition does not match registers received for group: @&10*//Sent by OMCA in PRU: @ID @2//Number sent: @ID//Number defined in group definition: @ID//

**Explanation:** This log occurs when OMC receives too many registers for a group.

### 0000/0021

**Message:**@1 @FS2//@FS3: OMCA Error//Too many keys for group: @&10*//have been sent by OMCA in PRU: @ID @2//Number sent: @ID//Number defined in group definition: @ID//

**Explanation:** This log occurs when OMC receives too many keys for a group.

### 0000/0022

**Message:**@1 @FS2//@FS3: Group Update//Update from group definition table: @&32*//has been started.//

**Explanation:** This log occurs when an update is made to the group definition file for the OMC.

### 0000/0023

**Message:**@1 @FS2//@FS3: OMCA Error//Bad Poll identifier returned with response to poll request//OMCA in PRU: @ID @2//Poll identifier returned: @ID//Poll identifier expected: @ID//Data discard flag is set to @MTRUE|FALSE||//

**Explanation:** This log occurs when the poll id returned by the OMCA does not match the OMC poll id.

### 0000/0024

**Message:**@1 @FS2//@FS3: OMCA Error//Bad Task identifier returned with response to poll request//Poll identifier returned: @ID//Data is ignored//

**Explanation:** This log occurs when the task id returned by the OMCA does not match the task id in the registration table for the OMCAs.

### 0000/0025

**Message:**@1 @FS2//@FS3: OMCA Error//Invalid OMCA specified with response to poll request//

**Explanation:** This log occurs when the OMCA response to a poll requests maps to an invalid OMCA in the registration table.

### 0000/0026

**Message:**@1 @FS2//@FS3: OMCA Error//OMCA in PRU: @ID @2//Has not responded in more than @ID intervals//It has been deregistered//

**Explanation:** This log occurs when the OMCA response to a poll requests maps to an invalid OMCA in the registration table.

### 0000/0027

**Message:**@1 @FS2//@FS3: Transfer Error//OM holding file: @&130*//could not be transferred to the OMR om sites: @&34*//Reason: @&42*//

**Explanation:** This log occurs when the OMC cannot send a holding data a file to one or more OMR sites.

### 0000/0028

**Message:**@1 @FS2//@FS3: Definition Error//Too many groups have been defined for//application: @&22*//Maximum allowed is @ID//

**Explanation:** This log occurs when more than 100 groups are defined in an OM group definition file.

### 0000/0029

**Message:** @1 @FS2//@FS3: Definition Error//Too many application have been associated//with the OM collector//Maximum allowed is @ID//

**Explanation:** This log occurs when more than 5 application have been associated with one OMC instance.

### 0000/002A

**Message:** @1 @FS2//@FS3: Definition Error//Duplicate group definition for group: @&10*//Defined by applications @&22* and @&22*//

**Explanation:** This log occurs when more than 1 application has defined a group.

### 0000/002B

**Message:** @1 @FS2//@FS3: Definition Error//Too many OM Reporter sites specified//Maximum allowed is @ID//

**Explanation:** This log occurs when more than 10 OMR sites are specified in NetComp Table.

### 0000/002C

**Message:** @1 @FS2//@FS3: Application Update//Update from OMC_applcns has been completed//

**Explanation:** This log occurs when the OMC has finish processing changes from an update to OMC_applcns table.

### 0000/002D

**Message:** @1 @FS2//@FS3: Number of Processors//Number of OMR Processors initiated is @ID//

**Explanation:** This log occurs to indicate the number of OMR Processors initiated and running.

### 0000/002E

**Message:** @1 @FS2//@FS3: SDM Update//SDM Table Updated is @&32*//

**Explanation:** This log occurs when OMR receives notification of a table update.

### 0000/002F

**Message:** @1 @FS2//@FS3: OM Data file Unexpected//Received OM Data file @&130*//But Expecting OM Data file dated @&22*//

**Explanation:** This log occurs when OMR receives an OM Data file which is dated out of sync.

### 0000/0030

**Message:** @1 @FS2//@FS3: Error in file//Error in processing file @&130*//Reason - @&52*//File was not @MCORRECT|VALID||//

**Explanation:** This log occurs when OMR cannot complete or start processing a file.

### 0000/0031

**Message:** @1 @FS2//@FS3: Coll Basis changed//Processing OM data file @&130*//Collection changed for OM Group @&10*//Collection Basis from OM Group Table - @&10*//Collection Basis from OMC Data File - @&10*//

**Explanation:** This log occurs when the collection basis for an OM Group being processed in a report changes in the middle of processing for it.

### 0000/0032

**Message:** @1 @FS2//@FS3: OM Group Invalid for Report//Processing for file @&130*//Invalid Group @&10*//For report class @&10*//Reason: @&52*//

**Explanation:** This log occurs when an OM Group cannot be processed for a class when processing the OM data file.

### 0000/0033

**Message:** @1 @FS2//@FS3: Change in Report Class Definition//Report Class @&10* has changed//Preparing Report File - @&130//

**Explanation:** This log occurs when a report class definition has been changed in the middle of processing for the class.

### 0000/0034

**Message:** @1 @FS2//@FS3: Queue or Array Problem//The Queue or Array of @&26*//@&130* cannot be queued//@&52*//

**Explanation:** This log occurs when a queue or array has reached maximum capacity.

### 0000/0035

**Message:** @1 @FS2//@FS3: No OM Groups to Report//from file - @&130*//due to NO valid OM Groups found//

**Explanation:** This log occurs when no OM Groups are found for a Report.

### 0000/0036

**Message:** @1 @FS2//@FS3: Job to Report Formatter Failed//Parameter file - @&130*//not processed into Report//

**Explanation:** This log occurs when Report Job fails to be processed by Report Formatter.

### 0000/0037

**Message:** @1 @FS2//@FS3: Report EndTime Exceeded//For Report Class - @&10*//Preparing Report File - @&130//

**Explanation:** This log occurs when OM Reporter receives a Raw OM DataFile whose date time exceeds the report class end date time.

### 0000/0038

**Message:** @1 @FS2//@FS3: File Audit Status//@MDisk Files: |Files Removed: |Unsuccessful Removes: ||@ID//

**Explanation:** This log occurs after a File Audit is performed on the OMR Files.

## DCR Common Logs (5000)

### 0001/0201/

**Message:** @&22* invoked in invalid state

### 0001/0202

**Message:** @&22* unable to initialize buffer

### 0001/0203

**Message:** @&22* detected invalid data from @&22* @&22*; @&22* = @ID

### 0001/0204

**Message:** @&22* unable to @Minvoke|send to||@-20* @&22* in task @&22*; task result = @ID

### 0001/0205

**Message:** @&22* detected wrong format for @&22*

### 0001/0206

**Message:** @&22* received task reply error @ID@-20* from @&22*

### 0001/0207

**Message:** @&22* detected tasking error with @&22* while @&22*; task result = @ID

### 0001/0208

**Message:** @&22* unable to free memory; status = @ID

### 0001/0209

**Message:** @&22* could not pull @&22* from @&22*; task result = @ID

### 0001/0210

**Message:** @&22* detected size error in structure @&22* received from @&22*; size = @ID

### 0001/0211

**Message:** @&22* detected out of range parameter; @&22* = @ID

### 0001/0212

**Message:** @&22* unable to @Mregister|deregister||@-20* with name server

### 0001/0213

**Message:** @&22* unable to locate @&22*

### 0001/0214

**Message:** @&22* found @&22* to be not alive

**0001/0215**

**Message:** @&22* received a bad status from @&22*; status = @ID

**0001/0216**

**Message:** @&22* unable to @Mopen|write to|copy from|read from|locate|get on|create|seek on|put to|commit|close||@-20* file @&22*; I/O result = @ID@-20* @&22*

**0001/0217**

**Message:** @&22* detected table overflow in @&22*

**0001/0218**

**Message:** @&22* abending due to @&22* @&22*

**0001/0219**

**Message:** @&22* dropping communications link to @&22* due to @&22* @&22*

**0001/0220**

**Message:** @&22* rejected remote operation @&22*; id = @ID

**0001/0221**

**Message:** @&22* rejected @&22* change for @&22*; @&22* @&22*

**0001/0222**

**Message:** @-22* Invalid @&22* @&22* detected from @&22*

**0001/0223**

**Message:** @&22* detected @&22* @&22* for @&22*

**0001/0224**

**Message:** @&22* received remote operation @&22* out of order

**0001/0225**

**Message:** @&22* unable to send remote operation @&22* to @&22*

**0001/0226**

**Message:** @&22* detected a security violation while @&22* @&22*

**0001/0227**

**Message:** @&22* unable to @&22* @&22* @&22* @ID

**0001/0228**

**Message:** @&22* entry invoked; task result = @ID

**0001/0229**

**Message:** @&22* failed to receive congestion data from @&22*

### 0001/0230

**Message:** @&22* unable to get memory for @&22*; status = @ID

### 0001/0231

**Message:** @&22* received status = @ID@-20* from @&22* while @&22*

### 0001/0232

**Message:** @&22* unable to @Mrequest|reset|set|cancel||@-20* timer @&22*; task result = @ID

### 0001/0233

**Message:** @-22*@&22* has been changed from @ID@-20* to @ID@-20* for @&22*

### 0001/0234

**Message:** @-22*@&22* has been changed from @&22* to @&22* for @&22*

### 0001/0235

**Message:** @&22* reports error code @ID@-20*, error parameter @ID@-20* for @&22*

### 0001/0236

**Message:** @-22*DCR is @Mstarted|stopped|running||

### 0001/0237

**Message:** @-22*@&22* @Mapplied|removed||@-20* control to origin @&22*, destination @&22*

### 0001/0238

**Message:** @-22*@&22* threshold exceeded for origin @&22* to destination @&22*

### 0001/0239

**Message:** @&22* changed from @ID@-20* to @ID@-20* for origin @&22*, destination @&22*

### 0001/0240

**Message:** @&22* changed from @&22* to @&22* for origin @&22*, destination @&22*

### 0001/0242

**Message:** @-22*@&22* to @&22* @Mcircuits available| no circuits||.

### 0001/0243

**Message:** @&22* @&22* @&22* @&22*

**0001/0244**

**Message:** @-22*@&22* is now sending congestion data

**0001/0245**

**Message:** @-22*No congestion data received from @&22*

**0001/0246**

**Message:** @-22*@&22* has been declared dead

**0001/0247**

**Message:** @&22* detected invalid data; @&22* is not between @&22* and @&22* for @&22*

**0001/0248**

**Message:** @&22* detected invalid data; @&22* is not between @ID@-20* and @ID@-20* for @&22*

**0001/0249**

**Message:** @&22* detected invalid data for @&22* to @&22*; @&22* = @ID

**0001/0250**

**Message:** @-22*@&22* threshold exceeded for @&22*

**0001/0251**

**Message:** @&22* unable to find @&22* in file @&22*

**0001/0252**

**Message:** @&22* has replaced @&22* with @&22* as locker of @&22*

**0001/0253**

**Message:** @&22* invoked by an unknown task

**0001/0254**

**Message:** @-22*@&22* changed to @&22*.

**0001/0255**

**Message:** @-22*@&22* changed from @&22* to @&22*.

**0001/0256**

**Message:** @-22*@&22* communications @Mestablished|severed||.

**0001/0259**

**Message:** @-22*Idle Trunk Mismatch between @&22* (@ID@-20*) and @&22* (@ID@-20*)

### 0001/0260

**Message:** @-22*TRC Save: @ID@-20* unrestricted tandems remaining for @&22* to @&22*.

### 0001/0261

**Message:** @-22*@&22* has been changed from @MNon-Communicating|Non-Tandem|Tandem||@-20* to @MNon-Communicating|Non-Tandem|Tandem||@-20* for @&22*

### 0001/0263

**Message:** @-22* Invalid @&22* @ID@-20* detected from @&22*

### 0001/0264

**Message:** @-22* @&22* is down. As a result, NP is not functional.

# Administration PRU (8004)

## PRU Profile

Administration is a part of Maintenance.

### 0002/0001

**Message:** Could not open file <String 39>.
Helix return code = <Error Type>.

**Explanation:** ADMIN could not open its file(s).

**Action:** Check the HELIX I/O error code, and the status of the File Server and disk.

### 0002/0002

**Message:** Could not create file <String 39>.
Helix return code = <Error Type>.

**Explanation:** ADMIN could not create its file(s).

**Action:** Check the HELIX I/O error code, and the status of the File Server and disk.

### 0002/0003

**Message:** Could not find size of file <String 39>.
Helix return code = <Error Type>.

**Explanation:** ADMIN could not get the file size information.

**Action:** Check the HELIX I/O error code, and the status of the File Server and disk.

### 0002/0004

**Message:** Could not read file <String 39>
(start = <Long Hex>, length = <Dec Value>).
Helix return code = <Error Type>.

**Explanation:** ADMIN could not read from its file(s).

**Action:** Check the HELIX I/O error code, and the status of the File Server and disk.

### 0002/0005

**Message:** Could not write file <String 39>
(start = <Long Hex>, length = <Dec Value>).
Helix return code = <Error Type>.

**Explanation:** ADMIN could not write to its file(s).

**Action:** Check the HELIX I/O error code, and the status of the File Server and disk. Make sure the disk is not too full.

### 0002/0006

**Message:** Could not commit file <String 39>
(start = <Long Hex>, length = <Dec Value>).
Helix return code = <Error Type>.

**Explanation:** ADMIN could not commit the changes to its file(s).

**Action:** Check the HELIX I/O error code, and the status of the File Server and disk.

### 0002/0007

**Message:** Could not send notification for object <Object Name>
(occurrence <Dec Value>).
Task return code = <Error Type>.

**Explanation:** ADMIN could not send notification to the registered task.

**Action**: Check the task status and the HELIX task error code.

### 0002/0008

**Message:** Could not send data to application.
Task return code = <Error Type>.

**Explanation:** ADMIN had a tasking error in “pushing” data to an application.

**Action:** Check the HELIX task error code and the application status.

### 0002/0009

**Message:** Could not get data from application.
Task return code = <Error Type>.

**Explanation:** ADMIN had a tasking error in “polling” data from an application.

**Action:** Check the HELIX task error code and the application status.

### 0002/000A

**Message:** Could not send data to agent.
Task return code = <Error Type>.

**Explanation:** ADMIN had a tasking error in “pushing” update data.

**Action:** Check the HELIX tasking error code.

### 0002/000B

**Message:** Could not get update data from agent.
Task return code = <Error Type>.

**Explanation:** ADMIN had a tasking error in “polling” update data.

**Action:** Check the HELIX tasking error code.

### 0002/000C

**Message:** Could not get current data from agent.
Task return code = <Error Type>.

**Explanation:** ADMIN had a tasking error in “polling” current data.

**Action:** Check the HELIX tasking error code.

### 0002/000D

**Message:** Could not register with Name Server.
XMS return code = <Error Type>.

**Explanation:** ADMIN could not register with the Name Server.

**Action:** Check the Name Server status and Check the HELIX tasking error code.

### 0002/000E

**Message:** Object/Update file mismatch with update <String 39>.

**Explanation:** There is a mismatch between the current ADMIN object file and its update file.

**Action:** None.

### 0002/000F

Message: Initialization could not read object UPDFLSTS.
Admin return code = <Error Type>.

**Explanation:** ADMIN could not read the UPDFLSTS object which contains all update file path names.

**Action:** Contact the Field Service to check the ADMIN.OBJ file and make sure that the UPDFLSTS object exists and has the right contents.

### 0002/0010

**Message:** Update session could not read object <Object Name> (occurrence <Dec Value>).

**Explanation:** During the update session ADMIN could not read the original object.

**Action:** Contact Field Service.

### 0002/0011

**Message:** Update session could not read object UPDFLSTS.
Admin return code = <Error Type>.

**Explanation:** ADMIN could not read the UPDFLSTS object which contains all update file path names.

**Action:** Contact the Field Service to check the ADMIN.OBJ file and make sure that the UPDFLSTS object is there and has the right contents.

### 0002/0012

**Message:** Update session could not write object UPDFLSTS.
Admin return code = <Error Type>.

**Explanation:** ADMIN could not write to the UPDFLSTS object which contains all update file path names.

**Action:** Contact the Field Service to check the ADMIN.OBJ file and make sure that the UPDFLSTS object is there and has the right contents. Also check the disk status and make sure it is not full ( >= 93% ).

### 0002/0013

**Message:** Update session failed for update <String 39>.

**Explanation:** ADMIN failed to apply update session.

**Action:** Contact Field Service.

### 0002/0014

**Message:** Send error trapped by Admin.
Task return code = <Error Type>. Error ID = <Dec Value>.

**Explanation:** ADMIN had a SEND tasking error.

**Action:** Check the HELIX tasking error code.

### 0002/0015

**Message:** Error obtaining pool space.
Task return code = <Error Type>.

**Explanation:** ADMIN could not obtain its buffer pools for task communications.

**Action:** Check the HELIX task error code and make sure there is enough free memory space on the Prime Processor.

### 0002/0016

**Message:** Error initiating Interface task.
Task return code = <Error Type>.

**Explanation:** ADMIN failed to initialize its interface task.

**Action:** Check the HELIX tasking error code.

# Maintenance High Level Protocol Handler (8005)

## PRU Profile

PRU number 8005 is the Central Maintenance Fixed Address (EAR). In older releases, this piece of code was called the MHLP (Maintenance High Level Protocol).

### 0001/0000

**Message:** MHLP received an overlength message.

**Explanation:** The EAR is the receiver of VTP messages that are sent to address 0. The log message above means that the EAR received a message that was longer than it was able to process, and so the message was truncated to the maximum length that the EAR can handle.

**Action:** No recovery action is necessary, although the code that sent the message should be examined at some point to see why it is sending such long messages.

### 0002/0000

**Message:** Initialization request with a minor error received from//@2

# Bus Controller PRU (8006)

## PRU Profile

The Bus Controller provides three functions. First, it will add and delete SRUs from the bus polling sequence. Second, it will reset SRUs on command. Third, it provides for the adjustment of the system clock for T1 phase synchronization, on command from the T1 SRU or the T1 MUX.

Bus Controller:

This task is responsible for adding and deleting items from the V bus polling sequence and for resetting devices on command from other Central Maintenance tasks. It provides a tasking interface used by the Initialization Manager and by Maintenance Services. It is also responsible for adjusting the system clock for T1 phase synchronization on command from the T1 SRU or the T1 MUX.

## 0002/0001

**Message:** Bus Controller interrupt spuriously raised. No action taken.

**Explanation:** If there are only one or two of these messages, probably someone switched SRUs while the system was operational. If there are many repetitions of this message, there is a bus problem.

**Action:** One or two messages - ignore this message. Many repetitions - make sure all SRUs are properly seated, and all the backplane connections are tight. You may need to pull out one SRU at a time to isolate the bad connection.

# High-speed Line Manager (8007)

## PRU Profile

The High-speed Line Manager (HSLM) is responsible for the status of the High-speed Line SRUs (LANLinks) and their ports. It audits this hardware at periodic intervals. It also receives error reports from the hardware. Additionally, it will reset the peripherals attached to the LANLinks under certain conditions, and initiate reloads of devices when the LANLink lines change state.

High-speed Line Manager

The HSLMGR is responsible for the status of the ports on the High-speed Line Module. The HSLM audits the hardware at regular intervals and reports detected errors to Central Maintenance. The HSLM also receives error reports from the hardware and responds appropriately. The HSLM also resets the peripherals attached to the hardware under certain error conditions and initiates reloads of devices when the LANLink lines change state.

### 0001/3000

**Message:** Long Audit Response from <Other>

**Explanation:** Periodic long audit from the named LANLink contains statistical and operational data.

**Action:** Ignore.

### 0002/0001

**Message:** <Reporter> could not register with Resource Manager return code = <Dec Value>

**Explanation:** Registration of HSLM with Resource Manager against LANLinks and/or peripherals failed. Return code from RM_REGISTER entry is displayed.

**Action:** Report the return code to Field Service.

### 0002/0002

**Message:** <Reporter> has received an unexpected message from <Other>

**Explanation:** The named device is not a known and recognized LANLink and should not be sending messages to HSLM. The sent message is ignored.

**Action:**

1. Test the originator of the message to see if it is functioning properly.
2. If there are no detectable faults, report error to Field Service.

### 0002/0003

**Message:** <Other > could not decode command from <Reporter > command was <Hex Value>

**Explanation:** The named LANLink received an unrecognizable command from the HSLM. The message was ignored and an illegal command response was sent by the LANLink to the HSLM.

**Action:**

1. Check release notes to see if base software version and the revision level of the LANLink boot ROM is compatible. If not, upgrade the LANLink boot ROM.
2. If step 1 items are compatible, test the LANLink using diagnostics.

### 0002/0004

**Message:** No ports defined for <Other >

**Explanation:** A LANLink has become operational, but does not have any RRUs (peripherals) configured for its ports. This reminder shows that the LANLink as it is currently configured has no useful function.

**Action:** Ignore.

### 0002/0007

**Message:** Configuration error in <Other>. Expected = <Hex Value>. Actual = <Hex Value>.

**Explanation:** The LANLink SRU is reporting a port configuration that is different from Configuration Services.

**Action:**

1. Run diagnostic tests on the LANLink.
2. Check connections to breakout box of LANLink to ensure that they match those displayed by Maintenance Services.

### 0002/0008

**Message:** <Dec Value> receive errors from <Other>

**Explanation:** LANLink receive error count exceeded.

**Action:** Run tests on LANLink to determine if there is a hardware problem.

### 0002/0009

**Message:** <Dec Value> source errors from <Other>

**Explanation:** LANLink source error count exceeded.

**Action:** Run tests on LANLink to determine if there is a hardware problem.

### 0002/000A

**Message:** <Dec Value> length errors from <Other>

**Explanation:** LANLink length error count exceeded.

**Action:** Run tests on LANLink to determine if there is a hardware problem.

### 0002/000B

**Message:** <Dec Value> packets aborted to <Other>

**Explanation:** LANLink packet abort error count exceeded.

**Action:** Run tests on LANLink to determine if there is a hardware problem.

### 0002/000D

**Message:** Invalid port defined for <Other>

**Explanation:** Port no. greater than 12 defined for LANLink. Valid port numbers are 1 through 12.

**Action:** Delete any port numbers greater than 12 through Configuration Service.

### 0002/000E

**Message:** <Reporter> tried to send unknown command <Hex Value>

**Explanation:** HSLM had an internal recoverable code error.

**Action:** Report the message to Field Service.

## 0002/000F

**Message:** <Reporter> could not decode message from <Other> message = <Hex Value>

**Explanation:** The HSLM received an unrecognizable message from the named LANLink, which was ignored.

**Action:**

1. Check release notes to see if base software version and the revision level of the LANLink boot ROM is compatible. If not, upgrade the base software.
2. If step 1 items are compatible, test the LANLink using diagnostics.

## 0002/0010

**Message:** VTP send to <Other> failed.
VTP return code = <Error Type>
Current LANLink VTP error count = <Dec Value>.

**Explanation:** A VTP error occurred in trying to send a message to the LANLink. When the displayed error count exceeds 3, the LANLink will be declared faulty and removed from service.

**Action:**

1. If problem occurs infrequently and error count remains low, ignore message.
2. Make sure LANLink and Primary Processor are firmly seated in their cabinets.
3. If problem persists, check bus terminators and run diagnostic tests on the LANLink.

## 0002/0011

**Message:** Limit on number of allowed LANLinks reached <Other> ignored.

**Explanation:** The HSLM has a predetermined, set limit on the number of LANLinks it can handle. The current configuration exceeds this limit.

**Action:** Deconfigure one or more LANLinks.

## 0002/0012

**Message:** Maximum minor error rate exceeded for <Other> Expect response times to be delayed.

**Explanation:** The HSLM has determined that a LANLink is reporting an excessive amount of minor errors. The HSLM will audit less frequently, so will be a delay if there is a change in status of a LANLink.

**Action:**

1. Run diagnostic tests on named LANLink.
2. If no faults revealed, contact Field Service.

## 0002/3001

**Message:** Short Audit Error Response from <Other> Error = <Hex Value>

**Explanation:** Named LANLink reported a problem via a short audit. A long audit will be done by the HSLM to determine more details. The displayed error number identifies the source of the problem.

**Action:** If LANLink behaves erratically or the report is repeated, run diagnostic tests on LANLink.

## 0002/3002

**Message:** Audit Response from <Other> is invalid <Dec Value>

**Explanation:** Invalid audit response type from LANLink. The message is ignored.

**Action:**

1. Check release notes to see if base software version and the revision level of the LANLink boot ROM is compatible. If not, upgrade the base software.
2. If step 1 items are compatible, test the LANLink using diagnostics.

## 0002/3003

**Message:** Audit Response from Boot <Other>

**Explanation:** The boot ROM of the named LANLink answered an audit. The downloaded firmware was expected to answer the audit. If LANLink behaves erratically or the report is repeated, run diagnostic tests on LANLink. LANLink SRU and the HSLM will cause the LANLink to be reset and reloaded.

**Action:**

1. Run diagnostic tests on named LANLink.
2. If no faults revealed, contact Field Service.

## 0002/3004

**Message:** Invalid Audit Request <Dec Value> received from <Other>

**Explanation:** An unrecognized type of audit request was sent to the HSLM from the named LANLink. Message ignored.

**Action:**

1. Check release notes to see if base software version and the revision level of the LANLink boot ROM is compatible. If not, upgrade the base software.
2. If step 1 items are compatible, test the LANLink using diagnostics.

## 0002/3005

**Message:** <Other> Reports own error <Dec Value>

**Explanation:** The named LANLink is reporting a serious error about itself in a “self dying” audit request report to the HSLM.

**Action:**

1. Run diagnostic tests on named LANLink.
2. If no faults revealed, but problem persists, report the error number to Field Service.

## 0002/3006

**Message:** HSL Manager received an Initial Audit from the LANLink <Reporter>.

**Explanation:** An initial audit request was received from the named LANLink. This message should only be sent to the MHLP when there is a LANLink firmware or hardware fault.

**Action:**

1. Run diagnostic tests on named LANLink.
2. If no faults revealed, contact Field Service.

# Resource Manager (8008)

## PRU Profile

This entity keeps track of the state, location, load file name and device or program type of every major hardware and software entity in the DVS. It provides the service of allowing tasks to register against state changes for any entity or class of entities and the registered task is informed any time something that it has registered against undergoes any state change.

It supports the dynamic registration and deregistration of sub-PRUs, thus providing some Name Server-like functions. It also provides for the dynamic addition of PRUs to the system configuration without the need of going through Configuration Services and allows for the movement of PRUs from one processor to another.

The Resource Manager is comprised of a Master contained within the Prime Processor and an Agent which resides on each processor requiring Resource Manager functionality. The Master is responsible for coordinating and broadcasting state changes to each of its agents. Each agent is responsible for registrations on its processor and for providing the RM interface to that processor's PRUs. The Master/Agent arrangement is used to provide fault tolerance and recovery in case the Master processor crashes.

### 0001/0002

**Message:** RM has no memory or segments left for record creation

**Explanation:** The Resource Manager was unable to dynamically allocate any more memory from the processor it resides on. This is an unrecoverable maintenance error that may cause unpredictable results.

**Action:** Reduce the memory load on this processor. Some ways to do this are to remove a PRU from the processor, decrease the configuration size, and reduce the number of open SAS windows.

### 0001/0003

**Message:** RM tasking error

**Explanation:** This message is obsolete. It will be generated only by earlier versions of software.

**Action:** If you have an earlier version of the system software, consult an earlier version of this documentation. If you have a current software version, report the error to Field Service.

### 0001/0004

**Message:** Overlay of RMM_INIT failed

**Explanation:** At system start up, RMM overlays RMM_INIT, which performs resource manager initialization. The overlay operation failed for some reason. The overlay may fail because of file server problems, or if the overlay is missing or corrupt.

**Action:** Notify Field Service.

### 0001/0005

**Message:** Administration informed the RM of an unknown object Object Name = <String 8>

**Explanation:** Administration informed Resource Manager of a change to an object that the RM did not register against. May be due to a corrupt object file or a software error in the Administration program.

**Action:** If the system appears to be behaving properly, no immediate action needs to be taken. Perhaps some of the object files may be corrupt but it is difficult to determine which ones. It may be necessary to replace all object files and restart the system. If problem persists, notify Field Service as there may be some other software problem.

### 0001/0006

**Message:** RM Software Reset: Resetting all processors

**Explanation:** This is an informational message. A task told the Resource Manager to reset the system. All the SRUs were courtesied down, and then reset. Finally, the Prime Processor was reset. The system should come up in identical manner to a system reboot.

**Action:** None.

### 0002/0001

**Message:** Tasking error occurred in a SEND to a registered task. Task with ID <Long Hex> deregistered

**Explanation:** Please note that there are two messages with similar error text. Each message has a different error NUMBER. The RM master was trying to inform all the RM agents about a recent state change. The RM master could not successfully communicate with an RM agent. Note: The number at the end of the message is NOT a task ID. Ignore this number.

**Action:** If the system is healthy, and there are only a few of these errors, do nothing. Otherwise, notify Field Service.

## 0002/0007

**Message:** Tasking error occurred in a SEND to a registered task <Other> deregistered

**Explanation:** Please note that there are two messages with similar error text. Each message has a different error NUMBER. A SEND to a task failed. The task had previously registered for status updates about certain RUs. The task will not receive any more status updates.

**Action:** Report the error to Field Service.

## 0002/0008

**Message:** Change update to an Agent failed. <Other> may be dying

**Explanation:** The RM master was trying to inform all the RM agents about a recent state change. The RM master could not successfully communicate with the named RM agent.

**Action:** See if the named processor is healthy. If the system is healthy, and there are only a few of these errors, do nothing. Otherwise, notify Field Service.

# Global Task Master (8009)

## PRU Profile

The Global Task Master (GTM) is part of Central Maintenance and is responsible for all Resource Processors and PRUs in the system. As part of this responsibility, the GTM receives PRU reports from any PRUs and Local Task Masters (LTMs) in the system, and serves as interface between the PRUs and the Resource Manager.

GTM serves primarily as a sparing manager. If a PRU or processor enters the faulty state, the GTM sees if there are any possible alternate locations where the PRU can be loaded, and moves the PRU to that location using the Resource Manager.

### 0002/0001

**Message:** Tried to move the <Other> PRU at a new location, but the RM rejected the NewAddNode request. Result=<Error Type>. Note that it is not running anymore...

**Explanation:** This is a warning that the PRU could not be reconfigured at the new location. Either the PRU hardware mix is invalid or the location does not exist.

**Action:** Examine and correct the PRU configuration.

### 0002/0002

**Message:** Cannot register with RM for state change notifications. Result=<Error Type>.

**Explanation:** Registration with Resource Management for RmChange notifications failed. Since the GTM is heavily dependent on the RM for state change notifications, this is a serious error with DVS wide consequences.

**Action:** Reboot the DVS.

### 0002/0003

**Message:** Memory segment allocation failed. GTM task is dying...

**Explanation:** The GTM could not allocate a memory segment in which to receive bulk queries from the RM. Since the GTM is heavily dependent on the RM for these bulk queries, the GTM cannot continue working. This is a serious error with DVS wide consequences.

**Action:** Reboot the DVS.

# Local Task Master (800A)

## 0002/0001

**Message:** Could not start up <Other> PRU because there are too many PRUs configured.

**Explanation:** There is a hardcoded upper limit on the number of PRUs that may be configured to run on a node (12). This limit has been exceeded by the indicated PRU.

**Action:** Reduce the number of PRUs on the overloaded node by configuring them elsewhere.

## 0002/0002

**Message:** <Other> PRU issued a SelfOperational PruReport while it was not in the Initializing state.

**Explanation:** The only valid transition to the “SelfOperational” state by a PRU is from the “Initializing” state. All other transitions indicate an error in the initialization process for the PRU.

**Action:** Courtesy down the PRU and put it back in service.

## 0002/0003

**Message:** <Other> PRU not responding to audits.

**Explanation:** The LTM has lost contact with the Boss task of the PRU.

**Action:** It will be restarted automatically but for more immediate results, courtesy down the PRU and put it back in service.

## 0002/0004

**Message:** <Other> PRU is registering for time update notifications, but cannot be found in my tables Request will be ignored.

**Explanation:** There are two possible circumstances for which this error may be reported:

1. The PRU is not recognized as local to the LTM.
2. A resource limit has been reached in the Time Of Day Service.

**Action:** For the corresponding circumstance:

1. Courtesy down the PRU and bring it back into service. If the problem persists, then it is either circumstance #2 or an error in the application.
2. Configure the PRU on another node.

### 0002/0005

**Message:** No more memory segments available. Cannot start <Other> PRU>

**Explanation:** The Operating System Program (OSP) is temporarily out of segment registers. At least one free OSP segment is required to start a PRU.

**Action:** The situation should be temporary so try to re start the PRU in a minute or so. If the condition persists, then restart the node.

### 0002/0006

**Message:** Cannot share Helix segment. Cannot start <Other> PRU.

**Explanation:** Problems were encountered when setting up the Helix environment for the new PRU.

**Action:** Restart the PRU. If the condition persists, then something is very wrong, so restart the node.

### 0002/0007

**Message:** <Other> PRU could not be loaded. LoadProg result=<Dec Value> - See Hex Detail.

**Explanation:** PRU failed at load time for one of any number of various reasons.

**Action:** Retry the PRU and hope that the problem is temporary or copy down the Hex detail of the log message and contact Field Service.

### 0002/0008

**Message:** <Other> PRU could not be started. StartProg result=<Dec Value>.

**Explanation:** PRU failed at start time for one of any number of various reasons.

**Action:** Retry the PRU and hope that the problem is temporary or copy down the Hex detail of the log message and contact Field Service.

### 0002/0009

**Message:** <Other> PRU could not be started. CareProg result=<Dec Value>.

**Explanation:** The Caring parent received a task result when monitoring or adopting the PRU.

**Action:** Restart the PRU. If the condition persists then there is an error in the application.

### 0002/000A

**Message:** <Other> PRU crashed. See Hex Detail for traceback.

**Explanation:** An unexpected termination of the PRU was detected. The likely cause is a bug or problem in the PRU code itself.

**Action:** Recover the crash traceback from the hex detail of the log and contact Field Service.

### 0002/000B

**Message:** <Other> PRU died because its Monitor crashed with a task result of <Dec Value>.

**Explanation:** The PRU died because of an unexpected crash of its Monitor task. Whatever caused the crash should be a one-time problem.

**Action:** Restart the PRU. If a Monitor crash reoccurs then the problem is serious. Record the task result from the log and contact Field Service.

### 0002/000C

**Message:** Send to <Other> PRU boss task failed TaskResult=<Dec Value>.

**Explanation:** The LTM lost contact with the Boss Task of the PRU due to communication problems or an error in the boss task.

**Action:** Restart the PRU. If the problem persists then there is a problem with the PRU itself.

### 0002/000D

**Message:** Cannot start <Other> PRU. LTM (OSP unit) heap is too small.

**Explanation:** The Operating System Program has run out of memory and the dynamic PRU list that is maintained by the LTM cannot be expanded to include the new PRU.

**Action:** Reconfigure PRUs on other nodes to free up space or increase the OSP heap size. Unfortunately, the OSP heap space is not configurable and is fixed for a software release.

### 0002/000E

**Message:** Courtesying down this processor while <Other> PRU is still alive.

**Explanation:** An attempt was made to courtesy down a whole processor with PRUs still alive and running. All PRUs should be courtesied down before a processor is taken down.

**Action:** Courtesy down all active PRUs before taking down the processor.

### 0002/000F

**Message:** Nonzero reply code from <Other> PRU after Audit or Courtesy down request. ReplyCode=<Dec Value>.

**Explanation:** The boss task of a PRU has returned a special reply in response to an LTM request. For example: it may be requesting a period of grace before a courtesy down.

**Action:** No action is required.

### 0002/0010

**Message:** Received OnError reply while attempting to send to <Other> PRU Boss task.

**Explanation:** A communication error was encountered between the LTM and PRU boss task. This is a warning that the PRU has missed a notification of some important event. The communication is retried and only if there is no success after a number of retries is the PRU brought down.

**Action:** If the PRU is down, it may be restarted.

### 0002/0011

**Message:** Invalid PruReport from <Other> PRU. Not enough data bytes. Number of bytes=<Dec Value>. PruReport Ignored.

**Explanation:** The LTM does some basic checking of PruReports before they are passed on to the system logger. The case of not providing enough data bytes in a log message is one obvious application error.

**Action:** The PRU application code is in error and this fact should be reported.

### 0002/0012

**Message:** Could not get PruReport data bytes from <Other> PRU. Invalid PullResult=<Dec Value>. PruReport Ignored.

**Explanation:** This is a warning that an error occurred while “pulling” the PruReport data from the PRU. This could occur because of application error or because of communication failure.

**Action:** In most cases this event will have no consequences on the further correct operation of the PRU and no action is required. In the case where this problem is persistent, it should be reported.

### 0002/0013

**Message:** Invalid PruReport from <Other> PRU. Invalid ReportClass = <Dec Value>. PruReport Ignored.

**Explanation:** The LTM does some basic checking of PruReports before they are passed on to the system logger. Issuing a PruReport with an invalid report class identifier is an obvious application error.

**Action:** The PRU application code is in error and this fact should be reported.

### 0002/0014

**Message:** Invalid PruReport from <Other> PRU. Invalid Global Event = <Dec Value>. PruReport Ignored.

**Explanation:** The LTM does some basic checking of PruReports before they are passed on to the system logger. Issuing a PruReport with an invalid global event identifier is an obvious application error.

**Action:** The PRU application code is in error and this fact should be reported.

### 0002/0015

**Message:** Invalid PruReport from <Other> PRU. Invalid Report Error = <Dec Value> PruReport Ignored.

**Explanation:** The LTM does some basic checking of PruReports before they are passed on to the system logger. Issuing a PruReport with an invalid report identifier is an obvious application error.

**Action:** The PRU application code is in error and this fact should be reported.

### 0002/0016

**Message:** Registration with TOD Service for time update notifications failed. PRUs will not be notified of time update notifications.

**Explanation:** The LTM could not register with the Time Of Day Service for time update notifications and so the LTM cannot provide this service to its PRUs.

**Action:** A resource limit has been hit in the Time Of Day Service. PRUs which depend upon time updates should be reconfigured on other nodes. If necessary, the whole processor may be rebooted in the hope of clearing up the problem. In any event, this condition should be reported.

### 0002/0017

**Message:** RmChange request failed. Hex Detail contains supplied parameters: PhysAddr,SoftAddr,UnitType,CnfgType, RevLevel,State,RtCode.

**Explanation:** The use of Resource Management is critical to the operation of the LTM. A failure to invoke the RmChange entry on the RM can have serious consequences for the correct operation of PRUs in the DVS.

**Action:** Reboot the node.

### 0002/0018

**Message:** SERIOUS ERROR. RmRegister request failed. Hex Detail contains supplied parameters: PhysAddr,SoftAddr. UnitType,CnfgType,UnitMask,CnfgMask,RtCode.

**Explanation:** The use of Resource Management is critical to the operation of the LTM. A failure to invoke the RmRegister entry on the RM can have serious consequences for the correct operation of PRUs in the DVS.

**Action:** Reboot the node.

### 0002/0019

**Message:** SubPruRegister PruReport from <Other> PRU failed. RM NewAddNode result=<Dec Value>.

**Explanation:** The LTM could not register the SubPRU with Resource Management.

**Action:** Restart the SubPRU and look for logs form the RM.

### 0002/001A

**Message:** <Other> PRU cannot be started because RmSrvcQuery failed. Result=<Dec Value>;

**Explanation:** The LTM could not query PRUs int the “Pre_Initialize” state in Resource Management and thus cannot start them up.

**Action:** The problem is with Resource Management. Look for log messages generated by the RM.

### 0002/001B

**Message:** SubPruRegister PruReport from<Other> PRU failed. Invalid SubPruNumber.

**Explanation:** The sub-PRU number that was supplied to the LTM is invalid or unknown to the LTM. The problem lies within the indicated PRU.

**Action:** Restart the PRU in the hope that the sub-PRU problem will correct itself.

### 0002/001C

**Message:** Cannot allocate buffer pool, LTM (OSP unit) heap is too small. Will soon crash processor.

**Explanation:** The Operating System Program has run out of memory and therefore cannot allocate its message buffer pool. This is a serious error which will completely prevent the correct operation of the node.

**Action:** The only solution is to increase the OSP heap size. Unfortunately, the OSP heap space is not configurable and is fixed for a software release.

# DVS System Logs (800B)

## PRU Profile

The DVS Logger is the entity responsible for writing the logs sent by other PRUs onto the disk and the LCD of the Prime Processor.

The DNC Logger, which replaces the DVS Logger, does this in a completely different way and does not use these logs. Therefore, these logs may be irrelevant to you.

### 0002/0000

**Message:** System Logger unable to write logs to disk//return code = @ID io error = @ID.//Unable to write Logger Region block @LD through @LD//@ID logs lost//See Hex Detail byte 41 through byte 92 for Sense Buffer

**Explanation:** A hardware error has occured on the disk when the Logger tried to write a log to disk. The error code returned from the Disk Driver is displayed, along with the exact block numbers on the disk that have gone “bad”. The Sense Buffer contains disk-manufacturer-specific data about the error. Some logs may not have been written to disk because of this error.

**Action:** The system will keep functioning around this error, although some logs may not be recorded on the disk by the Logger. Because this log may indicate that the disk is beginning to deteriorate, System Support should be called to evaluate the health of the disk.

### 0002/0001

**Message:** System Logger unable to write logs to disk//return code = @ID io error = @ID.//Tried @ID times to write Logger Region block @LD//@ID logs lost

**Explanation:** A software error has occured on the disk when the Logger tried to write a log to disk. The error code returned from the Disk Driver is displayed, along with the block number on the disk that failed. The Logger will re-try the write on the assumption that the software error will clear up. As an example, the queue of pending disk commands maintained by the Disk Driver may be full, and so the Disk Driver would not accept the Logger's write request. Some logs may not have been written to disk because of this error.

**Action:** The Logger will keep functioning around this error, although some logs may not be recorded on the disk by the Logger. However, the rest of the system may have problems handling Disk Driver return codes of this type, so System Support should be called.

# Owner Agent Register (800C)

## PRU Profile

This is basically a middleman sitting between SAM (the Screen Activities Manager) and various Application Agents. For each application activity, OAR keeps track of the Owner of the application and the associated Agent. OAR provides the DVS Application Interface.

OAR passes commands between SAM and Application Agents. For the most part, these commands deal with starting and terminating applications. SAM starts up an application by invoking the OAR_Start_Application_Request entry in OAR. To OAR, SAM is the “Owner” of the application, and the application is the “Property” of the owner. When an application is started up, the Terminal Handler (TH) for that application sends a Data_Service_Request to OAR to request a window. OAR then forwards that request on to SAM who manages terminal windows.

For various reasons applications may also become Owners themselves by invoking OAR_start_application_request.When this happens, the applications are “Chained” together by OAR to form an application chain with SAM at the head of the chain - SAM is referred to as the “Root Owner”. OAR chains can span a network(s) allowing local Owners to contact remote Agents in order to start up remote applications. The Remote Application Access (RAA) feature is built directly on top of this OAR capability.

OAR performs some Maintenance duties for DVS Applications. All Application Agents register with OAR, and OAR in turn registers with the Resource Manager (RM) against each Agent. Thus, OAR tracks the state of all Application Agents in a DVS system. OAR also indirectly tracks SAMs and Terminal devices via the Security Agent, who tracks these entities via the RM. Should an Agent, SAM, or Terminal fail OAR will cleanup the applications affected by the failure. This involves terminating the application and releasing the application's Terminal Handler. OAR does provide a facility whereby Application Agents can recover from a failure without losing their applications; Agents invoke this facility during the Agent registration process. OAR also provides a similar facility to SAM, allowing a new SAM to replace a dead SAM as the ROOT owner of an application chain.

## 0001/0001

**Message:** RM-updated re: Agent (<Other>) not in OAR's Agent Table

**Explanation:** The Resource Manager informed OAR about an agent that OAR doesn't recognize.

**Action:** Courtesy down the agent/PRU, then put the agent back into service. When the agent comes back up it will register with OAR. If problems persist, OAR and Resource Manager have inconsistent data. Reboot the system and contact field support.

### 0001/0002

**Message:** AGENT (<Other>) state change
New_state = <Hex Value> Current state = <Hex Value>

**Explanation:** When OAR is informed of an Application Agent state change by Resource Manager, this message is logged by OAR. This message helps track the status of all application agents in the system.

**Action:** No action required. This message is for informative purposes only.

### 0001/0003

**Message:** AGENT (<Other>) registers with OAR
Results = <Hex Value>

**Explanation:** Logged by OAR when an application agent registers with OAR. If the results are zero, the register was successful and OAR will register with the Resource Manager against the agent. A nonzero result indicates a failure in the registration process.

The following table lists the possible nonzero results and their meaning.

| Result | Meaning and Action |
|---|---|
| 1 | The agent is already registered in OAR's Agent registration table.<br>**ACTION:** This problem should not effect the operation of the system. |
| 2 | OAR received a nonzero return code from the Resource Manager when it tried to register against the Application Agent.<br>**ACTION:** Look elsewhere in the System Log for a Resource Manager entry specifying that a registration has failed. |
| 3 | There is no more room left in OAR's Agent registration table.<br>**ACTION:** Deconfigure or take down any unneeded Application Agents. OAR is configured for 150 Application Agent table entries. |

## 0001/0004

**Message:** OAR Unable to process Start Application Request
Reason = <Hex Value>. Request destined for AGENT (<Other>)

**Explanation:** The following reasons will cause this message to appear in the System Logger:

| Return Code | Meaning and Action |
|---|---|
| #1000 | The Application Agent could not be found in OAR's Agent table. |
| | **ACTION:** Courtesy down/put into service the Application Agent so that it will register with OAR. |
| #1001 | There is no more system memory in the OAR table for a new entry, and OAR was unable to get space to expand the table. |
| | **ACTION:** Delete or deactivate any unneeded PRUs on the Primary Processor. |
| #1002 | The Application Agent is not ready for service. |
| | **ACTION:** Wait until the Application Agent has become operational, or ascertain why the Application Agent has not become operational. |
| #1003 | The Agent is going down. |
| | **ACTION:** Put the Application Agent back into service. |
| #1004 | A tasking error has been encountered talking to the Agent. |
| | **ACTION:** Look elsewhere in the system log to ascertain the status of the Application Agent, and take actions as documentation recommends for that Agent. |
| #1005 | The owner tried to start up an application that is in the process of being terminated. |
| | **ACTION:** No action required. This message is for informative purposes only. |
| #1006 | The owner already has an application started. |
| | **ACTION:** No action required. This message is for informative purposes only. |

## 0001/0005

**Message:** AGENT (<Other>) Unable to start activity
Agent reason = <Hex Value>

**Explanation:** A nonzero code has been received in a start report from an agent, indicating that the activity could not be started.

***Note:*** Values in the range 0-#1FFF are defined by Application Agents.

| Return code | Meaning |
|---|---|
| #2000 | The agent experienced an error in initiating the activity. |
| #2001 | The agent tried to overlay the activity in memory and experienced an error. |
| #2002 | The subservice number on the start request was not recognized. |

**Action:** Courtesy down/put into service the Application Agent or the processor on which it resides, and try again. If problems persist, call field support.

## 0001/0006

**Message:** <String 20> Unable to get window; SAM reason = <Hex Value>

**Explanation:** The user at a terminal tried to select an activity and found a hung window (momentarily/continuously. SAM could not allocate a window. OAR logs this message to track the problem through the system.

**Action:** Examine the SAM reason. Refer to SAM's prior logger messages. If problem persists contact field support.

## 0001/0007

**Message:** <String 20>. Periph pool create problems; VTP results = <Hex Value>.

**Explanation:** OAR could not allocate a send/receive message pool. OAR will not register the pools address in the system Name Server. Thus, OAR will still come up but, no other system entities will be able to communicate with OAR - his address is not registered.

**Action:** VTP results are defined in the VTP section of this document. Report VTP results to Field Service and reboot system.

### 0001/0008

**Message:** <String 20>. Initiate problems; results = <Hex Value>

**Explanation:** OAR could not be initiated.

**Action:** Contact Field Service and reboot system.

### 0001/000A

**Message:** Application key resent to owner. Task result = <Hex Value>

### 0001/000B

**Message:** Application Start Report resent to owner. Task Result = <Hex Value>

### 0001/000C

**Message:** Unable to send Application Termination Report to Owner.. Termination sequence continued. Task Result = <Hex Value>

### 0001/000D

**Message:** Application Termination Report resent to owner. Task Result = <Hex Value>

### 0001/000E

**Message:** Unable to send Termination Request to agent. Termination sequence continued. Task Result = <Hex Value>

### 0001/000F

**Message:** Application Start Report resent to owner. Task Result = <Hex Value>

### 0001/0010

**Message:** Unable to send Termination Request to agent. Termination sequence continued. Task Result = <Hex Value>

**Explanation:** A buffer tasking error was encountered sending the OWN_Okey_report to an Application Owner (usually SAM). The OWN_Okey_report has been resent to the owner.

**Action:** No action required. This message is for informative purposes only.

### 0001/0011

No message statement.

**Explanation:** A buffer tasking error was encountered sending the start report to an Application Owner (usually SAM). The start report has been resent.

**Action:** No action required. This message is for informative purposes only.

### 0001/0013

No message statement.

**Explanation:** A termination report was resent after encountering buffer tasking error during a previous send.

**Action:** No action required. This message is for informative purposes only.

### 0001/0015

No message statement.

**Explanation:** A buffer tasking error was encountered while sending a termination request to an Application Agent. The termination request was resent.

**Action:** No action required. This message is for informative purposes only.

### 0001/0016

No message statement.

**Explanation:** A buffer tasking error was encountered while sending request window to SAM. The request window was resent.

**Action:** No action required. This message is for informative purposes only.

## 0002/0004

**Message:** OAR Unable to process Start Application Request
Reason = <Hex Value>. Request destined for AGENT (<Other>)

**Explanation:** The following reasons will cause this message to appear in the System Logger:

| Return Code | Meaning and Action |
|---|---|
| #1000 | The Application Agent could not be found in OAR's Agent table. |
| | **ACTION:** Courtesy down/put into service the Application Agent so that it will register with OAR. |
| #1001 | There is no more system memory in the OAR table for a new entry, and OAR was unable to get space to expand the table. |
| | **ACTION:** Delete or deactivate any unneeded PRUs on the Primary Processor. |
| #1002 | The Application Agent is not ready for service. |
| | **ACTION:** Wait until the Application Agent has become operational, or ascertain why the Application Agent has not become operational. |
| #1003 | The Agent is going down. |
| | **ACTION:** Put the Application Agent back into service. |
| #1004 | A tasking error has been encountered talking to the Agent. |
| | **ACTION:** Look elsewhere in the system log to ascertain the status of the Application Agent, and take actions as documentation recommends for that Agent. |
| #1005 | The owner tried to start up an application that is in the process of being terminated. |
| | **ACTION:** No action required. This message is for informative purposes only. |
| #1006 | The owner already has an application started. |
| | **ACTION:** No action required. This message is for informative purposes only. |

### 0002/0005

**Message:** AGENT (<Other>) Unable to start activity
Agent reason = <Hex Value>

**Explanation:** A nonzero code has been received in a start report from an agent, indicating that the activity could not be started.

***Note:*** Values in the range 0-#1FFF are defined by Application Agents.

| Return code | Meaning |
|---|---|
| #2000 | The agent experienced an error in initiating the activity. |
| #2001 | The agent tried to overlay the activity in memory and experienced an error. |
| #2002 | The subservice number on the start request was not recognized. |

**Action:** Courtesy down/put into service the Application Agent or the processor on which it resides, and try again. If problems persist, call field support.

### 0002/0009

**Message:** Unable to resend Application Start Report to owner. Task Result = <Hex Value>

### 0002/000C

**Message:** Unable to resend Application Termination Report to owner. Task Result = <Hex Value>

### 0002/000E

**Message:** Unable to resend Application Termination Request to owner. Task Result = <Hex Value>

### 0002/0011

**Message:** Unable to resend Application Termination Request to owner. Task Result = <Hex Value>

### 0002/0012

**Message:** AGENT (<Other>) Unable to deregister against Application Agent with the Resource Management.

**Explanation:** A nonbuffer tasking error was encountered sending a termination report to an Application Owner (usually SAM). The entry in the OAR table has been recovered, so the termination report was not resent. Thus the Owner will not find out that its application has terminated.

**Action:** This should not cause any recognizable system difficulties. If the Owner behaves strangely, consult system logger messages pertaining to that Owner to determine the correct course of action.

### 0002/0013

**Message:** AGENT (<Other>) Unable to deregister against Application Agent with the Resource Management.

### 0002/0014

No message statement.

**Explanation:** A tasking error was encountered sending a termination request to an Application Agent. In this case the termination request was sent by the Owner in response to a termination report sent by the Application Agent. The termination request will not be resent, but this is not important, since the Application Agent has already terminated the application, and OAR has already removed it from its data structures.

**Action:** No action required. This message is for informative purposes only.

### 0002/0017

No message statement.

**Explanation:** OAR could not find an outstanding request window in its OAR table to correspond to a request window reply it has received.

**Action:** If problem persists, or system is not functioning correctly, contact Field Service.

### 0002/0018

No message statement.

**Explanation:** The reinitialize timer on an Application Agent has expired. OAR has attempted to deregister the Application Agent with the Resource Manager and has received a nonzero return code.

**Action:** No action required. This message is for informative purposes only.

### 0002/0019

No message statement.

**Explanation:** The reinitialize timer on an Application Agent has expired. OAR will clean up all system resources associated with the Application Agent. All applications instances started up under this Application Agent are terminated, all terminal handler instances are released, and all entries in the OAR table are recovered. Then the Application Agent is purged from the Agent Table.

**Action:** Check the System Logger for messages that pertain to the Application Agent that failed to come up and determine a course of action.

### 0002/0020

No message statement.

**Explanation:** A buffer tasking error was encountered sending a start application request to an Application Agent. The start application request will not be resent because the Agent has since died. Instead a start report is being sent back to the owner with a nonzero return code.

**Action:** Check the System Logger for messages that pertain to the Application Agent that has failed to determine a course of action.

### 0002/0021

No message statement.

**Explanation:** A buffer tasking error was encountered sending a start application request to an Application Agent. The start application request may be resent if the Application Agent is still operational.

**Action:** No action required. This message is for informative purposes only.

## 0002/0022

No message statement.

**Explanation:** A tasking error was encountered sending an AG_ap_loc_change to an Application Agent. The AG_ap_loc_change will not be resent. This means that an application instance has been reconnected after a local fault and any terminal-dependent data it uses may not be correct. For example, a terminal has failed and SAS was running on that terminal. The user reconnected to the SAS login session on another terminal and OAR encountered a tasking error, sending an AG_app_loc_change to SAS. The result is that SAS will think it is running on the terminal that failed.

**Action:** Actions will vary between Application Agents. It may be desirable to cancel and restart activities that have been reconnected to a different terminal from the one on which they were started.

# Initialization Manager (800D)

## PRU Profile

The Initialization Manager (IM) receives initialization requests and program load requests from devices on the DVS. It is the coordinator of program loading and tells the load service what to load and which files to use. It also interfaces with the bus controller to add, delete and reset SRUs in the polling sequence.

### 0002/0001

**Message:** Initialization Manager. Heap allocation failure.

**Explanation:** Not enough temporary store to simultaneously handle all initialization requests from the SRUs and RRUs.

**Action:** The system should recover automatically, initializing the remaining SRUs and PRUs as others complete initialization. The heap size of the Initialization Manager should be increased at the next load build.

### 0002/0002

**Message:** Initialization Manager. Request count exceeded for <Other>

**Explanation:** The SRU or RRU at the specified address is repeatedly starting to initialize and failing, exceeding the retry threshold.

**Action:** Either the SRU or RRU has a hardware fault, or the IPL or SYS.BOOT load files are faulty.

### 0002/0003

**Message:** Initialization Manager. Mismatch in unit type for <Other>.

**Explanation:** The wrong type of SRU or RRU is configured at the specified address.

**Action:** Reconfigure the proper SRU or RRU at the address.

### 0002/0004

**Message:** Initialization Manager. Initialization request serious error received from <Other>.
<Long Hex> <Long Hex> <Long Hex> <Long Hex>
<Long Hex> <Long Hex> <Long Hex> <Long Hex>

**Explanation:** The SRU or RRU firmware diagnostics detected the specified error.

**Action:** If the SRU or RRU cannot initialize after several attempts, a hardware problem is likely at fault.

### 0002/0005

**Message:** Initialization Manager. Initialization request bad status of <Error Type> for <Other> ???.

**Explanation:** The specified minor error occurred, which should not prevent the SRU or RRU from initializing.

**Action:** If the error persists, the SRU or RRU should be diagnosed to determine the cause.

### 0002/0006

**Message:** Initialization Manager. Audit report received from <Other>.

**Explanation:** An unsolicited audit report was received.

**Action:** The system will attempt to restart the SRU or RRU. If it cannot be initialized, the tap hardware may be corrupting data, or another device may be transmitting garbage messages.

### 0002/0007

**Message:** Initialization Manager. Audit timeout occurred for <Other>.

**Explanation:** The SRU or RRU did not complete its initialization within the prescribed time limit.

**Action:** If the the SRU or RRU fails to initialize after several retries, it either has a hardware fault or the IPL or SYS.BOOT load files are faulty.

### 0002/0008

**Message:** Initialization Manager. Bus control error return code of <Error Type>.

**Explanation:** The specified error was returned from the Bus Controller software.

**Action:** This type of error can range in severity from no effect to a bus controller hardware problem.

### 0002/0009

**Message:** Initialization Manager. RM register error return code of <Error Type>.

**Explanation:** The Initialization Manager failed to register with the Resource Manager software.

**Action:** The system will not initialize until the problem with the Resource Manager (which could simply be a lack of store) is remedied.

# Audit Manager (8012)

## 0002/0001

**Message:** Audit Manager. Heap allocation failure.

**Explanation:** Not enough store to audit all of the working XSystem based SRUs and RRUs. The system thereafter cannot detect when some of the SRUs or RRUs fail, unless they can automatically recover by themselves.

**Action:** The heap size of the Audit Manager software must be increased.

## 0002/0002

**Message:** Audit Manager. Peripheral I/O pool create error <Error Type>.

**Explanation:** A PVTP pool ID and message buffers could not be created for the purposes of auditing.

**Action:** The system will not initialize until the problem is remedied.

## 0002/0003

**Message:** Audit Manager. Get empty transmit buffer error <Error Type>.

**Explanation:** A free PVTP buffer was unavailable due to the specified error. An SRU or RRU could not be audited.

**Action:** Usually a transient error, which disappears as buffers are freed. However, the number of PVTP transmit buffers allocated by the Audit Manager software should be increased.

## 0002/0004

**Message:** Audit Manager. Send buffer buffer error <Error Type>.

**Explanation:** A PVTP message could not be sent due to the specified error. An SRU or RRU could not be audited.

**Action:** The problem should not occur unless under load and is indicative of a more serious fault if it persists.

## 0002/0005

**Message:** Audit Manager. Receive buffer buffer error <Error Type>.

**Explanation:** A PVTP message could not be received due to the specified error. An audit failure may occur.

**Action:** The problem should not occur and is indicative that a more serious fault exists.

### 0002/0006

**Message:** Audit Manager. RM register error <Error Type>.

**Explanation:** The Audit Manager failed to register with the Resource Manager software.

**Action:** The system will not initialize until the problem with the Resource Manager (which could simply be a lack of store) is remedied.

# SASI/SCSI Device Driver (8013)

## PRU Profile

The device driver Sub-PRU provides low level access to SASI or SCSI tapes and disks. The device driver is used by the file server and the tape server. It is also used by some disk utilities and some tape utilities. The device driver will usually retry if it gets an error. Another function of the device driver is implementing disk shadowing, including switching from the primary disk to the shadow disk for serious error conditions.

The following phrases, reported in certain messages below, indicate what recovery action the device driver took when it received an error.

1. No Recovery.
2. No recovery action was possible.Contact Field Service.
3. Shadow disabled, Recovered data.
4. The shadow disk received the error and has been disabled.

   The disk operation in progress at the time of the error was successfully completed.
5 Shadow disabled, Recovery failed.
6. The shadow disk received the error and has been disabled.The disk operation in progress at the time of the error failed.
7. Shadow now primary, Recovered data.
8. The primary disk received the error and has been disabled.The shadow disk has taken over as the primary disk.The disk operation in progress at the time of the error was successfully completed.
9. Shadow now primary, Recovery failed.
10. The primary disk received the error and has been disabled.The shadow disk has taken over as the primary disk.The disk operation in progress at the time of the error failed.
11. No shadow for recovery.
12. The primary disk received the error.There is no shadow disk for recovery.The disk operation in progress failed.

## 0002/0020

**Message:** Bad block in disk,

No Recovery
Shadow disabled, Recovered data
Shadow disabled, Recovery failed
Shadow now primary, Recovered data
Shadow now primary, Recovery failed
No shadow for recovery

**Explanation:** A media error has occurred on one of the disk blocks. See above explanation as to which recovery action was taken. The hex detail contains the sense buffer at the time of the error.

**Action:** Reformat the troublesome disk (primary or shadow). Add the bad block to the bad block list.

## 0002/0021

**Message:** Disk Error,

No Recovery
Shadow disabled, Recovered data
Shadow disabled, Recovery failed
Shadow now primary, Recovered data
Shadow now primary, Recovery failed
No shadow for recovery

**Explanation:** An unrecoverable error occurred while executing the last disk operation. See above explanation as to which recovery action was taken. The hex detail contains the sense buffer at the time of the error.

**Action:** Contact Field Service.

## 0002/0022

**Message:** Marginal Error,

Too many marginal blocks
Too many errors in same block
Marginal file overflow

**Explanation:** An error has occurred during a disk operation. The disk controller was able to recover from the error, and the disk operation in process was successfully completed. Meaning of additional phrases: "Too many marginal blocks" - there is an excessive amount of marginal blocks. The disk is bad and should be sent for repair. "Too many in same block" - the block had an excessive amount of marginal errors. The block should be considered a bad block. "Marginal file overflow" - the marginal error file cannot hold any more marginal errors. Essentially the same as "Too many marginal blocks." The hex detail contains the sense buffer at the time of the error.

**Action:** Edit the file : LOCAL : ERRORS : MARGINAL_CCSS, where CC and SS are the cabinet and slot of the processor the disk is connected to. This file will contain more information about the marginal errors.

## 0002/0023

**Message:** Marginal File I/O Error, I/O Result = <Dec Value>

**Explanation:** While updating the marginal block file, the device driver got this I/O error.

**Action:** Consult Helix documentation to see what the I/O error means.

## 0002/0024

**Message:** SCSI Bus Error,

No Recovery
Shadow disabled, Recovered data
Shadow disabled, Recovery failed
Shadow now primary, Recovered data
Shadow now primary, Recovery failed
No shadow for recovery
Bus was reset

**Explanation:** The SCSI Bus is in an unexpected state. See above explanation as to which recovery action was taken. The "Bus was reset" phrase means that the device driver reset the SCSI bus.

**Action:** Check the cables between the processor and the disk.

## 0002/0025

**Message:** Queue Error, Bus was reset.

**Explanation:** The SCSI bus lapsed into a hung state. The device driver reset the bus.

**Action:** Contact Field Service.

## 0002/0026

**Message:** Bus Parity Error,

Bus was reset
Recovery failed

**Explanation:** There was a parity error in a block sent or received on the SCSI bus. Meaning of additional phrases: "Bus was reset" - the operation in progress failed, and the device driver has reset the bus; "Recovery failed" - the operation in progress failed.

**Action:** "Bus Parity Error" message: ignore.
"Bus Parity Error, Bus was reset", or
"Bus Parity Error, Recovery failed" message :
Report to Field Service.

# Foreign Operating Systems Manager (8020)

## PRU Profile

The Foreign Operating Systems Manager is a PRU that provides connection management and functions related to initialization, maintenance, configuration, and deinitialization for foreign operating systems.

> ***Note:*** These log entries have no EXPLANATION or ACTION statements because they are simply used as tools to dump various information from the "other data" field of the PRU-report information. Each report could cause a variety of different data to be logged. There is no single meaning or action for any of them.

### 0002/0001

**Message:** <String 41>

### 0002/0002

**Message:** <String 41>

### 0002/0003

**Message:** <String 41>

### 0002/0004

**Message:** <String 32>

### 0002/0005

**Message:** <String 41>

### 0002/0006

**Message:** <String 41>

### 0002/0007

**Message:** <String 41>

### 0002/0008

**Message:** <String 41>

### 0002/0009

**Message:** <String 41>

### 0002/000A

**Message:** <String 32>

### 0002/000B

**Message:** <String 41>

**0002/000C**

**Message:** <String 41>

# Data Connection Manager (8021)

## PRU Profile

DATA CONNECTION MANAGER (DCM) manages M4000 terminals and LIU devices. This involves delivery of campus routing table to these devices, performing periodic audits, gathering and logging of audit reports obtained from them, and take-down of these devices. If a device fails its audit, DCM marks it faulty. In addition, regarding M4000 terminals and ASCII terminals, DCM has the responsibility of notifying the SAM Master when these terminals come on-line or go off-line. DCM is also responsible for activating and deactivating of peripheral ports on LIUs and M4000 terminals. Some examples of these ports are printer ports, host ports (ASCII host access, low level bisync), and ATA ports (Alpha Terminal Emulator).

### 0001/0001

**Message:** Long audit response from <Other>.

**Explanation:** DCM has received a long audit response command from an M4000 terminal or LIU. This command may contain useful statistical data.

**Action:** No action required.

### 0002/0001

**Message:** RM register failure, RC = <Dec Value>

**Explanation:** This error occurs only if DCM's object was corrupted. This means that DCM has attempted to register with the RM against things that the RM knows nothing about.

**Action:** This may be the symptom of a major system problem. Contact Field Service.

### 0002/0002

**Message:** RM request failure, RC = <Dec Value>

**Explanation:** This error occurs only if DCM's object was corrupted. This means that DCM has attempted to query the RM about things that the RM knows nothing about.

**Action:** This may be the symptom of a major system problem. Contact Field Service.

### 0002/0005

**Message:** No space for RS232 port, Can not handle <Other>

**Explanation:** There are too many peripheral ports (such as printers and host ports) configured on the system. This number exceeds the number of ports that DCM can handle. As a result, DCM cannot allocate memory space for new ports in its data structures.

**Action:** See the release notes and make sure that the number of peripheral ports is within DCM's limits.

### 0002/0009

**Message:** SEND error to SAM, Task Result = <Dec Value>

**Explanation:** Due to some problem with SAM, DCM is unable to notify SAM about a terminal.

**Action:** Contact Field Service.

### 0002/000B

**Message:** Ran out of resources for peripheral device, can not handle <Other>

**Explanation:** There are too many M4000 terminals and LIU devices configured. This number exceeds the number of devices that DCM can handle. As a result, DCM cannot allocate memory space in its data structures for new terminals and LIUs coming up.

**Action:** See the Release notes and make sure that the number of M4000 terminals and LIUs is within DCM’s limits.

### 0002/000C

**Message:** DCM object configuration error, no parameter buffer.

**Explanation:** This error occurs only if DCM's root object was corrupted.

**Action:** Contact Field Service.

### 0002/000D

**Message:** Ran out of resources needed to notify SAM about terminals.

**Explanation:** This error occurs when SAM Master is too slow accepting new terminals coming up. As a result, DCM's queue of terminals get full and it cannot allocate space for a new terminal coming up.

**Action:** There may be a problem with some LANLinks. If so, locate these LANLinks and take them out of service. Also contact Field Service.

### 0002/000F

**Message:** Failed to register with Campus Network Manager, task result is <Error Type>.

**Explanation:** DCM was unable to register with Campus Network Manager (CNETM). It probably went down.

**Action:** NONE

### 0002/0010

**Message:** Failed to do routing table request in CNETM, task result is <Error Type>.

**Explanation:** DCM was unable to obtain routing table from CNETM. CNETM probably went down.

**Action:** NONE

### 0002/0011

**Message:** Failed to initialize campus vtp pool.

**Explanation:** DCM was unable to create a vtp pool to be used for sending of routing table commands to devices.

**Action:** Contact Field Service.

# Screen Activities Manager (8022)

## 0001/0207

**Message:** SAM Master reports that a SAMling (<Long Hex> <Long Hex>) became operational on a Meridian M4000 terminal at (<Long Hex> <Long Hex>).

**Explanation:** Indicates that a Meridian M40X0 terminal has become operational. The address of the terminal and its associated SAMling task address are displayed.

**Action:** Informative. No action required.

## 0001/0208

**Message:** SAM Master reports that a SAMling (<Long Hex> <Long Hex>) became operational on an ASCII terminal at (<Long Hex> <Long Hex>).

**Explanation:** An ASCII terminal has become operational. The address of the terminal and its associated SAMling task address are displayed.

**Action:** Informative. No action required.

## 0002/0100

**Message:** SAMling received an illegal context change key. Key = <Dec Value>.

**Explanation:** A SAMling task received a key that does not fall into the range of valid context keys. The value of the key is displayed. The valid range is 90 hex to 9F hex.

**Action:** Reboot the device which sent the bad key. If the problem is reproducible, contact Field Service.

## 0002/0101

**Message:** SAMling received an alpha packet that did not have a valid op-code. Op-code = <Hex Value>.

**Explanation:** A SAMling task received a packet from an alpha terminal device which he could not interpret. The packet may have been corrupted during transmission.

**Action:** Reboot the device which is having the problem. If the error is still reproducible, contact Field Service.

## 0002/0104

**Message:** SAMling received an OAR start application report for an invalid activity.
Activity number = <Dec Value>.

**Explanation:** This message is seen when either: a) The Owner Agent Register has sent the SAMling task a "start report" for an invalid activity, or b) The user closed/cancelled his window twice before the application responded to a start message.

**Action:** Attempt to reproduce, then contact Field Service.

## 0002/0105

**Message:** SAMling received an OAR terminate application report for an invalid activity. Activity number = <Dec Value>.

**Explanation:** The Owner Agent Register sent the SAMling task a "termination report" for an invalid activity.

**Action:** Attempt to reproduce, then contact Field Service.

## 0002/0106

**Message:** SAMling received a Request Window for an invalid activity. Activity
number = <Dec Value>.

**Explanation:** The Owner Agent Register sent this invalid message to the SAMling task. Request was ignored.

**Action:** Attempt to reproduce, then contact Field Service.

### 0002/0107

**Message:** SAMling tried to send a define terminal address to a terminal supervisor but received an invalid VTP return code. Return code = <Dec Value>.

**Explanation:** When the SAMling task processed a "request window" it sent a Define Terminal Address to the Terminal Handler. The message was not received by the Terminal Handler. The VTP return code is displayed. The SAMling task automatically removed the activity. Refer to VTP messages for return code values and meanings.

**Action:** Attempt to determine:

1. When this message was logged.
2. The Terminal Handler that failed to receive the DefineTerminal Address. It may be necessary to courtesy down the faulty Terminal Handler, then put it back into service.

### 0002/0108

**Message:** SAMling received an invalid area parameter for displaying messages on the notify message. Area = <Dec Value>.

**Explanation:** An application attempted to display a message in the wrong area of the DVS message lines. The request was ignored.

**Action:** Attempt to reproduce, then contact Field Service.

### 0002/0109

**Message:** SAMling received an invalid menu item number from the Simple Forms Handler while in the Main Menu. Menu item = <Dec Value>.

**Explanation:** The item number selected from the Main Menu is invalid. No action taken.

**Action:** Attempt to reproduce, then contact Field Service.

### 0002/010B

**Message:** Failure in attempt to open HELP/ADVERT form package. Simple Forms Handler Return code = <Dec Value>.

**Explanation:** When the user pressed the HELP or ADVERT key the SAMling task attempted to display a Simple Forms Handler form. Either the forms file does not exist on disk or the version of the form file is incorrect. Refer to SFH messages for return return code values and meanings.

**Action:** Contact Field Service to have them determine if the HELP or ADVERT form file exists on the System Disk and is of the correct SFH version level.

### 0002/010C

**Message:** A SAMling received an invalid parameter length for the Telephony call display section of the notify line. Length = <Dec Value>.

**Explanation:** Call Processing passed to the SAMling task an incorrect message length for a string to be displayed in the Call Processing notify line "call display" section. Invalid length is displayed.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/010D

**Message:** A SAMling received an invalid parameter length for the Telephony call forward display section of the notify line Length = <Dec Value>.

**Explanation:** Call Processing passed to the SAMling task an incorrect message length for a string to be displayed in the Call Processing notify line "call forward" section. Invalid length is displayed.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/010E

**Message:** A SAMling received an invalid parameter length for the Telephony ring again display section of the notify line. Length = <Dec Value>.

**Explanation:** Call Processing passed to the SAMling task an incorrect message length for a string to be displayed in the Call Processing notify line "ring again" section. Invalid length is displayed.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/010F

**Message:** A SAMling received an invalid parameter length for the Telephony do not disturb display section of the notify line. Length = <Dec Value>.

**Explanation:** Call Processing passed to the SAMling task an incorrect message length for a string to be displayed in the Call Processing notify line"do not disturb" section. Invalid length is shown.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/0110

**Message:** A SAMling received an invalid parameter length for the Telephony held call display section of the notify line. Length = <Dec Value>.

**Explanation:** Call Processing passed to the SAMling task an incorrect message length for a string to be displayed in the Call Processing notify line "held call" section. Invalid length is displayed.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/0111

**Message:** A SAMling received an invalid offset for the Telephony section of the notify line. Offset = <Dec Value>.

**Explanation:** Call Processing passed to the SAMling task an incorrect offset for a message in the notify line. Request was ignored and the invalid offset is displayed.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/0112

**Message:** An application's terminal handler was a sent go inactive (on a Local Area Network or Campus Area Network) and did not respond in <Dec Value> seconds. SAMling gave the window to another.

**Explanation:** The SAMling task sent a "go inactive" command to the Terminal Handler. It has a fixed number of seconds to send a "go inactive" response to the SAMling task before the SAMling task will give the current window/keyboard to another application or a System Service.

**Action:** Informative. Contact Field Service if problem persists.

### 0002/0113

**Message:** SAMling attempted to send a go inactive message to a terminal handler. The terminal handler did not respond and SAMling removed the activity.

**Explanation:** The SAMling task tried to send a "go inactive" to the Terminal Handler, but it is not receiving packets. The activity associated with the Terminal Handler is automatically removed.

**Action:** Informative. Contact Field Service if problem persists.

## 0002/0114

**Message:** SAMling received a packet from the terminal with an invalid window number. Packet was not processed. Window number = <Hex Value>.

**Explanation:** The window number in the packet which was sent to the SAMling task does not reference a valid activity number. The window number is displayed as part of the message.

**Action:** Determine when the message was logged and which terminal device sent the message, then contact Field Service.

## 0002/0115

**Message:** SAMling received a voice update with a status that it could not process. Voice update was ignored.

**Explanation:** The Telephony Agent in Call Processing sent an invalid voice channel status to the SAMling task. The voice status affects the screen share pipe when one exists.

**Action:** Informative. If the problem persists, contact Field Service.

## 0002/0117

**Message:** On termination SAMling attempted to release a terminal handler. Terminal handler did not respond. Activity was removed. Return code = <Dec Value>.

**Explanation:** When an activity is terminated, the terminal handler is released. The SAMling task attempted to release the terminal handler, but the terminal handler is not receiving packets. In this situation, the terminal handler and activity are automatically removed.

**Action:** Informative. If problem persists, contact Field Service.

## 0002/0118

**Message:** SAMling attempted to replace a terminal handler during chaining. The terminal handler did not respond; the chain was terminated. Return code = <Dec Value>.

**Explanation:** During the chaining of applications, the terminal handler has to be released. However, the terminal handler is not receiving packets. In this situation, the entire application chain is terminated. The return code is a VTP return code. Refer to VTP messages for return codes and meanings.

**Action:** Informative. If problem persists, contact Field Service.

### 0002/0119

**Message:** SAMling received an OAR okey_report for an invalid activity; no action taken. Activity number = <Dec Value>.

**Explanation:** An owner key report was sent to a SAMling task for invalid activity. The message was ignored.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/011A

**Message:** The RETURN TO WINDOW soft key was pressed for an invalid activity; no action taken. Activity number = <Hex Value>.

**Explanation:** The softkey RETURN TO WINDOW was displayed on the Main Menu screen when no valid previous activity existed. This softkey should not have been presented to the user.

**Action:** Attempt to reproduce the condition and contact Field Service.

### 0002/011B

**Message:** Upon the depression of the MEETING key, Meeting Services return an invalid return code. Return code = <Dec Value>.

**Explanation:** When the MEETING key is pressed, the SAMling talks to the Meeting Services Applications Agent. The Agent returned an invalid return code to the SAMling task when the key was depressed. Currently, Meeting Services can request the SAMling task to start a meeting, switch to a meeting, or do nothing. The return code passed back to the SAMling task is displayed as part of the message.

**Action:** Attempt to reproduce the condition and contact Field Service.

## 0002/011C

**Message:** SAMling received an secondary terminal handler switch for an invalid activity; no action taken. Activity number = <Dec Value>.

**Explanation:** Meeting Services raised the secondary terminal handler switch entry in a SAMling task. The opcode passed to the SAMling is invalid and is displayed.

Possible valid opcodes are:

1. Request the SAMling to share an activity within a meeting.
2. View the shared window.
3. View the Meeting Monitor window.
4. Unshare the activity within the meeting.

**Action:** Try to reproduce the message, contact Field Service.

## 0002/011D

**Message:** Meeting Services requested a SAMling to switch to a current Meeting via the Meeting hardkey. Activity number was invalid, request ignored. Activity number = <Dec Value>.

**Explanation:** The activity for the Meeting Services window is invalid. The activity number is displayed.

**Action:** Try to reproduce the message, contact Field Service.

## 0002/011E

**Message:** A SAMling attempted to share an activity within Meeting Service's context. Activity number was invalid. Activity number = <Dec Value>.

**Explanation:** The activity number to share within the context of the meeting is invalid. The activity number is displayed.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/011F

**Message:** A SAMling attempted to switch a Meeting Services user either to the Meeting Monitor or the shared activity. Request ignored. Meeting pointer = <Dec Value>.

**Explanation:** Meeting Services attempted to switch the user back to the Meeting Monitor screen or the shared window screen. The user is either already viewing the Meeting Monitor or no shared activity exists within the meeting.

**Action:** Try to reproduce the message, contact Field Service.

### 0002/0120

**Message:** A bad Meeting Service number was passed on a Secondary_th_switch. Request ignored. Meeting number = <Dec Value>.

**Explanation:** Meeting Services attempted to switch terminal handlers; however, the Meeting Services activity number passed to the SAMling was invalid and is displayed.

**Action:** Attempt to reproduce the message and contact Field Service.

### 0002/0121

**Message:** Meeting Services passed a bad activity number on a Secondary_th_switch op code make local. Activity number = <Dec Value>.

**Explanation:** Meeting Services tried to unshare an activity within the context of the meeting. The activity number of the shared activity is invalid and is displayed. No action was taken.

**Action:** Attempt to reproduce the message and contact Field Service.

### 0002/0122

**Message:** SAMling attempted to read an invalid menu string from the Simple Forms Handler. Check number of fixed strings in object. Return code = <Dec Value>.

**Explanation:** The configuration for the Main Menu strings is invalid. There are more strings to be read from the Main Menu than exist in the Form File. The Simple Forms Handler (SFH) application return code is displayed. Refer to the SFH messages for return code meanings.

**Action:** Contact Field Service.

## 0002/0123

**Message:** SAM's buffer for menu labels is too small to hold all fixed strings. Increase buffer size in object. Current buffer size = <Dec Value>.

**Explanation:** The configuration for the Main Menu string size is too small. The size of the strings that comprise the Main Menu is greater than the initialization object.

**Action:** Contact Field Service.

## 0002/0124

**Message:** SAMling attempted to ACCEPT a REPLY entry from the Simple Forms Handler. No REPLY entry was raised.

**Explanation:** When the current window is Main Menu, HELP/ADVERT, or the Window Menu, and the user context switches to a new window, SAMling reacts by telling the SFH to stop collecting the form. SAMling then waits for the SFH to REPLY. If the SFH does not raise the REPLY in a certain time period, SAMling will retry to ACCEPT the reply entries a fixed number of times.

This message was generated because either:

1. SFH did not reply within the time period,
2. SAMlings internal structures were not correct which led him to mistakenly wait for the reply.

**Action:** Attempt to reproduce the message and contact Field Service.

## 0002/0125

**Message:** SAMling sent a termination_request to the Owner Agent Register. SAMling did not receive a termination report.

**Explanation:** A user closed or cancelled the started activity. This message was logged because SAMling did not receive an expected “termination report” after he started the termination process for the activity. This message was logged because the user pressed Close/Cancel hardkey a second time, before SAMling received the termination report. As a result, SAMling immediately released the Terminal Handler to continue with the termination process.

**Action:** Although SAMling recovers by continuing with the termination sequence, a Field Service person should be contacted if the problem persists since this could be an indication of a serious system problem.

## 0002/0126

**Message:** SAMling sent a release to the terminal handler. A release response was not received.

**Explanation:** A user closed, cancelled, or somehow exited out of a started activity to initiate a termination sequence. SAMling, expecting to receive a "release response" from the Terminal Handler so that he can remove the window, logged this message because the user pressed Close/Cancel hardkey another time, before SAMling received the response. As a result, SAMling removed the window immediately.

**Action:** Although SAMling completes the termination sequence and recovers, a Field Service representative should be contacted if the problem persists, since this could be an indication of a serious system problem.

## 0002/0127

**Message:** SAMling received an error response from the terminal device.

**Explanation:** When SAMling sent a command to the device (such as an attach-system address command), the response back from the device was an error. Several things could have produced this:

1. the packet sent by SAMling was corrupted in transmission
2. the terminal internal software is corrupted
3. SAMling sent a bad command

**Action:** In any case, this type of error requires the user to log on again.

1. If the problem is consistent, courtesy down and up the troubled terminal.
2. If the problem remains and is reproducible, contact Field Service.

## 0002/0128

**Message:** SAM's buffer for prompt strings is too small to hold all fix strings. Increase buffer size in object. Current buffer size = <Dec Value>.

**Explanation:** SAMling reads a configurable number for the size of the prompt string buffer from the SAMROOT object. When SAMling tried to read the prompt strings into the buffer, but the buffer was too small to hold all of the strings. As a result, the device operated normally, but without prompts from the SAMling.

**Action:** Contact Field Service to correct problem with SAM's configuration object.

### 0002/0129

**Message:** SAMling internal message string number is invalid. Message string number = <Dec Value>.

**Explanation:** SAMling tried to display a string on the global prompt line. The message string number was not in range of the maximum number of prompt strings.

**Action:** Possibly the value for maximum number of prompt strings is not correct in the SAMROOT object. Contact Field Service to check this value in the object against the number of fixed strings in the SAMPRMPT package (see the form PROMPTS).

### 0002/012A

**Message:** The user's name in the password file is too long. Name ignored. Length of user name = <Dec Value>.

**Explanation:** Upon a signon to the Security Agent, SAMling was passed an unformatted field from which he parsed out the user's name (the string name as seen when User Profile is running). The length of the name was over the valid maximum. SAM ignored the name.

**Action:** Contact Field Service to check the validity of the password file.

### 0002/012B

**Message:** The user's personality pointer is an invalid integer. User not Signed On DV-1.

**Explanation:** Upon a signon to the Security Agent, SAMling was passed an unformatted field from which he was to parse out the user's personality object index. SAM was unable to parse out this value from the free field. As a result, SAM could not read the object file for the user, and the and the user was not logged in.

**Action:** Contact Field Service to check the validity of the password file.

### 0002/012C

**Message:** The format of the user independent information in the security file is invalid. User not Signed On DV-1.

**Explanation:** Upon a signon to the Security Agent, SAMling was passed an unformatted field from which he tried to parse out the user's name and personality object index. SAM was unable to parse the field because of incorrect delimiter placement. As a result, the user was not signed on.

**Action:** Contact Field Service to check the validity of the password file.

### 0002/012D

**Message:** The Main Menu labels buffer does not correspond to the number of Main Menu labels. Check Main Menu Database Editor. String number = <Dec Value>.

**Explanation:** A user could have been switching windows or starting applications for SAMling to generate this message. SAMling attempted to display the menu label string in the DVS message area, and the index to the string was not in range of the maximum number of Main Menu labels.

**Action:** Contact Field Service to check the number of Main Menu labels (through the Main Menu Database Editor) and compare this value to the "maximum number of main menu labels" as shown in the SAMROOT object.

### 0002/0131

**Message:** Failure in attempt to read HELP/ADVERT form file name from database. Simple Forms Handler Return code = <Dec Value>.

**Explanation:** When the user pressed the HELP or ADVERT hardkey, or while in HELP pressed a softkey to bring up the next help screen, SAMling, in his interactions with the Simple Forms Handler, received a bad return code when trying to read the HELP/ADVERT form file name. SAMling terminated the display of the HELP/ADVERT screen. The return code from the SFH was displayed. Refer to the Simple Forms (SFH) messages for return code meanings.

**Action:** Contact Field Service to check the validity of the HELP/ADVERT form files in the database.

### 0002/0132

**Message:** Error in HELP/ADVERT form file format. Simple Forms Handler Return code = <Dec Value>.

**Explanation:** After opening the HELP/ADVERT form package, SAM, through interactions with the Simple Forms Handler (SFH), tried to determine the size of the form file. SAMling received a bad return code from the SFH. Refer to the SFH messages for the meaning of the displayed return code.

**Action:** Contact Field Service to check the validity of the HELP/ADVERT form files in the database.

## 0002/0133

**Message:** Time or Date was changed backwards. Times displayed in Window Menu reset to zero.

**Explanation:** When a user is in the Window Menu, SAMling displays the elapsed time for each application running. When SAMling converted the elapsed time into a string format for display, he constructed, either

1. a negative number,
2. a number greater than 99 (for hours), or
3. a number greater than 59 (for minutes ). Only two decimal places are allowed for each field. SAMling reset the elapsed time back to zero.

**Action:** Informative, if the application was active for more than 99 hours, 59 minutes. Otherwise, contact Field Service to check the validity of the system time.

## 0002/0134

**Message:** Failure to read the password file from the Security Agent. Unable to perform automatic logon.

**Explanation:** A user with an automatic logon (a Personal Computer user) tried to gain access to the DVS system . SAMling validated the security information but he could not read the password file through the security agent (to get the user's name, and personality index) due to a tasking error. As a result, SAMling could not start the user's automatic logon session.

**Action:** Reboot the user's terminal. If problem persists, it could indicate a serious Security Agent problem. Contact Field Service.

## 0002/0135

**Message:** Unable to verify passed security information with the Security Agent. Automatic logon denied.

**Explanation:** A user with an automatic logon (a Personal Computer user) tried to gain access to the DVS system . A PRU (currently Name Address Manager) passed security information to SAMling for validation. SAMling could not validate the security information with the Security Agent, and the user's session was not started.

**Action:** Reboot the PC. If the problem still exists, it could indicate a serious Security Agent problem. Contact Field Service.

### 0002/0136

**Message:** Meeting Services has register six external voice Terminal Number. Meeting Services has tried to register a seventh External voice Terminal Number. Request denied.

**Explanation:** SAMling's data structures were filled and he could not register another terminal number (passed by Meeting Services) to be connected to a meeting.

**Action:** Contact Field Service.

### 0002/0137

**Message:** Meeting Services tried to deregister an external voice Terminal Number that it did register. Request denied.

**Explanation:** The terminal number passed to SAMling by Meeting Services for disconnection from a meeting was not in SAMling's data structure.

**Action:** Contact Field Service.

### 0002/0138

**Message:** An application's terminal handler was sent a Go Inactive on a Wide Area Network and did not respond in <Dec Value> seconds SAMling gave the window to another.

**Explanation:** A user, who is signed in remotely across the Wide Area Network context, switched out of the current window. SAM Master responded by sending a go-inactive command to stop the dialogue between the Terminal Handler (TH) and the application. The TH did not respond to this command within a certain number of seconds (set by SAM Master). SAM Master then started his termination sequence to close the window.

**Action:** If problem persists, contact Field Service to investigate which TH across the network is not responding.

### 0002/0139

**Message:** Number of Startable Windows is invalid. Number of Startable Windows set to eight. Configured Number of Startable Windows = <Dec Value>.

**Explanation:** When a user signed on to the DVS, SAMling read the user's object occurrence, which contained terminal personality information. The “number of startable windows” configured for the user was out of range of the maximum number of windows allowed. SAMling defaulted the value to the maximum.

**Action:** Contact Field Service to check the validity of the user's object file.

### 0002/013A

**Message:** A SAMling received an invalid parameter length for the DNC Alarm section of the notify line. Length = <Dec Value>.

**Explanation:** SAMling, because his Notify entry was invoked, tried to display a message on the second line of the notify. The length for the DNC alarm section should only be 7. SAMling could not display the message.

**Action:** Try to reproduce and contact Field Service to investigate which program sent the invalid length.

### 0002/013B

**Message:** A SAMling received an invalid offset for the DVS Message Region of the notify line. Offset = <Dec Value>.

**Explanation:** SAMling, because his Notify entry was invoked, tried to display a message on the second line of the notify area. The offset can only be 1 or 74. SAMling could not display the message.

**Action:** Try to reproduce and contact Field Service to investigate which program sent the invalid offset.

### 0002/013C

**Message:** A SAMling received an invalid length for the DVS Message Region of the notify line. Length = <Dec Value>.

**Explanation:** SAMling, because his Notify entry was invoked, tried to display a message on the second line of the notify area. The length for the DVS Message Region should only be 72. SAMling could not display the message.

**Action:** Try to reproduce and contact Field Service to investigate which program sent the invalid length.

## 0002/013D

**Message:** A SAMling task received a tasking error while communicating with the Simple Form Handler. Task return Code = <Dec Value>.

**Explanation:** SAMling communicates with the SFH to present forms, (such as the Main Menu), to collect information from a form (such as user ID and password). If SAMling received a tasking error other than a buffer error while in rendezvous with the SFH, he will complete, and the user will lose his logon session. Refer to the local XMS return code message section for the meaning of the displayed return code.

**Action:** Check the state of all Simple Forms Handlers used by SAM (SFH_1, SFH_2, or SFH_3). Reboot the SFH if not working. Otherwise, try to reproduce the problem, and contact Field Service.

## 0002/013E

**Message:** An invalid activity time out value is set. Activity time out = <Dec Value>. User's activity time out set to four minutes.

**Explanation:** SAMling receives additional information from the Security Agent (such as date password expires, failed signons, activity life, and so on) when he signs on a user. In this case, SAMling checked the value inactivity life and it was less than the minimum time (which is currently four minutes). SAMling assumed the default value of the minimum time out.

**Action:** Through User Access and Security, correct this user's inactivity time.

## 0002/013F

**Message:** User Signed Off DVS System due to keyboard inactivity at user's terminal.

**Explanation:** The user did not press any keys on his keyboard for the configured amount of time (as set via User Access and Security), and the terminal notified SAMling, who forced the user off the system.

**Action:** Informative.

### 0002/0200

**Message:** Administration told SAM Master that an object changed that SAM Master is not registered against. Update ignored.

**Explanation:** Part of SAM Master's initialization is to tell the Administration which object files he needs to be notified about should they change. This message was logged because Administration notified SAM Master of a changed object file that SAM Master did not care about. SAM Master ignored the update.

**Action:** If the problem persists, contact Field Service. This may indicate a serious Administration problem.

### 0002/0201

Message: SAM Master tried to initialize heap for all SAMlings. Initialization failed.

**Explanation:** A segment of memory was allocated by the system, but the system was unable to initialize the memory segment into a heap. The segment is used for SAMling task initiation.

**Action:** Reboot the system.

### 0002/0202

**Message:** SAM Master tried to get memory for all SAMlings. Memory allocation failed.

**Explanation:** The memory allocation for the SAMling task failed.

**Action:** The processor that has the SAMling task is overloaded or memory is fragmented. Move some PRUs to another processor.

### 0002/0203

**Message:** SAM Master received a bad terminal class. Request to start a SAMling ignored. Terminal class = <Dec Value>.

**Explanation:** A terminal class that is passed by either the Data Connection Manager or the Foreign Operating Systems Manager to the SAM Master is not defined. The undefined terminal class appears in the message.

**Action:** Attempt to reproduce the problem and contact Field Service to determine who sent the unrecognized terminal class to SAM Master.

### 0002/0204

**Message:** SAM Master has exhausted its data structures. No more SAMlings can be created.

**Explanation:** SAM Master is initialized to handle "n" terminals. More terminals have been configured on the system than SAM Master can handle.

**Action:** Contact Field Service and determine the state of configuration of the system.

### 0002/0205

**Message:** SAM Master received a bad transition state for a terminal Request ignored. State = <Dec Value>.

**Explanation:** The Data Connection manager or the Foreign Operating System Manager sent an invalid transition state for a terminal device to SAM Master.

**Action:** Contact Field Service to determine which PRU (DCM or FOSM) sent the invalid transition state to SAM Master.

### 0002/0206

**Message:** SAM Master received a bad PRU number from the Resource Manager. Transition state ignored.

**Explanation:** The Resource Manager passed a state change for a PRU that SAM Master did not register against.

**Action:** Try to reproduce message and contact Field Service.

### 0002/0209

**Message:** SAM Master attempted to carve a memory segment into a heap. Request failed.

**Explanation:** A segment of memory was allocated by the system but the system was unable to initialize the memory segment into a heap. This segment is used for task buffer space, SAMling allocation data structure table and Main Menu string buffer area.

**Action:** Reboot the system.

### 0002/020A

**Message:** SAM Master tried to get a memory segment for SAM's global data. No system segment available.

**Explanation:** The memory allocation for SAM Master failed.

**Action:** The processor which has SAM Master is overloaded or memory is 0002/fragmented. Move some PRUs to another processor.

### 0002/020B

**Message:** SAM Master is unable to initialize a SAMling task. XMS task result = <Dec Value>.

**Explanation:** Upon loading, SAM Master received a nonzero task result when trying to initialize one of the "n" SAMlings (terminals) that SAM was configured to support in SAMROOT object. (The actual number of terminals supported by SAM Master will be decreased by one each time this message appears.)

**Action:** Contact Field Service to check the maximum number of terminals that are configured to see that it is not too large for memory requirements.

### 0002/020D

**Message:** The maximum number of Main Menu labels is not a positive integer. Main Menu labels not reconfigured. Maximum labels = <Dec Value>.

**Explanation:** Either upon initialization, or when SAM Master was told the Main Menu Database changed, the value for the maximum number of Main Menu labels was read in as a nonpositive integer. SAM Master ignored changes made to the Main Menu labels.

**Action:** DO NOT reboot the system or else SAM Master may not reload. Contact Field Service to correct the maximum number of Main Menu labels configured in the object.

## 0002/020E

**Message:** Unable to get a segment of memory for the Main Menu label strings and the prompt strings.

**Explanation:** SAM Master requests memory segments for the Main Menu label strings and the prompt strings either when:

1. He is first loading, or
2. He is told the Main Menu Database changed. In this case, it was not possible to obtain the memory segment requested due to:
   (a) Fragmentation or absolute lack of memory,
   (b) Segment registers are used up,
   (c) The segment name requested has already been allocated.

**Action:** Move some PRUs that are also on SAM Master's processor to a different processor. Contact Field Service to have them check the state of the SAMROOT object for any unusually large values.

## 0002/0210

**Message:** Received a Remote Screen Share setup unexpectedly.

**Explanation:** When SAM Master's reply_rmt_share entry was raised, he received a bad SAMling table index from the Remote Screen Share Primary Session manager. As a result, the sender's terminal device is “locked” because the SAMling has remained suspended while SAM Master was waiting for the entry to be raised.

**Action:**

1. Reset the terminal which is locked (courtesy down or unplug)
2. Contact Field Support.

## 0002/0211

**Message:** A tasking error occurred during the setup of a Remote Simple Screen Share failed. Task return code <Dec Value>.

**Explanation:** A user pressed the “Share” key to initiate a screen share. SAM Master received a tasking error while trying to communicate with the Remote Screen Share Primary Session Manager. (Note: SAMling does NOT resend on a task buffer error in this case). SAM Master could not set up the screen share session.

**Action:** Attempt to reproduce, then contact Field Service to investigate the return code from RSSPSM.

## 0002/0212

**Message:** Sam Master configured for too many SAMling tasks.

**Explanation:** SAM Master read the value for the “maximum number of terminals” in the SAMROOT administration object and it was greater than the actual maximum number of terminals he can support.

**Action:** Contact Field Service to check the value for “maximum number of terminals” in the object. The value should be less than or equal to 300 (base 10) or 022C (base 16).

## 0002/0213

**Message:** Unable to carve memory for SAMling task buffers.

**Explanation:** Serious error in SAM Master or XMS code executing the NEWVAR command. SAM Master cannot initialize any SAMlings.

**Action:** Reboot the system.

## 0002/0214

**Message:** Unable to connect operational terminal to a SAMling task. Associated Simple Forms Handler PRU not operational. Index = <Dec Value>.

**Explanation:** Because his Terminal State Change entry was raised, SAM Master learned that a terminal device became operational. An instance of a Simple Forms Handler SFH) needs to be associated with the terminal so that the Corporate Herald and Main Menu can be displayed. When SAM Master checked on the status of the SFH, he learned it was nonoperational (via the Resource Manager). SAM Master was unable to connect a SAMling task to the operational terminal because there was no SFH. The terminal will not have a Corporate Herald displayed.

**Action:** A few things to try:

1. Courtesy down/up the affected terminal(s). This may work because it is possible that the SFH was in a transitional state.
2. Investigate the state of the SFH on the primary processor where SAM Master is running, also the ones that may be configured on an application processor. (The ones named SFH_1 and SFH_2 are dedicated to SAM Master).
3. Possibly there are not enough SFHs configured. Check this against the number of “logged on” devices. Refer to SAM's User Guide (document SAMUSER) for SFH allocation.

# Simple Forms Handler (8023)

## 0002/1000

**Message:** SFH Null Message

**Explanation:** Not used. Reserved.

**Action:** Does not apply.

## 0002/1001

**Message:** SFH reports it is unable to allocate memory. Initialization data requires a segment size exceeding the XMS limit.

**Explanation:** SFH is attempting to initialize and the values in SFHCONFG in ADMIN.OBJ are too large. The important values are the numbers and sizes (in bytes) for:

1. Peripheral pools.
2. XMS task buffers.
3. SFH form cache.
4. SFH application records.

**Action:** On a Resource Processor - courtesy down the SFH PRU. The SFHCONFG value(s) in question should be modified via the Object Editor (refer to the DVS User Guide) and the SFH brought back up. On the Prime Processor, reboot the system, set the CI patch via the debugger. Then modify SFHCONFG values using Hex Editor in the CI.

## 0002/1002

**Message:** SFH reports it is unable to allocate memory due to to an XMS SEGALLOC failure

**Explanation:** Although sizes specified in SFHCONFG in ADMIN.OBJ on LOCAL OBJ are not too large, it was not possible to obtain the memory segment requested.

Possible causes are:

1. Not enough memory available due to fragmentation or absolute lack of memory.
2. Segment registers used up.
3. Segment obtained has already been allocated and named. This indicates that a previous SFH instance, or the system itself, was unable to properly dispose of this segment.

**Action:** If the SFH logging this message is attempting to come up on a resource processor, it may succeed if all PRUs are in a courtesy-down state and then brought back up with the SFH being the first to be put in service. On the Prime processor, it may be necessary to modify the values in SFHCONFG stated above.

## 0002/1003

**Message:** SFH reports it is unable to initialize memory due to an XMS NEWHEAP failure

**Explanation:** Indicates a serious error in SFH or XMS code, also a failure to initialize.

**Action:** Courtesy down if on a resource processor. Then try again to bring up SFH. Reboot if on the primary processor.

## 0002/1004

**Message:** SFH reports it is unable to initialize memory due to an XMS NEWVAR failure

**Explanation:** Indicates a serious error in SFH or XMS code, also a failure to initialize.

**Action:** Courtesy down if on a resource processor. Then try again to bring up SFH. Reboot if on the primary processor.

## 0002/1005

**Message:** SFH reports initialization data requiring a data structure size exceeding its logical limit

**Explanation:** Indicates that one or more of the following values in SFHCONFG is too large to be supported:

1. Max number of form file packages supported
2. Max number of forms supported
3. Max number of highlightable items per form
4. Max number of applications supported.

**Action:** On a Resource Processor - courtesy down the SFH PRU. The SFHCONFG value(s) in question should be modified via the Object Editor (refer to the DVS User Guide) and the SFH brought back up. On the Prime Processor, reboot the system, set the CI patch via the debugger. Then modify SFHCONFG values using Hex Editor in the CI.

## 0002/1006

**Message:** SFH reports a response received at its TH input address with an invalid terminal handler index
TH Index: <Hex Value>
Response Reason: <Hex Value>
Src Phys Addr: <Long Hex>, Src Soft Addr: <Long Hex>

**Explanation:** SFH received a response or command at its terminal I/O address which could not be indexed into an application in its data structures. The command or response is ignored.

**Action:** If source address is a device address, courtesy down the device if it appears nonfunctional and bring it back up. If the source address is that of a PRU, make note of the conditions surrounding the log message.

## 0002/1007

**Message:** SFH reports an unknown response reason in a response received at its terminal handler input address
TH Index: <Hex Value>
Response Reason: <Hex Value>
Src Phys Addr: <Long Hex>, Src Soft Addr: <Long Hex>

**Explanation:** SFH received a response at its terminal I/O address with an unknown reason. Indicates packet corruption or incorrect processing by terminal device or terminal emulation.

**Action:** Courtesy down the device in question if it appears nonfunctional.

## 0002/1008

**Message:** SFH reports an terminal handler supervisor (THS) command received at its THS input address with an invalid terminal handler index
TH Index: <Hex Value>
THS Command: <Hex Value>
Current TH State: <Hex Value>

**Explanation:** SFH received a command from SAM or VSM that could not be indexed into an application in its data structures.

**Action:** Make note of the command, the TH state, and the circumstances surrounding the error and report findings to Field Support. If an associated terminal appears nonfunctional, courtesy down the terminal and bring it back up.

## 0002/1009

**Message:** SFH reports an Terminal Handler Supervisor (THS) command received at its THS input address requiring an illegal terminal handler state transition
TH Index: <Hex Value>
THS Command: <Hex Value>
Current TH State: <Hex Value>

**Explanation:** The SFH was not in the correct state to accept the terminal handler supervisor command. This error may be associated with Screen Sharing or Remote Application Access.

**Action:** If an associated terminal appears nonfunctional, courtesy down the terminal and bring it back up. Make note of the command, the TH state, and the circumstances surrounding the error and report findings to Field Support.

## 0002/100A

**Message:** SFH reports an unknown terminal handler supervisor (THS) command received at its THS input address
TH Index: <Hex Value>
THS Command: <Hex Value>
Current TH State: <Hex Value>

**Explanation:** SFH could not identify a terminal handler supervisor command. Packet corruption may be suspected.

**Action:** If an associated terminal appears nonfunctional, courtesy down the terminal and bring it back up. Make note of the command, the TH state, and the circumstances surrounding the error and report findings to Field Support.

## 0002/100B

**Message:** SFH reports an terminal handler supervisor (THS) command received at its TH input address requiring an illegal terminal handler state transition
TH Index: <Hex Value>
THS Command: <Hex Value>
Current TH State: <Hex Value>

**Explanation:** The SFH was not in the correct state to accept the terminal handler supervisor command. This error may be associated with Screen Sharing or Remote Application Access.

**Action:** If an associated terminal appears nonfunctional, courtesy down the terminal and bring it back up. Make note of the command, the TH state, and the circumstances surrounding the error and report findings to Field Support.

## 0002/100C

Message: SFH reports it is unable to register with the Name Server.

**Explanation:** The Name Server told the SFH that the SFH attempt to register its name (SFH) failed. The SFH will not be visible to any of its clients; therefore, it will go down after logging this message.

**Action:** Cause the SFH in question to reload via Maintenance.

## 0002/100D

**Message:** SFH reports an error response from a terminal device. Error condition: <Hex Value> Failing Command Location Index: <Hex Value>. Failing Command: <Hex Value>. Failing Parameter Location: <Dec Value>. Src Phys Addr: <Long Hex>, Src Soft Addr: <Long Hex>

**Explanation:** A device has rejected a command sent to it by SFH. Error condition indicates the problem the device had with the command. Failing command is the command opcode. Location index indicates where the failing command was found in the packet. Parameter location specifies which parameter to the command was in error. The hard and soft addresses specify the address to which the packet was sent.

Response may indicate:

- The device software is not processing a command properly due to release level incompatibilities.
- The packet sent to the device became corrupted in transit.
- The window to which the packet was sent was closed before the SFH was told to go inactive. A single response is normal in some cases. Multiple, closely spaced responses to the same device indicate an error condition.

**Action:** Check to release level of device software for incompatibilities. If the device appears nonfunctional, Courtesy Down the device, then bring it back up, or contact Field Support.