

Using the Node Management Services (NMS) Utilities

HP 3000 MPE/iX Computer Systems

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Preface

This manual documents functionality for the MPE/iX 6.0 Release.

This is the reference manual for users of the Node Management Services Utilities. These utilities are:

- The Node Management Services Configuration Manager (NMMGR).
- The Node Management Maintenance Utility (NMMAINT).
- The Node Management Services Trace/Log File Analyzer (NMDUMP).
- The Node Management Services Conversion Utility (NMMGRVER).
- The Node Management Services Validation Utility (NMMGRVAL).

The major part of this manual covers the NMMGR program. It includes information common to all the subsystems that use NMMGR to create or modify a configuration file. Information that is subsystem-specific is located in the manuals for that subsystem. NMMGR is used to configure any or all of the following subsystems on a network:

- SNA (for HP 3000-IBM data communications)
- BSC (for HP 3000-IBM data communications)
- NS 3000/iX (for HP 3000-HP 3000 data communications)
- Distributed terminal subsystem (for HP 3000-terminal communications)

Special Note

MPE/iX, Multiprogramming Executive with Integrated POSIX, is the latest in a series of forward-compatible operating systems for the HP 3000 line of computers.

In HP documentation and in talking with HP 3000 users, you will encounter references to MPE XL, the direct predecessor of MPE/iX. MPE/iX is a superset of MPE XL. All programs written for MPE XL will run without change under MPE/iX. You can continue to use MPE XL system documentation, although it may not refer to features added to the operating system to support POSIX (for example, hierarchical directories).

Finally, you may encounter references to MPE V, which is the operating system for HP 3000s, not based on the PA-RISC architecture. MPE V software can be run on the PA-RISC HP 3000s (Series 900) in what is known as compatibility mode.

Chapter 1, "Introduction," provides a brief description of each of the NMS utilities.

Chapter 2, “Basics of NMMGR,” describes the basic functions of the Node Management Configuration Manager (NMMGR) in detail. Use this chapter to gain an understanding of how NMMGR works and how to navigate through NMMGR screens.

Chapter 3, “Using NMMGR in Screen Mode,” tells you how to use NMMGR’s screen mode interface to begin the configuration process for your system’s terminal connections or networking products. It includes step-by-step instructions for getting started in NMMGR and for navigating the top-level screens.

Chapter 4, “Using NMMGR Utility Screens,” describes how to use the NMMGR utility screens to list, maintain, and validate configuration files.

Chapter 5, “Using NMMGR in Maintenance Mode,” tells you how to use NMMGR’s maintenance mode interface to manage network directory and configuration files and to generate stream jobs to update remote network directory and configuration files. Each command is described along with its purpose, syntax, parameters, and an example.

Chapter 6, “NMMAINT,” describes the Node Management Services Maintenance Utility (NMMAINT), used to display version numbers for software modules.

Chapter 7, “NMDUMP,” describes the Node Management Services Trace/Log File Analyzer, which provides a means of decoding and formatting logging records and trace messages. Information on running NMDUMP is included.

Chapter 8, “NMMGRVER,” describes the Node Management Services Conversion Utility (NMMGRVER), which enables earlier versions of subsystems to be used with the current version of NMMGR.

Appendix A, “NMS Error Messages,” provides a listing of error messages that may be returned while running NMMGR. Each message includes probable causes and actions.

Related Publications

The following manuals may be of interest to you when working with products that use the Node Management Services.

For the Distributed Terminal Subsystem

Configuring Systems for Terminals, Printers, and Other Serial Devices

Troubleshooting Terminals, Printers, and Serial Device Connections

Customizing Terminal and Printer Type Files With the Workstation Configurator

Using HP OpenView DTC Manager

For NS 3000/iX Links and Services

HP 3000/iX Network Planning and Configuration Guide

NS 3000/iX NMMGR Screens Reference Manual

NS 3000/iX Operations and Maintenance Reference Manual

Using NS 3000/iX Network Services

NS 3000/iX Error Messages Reference Manual

NetIPC 3000/XL Programmer's Reference Manual

LAN Cable and Accessories Installation Manual

Central Bus Programmable Serial Interface Installation and Reference Manual

This chapter introduces you to the Node Management Services Utilities for MPE/iX systems. These programs, installed on your HP 3000 Series 900 system as part of the **fundamental operating system (FOS)**, allow you to perform various functions related to the configuration of networking and terminal communications.

A brief overview of each of the following is provided in this chapter:

- The Node Management Configuration Manager (NMMGR), used to create or modify configuration and network directory files for a system.
- NMMMAINT, used to list individual modules and version numbers of networking software
- NMDUMP, used to format log and trace files.
- NMMGRVER, used to upgrade a configuration file for use with a later version of the operating system.
- NMMGRVAL, used to check if the configuration file has been validated.

NMMGR

The **Node Management Configuration Manager (NMMGR)** is the utility you use to create or update configuration and network directory files. These files define the configuration for terminal and serial printer connections and networked connections for HP 3000 Series 900 computers. You use NMMGR to configure each of the following subsystems:

- The distributed terminal subsystem (DTS), which defines connections for terminals, printers, and other serial devices that will be able to communicate with the system.
- The Network Services (NS) subsystem, which defines the operation of NS links and services between HP 3000 systems.
- The BSC subsystem, which defines BSC communication links between HP 3000 and IBM systems.
- The SNA subsystem, which defines SNA communication links between HP 3000 and IBM systems.

The Configuration File

NMMGR stores configuration information in a special MPE **configuration file** that contains the data needed by the system for networking and terminal-to-system communications. The file has the MPE file code NCONF and may contain three kinds of data:

- Standard software operating parameters, such as limits on using MPE resources.
- Node-specific information, such as the name of the local computer and its network address.
- Information needed by the network software in order to communicate with other nodes to which the local node is connected.

The configuration file must be named `NMCONFIG.PUB.SYS` in order to be recognized and used by the system. You may, however, create a configuration file using any valid MPE file name and rename it as `NMCONFIG.PUB.SYS` when you are ready for the system to use the configuration information it contains.

`NMCONFIG.PUB.SYS` *must* reside on LDEV1 in order to be recognized. The system does not have access to other LDEVs at startup and the configuration file is needed at that time.

With a few exceptions, the changes you make to the `NMCONFIG.PUB.SYS` file take effect only when the system is rebooted. In most cases, you should avoid making changes to an active configuration file (one that the system is currently using). There are

some changes, however, that you may make while the network is operating. Refer to your product-specific manuals for details on changes that can be made online.

The Backup Configuration File

You specify a backup configuration file name whenever you open or create a configuration file. The default backup configuration file name is `NMCBACK.group.account`, where *group* and *account* are the logon group and account. You may change the name of the file by typing a new name in place of the default. The backup file also has the file type `NCONF`. Each time a subsystem is successfully validated, the backup file is automatically updated with the configuration information. In the event that something should occur to cause your active configuration file to be corrupted, you can rename the backup file and avoid having to recreate `NMCONFIG.PUB.SYS` from scratch.

The Sample Configuration File

Hewlett-Packard provides a sample configuration file with every HP 3000 Series 900 system. This file contains some basic configuration information for the link, NRJE, SNANODE, IMF, DTS and logging subsystems. It can be used as a template to help you when you are creating a new system configuration. The sample file is named `NMSAMP1.PUB.SYS`. To use the sample file, make sure you copy it to a new name, then run NMMGR and modify the copy that you just created so that it contains your system's configuration information.

NOTE

Check "Copying a Configuration File" in Chapter 3, "Using NMMGR in Screen Mode," for important information about this procedure.

The Network Directory File

NMMGR stores network directory information for the NS subsystem in a second special file called the **network directory file**. This file, of file type `NDIR`, contains information required for one node to communicate with another node in an internetwork (network of networks).

The network directory file must be named `NSDIR.NET.SYS` but, like the configuration file, you may create a directory file under another name and rename it when you are ready for the system to use the directory information it contains.

NOTE

A network directory uses a KSAM file pair. Therefore, if copying a directory, be sure to copy both the data file and the key file. If the file name you create is `NSDIR.NET.SYS`, the KSAM pair of the file will be named `NSDIRK.NET.SYS`, and its file type will be `KSAMK`.

Operating Modes

NMMGR includes two interfaces that you can use to enter or modify data:

- The **screen interface**, a VPLUS block-mode interface, presents a series of screens that you can use to display or modify existing configuration data or enter new data. When using this interface, you are operating NMMGR in screen mode.
- The **maintenance interface**, a character interface, is used primarily from within batch jobs to update configuration data. This interface may also be run interactively from within NMMGR. The maintenance interface includes commands that let you manage network directories and configuration files. When using this interface to run NMMGR, you are operating in maintenance mode.

NMMAINT

The **Node Management Services Maintenance Utility (NMMAINT)**, lists individual modules and version numbers of the NS and SNA links and services installed on the HP 3000 Series 900 system on which it is run.

Each software module within a subsystem has its own version ID number. If the version, update, and fix levels of these modules do not match, the subsystem will not work correctly. NMMAINT helps diagnose system problems by detecting missing or invalid software modules. The information provided by NMMAINT must be included in any service request (SR) submitted to HP.

See Chapter 6, “NMMAINT,” of this manual for details on the function and use of NMMAINT.

NMDUMP

The **Node Management Services Trace/Log File Analyzer (NMDUMP)** is the NMS utility that you use to format files created by the logging and tracing facilities. NMDUMP translates the log and trace files into a format that is easier to read.

Logging and tracing are diagnostic and debugging services provided by NMS.

Tracing

Tracing records subsystem calls and/or the sequences of module execution. Tracing is provided at both the user level and at an internal level. User-level tracing provides a record of data communications subsystem intrinsic calls. Internal level tracing records internal state transitions and the sequences of module execution within data communications subsystems. It should only be used on the recommendation of an HP service representative.

Logging

Logging records subsystem events for all data communications links. It records the usage of the communications network resources and serves as a tool in resolving network problems.

Logging can be performed at three levels: network logging, event logging, and link level logging. You choose the level of logging for a particular system through the NMMGR configuration for that system.

For information on using logging and tracing for NS 3000/iX products, see the *NS 3000/iX Operations and Maintenance Reference Manual*. For information on using logging and tracing for HP-to-IBM products, see the *Node Manager's Guide* for each product. For more information on NMDUMP, see Chapter 7, "NMDUMP," of this manual.

NMMGRVER

The Node Management Services Conversion Utility

(NMMGRVER) is a program that converts configuration files created with NMMGR from an earlier version to the latest format.

NMMGRVER helps provide a migration path for configuration files developed using one version of the software so that you can more easily move to a later version. The ability to convert the major part of network configuration files eliminates the need for you to reenter sometimes complex configuration and network directory values.

See Chapter 8, “NMMGRVER,” of this manual for more information on NMMGRVER and its use in the migration process.

NMMGRVAL

This utility checks to see if the configuration file has been validated. It can be included in a shutdown UDC or command script to check whether the DTC subsystem has been validated before attempting to shut down the system.

The syntax is:

```
:RUN NMMGRVAL; PARM=1
```

This sets the JCWs; DTC_VAL, IBM_VAL, NETXPORT_VAL, and OSI_VAL as follows:

1 not valid

0 valid

This chapter describes the basic functions of the Node Management Configuration Manager (NMMGR) in detail. Use this chapter to gain an understanding of how the utility works and how to navigate through NMMGR screens.

The following topics are discussed:

- NMMGR screens, including a discussion of common screen elements and function keys.
- Moving between screens in NMMGR.
- Getting help about the function of NMMGR, the use of individual screens, or the specific configuration values to be entered at a particular screen.
- Getting information about error messages generated by the NMMGR utility.

NMMGR Screens

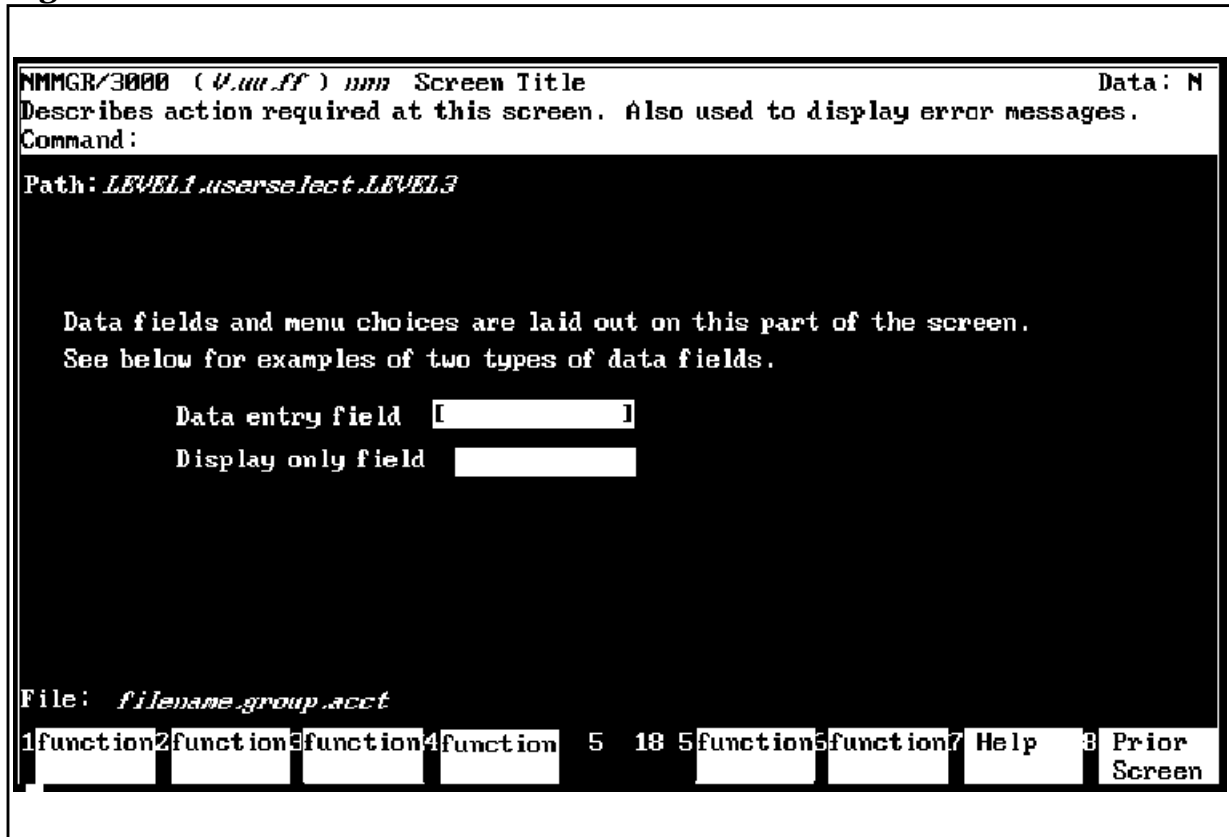
Each NMMGR screen may have multiple purposes. Some screens provide menus of items for selecting a subbranch of screens that you will be moving through. Some screens present a selection of configured items and allow you to either choose items you want to modify or add new items to the list. Still other NMMGR screens allow you to enter data to define configuration values for a selected item. If running the latest version of NMMGR, some screens serve more than one of these purposes.

It is not important that you be able to distinguish one type of screen from another. There are, however, certain basic elements that are common to all screens that it is helpful to understand.

Common Screen Elements

The screen shown in Figure 2-1 illustrates the common elements found in NMMGR screens. Each of these elements are described here.

Figure 2-1 Common Screen Elements



Header

The screen header is located at the top of the screen (the top three lines), and contains five elements, each of which is described here. The five elements are:

- Program name (NMMGR/3000) and version number
- Screen number and title
- Data flag
- Message field
- Command window

Program Name and Version Number

The program name and version number are always displayed in a protected field at the top of the screen. (Protected means that information cannot be typed into the field.)

Screen Number and Title

To the right of the program name and version number is the screen number followed by the screen title. Each screen number is unique for that screen. There is no significance to the order of the numbers. They are strictly for convenience in referencing information about a screen in various reference documents.

Screen titles are also unique for each screen and will generally indicate the purpose and content of the screen.

Data Flag

The data flag is a Yes or No indicator located in the upper-right corner of screens that contain data entry fields. The data flag indicates whether or not a data record has already been created for the screen.

The data flag is an important indicator in cases where default information is supplied in the fields of a screen when a new configuration file is created. The information in the fields has not yet been saved, even though it may appear that the information on the screen is complete. If you want the information on the screen to become a part of the configuration, you must press the **[Save Data]** function key to create the actual data record. The data flag will change from **N** to **Y**, verifying that the data has been made part of the configuration file.

Once a data record has been created for a screen, the data flag is set to **Y** whenever you return that screen.

Message Field

The message field is the second line of the header and may contain one of two types of information:

- The action that this screen requires
- An NMMGR error message

This line is a full-bright inverse video line that is used only for displaying information. You can obtain more information about the errors that may appear in this field by using the Error Information screen, which is described later in this chapter.

Command Window

Each screen includes a field labeled **Command:** that is located below the message field. This field, called the **command window**, accepts commands rather than accepting data. This is an unprotected field and is displayed in half-bright inverse video. You can enter the following types of commands in this window:

- NMMGR commands. The valid screen mode commands and their meanings are shown in Table 2-1. You can enter each command using the full command name or you can abbreviate the command by entering only the portion to the left of the bracket as shown in the table.
- MPE commands.
- NMMGR path commands. Direct path branching and brother branching are described in this chapter.

To enter a command, position the cursor at the **Command:** window by pressing the **[Home]** key (the key on your terminal with the diagonal arrow or the word “Home” on it). You can also use the **[TAB]** or cursor (arrow) keys to move the cursor to the command window. Once you are there, type in the command and press **[ENTER]**.

NOTE

You must press **[ENTER]**, not **[RETURN]**, to execute the command.

When there is a command in the command window, pressing **[ENTER]** executes only the command in the window. It will not send other data on the screen to the computer.

Some NMMGR commands transfer you directly to other screens.

The NMMGR command set includes the colon (:). You can execute any programmatically executable MPE command from the command window by prefacing it with a colon. For example, you could type **:LISTF** and press **[ENTER]**. When MPE is finished processing your command, it prompts you to press **[RETURN]** to return to the screen interface.

You can process only one command in the command window at a time.

Table 2-1 NMMGR Screen Mode Commands

NMMGR Command	Action
@path	Branches to the screen whose path name is given in path.
:MPECommand	Executes MPECommand. MPECommand must be a programmatically executable MPE command.
COM[PRESS]	Transfer to the Compress screen.
CON[FIGURATION] or @	Transfers to the Main screen.

NMMGR Command	Action
COP[YSUB]	Transfers to the Configuration Subtree Copy screen.
ER[RORS]	Displays the Error Information screen.
EX[IT]	Exits from NMMGR (same as QUIT).
H[ELP] or ?	Calls up help function. (See “Getting Help” in this chapter.)
M[AIN]	Transfers to the Main screen.
NET[DIR](NS Only)	Transfers to the Network Directory Main screen. (You must already have opened the network directory file.) Refer to the NS manuals for more information.
NEX[T]	Transfers to a brother screen. (See “Branching” in this chapter.)
NIG[UIDE] (NS Only)	Transfers to the Guided HP Configuration screen. Refer to the NS manuals for more information.
NIU[PDATE] (NS Only)	Transfers to the Guided HP Configuration screen. Refer to the NS manuals for more information.
NM[MGRCMD]	Transfers to the maintenance mode interface.
OP[EN]	Transfers to the Open Configuration/Directory File screen.
OU[TPUT]	Transfers to the Output Configuration File screen.
P[RIOR]	Returns to the previous screen. Same as pressing [Prior Screen].
Q[UIT]	Exits from NMMGR (same as EXIT).
R[EFRESH]	Refreshes the current screen.
ST[OP]	Stops the guided configuration process.
SU[BGUIDE] (NS Only)	Transfers to the Guided HP Configuration screen. Refer to the NS manuals for more information.
U[TILITY]	Transfers to the Utility screen.
VA[LIDATE]	Transfers to the Validate Configuration File screen.
VE[RSION]	Displays version information.

Main Window

The major portion of each screen lists menu choices, displays information and selection choices, and presents fields for entering or displaying information. With the exception of data entry fields, the information on the screen is protected against modification.

Path Name

On most screens that can be reached by direct path branching, the **path name** used to reach the screen is displayed in the upper-left corner of the main screen window. The path name consists of all the screen names between the root (top of the structure) and the current screen, with the names separated by periods.

Data Fields and Menu Choices

Data can be entered only into unprotected fields. For screens with more than one unprotected field, the cursor automatically moves to the next unprotected field when you reach the end of the present field or if you press [TAB].

Generally, you use the [TAB] key to step through the fields from the top of the screen to the bottom. If you need to back up to a previous field, use the [SHIFT][TAB] key combination. For more information, consult you *Terminal Reference Manual*.

When menu choices are presented on the screen, they are usually associated with one of the function keys at the bottom of the screen. To select the menu item, press the function key that corresponds to the item.

Other screens, sometimes referred to as **select screens**, present a list of configured items in protected data fields. They also contain a data entry field into which you can type the name of one of the configured items and select it for modification. Alternatively, you can type in a new name for an item to be added to the list. You then press a function key that lets you perform an action on the selected item (add, modify, delete, rename). Pressing the function key will cause the action to be performed and often will cause a new screen to be displayed, allowing you to modify or define the selected item.

Configuration File Name

NMMGR displays the name of the configuration file that you are working on in the area called `File:` at the bottom of each screen. This name is shown as `filename.group.acct` in Figure 2-1. On an actual screen, the name of the file you created or opened at the Open Configuration/Directory File screen is displayed at this location on the screen. The file name is not an input field; to change your working file, you must use the Open Configuration/Directory File screen.

Function Keys

Each NMMGR screen has a set of eight softkeys, or **function keys**, which vary in function from screen to screen. Some screens may use only a few function keys, while others have functions assigned to all eight keys. The [Prior Screen] and [Help] function keys are present in nearly all screens. Other softkeys are also present, depending on the

purpose of the screen you are viewing. Some of the more common function keys are described here. For many screens, you can find information on that screen's function keys in the Help information associated with the screen.

Prior Screen Key

Except for a limited number of screens, such as the Error Information screen and the Guided Configuration screen, the **[Prior Screen]** key is the right-most function key, **[f8]**.

With a few exceptions (as listed), the screen displayed when **[Prior Screen]** is pressed will always be the screen most recently visited prior to the current screen, regardless of the manner in which you reached the current screen. In order to show the correct screen, NMMGR maintains a **prior screen list**, which is a sequential list of the screens that have been displayed. Pressing **[Prior Screen]** displays the most recent screen in the prior screen list and removes that screen from the list.

The most recent screen in the list is the screen that was visited just prior to the current screen, with five exceptions:

- When you display the Error Information screen, NMMGR does not put this screen in your prior screen list. Thus, pressing **[Prior Screen]** never transfers you to the Error Information screen, even if it was the latest screen you displayed.
- After reaching the Validate screen in guided configuration, the prior screen becomes the screen with which you began the guided configuration.
- If you use the command window to return to a screen already visited, NMMGR drops any screens visited after this screen from the prior screen list.
- If you use the **[Help]** key to display a help information screen, the help screen will not appear in the prior screen list.
- Using the **NEXT** command does not update the prior screen list.

Help Key

Most NMMGR screens have a **[Help]** key as the second key from the right. Pressing this key displays a help information screen. The help information relates specifically to the screen from which you pressed the **[Help]** key. It describes screen usage, parameters, and function key operation for that screen. See "Getting Help" in this chapter for more information on the NMMGR Help system.

Save Data Key

Screens with data entry fields have a **[Save Data]** key, usually as the third key from the right-hand side. Pressing this key creates or modifies the data record and causes the data entered in the screen to be transferred to the configuration file. If the Data Flag is “N”, pressing **[Save Data]** will cause the Data Flag to change to “Y”.

“Go To” Keys

Some keys take you to a specific screen. There may be one or more keys on the screen that tell NMMGR to “go to” a new screen. For example, the **[Go to OUTPUT]** key on the Utility screen takes you directly to the Output Configuration File screen.

Next Page/Prev Page Keys

Some NMMGR screens contain data or display sets of items that will not fit in a single screen. When this occurs, the screen data is continued on one or more “pages”. The screens will include function keys that allow you to move back and forth between the pages of the screen. **[Next Page]** moves you to the subsequent page of data. **[Prev Page]** moves you to the prior page of data. Some multiple page screens also include **[First Page]** and **[Last Page]** keys, that take you to the first or last page of the data.

Refreshing the Screen

If you have entered data or changed values on a data screen and decide not to make the changes before you have entered them into the configuration file, you can refresh the screen to return it to the state it was in before you made the changes. Simply enter **REFRESH** (or the abbreviation **R**) in the command window and press **[ENTER]**. NMMGR will warn you that the screen has changed since you last updated it. Enter **REFRESH** again; NMMGR refreshes the screen and shows its current configuration file data. In addition, refreshing the screen resets the terminal strap settings.

You can also use the **REFRESH** command to “clean up” the screen after a “TELL” message or other interference has appeared on the screen.

Entering Data

You enter data into NMMGR by typing the appropriate information in the data entry fields on a screen and pressing the **[Save Data]** key. (You can also use the **[ENTER]** key, if the command window is blank.) This causes the data in the fields to be included in the configuration file, as a data record. NMMGR confirms that you have updated the configuration file by printing the following message in the message field:

```
Configuration data updated.
```

NOTE

The data from the screen is immediately included into the configuration file. NMMGR does not wait until you exit the program to save the new information. You should be very careful to change only certain information in an active configuration file.

If you enter data in a field and then try to transfer to another screen (by pressing a function key or by using the command window) before saving the data, NMMGR will print the following message:

```
Warning: Screen changed. Use UPDATE to save data. (NMGRWARN7)
```

This warning cautions you against unintentionally leaving a data screen before you have updated the configuration file. If you decide you do not want to update the configuration file with the data on the screen, you can ignore the warning and repeat the action to transfer to another screen.

If you enter the wrong type of data in any field and try to update the configuration file, NMMGR prints an error message that corresponds to the first field with invalid data. NMMGR highlights and underlines the fields with invalid data and positions the cursor at the first field with invalid data. For example, suppose you enter an alphabetic character in a location that must contain an integer. When you try to update the file, NMMGR may print:

```
The field can contain only digits.
```


Moving Between Screens

There are two ways to move from one NMMGR screen to another. One way is to use the function keys present on one screen to select and move to another screen in a progression. The second way is to enter a path name in the command window to move directly to a specified screen.

Moving with Function Keys

When you are creating a configuration file, you will generally traverse downward on one of the configuration branches until you have completed configuration for a subsystem.

Normally, you will make selections or enter data into the lowest level data screens of a branch before moving to another branch. You may need to transfer only to screens directly above or below your current screen in the structure. This is generally accomplished by pressing the appropriate function key.

Branching

Branching is a method you can use to go directly to a particular screen, rather than traveling through every screen in a branch to get to that screen.

Direct Path Branching

You can use **direct path branching** to transfer from any NMMGR screen to any screen having a path name in one of the subsystem branches. To use this feature, you must be familiar with the tree structure of the configuration file. You enter @pathname in the command window to cause NMMGR to transfer you to the screen at the end of the specified path name. For example, when configuring SNA, you could enter @SNANODE . PU3000E in the command window to see the LUs configured for the node PU3000E. The path name for each subsystem configuration screen is displayed in the Path field of each screen.

Brother Branching

Screens that share a common parent screen are referred to as brothers. If you are working in a screen with one or more brothers, you can use the **NEXT** command to transfer to the next brother screen. This feature is called **brother branching**.

For example, the unguided NS configuration screen called NETXPORT Configuration has three subscreens, or children, referred to here by their path names:

```
NETXPORT . GLOBAL,
```

NETXPORT.GPROT, and

NETXPORT.NI.

These three screens are **brothers**. To transfer directly from one of these screens to its brother without going back through the parent screen you would simply type **NEXT** in the command window and press **[ENTER]**.

The command would look like this:

```
Command: NEXT
```

The screens are visited in the order their names appear on the parent screen. Typing **NEXT** in the command window will transfer you to the next brother as long as one exists. When the last brother screen is reached, typing **NEXT** will transfer you to the first brother screen. Typing **NEXT** has no effect on the prior screen list.

Getting Help

Help is available for many of the NMMGR screens you will be using. It is available for all unguided NS configuration screens. It is also available for the screens used to configure the distributed terminal subsystem and those used for guided NS configuration. You can also get help on general topics and NMMGR commands.

Getting Help on Screens

The simplest way to use the help facility is to press the **[Help]** function key while at the screen for which you need information. (Entering **HELP** in the command window also presents you with the help information for the current screen.) You will immediately be presented with text that describes the screen, each parameter configured using the screen, and the operation associated with each of the screen's function keys.

Help messages are provided as an aid to configuration and are not intended to be a complete reference. They provide only the information that is immediately needed to understand how to use a screen. If you need more detailed information than is provided by a help message, refer to the configuration guide for the link you are configuring.

Entering Help Mode

You can also access the NMMGR help system by entering a **?** in the command window. This puts you into help mode, and presents you with a list of available help topics. One of these topics, **Index**, provides a list of parameters and the screens on which they are configured. Path branching information is included where appropriate. You can browse through the topics until you terminate help mode by typing **end**, **exit**, or **:**. Terminating help mode returns you to the screen where you entered help mode.

Getting Help on Specific Topics

You can use the **HELP** command followed by a keyword to get help on a list of specific topics. The following are the available help keywords:

- Enter **HELP OVERVIEW** to see a brief explanation of the operation of NMMGR.
- Enter **HELP ROADMAP** to see a map of the screen structure of NMMGR. You will also receive a list of additional keywords, consisting of the subsystems supported by NMMGR. Each of these subsystem names, such as **LINKCONF**, can be used as a help message qualifier to obtain a map of the screens pertaining to the listed subsystem. A qualifier, which also is considered a keyword, must follow the main keyword with a comma separating the two

keywords. For example, if you wanted to see a map of `LINKCONF` screens, you would enter `HELP ROADMAP, LINKCONF` in the command window. Every screen name shown in these screen maps is also a keyword and can be used with the `HELP` command and the `FIELDS` qualifier. For example, if you wanted to see field descriptions for the screen called `LAN`, you would enter `HELP LAN, FIELDS` in the command window.

- Enter `HELP COMMANDS` to obtain a list of commands available from within the screen interface. For information about a specific command, enter the name of the command as a keyword following the word `HELP` in the command window.
- Enter `HELP MAINT` to see a list of commands available within maintenance mode. For information about a specific command, enter the name of the command as a keyword following the word `HELP` in the command window. When you obtain information about a specific command, the help text will list any qualifiers, such as `PARMS`, `OPERATION`, `EXAMPLE`, and `ALL`. You then could enter the command again, this time followed by a comma and a qualifier, to obtain even more information.

Getting Help with Errors

When NMMGR encounters an error, it displays a brief message in the message field of the current screen. In most cases, these messages provide enough information for you to correct the error and continue operation. Occasionally, however, you may encounter a more serious error or the cause of an error may not be readily apparent. You may then need additional information to understand the cause of the error.

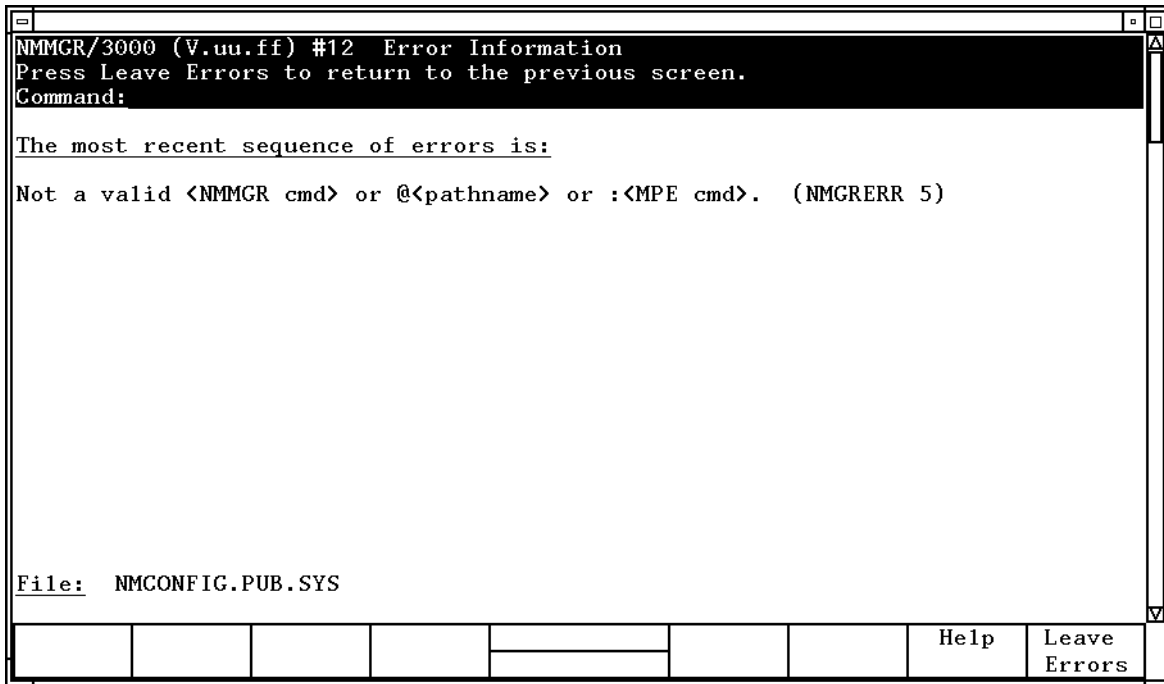
The Error Information Screen

The Error Information screen displays the latest error that NMMGR encountered and associated error messages, if any. To display the Error Information screen, type `ERRORS` in the command window of any screen and press `[ENTER]`.

Note that as many as five levels of error messages can be displayed in the Error Information screen, depending on where the error occurred in the software. However, it does not display the prompts that are a result of entering invalid data types in fields.

Figure 2-2 shows an example of the error messages displayed on the Error Information screen. In this case, a user who was not the creator of the configuration file, tried to compress the file. This action is not allowed. Note the hierarchy of the errors returned as shown in the example. The top level is the NMMGR error message; the other levels come from software accessed by NMMGR.

Figure 2-2 **Error Information Screen**



NMMGR Error Messages

Error messages associated with the NMMGR program are listed in Appendix A, “NMS Error Messages,” of this manual. Each error message is listed with at least one possible cause and a recommended action for each cause. You also may need to refer to the MPE file system and operating system manuals for explanations of any MPE error messages that may appear on the Error Information screen.

This chapter tells you how to use NMMGR's screen mode interface to begin the configuration process for your system's terminal connections or networking products. It includes step-by-step instructions for getting started in NMMGR and for navigating the top-level screens. Those screens are described here along with their purpose.

This chapter describes the following topics in detail:

- What you need before you start NMMGR.
- How to start NMMGR in screen mode.
- How to open or create a configuration file or a directory file.
- How to choose a subsystem for configuration from the Main screen, NMMGR's top-level menu. An overview of the configuration tasks performed for each subsystem is included.

NOTE

This chapter does not take you through the configuration process. For detailed information on configuring a specific subsystem, refer to the configuration guide for that subsystem. For detailed information on the unguided configuration screens for the Network Services subsystem, refer to the *NS 3000/iX NMMGR Screens Reference Manual*.

Before You Start

There are a number of requirements that you need to be aware of before you attempt to run NMMGR:

- You must have MPE Node Manager (NM) or Network Administrator (NA) capability to run NMMGR.
- Your terminal must have block mode capability to run NMMGR in screen mode. All terminals supported by MPE/iX have this capability.
- An NMMGR screen is 24 lines long. If your terminal screen is longer than 24 lines, the NMMGR function key labels on some (older) screens appear to be four lines tall with blank labels on the bottom two lines. These lines are blank because the functions assigned by NMMGR clear any existing functions, although blank labels may still appear on the screen. The function keys on more recently added NMMGR screens, which store their function key information in a different way, will appear as normal softkeys, on two lines.

Starting NMMGR

To start NMMGR's screen mode interface, enter the following command at the MPE prompt:

```
:RUN NMMGR.PUB.SYS
```

After MPE accepts the run command, NMMGR displays the following banner:

```
NM Configuration Manager 32098-20016 V.uu.ff (C) Hewlett Packard Co. 1994
```

NMMGR then clears the terminal screen and displays the Open Configuration/Directory File screen.

Opening a Configuration or Directory File

The Open Configuration/Directory File screen shown in Figure 3-1 is the first screen you see when you start NMMGR in screen mode.

Figure 3-1 Open Configuration/Directory File Screen

```
NMMGR/3000 (V.uu.ff) #1 Open Configuration/Directory File
Enter a file or directory name and press the corresponding function key.
Command:

Configuration file name      [NMCONFIG.PUB.SYS]
Backup configuration file name [NMCKBACK.PUB.SYS]
Network directory file name  [NSDIR.NET.SYS]

If a write access password has been assigned, you must
enter the password to modify the configuration file.

Write access password      [ ]

Open  Open  Help  Exit
Config Directry Program
```

From this screen you can:

- create a new configuration file
- open an existing configuration file
- create a new network directory file
- open an existing network directory file
- specify a name for the backup configuration file

The instructions that follow describe how to do each of these tasks. See Chapter 1, “Introduction,” for more information about configuration files and network directory files.

Creating a New Configuration File

If you want to create a new configuration file (one that does not exist), follow these steps. At the Open Configuration/Directory File screen:

- Step 1.** Enter the name of the file you want to create in the Configuration file name field.

The name must be a valid MPE file name. If you do not specify a group or account, NMMGR will qualify the file name with your logon group and account.

The default file name is `NMCONFIG.PUB.SYS`. You may use the default if no `NMCONFIG.PUB.SYS` file currently exists.

- Step 2.** If a write access password has been assigned, you must enter the password in the Write access password field in order to create a new file. If no write access password has been enabled, leave this field blank.

- Step 3.** Press the **[Open Config]** key. NMMGR will ask you to press the key again to verify that you want to create a new file. Press the key again. The Main screen will appear and you can proceed with subsystem configuration.

NOTE

Instead of creating a new, and therefore empty, configuration file, you may want to use the sample configuration file provided by Hewlett-Packard for use as a configuration template. To do so, see the instructions that follow for "Copying a Configuration File".

Copying a Configuration Files

Most new configuration files are created from existing ones, rather than from scratch. You can copy an existing file from the same system or from a different system on your network. Note that if you are copying the file to `NMCONFIG.PUB.SYS` there are certain rules which must be followed or the new file may not be found or run when the system is booted.

The steps that follow show how to copy the sample configuration file provided by Hewlett-Packard, `NMSAMP1.PUB.SYS`, to `NMCONFIG.PUB.SYS`. The sample file is provided for use as a template when you are configuring a system with no existing configuration.

1. Purge or rename any existing `NMCONFIG.PUB.SYS`. (Take care when doing this that you do not destroy useful configuration information.)
2. Create a file equation similar to the following example:

```
:FILE CONFIG = NMCONFIG.PUB.SYS; DEV = 1; DISC = 2048,1,1
```

The configuration file must reside on `LDEV1`, because the system does not have access to other `LDEVs` at startup and the configuration file is needed at that time. Only one file extent is allowed.

3. Copy the appropriate sample file into the empty CONFIG file. The following is a sample “copy” command:

```
FCOPY FROM = NMSAMP1.PUB.SYS; TO = *CONFIG; NEW; NOUSER LABELS
```

4. When you are ready to proceed with configuration, run NMMGR and open the configuration file you just created. See the instructions that follow for “Opening a Configuration File.”

You may choose to copy your source file to a name other than NMCONFIG.PUB.SYS first, modify that file using NMMGR, then rename the file as NMCONFIG.PUB.SYS when you are ready for it to be used by the system.

Changing the Backup File Name

NMMGR automatically generates a backup configuration file that is updated each time the configuration is successfully validated. By default, the backup file name is NMCBACK.group.account. You can change the name that will be used for the backup file by typing a new name in the Backup configuration file name field on the Open Configuration/Directory File screen.

The file name you enter must be a valid MPE file name. If you do not enter a group or account name, NMMGR will qualify the file name with your logon group and account.

It is a good idea to change the name that will be used for the backup file if you are modifying an alternate configuration or one that will be used on a different system. By changing the backup file name you can avoid writing over a backup file that you want to maintain.

Opening an Existing Configuration File

If you want to open an existing configuration file to modify the configuration, follow these steps.

At the Open Configuration/Directory File screen:

- Step 1.** Enter the name of the file you want to open in the Configuration file name field.

In most cases, you want to make sure that the file you plan to open is *not* the active configuration file.

If you do not specify a group or account, NMMGR will assume that the file resides in your logon group and account.

- Step 2.** If a write access password has been assigned, you must enter the password in the Write access password field in order to open the file in write mode. (If you do not enter an assigned password, you can still access the file in read-only mode.) If no write access password has been enabled, leave this field blank.

- Step 3.** Press the **[Open Config]** key. The Main screen will appear and you can proceed with subsystem configuration. The fields on each screen show the values currently entered for the configuration file you opened.

Creating a Network Directory File

If you want to create a new network directory file (one that does not exist), follow these steps.

At the Open Configuration/Directory File screen:

- Step 1.** Enter the name of the file you want to create in the Network directory file name field.

The name must be a valid MPE file name. If you do not specify a group or account, NMMGR will qualify the file name with your logon group and account.

The default file name is `NSDIR.NET.SYS`. You may use the default if no `NSDIR.NET.SYS` file currently exists.

- Step 2.** If a write access password has been assigned, you must enter the password in the Write access password field in order to create a new file. If no write access password has been enabled, leave this field blank.
- Step 3.** Press the **[Open Directry]** key. NMMGR will ask you to press the key again to verify that you want to create a new file. Press the key again. The Network Directory Main screen displays and you can proceed with directory configuration. (See the *Configuration Guide* for the subsystem you are configuring for more information on configuring the network directory.)

Opening an Existing Network Directory

If you want to open an existing network directory file to modify its directory information, follow these steps.

At the Open Configuration/Directory File screen:

- Step 1.** Enter the name of the file you want to open in the Network directory file name field. If you do not specify a group or account, NMMGR will assume that the file resides in your logon group and account.
- Step 2.** If a write access password has been assigned, you must enter the password in the Write access password field in order to open the file in write mode. (If you do not enter an assigned password, you can still access the file in read-only mode.) If no write access password has been enabled, leave this field blank.
- Step 3.** Press the **[Open Directry]** key. The Network Directory Main screen appears and you can proceed to modify the network directory information. The fields on each screen will show the values currently

entered for the network directory file you have opened. (See the *Configuration Guide* for the subsystem you are configuring for more information on configuring the network directory.)

Selecting a Configuration Path

Once a configuration file is successfully opened or created, NMMGR displays the Main screen, shown in Figure 3-2. This screen presents a menu from which you select the group of NMMGR screens you need to configure the appropriate subsystem.

Figure 3-2 Main Screen

```

NMMGR/3000 (V.uu.ff) #2 Main                               Data: Y
Type in the node name and press Save Data; then press the desired function key.
Command:
Local HP 3000 node name [ALPHA.DOMAIN.ORG]
                                (node.domaNn.organization)
Are you using OpenView DTC Manager? [ ] (Y/N)
Do you have X.25 system-to-system or PAD connections? [ ] (Y/N)
DTS      - Configuration of DTC device connections, links, & profiles.
NS       - Configuration of ARPA Network: Logging, LAN (802.3/Ethernet),
          NS/Token Ring (802.5), X.25 (WAN), Point-to-Point, NS/SNA, FDDI
          100VGLAN, 100BT.
OSI      - Configuration of OSI network:
          OSI Transport & Session (OTS) and OSI FTAM services.
IBM      - Configuration of the IBM network:
          Logging, SNA node, NRJE, RJE, IMF, DHCF, APPC, & SNADS.
  
```

DTS	NS	OSI	IBM	Utility	Save Data	Help	Prior Screen
-----	----	-----	-----	---------	-----------	------	--------------

NOTE NS/SNA is no longer offered as a product and has been removed from the *Corporate Price List*. The product is obsolete with no plans for support.

The main screen also contains three data fields that you must complete in order to configure the local node name and determine which type of network configuration is appropriate for the node.

The following steps describe the action you should take at the Main screen:

- Step 1.** Enter the node name of the system you are configuring in the local node name field (if it is not already present).

- Step 2.** In the field next to the question `Are you using OpenView DTC Manager?`, enter a “Y” if you are using PC-based network management for this node, enter an “N” if you are using host-based network management. If you are using PC-based network management, an OpenView workstation must be present on the network.
- Step 3.** In the field next to the question `Do you have X.25 system-to-system or PAD connections?`, enter a “Y” to indicate you will be configuring a DTC/X.25 Network Access card for this node, otherwise, enter an “N”.
- Step 4.** Press the **[Save Data]** key to save the node name in the configuration file (create the data record). The Data flag will be set to “Y” when the data record exists.
- Step 5.** Proceed to one of the NMMGR configuration subbranches by pressing the appropriate function key.

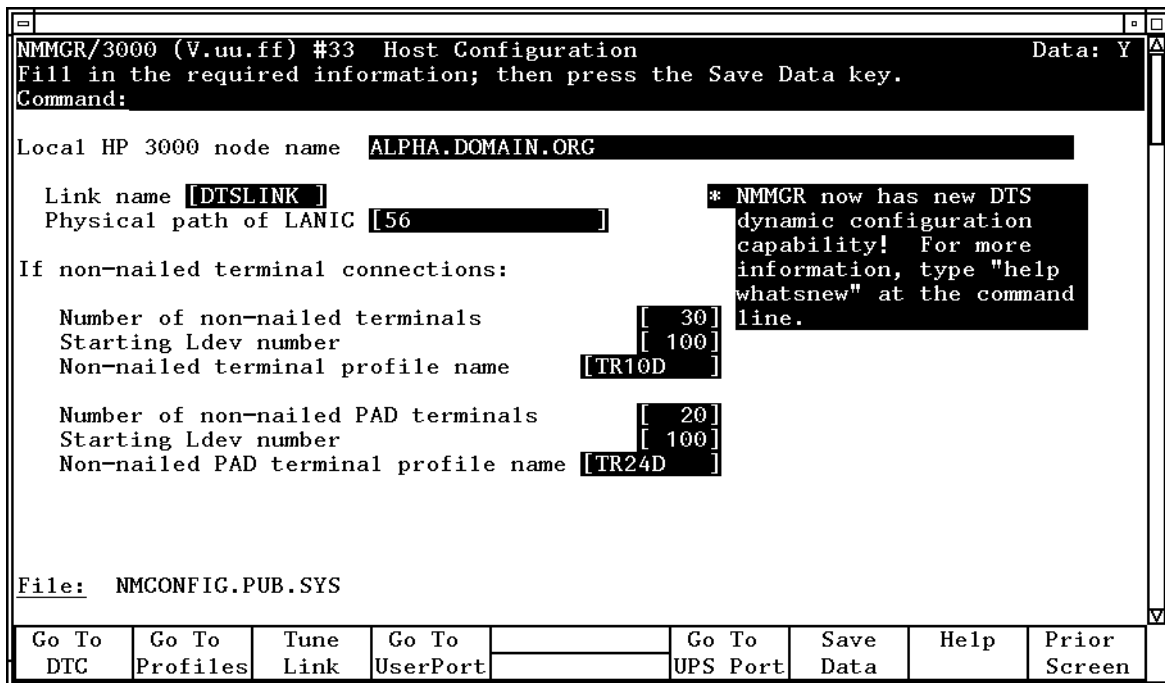
Each of the configuration subbranches are described.

Configuring Terminals, Printers, and Other Serial Devices

Terminals, printers, and other serial devices are connected to HP 3000 Series 900 computers through a device called the Datacommunications and Terminal Controller (DTC). In order to connect to a device, the system's configuration file must contain information that makes it possible for the DTC, as well as the devices attached to the DTC, to establish communications with the system. DTCs and their devices are configured through NMMGR's distributed terminal subsystem (DTS) configuration.

If you press the key labeled **[DTS]** at the Main screen, you will be taken to the Host Configuration screen (Figure 3-3), the first screen in a progression that lets you configure DTS for PC-based network management only. The Host-based management screen will vary slightly.

Figure 3-3 Host Configuration Screen



You will perform a number of tasks using these screens, including the following:

- Define the DTS link configuration for the system.
- Define connection capabilities for terminals, printers, and other serial devices that will be able to communicate with the system.
- Define terminal, printer, and other serial device profiles specifying sets of characteristics that can be applied to various terminals, printers, or other serial devices connected to the system and associate the profiles with individual devices. The screen in Figure 3-4 reflects PC-based network management only. The Host-based management screen will vary slightly.

See the following manuals for more information on configuring DTCs and serial devices:

- *Configuring Systems for Terminals, Printers, and Other Serial Devices.*
- (Host-based X.25 configuration only) *Configuring and Managing Host-Based X.25 Links.*
- (PC-based configuration only) *Using the OpenView DTC Manager.*

Configuring NS 3000/iX

The NS 3000/iX product consists of NS 3000/iX Network Services and NS 3000/iX links. NS 3000/iX Network Services contain software that allows you to access data, initiate processes, and exchange information between all the systems on a network. NS 3000/iX links provide connections between systems (either HP 3000s or personal computers) in a network. To use NS 3000/iX Network Services, the systems must be connected by an NS 3000/iX link and each link must be properly configured through NMMGR.

If you press the key labeled [NS] at the Main screen, you are taken to the NS Configuration screen (Figure 3-4), the first screen in a progression that lets you configure NS.

Figure 3-4 NS Configuration Screen

```
NMMGR/3000 (V.uu.ff) #166 NS Configuration Data: Y
Select the next screen and press the corresponding function key.
Command:

Guided   - Use this function to define or modify your network, network
Config   directory, or logging configuration.

Unguided - You only need to use unguided (manual) configuration if you
Config   need to modify default network performance parameters not
         accessible through guided configuration.

Local domain name:  If your network uses domain names, enter the domain name
                    in the field below and press the Save Data key before selecting the guided
                    or unguided option.  Otherwise, leave the local node name in this field.

[ ALPHA.ARPA.DOM.COM ]

File:  NMCONFIG.PUB.SYS

Guided | Unguided |   |   |   |   | Save | Help | Prior
Config | Config   |   |   |   |   | Data |     | Screen
```

NMMGR provides two methods of creating or updating configuration information for an NS link. The methods are referred to as **guided HP configuration** and **unguided HP configuration** respectively. You determine which method you will use by making a choice at the NS Configuration screen.

You also use this screen to configure a domain name for the node you are configuring if using domain names for network access. To configure a domain name, replace the local node name in the field at the bottom of the screen and press the [Save Data] key. (If you are not using domain names, leave the local node name as is.)

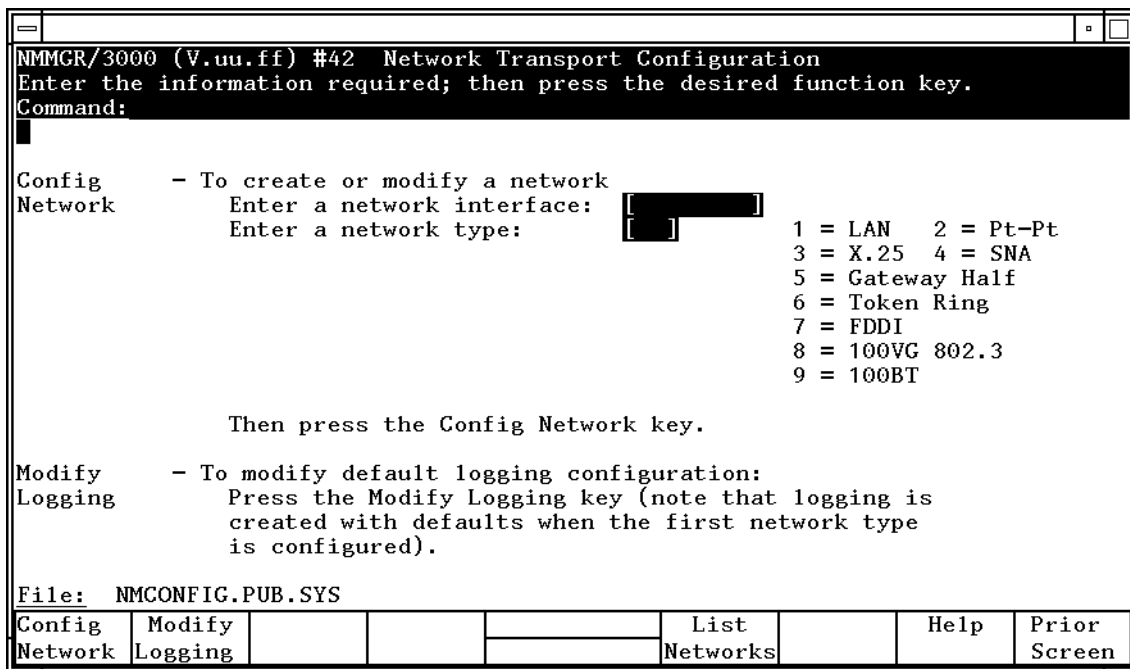
- To perform guided configuration, press the key labeled **[Guided Config]** and refer to the *HP 3000/iX Network Planning and Configuration Guide* for information.
- To perform unguided (manual) configuration, press the key labeled **[Unguided Config]** and refer to the *NS 3000/iX NMMGR Screens Reference Manual* for information.

NOTE Hewlett-Packard strongly recommends using guided configuration whenever you need to initially configure a network interface. You can also take advantage of its convenience later for most network maintenance and updating. Guided configuration supplies many default values for your configuration and requires that you visit a minimal number of screens. Use unguided configuration only if you need to modify configuration values that are not available on the guided screens.

Guided HP Configuration

If you press the key labeled **[Guided Config]** at the NS Configuration screen, you will be taken to the Network Transport Configuration screen shown in Figure 3-5. From this screen, you choose the specific task you want to perform using guided NS configuration. These tasks include configuring or modifying a network interface, modifying logging parameters, and fine tuning global or network transport configuration parameters.

Figure 3-5 Network Transport Configuration Screen



Guided configuration is a procedure that automates part of the configuration process. It “guides” you through the configuration screens for a specific task. It assumes and supplies default values wherever possible to furnish most of the configuration file’s data.

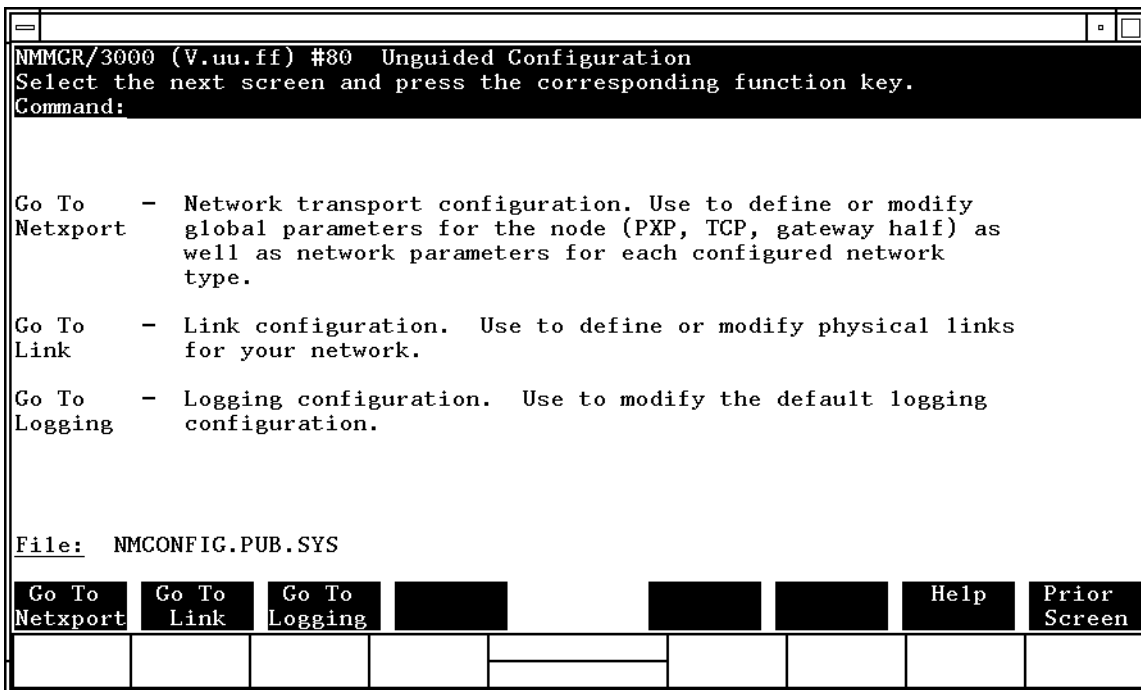
When you run guided configuration, you use only a minimal number of configuration screens. You will normally use fewer screens than you would if you were performing the same task using unguided configuration. Many of these screens are different from those used for unguided configuration.

NOTE NS/SNA is no longer offered as a product and has been removed from the *Corporate Price List*. The product is obsolete with no plans for support.

Unguided Configuration

If you press the key labeled [Unguided Config] at the NS Configuration screen (#166), you will be taken to the Unguided Configuration screen shown in Figure 3-6.

Figure 3-6 Unguided Configuration Screen



From this screen, you can move to the screens that let you:

- Configure or modify a network interface.
- Configure or modify an NS link.
- Configure or modify logging parameters.

- Configure or modify a network interface.

If you choose to create or modify an NS configuration using unguided (manual) configuration, you must take care that you know which screens you need to use to completely create or modify a configuration. The unguided nature of manual configuration makes it possible to get “lost” or to miss some necessary screens entirely.

Under most circumstances, HP recommends that you use guided configuration. Unguided configuration can be useful, however, if you only need to use a few screens and you know exactly which screens you need.

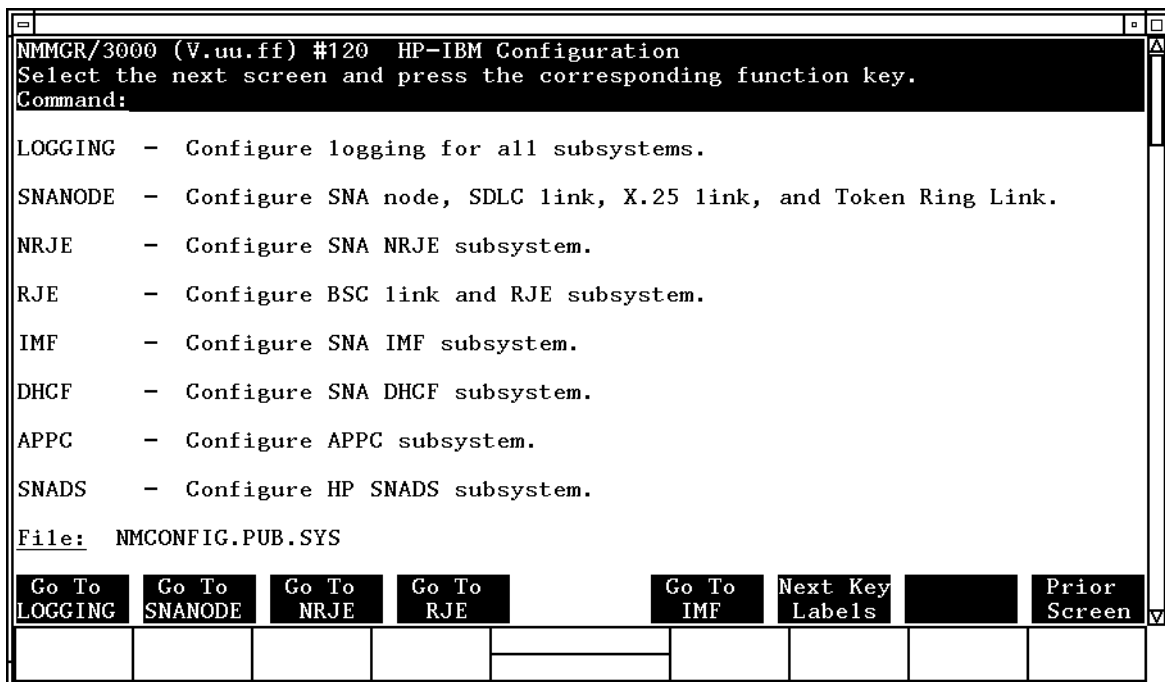
Refer to the *NS 3000/iX Screens Reference Manual* for information on the unguided NS configuration screens.

Configuring HP-IBM Connections

Hewlett-Packard provides a number of networking products that make it possible to establish communication links between HP 3000 Series 900 and IBM mainframe computers.

If you press the key labeled [IBM] at the Main screen, you are sent to the HP-IBM Configuration screen shown in Figure 3-7.

Figure 3-7 HP-IBM Configuration Screen



From this screen, you can choose any of the IBM subsystems for configuration by pressing the appropriate function key. You can also choose to configure logging for all of the IBM subsystems, or you can choose `SNANODE` configuration (SNA node, SDLC link, X.25 link, and token ring link).

The HP-IBM Configuration screen presents you with more choices than there are available function keys. For this reason, the screen includes a **[Next Key Labels]** function key that lets you toggle between two sets of function key choices. If the choice you want does not currently appear on any of the **[Go to]** function keys, press the **[Next Key Labels]** key. You can then make the choice you need to configure the HP-IBM subsystem you want to configure.

For more information on configuring any of the HP-IBM products, see the *Node Manager's Guide* for that product. For information on HP-IBM subsystem logging or `SNANODE` configuration, see the *SNA Link/iX Node Manager's Guide*.

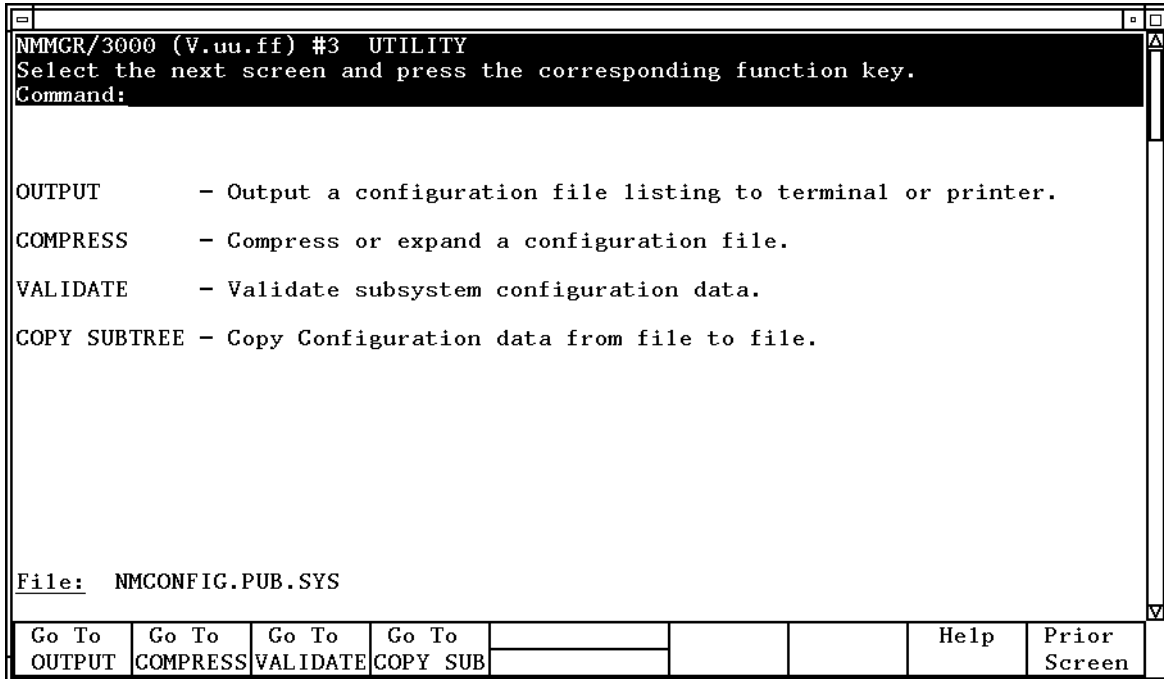
This chapter describes how to use the NMMGR utility screens to list, maintain, and validate configuration files. The following topics are discussed in detail:

- Displaying or printing the configuration file tree structure or the data screens associated with a configuration file using the Output screen.
- Compressing or expanding a configuration file using the Compress screen.
- Validating a configuration file using the Validate screen.
- Copying a configuration subtree using the Configuration Subtree Copy screen.

The Utility Screen

The Utility screen shown in Figure 4-1 lets you select the utility function that you want to perform. To display the Utility screen, press [Go To Utility] from the Main screen or type UTILITY in the command window of any screen and press [ENTER].

Figure 4-1 **Utility Screen**

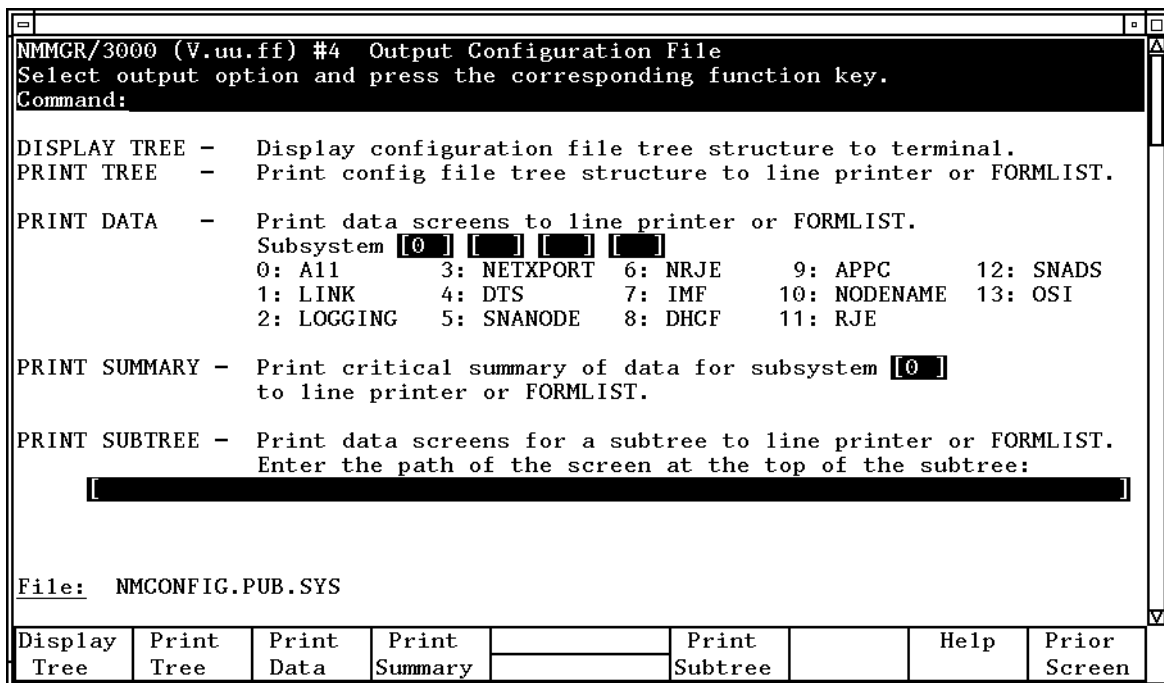


Select the utility function you want to perform and press the corresponding function key.

Output Configuration File Screen

The Output Configuration File screen shown in Figure 4-2 allows you to list or print the configuration file tree structure, to print the NMMGR data screens associated with a configuration file, and to print a critical summary of the configuration file data. You reach this screen by pressing [Go to OUTPUT] at the Utility screen.

Figure 4-2 Output Configuration File Screen



By default, the printed output for each of this screen's print functions is sent directly to the line printer. You may want to redirect the output by issuing a file equation for the output file `FORMLIST` (the formal file designator of the output file). You can do so by entering the file equation in the command window of the screen. For example, you could type the following:

```
:FILE FORMLIST;DEV=PP
```

and then press [ENTER]

If you then pressed [Print Data], the output would be sent to the device `PP`.

If you wanted to send the output to a disk file, you could enter:

```
:FILE FORMLIST;DEV=DISC;SAVE
```

If you then pressed [Print Data], the output would be stored on disk under the file name `FORMLIST`.

Display Tree

If you press the [Display Tree] key, NMMGR will display the tree structure of the configuration file at your terminal. Figure 4-3 shows a section of a listing obtained by pressing [Display Tree] at the Output Configuration File screen.

The tree structure shows the identifiers for each screen that contains configured data but does not show any of the actual data that is configured. The level of each screen (how far down it is in the tree structure) is printed on the left, in square brackets. The listing shows the names of the screens and items configured, indented according to their level in the tree structure.

This listing is useful for finding out which identifiers are already configured in a file. You can also refer to it for guidance in direct path branching.

To generate a printout of the actual data screens, use the [Print Data] or the [Print Summary] key to print just a listing of all the data. Both are described later in this chapter.

Figure 4-3 Display Tree Listing

```
NM Configuration Manager 32022-20016 V.uu.ff (C) Hewlett Packard Co. 1990

MON, APR 9, 1990, 3:48 PM

CONFIGURATION FILE NAME: NMCONFIG.PUB.SYS

[1] LINK
[2]     DTSLINK
[2]     LANLINK
[1] LOGGING
.
.
.
[1] SNADS
[2]     CLUSTER
[2]     MAPPER
[1] LOGGING
.
.
.
[1] SNADS
[2]     CLUSTER
[2]     MAPPER
[1] SNANODE
[1] IMF
[1] DHCF
[1] APPC
[1] NODENAME
[1] NETXPORT
[2]     GPROT
[3]         PXP
[3]         TCP
[2]     NI
[3]         LOOP
[3]         LANNI
[4]             PROTOCOL
[5]                 IP
[5]                 PROBE
[5]                 ARP
[4]             LINK
[5]                 LANLINK
.
.
.
```

Print Tree

The [Print Tree] key generates a printed listing of the tree structure as displayed by the [Display Tree] key (Figure 4-3). By default, output is sent to the device LP. You can redirect the output by using a file equation for the formal file designator FORMLIST.

Print Data

The [Print Data] key generates a printed copy of the data screens associated with the configuration file. By default, output is sent to the device LP. You can redirect the output by using a file equation for the formal file designator FORMLIST.

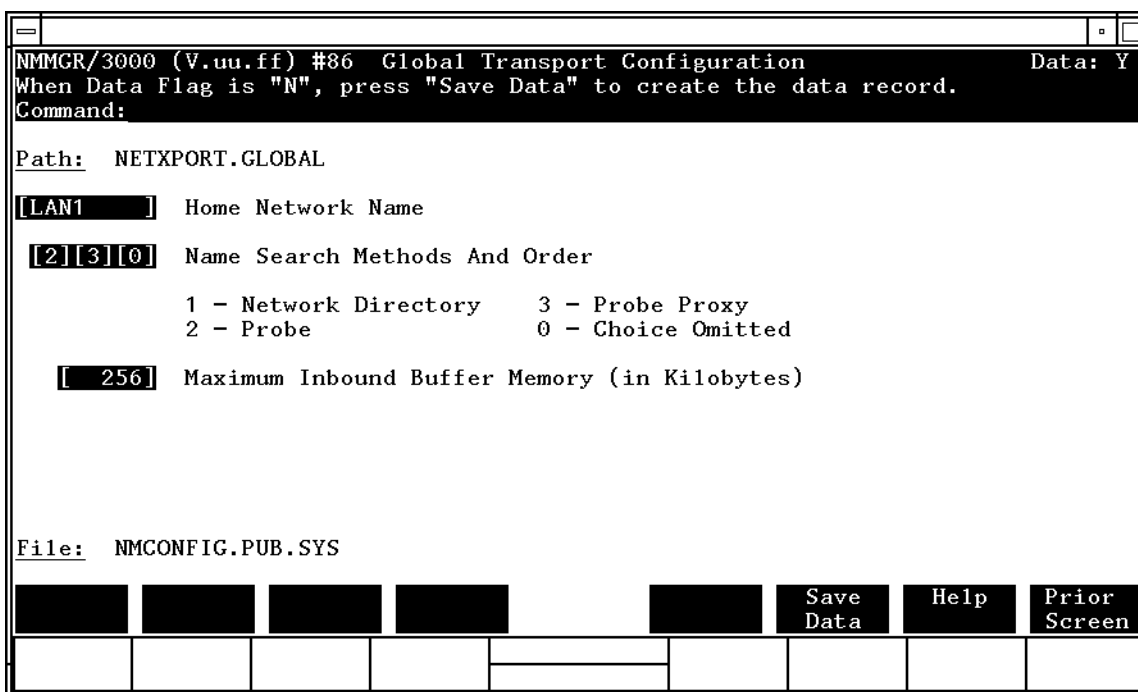
You can select the data screens you want to list by entering one or more selections in the print data subsystem selection fields on the Output Configuration File screen. These are four data entry fields that allow you to enter a number corresponding to the configurable subsystems, as listed on the screen (see Figure 4-2).

For example, to obtain a printed listing of the configured screens for both logging and for NETXPORT configuration, enter a 2 (for logging) in one of the fields and a 3 (for NETXPORT) in another of the fields. If these are the only screens you want printed, leave the other two fields blank. When you have made your selections, press the [Print Data] key.

If you want all screens to print, enter a 0 in one of the selection fields (the default).

Figure 4-4 is an example of a data screen as printed by the [Print Data] key. Because data has been entered for this screen in the configuration file, the actual data is shown and the data flag is set to Y. If no data had been entered, the printout would show the default values and the data flag would be set to N.

Figure 4-4 Print Data Output Example



Print Summary

The [Print Summary] key allows you to print all the configuration data for the chosen subsystem on the Output Configuration File menu. This is a listing of information that is contained in your configuration file. By default, output is sent to the device LP. You can redirect the output by using a file equation for the formal file designator FORMLIST.

To print a critical summary, choose the number corresponding to the subsystem for which you want the report. Enter the number in the field to the right of "Print Summary" and press the [Print Summary] key. (The numbers for the subsystems are the same as those that you would use to select subsystems for the [Print Data] key.)

The example shown in Figure 4-5 is the first part of a critical summary for a full-gateway node that has been configured with a point-to-point (router) network interface (NI) and a LAN NI.

Figure 4-5 Sample Page of Critical Summary Report

```
NM Configuration Manager 32098-20016 V.uu.ff (C) Hewlett Packard Co. 1990

                                CRITICAL SUMMARY - NETXPORT CONFIGURATION

TUE, APR 10, 1990, 11:07 AM

CONFIGURATION FILE NAME: NMCONFIG.PUB.SYS

NODE NAME: FLAGSTAFF.ROUTE66.USA

TRANSPORT GLOBAL CONFIGURATION:
  name Search Method: 1.  Probe
                      2.  Probe Proxy
                      3.  Network Directory
  Maximum Directly Connected Nodes: 1024
  Maximum Outbound Destinations: 360
  Maximum Inbound Destinations: 360

PACKET EXCHANGE PROTOCOL (PXP) CONFIGURATION:
  Retransmission Interval (Secs): 10
  Maximum Retransmissions Per Request: 4

TRANSMISSION CONTROL PROTOCOL (TCP) CONFIGURATION:
  Maximum Numbre of Connections: 128
  Retransmission Interval Upper Bound (Secs): 180
  Retransmission Interval Lower Bound (Secs): 4
  Initial Retransmission Interval: 5
  Maximum Number of Retransmissions: 4
  Connection Assurance Interval: 600
  Maximum Connection Assurance Retransmissions: 4
.
.
.
```

Print Subtree

The [Print Subtree] key allows you to print the NMMGR data screens for a specified subtree. By default, output is sent to the device LP. You can redirect the output by using a file equation for the formal file designator FORMLIST.

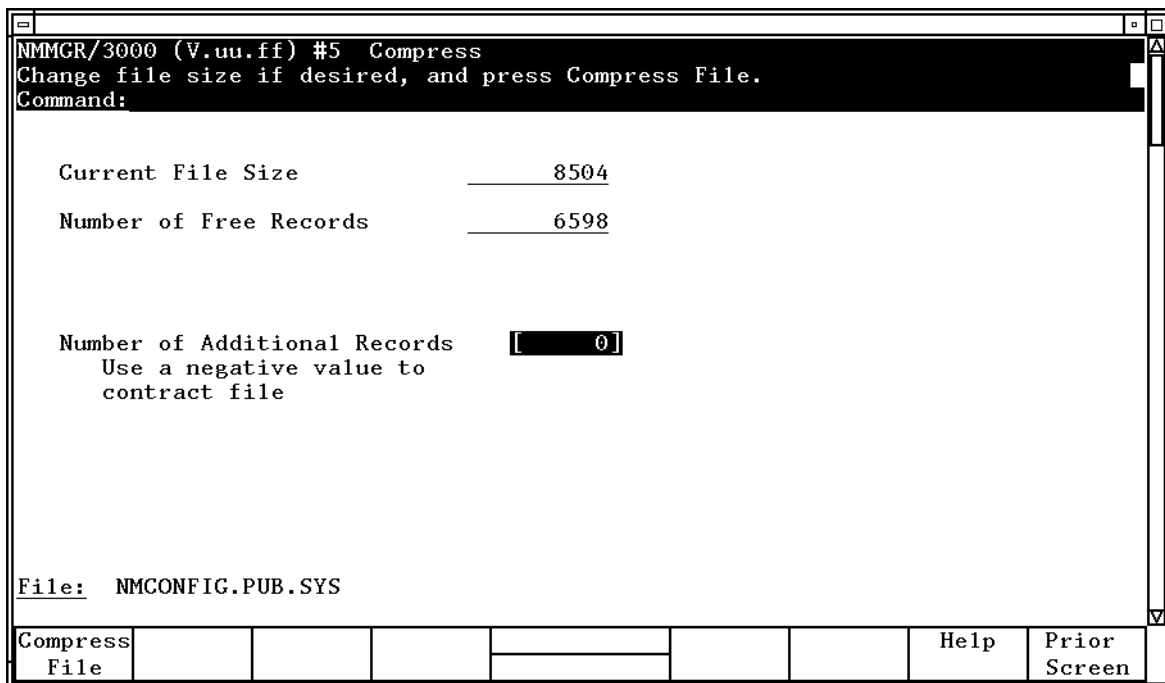
To define the subset of screens that you want to print, enter the path name of the topmost screen of the subtree you are selecting in the field provided under "Print Subtree." Press the [Print Subtree] key.

Compress Screen

The Compress screen shown in Figure 4-6 allows you to compress or expand the configuration file. To perform these functions, you must be the creator of the file. (You can also use the COMPRESSCONF maintenance mode command to perform these functions. See Chapter 5, “Using NMMGR in Maintenance Mode,” for more information on maintenance mode commands.)

You reach this screen by pressing the [Go To Compress] key at the Utility screen.

Figure 4-6 Compress Screen



Description

As your configuration grows, you may find it necessary to compress or expand your configuration file.

Configuration files initially contain 2,048 32-byte records. As you configure items in a file, records are used sequentially from the beginning of the file. As the file size increases, the number of free records at the end of the file decreases.

If you delete items from a configuration file, the records are not immediately recovered, so the middle of your file may contain some unused records. Unused records in the middle of the file are not reflected in the number of free records count and are not available for

reuse. By compressing the file, you cause all data to be stored in a contiguous block of records and all unused records to be located at the end of the file. Thus, compressing a file enables you to determine the actual number of free records in a file before adding or deleting records.

To compress a file, enter a 0 in the Number of Additional Records field and press [Compress File]

You can also use this function to add records to the file or to delete unused records from the file. To do so, enter a number in the Number of Additional Records field. A positive number causes records to be added (up to the file size limit of 65,535 records). A negative number causes that number of free records to be deleted from the file. After you have entered the number of records to be added or deleted, press the [Compress File] key.

When you press [Compress File], NMMGR begins compressing the file immediately. The terminal is locked to indicate that NMMGR is not available until finished. When the compression is completed, NMMGR prints the following message in the message field:

```
Configuration file compressed.
```

NOTE

Compress time depends on the number of entries in the file. For a file that contains a small amount of data, compression usually takes fewer than 30 seconds. However, compressing a file that contains a lot of data can take several minutes.

Fields

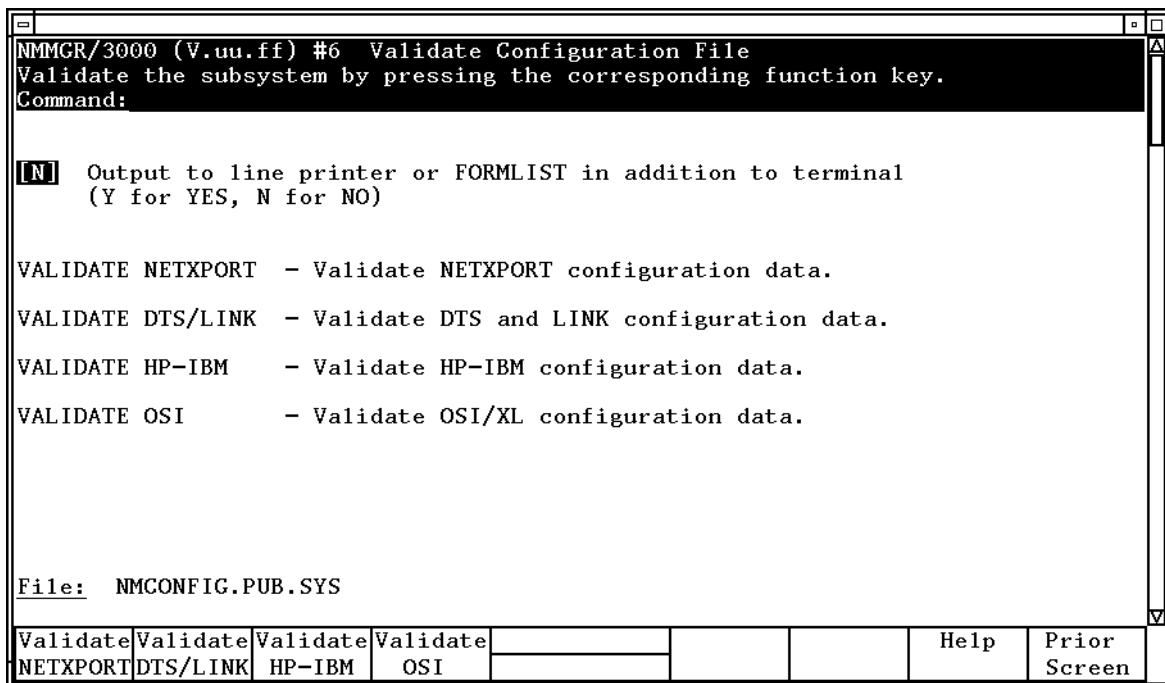
Current File Size	(Display only.) Size of the file, in 32-byte records.
Number of Free Records	(Display only.) Number of free records at the end of the configuration file.
Number of Additional Records	Enter the number of records that you want to add to the file (positive integer) or the number of unused records that you want to delete from the file (negative integer). To simply compress the file, enter 0 (zero). If you are adding records, the file cannot end up containing more than 65,535 records.
Default:	0
Range:	-32768 to 32767

Validate Configuration File Screen

The Validate Configuration File screen shown in Figure 4-7 allows you to test the validity of a specified subsystem configuration. (You can also use the `VALIDATECONF` maintenance mode command to perform this function. See Chapter 5, “Using NMMGR in Maintenance Mode,” for more information on the maintenance mode commands.)

You reach this screen by pressing the `[Go To VALIDATE]` key at the Utility screen.

Figure 4-7 Validate Configuration File Screen



The purpose of the validation process is to ensure that your configuration data is syntactically and logically correct before you activate the node.

NOTE

The distributed terminal subsystem (DTS) cannot be brought up and configured unless validation is complete. The link configuration must be complete before you attempt to validate the network transport configuration. This is because the network transport validation process uses link configuration data.

To begin validation for a subsystem, press the function key that corresponds to the subsystem you wish to validate. For example, to validate your NS network transport configuration, press the `[Validate NETXPORT]` function key. After checking various aspects of your configuration, the validation process creates a listing of error messages

to help you pinpoint invalid items. One possible message, for instance, states that a phone number has not been configured for a dial-type link in your NS configuration.

When you press one of the validation function keys, you enter character mode. Any validation error messages are listed at your terminal. If you want the error message listing to be sent to a device in addition to your terminal, enter a Y in the box next to "Output to line printer or FORMLIST in addition to terminal" on the Validate Configuration File screen. You can have the listing sent to disk or a printer by setting a file equation or you can have it routed to the default device, which is \$STDLIST.

After viewing the validation messages, if any, press [RETURN] to return to the Validate Configuration File screen. The message in the message line of the screen tells you if the validation process completed and, if so, whether the configuration is valid. You must see the following message to be sure that your configuration file is valid:

```
Validation completed; configuration of the selected subsystem is valid.
```

When validated, the contents of the configuration are automatically copied to the backup file specified on the open screen.

If a message other than the one above appears, refer to the *MPE/iX Error Messages Manual* (for DTS errors) or to the manual that contains error messages for the subsystem you are configuring or the *Configuring Systems for Terminals, Printers and Other Serial Devices Manual* for DTS errors. If you encounter errors that you cannot resolve, notify your HP representative.

Configuration Subtree Copy Screen

The Configuration Subtree Copy screen in Figure 4-8 allows you to copy specified parts of a configuration subtree into either the same configuration file or a different configuration file. This feature can save you a lot of time when you are configuring multiple nodes or subsystems in the same way. Note that the source or target file can be on a remote node in the network. (You can also use the `COPYCONF` maintenance mode command to perform this function. See Chapter 5, “Using NMMGR in Maintenance Mode,” for more information on the maintenance mode commands.)

You reach this screen by pressing the `[Go To COPY SUB]` key at the Utility screen.

Figure 4-8 Validate Configuration File Screen

```
NMMGR/3000 (V.uu.ff) #7 Configuration Subtree Copy
Enter source, destination files, and paths to roots of trees to copy.
Command:

Source file: [ ]
Source path: [ ]
Destination file [ ]
Destination path: [ ]
Overwrite existing subtree [N]

File: NMCONFIG.PUB.SYS
```

Subtree Copy						Help	Prior Screen
--------------	--	--	--	--	--	------	--------------

Description

You use the Configuration Subtree Copy screen to copy a contiguous set of screens called a subtree from one configuration file to another or within the same configuration file. To copy a subtree, enter the name of the source file and path and the destination file and path in the fields provided and press the `[Subtree Copy]` key.

The source file is the name of the file that the data will be copied from. If you are copying a subtree from the current configuration file to another location within the same file, you can leave both the Source file and the Destination file fields blank.

The source path specifies the path name of the topmost screen in the subtree that you want to copy. All screens below the top screen will be copied.

The destination file is the name of the file that data will be copied to. This can be the same file that you are copying from, which provides a convenient way to configure two links that are very similar. After configuring the first link, you can simply copy all the screens in the link's configuration and modify the new link configuration as needed.

The destination path specifies the point in the destination file below which the copied screens will be added.

Fields

Source file This field contains the name of the file that configuration data will be copied from. If left blank, the current configuration file is assumed.

If the file is on a remote node, you must use a file equation and prefix the file name with an asterisk (*). You may use an MPE command from the command window to set a file equation without having to leave NMMGR.

Source path (**Required field.**) The source path contains the path name associated with the topmost screen in the subtree being copied. The field is composed of eight NMMGR path identifier slots. Enter one path identifier in each slot, leaving blanks at the end of each identifier. Leave any unused identifier slots empty. For example, the source path "NETXPORT.NI.LAN1.INTERNET" would be entered as:

NETXPORT.NI

.LAN1 .INTERNET.

Destination file

This field contains the name of the file the configuration data will be copied to. If this field is left blank, the current configuration file is assumed.

If the file is on a remote node, you must use a file equation and prefix the file name with an asterisk (*).

Destination path

Like the source path, the destination path is composed of eight path identifiers. You need to enter only those identifiers that are different from the source path. To copy data from the source file to the identical location in the destination file, leave this field blank. If, for

example, you wish to change the fifth path identifier, then the fifth slot in the destination path should contain data. Only those parts of the path name that were designated by the user can differ among corresponding identifiers in the source and destination paths. User-selected types must match. For example, if the source file includes a direct connect link, the corresponding identifier in the destination path must also be a direct connect link.

Overwrite
existing
subtree

(Required field.) This field indicates whether or not existing data in the destination configuration file is to be overwritten when the copy is performed. A **Y** will purge all the existing data in the destination subtree and insert the data from the source subtree; an **N** will not allow the copy to continue if data exists where the destination subtree starts. The default is **N**.

In this example, a subtree copy is being performed from node A to node B. Since the copy is being made to a remote node, the user must make a **DSL**INE connection to node B and set up a file equation to represent node B's configuration file. This is done by entering the commands shown below:

Example

```
:REMOTE HELLO MGR.PUB.SYS;DSL
```

INE=B

```
:FILE CONFIG=NMCONFIG.PUB.SYS;B,OLD
```

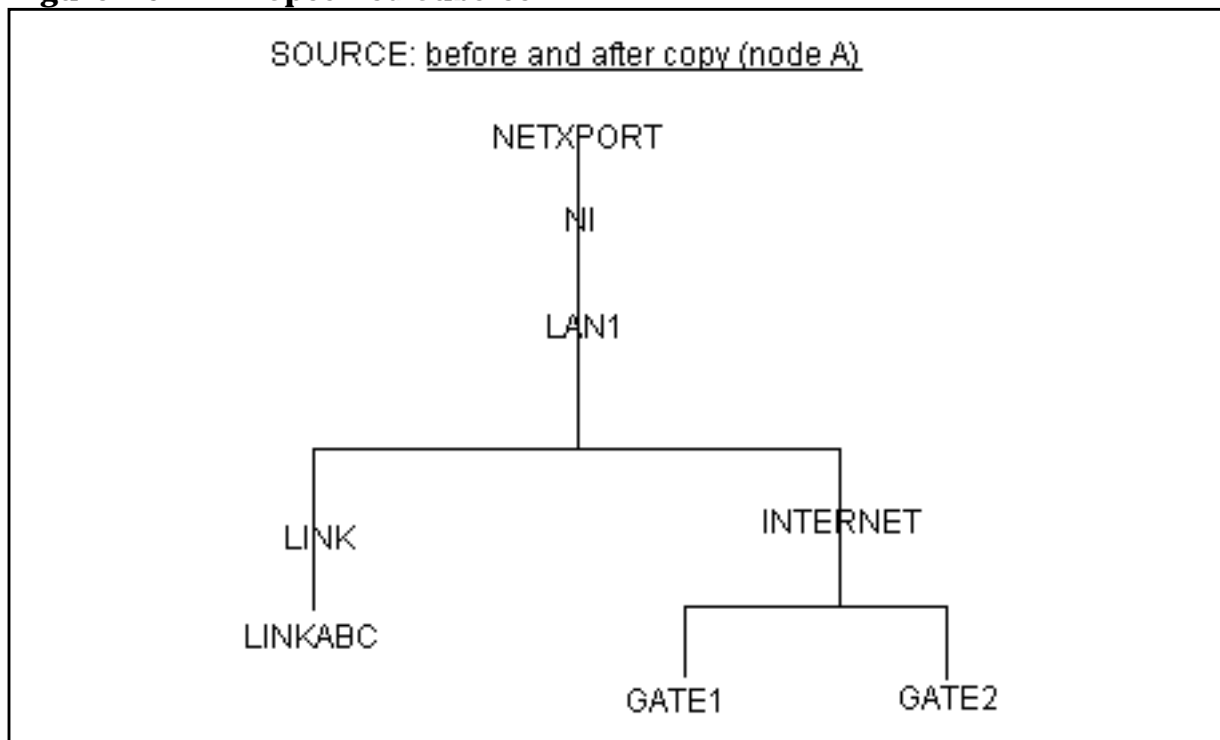
The source file and path on node A are entered into the source file and Source path fields. They appear here:

Source file: [NMCONFIG.PUB.SYS]

Source path: NETXPORT.NI .LAN1 .INTERNET.

The diagram in Figure 4-9 shows the subtree specified by this path.

Figure 4-9 Specified Subtree



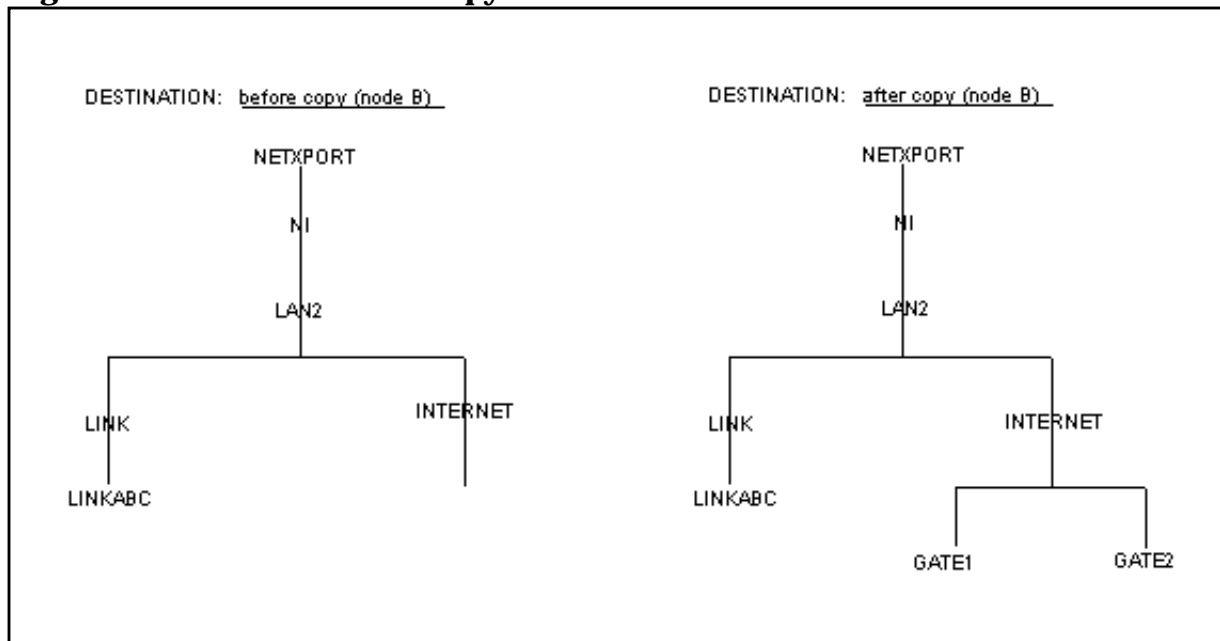
For this copy, the destination file and path were specified as:

Destination file: [*CONFIG]

Destination path: . .LAN2 . <~>

The diagram in Figure 4-10 illustrates the results of the copy.

Figure 4-10 Results of Copy



NOTE

When subtrees contain several records, copies that occur over `DSL` connections will take considerably longer than copies between two local configuration files. It is several times faster to `DSCOPY` the configuration file to the destination node, then perform the subtree copy between two local configuration files.

Using NMMGR Utility Screens
Configuration Subtree Copy Screen

Using NMMGR in Maintenance Mode

This chapter tells you how to use NMMGR's **maintenance mode** interface to manage network directory and configuration files. It allows you to also generate stream jobs to update remote network directory and configuration files. It includes descriptions of the following:

- Entering NMMGR maintenance mode from the screen mode interface or from a batch job.
- Each of the maintenance mode commands, including:
 - The purpose and syntax of the command.
 - A description of each of the command's parameters.
 - An example of using the command.

Using Maintenance Mode

NMMGR's **maintenance mode** is a character mode interface used to manage both network directory and configuration files. It can be used interactively, from within the screen mode interface, or as a set of commands entered via a batch job.

Maintenance mode can generate a job stream to sequentially update directories on a list of NS nodes. This feature saves you from manually changing the network directory files of every node on a network when you make a configuration change. You define the list of nodes to be updated by this automated process. Additionally, the process provides logging information and is recoverable.

Maintenance mode commands are read from the formal file designator `NMMGRCMD`, which defaults to `$STDINX`. You can redirect the input to come from a standard ASCII file by using a file equation for `NMMGRCMD`.

Entering Maintenance Mode from Screen Mode

You can access maintenance mode from within screen mode, execute one or more maintenance mode commands, and return to screen mode. There are two methods you can use to enter the maintenance interface from screen mode. The two methods are as follows:

- Enter the screen mode command `NM[MGRCMD]` in the command window of any screen and press `[ENTER]`.
- Press the `[Maint Mode]` function key from the Network Directory Main screen.

When you use either method, a screen appears with the maintenance mode prompt:

```
NMMGR>
```

When you enter maintenance mode from screen mode the interface is interactive. You can enter any appropriate maintenance mode commands at the prompt. In some cases, a command will prompt you for additional input which you can enter by typing a response to the new command prompt. When each command has completed execution, you will be returned to the maintenance mode prompt shown above.

When you are finished entering maintenance mode commands, type `EXIT` at the prompt to leave the maintenance mode interface and return to screen mode.

Running Maintenance Mode from a Batch Job

You can also access maintenance mode directly from a batch job by running NMMGR from a stream job or by running NMMGR with a file equation for the formal designator `NMMGRCMD` set to a command file. An example of such an equation is:

```
:FILE NMMGRCMD=CMDFILE
```

Command input is echoed to `$STDLIST` if you are running NMMGR from within a stream job or when the input is read from a command file.

You can run NMMGR in the maintenance mode interactively. Enter the file equation `NMMGRCMD= $STDINX`. You will get the banner for NMMGR and the prompt: `MMGR>`

You can create a command file using any editor that is capable of generating straight ASCII output. Blank command lines may be entered freely.

Updating Remote Directories

You can use the maintenance mode `MAKESTREAM` command to generate a stream job that, when executed, logs on to a list of selected nodes and executes the set of commands contained in a command file. In this way, you can update the network directory of every node in a network without having to manually log on to every node and run NMMGR.

Two files must be generated before using the `MAKESTREAM` command. One is a list of node names of the nodes to be updated, the other is a list of commands to be executed. Both can be generated with any ASCII text editor.

As NMMGR logs onto each node named in the node list and applies the commands contained in the command file, the success or failure status of each nodal update is recorded in the node list file, along with the date and time of the event. The node list “control” file may be used again to retry updates of failed nodes, after the source of the failure has been determined and corrected.

In order for NMMGR maintenance mode to log onto each remote node, the local node’s network directory must contain an entry for the node whose directory you wish to update. Without an entry, it is not possible to log on to the remote node because there is no connection information for the node. For this reason, the `MAKESTREAM` process is generally used for updating directories on existing nodes rather than to create a directory on a new node. However, it is possible to use these commands to create a new directory. To accomplish this, the node manager of the new node would have to verbally notify you of the node’s existence. You then would have to enter the new node’s connection information into

your network directory. Once this information is entered into your directory, you will be able to log on to the new node and merge your entire directory to create a version of this directory on the new node.

Maintenance Mode Commands

Table 5-1 lists the NMMGR maintenance mode commands and the actions they perform. Each of these commands is described in detail later in this chapter.

Table 5-1 NMMGR Maintenance Mode Commands

Command	Action
:MPECommand	Executes MPECommand. MPECommand must be a programmatically executable MPE command.
ADDCONF	Adds subtree of empty records to the configuration file.
ADDLDEV	Adds LDEVs to a DTC card.
ADDLU	Adds LUs to the SNA node transport screen.
ADDNODE	Adds or updates a node in the current network directory.
ADDVC	Adds a virtual circuit address key to the network directory and to the configuration file.
CARDCONF	Sets the current DTC card number for the READALLCONF, READCONF, UPDATECONF, and WRITECONF commands.
COMPRESSCONF	Compresses or expands the current configuration file.
CONTINUE	Prevents NMMGR from terminating in a job because of a maintenance mode error
COPYCONF	Copies a configuration subtree.
DELETECONF	Deletes a subtree from the current configuration file.
DELETENODE	Deletes an entry from the network directory.
EXIT	Exits from maintenance mode.
EXITVALIDATE	Validates a subsystem's configuration, if needed, when exiting from NMMGR.
EXITWARN	Warns the user that a subsystem needs to be validated before exiting NMMGR.
EXPANDDIR	Increases the capacity of a network directory file.
HELP	Calls up the help function.

Command	Action
LISTDIR	Lists the contents of a network directory.
LISTLDEV	Lists LDEVs for a DTC card in a format compatible with ADDLDEV.
LISTLU	Lists LUs in a format compatible with ADDLU.
MAKESTREAM	Creates a job stream used to perform network directory or configuration file updates on remote nodes.
MERGEDIR	Merges entries from another network directory or configuration file into the current network directory.
NICONF	Sets up paths to add or update NETXPORT NI configurations.
OPENCONF	Opens a nodal configuration file and makes it the current configuration file.
OPENDIR	Opens a network directory file and makes it the current directory.
PAGECONF	Sets the page number for multipage data screens.
PASSWORD	Sets the password. Validates the NETXPORT subsystem configuration. Changes the password to allow write access on the OPEN screen.
PATHCONF	Sets the current path in the current configuration file.
PURGECONF	Deletes the subtrees of records from the configuration file.
PURGELDEV	Purges LDEVs from the DTC card.
PURGELU	Purges LUs from the SNA node transport screen
PURGENI	Purges a network interface from the configuration file and performs cleanup.
PURGEVC	Deletes a virtual circuit address key from the network directory and the configuration file.
READALLCONF	Reads all data from the current configuration record.
READCONF	Reads selected data from the current configuration record.
SUMMARYCONF	Prints a report for one or more communications subsystems.

Command	Action
UPDATECONF	Updates the current path in the configuration file.
VALIDATECONF	Validates subsystem configuration.
VERSIONCONF	Checks whether the specified version number matches NMMGR's current version number.
WRITECONF	Writes data to individual fields of the current path in the configuration file.

NOTE

Subsystem break ([CTRL]Y) may be used to interrupt the operation of the **COPYCONF**, **DELETENODE**, **HELP**, **LISTDIR**, **MAKESTREAM** and **MERGEDIR** commands. The **EXPANDDIR** command cannot be interrupted.

The **VERSIONCONF** command must be used before the **PATHCONF** command, which must be used before the **READCONF**, **READALLCONF**, **WRITECONF**, and **UPDATECONF** commands to define the current path.

ADDCONF

Adds subtree of empty records to the configuration file.

Syntax	<code>ADDCONF pathname [type]</code>
Parameters	<p><code>pathname</code> The name of a path in the configuration file that describes the location of the desired subtree. It is composed of one to eight path identifiers separated by periods. The format for the pathname is:</p> <p style="padding-left: 40px;"><code>pathid.pathid.pathid...</code></p> <p>The last pathid specified must not exist in the configuration file. The second to last pathid must exist.</p> <p><code>type</code> A one to eight character path type identifier. This identifier must match one of the selections on the “type select” screen for the “pathname”. For example, the type “LAN” is a valid choice for the path “NETXPORT.NI.MYLAN”.</p>

Description `ADDCONF` is used to add a tree of empty records to the configuration file. It is used in conjunction with `PATHCONF`, `WRITECONF`, and `UPDATECONF` to create and update configuration records. `ADDCONF` functions exactly like the `ADD` function key on screens (like the `NETXPORT.NI` screen) which allow you to select or create a configuration subtree, then take you to the top screen for that subtree. Note that `ADDCONF` sets the current record to the root node (named by the supplied pathname) of the tree it creates. A `PATHCONF` command to modify this record immediately after the `ADDCONF` is not required.

See also `READCONF`, `READALLCONF`, `PURGECONF`, `VERSIONCONF`, `WRITECONF`, and `UPDATECONF`.

Example

```
NMMGR> ADDCONF netxport.ni.newname lan
NMMGR> WRITECONF outbuf,256
NMMGR> UPDATECONF
```

ADDLDEV

Adds LDEVs to a DTC card.

Syntax	<pre> {dctname} ADDLDEV {dct-nodename} [filename] {station-address} </pre>
Parameters	<p>dctname The NMMGR nametag for the DTC being accessed. The nametag is the last name in the pathname of the DTC. For example, the dctname is DTC01 in the pathname DTS.DTC.SELECT.DTC01. The dctname is a one to eight character alphanumeric string.</p> <p>dct-nodename The nodename of the DTC that has been configured at the DTC nametag path. The name must conform to the NODENAME.ORGANIZATION.DOMAIN format. The name is a five to fifty character alphanumeric string.</p> <p>station- address The hexadecimal station of the DTC being accessed.</p> <p>filename A text file that contains the LDEVs to be added or purged. The file name's format is:</p> <pre>filename[.groupname[.accountname]]</pre> <p>A file lockword may not be specified. The contents of the file must be formatted as described here.</p>
Description	<p>This command adds LDEVs to the cards in the DTC's configuration. The first DTC found that matches the selection criteria will be operated on. For example, this could occur if more than one DTC is configured with the same station-address.</p> <p>LDEVs for one or more cards can be entered on each invocation of this command. If the filename is not specified you will be prompted with the ADDLDEV> prompt. The format for each entry depends on the card type. The formats for these card types are as follows:</p> <ul style="list-style-type: none"> • For direct connect or modem cards: <pre>LDEV[,] cardno[,] portno[,] profilename[,]</pre> • For X.25 PAD cards: <pre>LDEV[,] cardno[,] profilename[,] device-name[,] x25address[,] [CUG] [;]</pre> <p>All text following the number sign “#” will be interpreted as a comment.</p>

For X.25 cards the LDEV will be added to the first available line on the first available page of LDEVs shown on the PAD screen mode.

See also LISTLDEV and PURGELDEV.

Example

```
NMMGR> ADDLDEV dte01.ind.hp
```

Enter LDEVs;

For M or D type cards: ldev#, card#, port#, profile#;

For x type cards: ldev#, card#, profile, device, address [, CUG];

```
ADDLDEV> 100, 1, 1, tr10d96; #jack's terminal
```

```
ADDLDEV> 101, 1, 2, tr10d96; #jill's terminal
```

```
ADDLDEV> 102, 1, 3, tr10d96; #building 43U,R6
```

```
ADDLDEV> 201, 2, tr10d96, pad1, 123456789012301 #building 41U,A7
```

```
NMMGR>
```

ADDLU

Adds LUs to the SNA node transport screen.

Syntax	ADDLU SNAnodeName [filename]
Parameters	<p>SNAnodeName A one to eight character alphanumeric name that identifies the SNA node to be modified.</p> <p>filename A text file that contains the LU name and number for each LU to be added to the configuration file. The file name's format is:</p> <pre>filename[.groupname[.accountname]]</pre> <p>A file lockword may not be specified. The contents of the file must be formatted as described below.</p>
Description	<p>If the filename is not specified you will be prompted with the ADDLU> prompt. The format for each interactive or filename is:</p> <pre>LUName [,] [[LUNumber]] [;]</pre> <p>The LUName is a one to eight character alphanumeric name that must be unique for the SNA node.</p> <p>The LUNumber must be a number from 1–256 as defined on the SNA node screen. The LUNumber must be left blank if the SNA node is a type 2.1 node. If specified, the LUNumber must be unique.</p> <p>See also LISTLU and PURGELU.</p>
Example	<pre>NMMGR> ADDLU SNAnode1 Enter LU names (luname [, lunumber]:) ADDLU> lu1,1; ADDLU> lu2,2; ADDLU> lu3,3; ADDLU> lu4,4; ADDLU> NMMGR></pre>

ADDNODE

Adds or updates a node in the current network directory.

Syntax `ADDNODE [filename]`

Parameters `filename` The name of a text file that contains node name and address information for each node to be added or updated in the network directory. The format for the file name is:

`filename[.groupname[.accountname]]`

A file lockword may not be specified. The contents of the file must be formatted as described here.

Description `ADDNODE` adds or updates nodes in the network directory. New nodes are automatically created when they are entered. New path reports (IP address/additional address pairs) can be added to new or existing nodes. Path reports on existing nodes can be modified.

The directory file must be opened either via the Open Configuration/Directory File screen or via the `OPENDIR` maintenance mode command before `ADDNODE` can be used.

This command can be run interactively, by entering maintenance mode from screen mode and typing the command, or it can be run from a batch job.

When the command is run interactively and no filename is specified, you are prompted to enter parameters for each node. When the command is run interactively and a filename is specified, or when the command is run from a job, parameters for each node name entry are formatted as follows:

```
nodename[,] "IP address"[,] [additional address type[,][additional address]] [;]
```

The description of each parameter that must be defined when the command is run from a job or with a filename specified is as follows:

`nodename` The name of a node to be added or updated with new path report data. The format is:

`nodename.domain.organization`

Each of the three names may be from one to sixteen characters long, must begin with a letter, and may contain letters, digits, underscores, or dashes.

If the `nodename` does not exist, it will be created. If it does exist, the IP address and additional address (if any) will be added to its path report list in the directory.

IP address The IP address of the remote node. A node may have several IP addresses, one for each path report. The format of the address is the same as the IP address in the Network Directory Data screen. It must be enclosed in quotes (" ") if it is not entered interactively.

additional address type The numerical type associated with each type of additional address on the Network Directory Data screen. If there is no additional address associated with the node you are adding, enter a 1 (the default). If there is an additional address, enter the number corresponding to the type of the address. The types are as follows:

- | | |
|---|--|
| 1 | No additional address (default, IP address only) |
| 2 | LAN/IEEE802.3 |
| 3 | X.25 |
| 4 | NS/SNA |
| 5 | LAN/ETHERNET |

additional address The additional address, if any, to be associated with the IP address specified for the node name. If the address is of type LAN/IEEE802.3 or LAN/ETHERNET, then the additional address is an IEEE802.3 or ETHERNET address with the format *xx-xx-xx-xx-xx-xx*, where *x* is a hexadecimal digit (0–9, or A–F). If the address type is X.25, then an X.25 address key name must be specified here.

Example

To interactively add a path report for the node named *NODE1.XLNET.ACCTG* (user input is italicized):

```
NMMGR> OPENDIR NSDIR.NET.SYS
NMMGR> ADDNODE
Enter node name (or press return to exit):
ADDNODE> NODE1.XLNET.ACCTG
Enter IP address:
ADDNODE> C 192.000.001 002
Enter additional address type,
(1-IP, 2-LAN/IEEE802.3, 3-X.25, 4-NS/SNA,
5-LAN/ETHERNET, (default is 1):
```

ADDNODE

```
ADDNODE> 2
```

```
Enter additional address:
```

```
ADDNODE> 11-22-33-44-55-66
```

```
NODE1.XLNET.ACCTG saved.
```

```
Enter node name (or press return to exit):
```

```
ADDNODE> [RETURN]
```

```
NMMGR>
```

ADDVC

Adds an X.25 virtual circuit address key to the network directory and to the configuration file.

Syntax ADDVC [filename]

Parameters

filename The name of a text file that contains X.25 address information for each remote node to be added to the configuration file and directory. The format for the file name is:

filename[.groupname[.accountname]]

A file lockword may not be specified. The contents of the file must be formatted as described below.

Description ADDVC updates both the local network directory and the configuration file with X.25 address information. It uses the address key specified for the network directory to relate the remote node name to an IP address, local NI name, and an X.25 address.

The directory and configuration files must be opened either via the Open Configuration/Directory File screen or via the `OPENDIR` and `OPENCONF` maintenance mode command before `ADDVC` is invoked.

This command can be run interactively, by entering maintenance mode from screen mode and typing the command, or it can be run from a batch job.

When `ADDVC` is used interactively and no filename is specified, the user is prompted to enter address parameters for each remote node. When `ADDVC` is run interactively and a filename *is* specified, or when the command is run from a job, each entry is defined as a set of positional parameters delimited by spaces or a comma. An unspecified parameter must be delimited by a comma, or by a semicolon if it occurs at the end of the entry.

For switched virtual circuits, the format is:

```
nodename[,] "IP address"[,] address key[,] NI name[,] Y[,] svc address[,]  
[facility set][,] [security class][;]
```

For permanent virtual circuits, the format is:

```
nodename[,] "IP address"[,] address key[,] NI name[,] N[,] circuit number[;]
```

The description of each parameter that must be defined when the command is run from a job or with a filename specified is as follows:

nodename The name of a node to which the address key is to be added. The format is:

ADDVC

nodename.domain.organization

Each of the three names may be from one to sixteen characters long, must begin with a letter, and may contain letters, digits, underscores, or dashes.

If the nodename does not exist, it will be created. If it does exist, the IP address and additional address (if any) will be added to its path report list in the directory.

IP address The IP address of the remote node whose X.25 address is to be added to the configuration. The format of the address is the same as the IP address in the Network Directory Data screen. It must be enclosed in quotes (“ ”) if it is not entered interactively.

address key The name tag used to relate a node name and IP address from the network directory, with a switched or permanent virtual circuit address, configured under an X.25 NI in the local configuration file. The name may contain a maximum of eight alphanumeric characters.

NI name The name of the local X.25 NI. The name may contain a maximum of eight alphanumeric characters.

Y or N A Y or an N must be entered after the NI name parameter to indicate whether the virtual circuit being added is a switched virtual circuit (Y) or a permanent virtual circuit (N).

svc address The address associated with an X.25 node. The address can be a maximum of 15 digits and is supplied with the network subscription or assigned by the network administrator.

facility set The name of the facility set to be used when the switched virtual circuit connection is created with the remote node. The name may contain a maximum of eight alphanumeric characters. The default is STDSFSET, which is supplied when the NI is created using NS guided configuration.

security class The security class to be associated with switched virtual circuit connections established with the remote node. The choices are:

IO Initiate outbound and accept inbound connections.

IN Accept inbound connections only.

OU Initiate outbound connections only.

LK Do not permit inbound or outbound connections (placeholder entry).

circuit number The permanent virtual circuit number supplied with your network subscription or assigned by your network administrator.

Example

To interactively add a switched virtual circuit for the node named NODE1.XLNET.ACCTG to the NI named X25 (user input is italicized):

```
NMMGR> OPENCONF NMCONFIG
NMMGR> OPENDIR NSDIR.NET.SYS
NMMGR> ADDVC
Enter node name (or press return to exit):
ADDVC> NODE1.XLNET.ACCTG
Enter IP address:
ADDVC> C 192.000.001 001
Enter address key:
ADDVC> NODE1
Enter NI name:
ADDVC> X25
Is the X.25 address a switch VC (Y/N)?
ADDVC> Y
Enter X.25 address:
ADDVC> 123456789012345
Enter facility set name (press return for STDSFSET):
ADDVC> [RETURN]
Enter security class (IO,IN,OU,LK):
ADDVC> IO
Address key NODE1 added.
Enter node name (or press return to exit):
ADDVC> [RETURN]
NMMGR>
```

CARDCONF

Sets the current DTC card number so that the correct card is displayed or updated by the **READALLCONF**, **READCONF**, **UPDATECONF**, and **WRITECONF** commands.

Syntax	<code>CARDCONF cardno</code>
Parameters	<code>cardno</code> A number corresponding to the slot number of the DTC that contains the DTC card to be acted on. The number must be between 0 and 5.
Description	<p>CARDCONF sets the current card number for a path referencing a DTC card screen. If the current path identifies a DTC configuration, the commands READALLCONF, READCONF, UPDATECONF, and WRITECONF operate on data associated with a specific card in the DTC, as identified by the CARDCONF command.</p> <p>The CARDCONF command must be specified before a PATHCONF command for a DTC card screen.</p>
Example	<pre>NMMGR> <i>CARDCONF 1</i></pre> <p>(Sets the current DTC card number to 1.)</p> <pre>NMMGR> <i>PATHCONF DTS.DTCPC.SELECT.DTC01.CARD012</i></pre> <p>(Sets the current path to the data screen that contains data for cards 0, 1, and 2 of DTC01.)</p>

COMPRESSCONF

Compresses or expands the current configuration file.

Syntax	<code>COMPRESSCONF numrecs</code>
Parameters	<code>numrecs</code> The number of additional records to be added to or subtracted from the configuration file. A positive value causes records to be added and a negative value causes records to be subtracted. The value must be from -32768 to 32767. A zero will remove unused records (compress them down to 0 bytes).
Description	COMPRESSCONF increases or decreases the capacity of the currently opened configuration file and regains unused but not “free” records. (You can also compress a configuration file and alter the file’s capacity using the NMMGR Compress screen in screen mode.)
Example	<pre>NMMGR> COMPRESSCONF 500</pre> <p>(Increases the current configuration file by 500 records.)</p> <pre>NMMGR> COMPRESSCONF -500</pre> <p>(Decreases the current configuration file by 500 records.)</p> <pre>NMMGR> COMPRESSCONF 0</pre> <p>(Compresses the current configuration without affecting its size.)</p>

CONTINUE

Prevents NMMGR from terminating in a job because of a maintenance mode error.

Syntax	CONTINUE [ON or OFF]	
Parameters	ON	Turn on continue so the NMMGR will not terminate for the rest of this job if a maintenance mode command returns a bad status.
	OFF	Turn off continue mode.
Description	Stops NMMGR from terminating abnormally in a job because a single maintenance mode command terminated with an error. If no parameters are provided, the CONTINUE will be in effect for the next command only.	
Example	NMMGR> <i>ADDCONFnetxport.ni.newname lan</i> NMMGR> <i>WRITECONF outbuf,256</i> NMMGR> <i>UPDATECONF</i> NMMGR> <i>CONTINUE</i> NMMGR> <i>PURGECONF netxport.ni.oldname</i>	

COPYCONF

Copies a configuration subtree.

Syntax	<code>COPYCONF srcpath[:srcfile][,[destpath][:destfile]] [;KEEP][;NOVERS]</code>
Parameters	<p><code>srcpath</code> The name of a configuration path in the source file that describes the location of the subtree to copy (source path). It is composed of one to eight path identifiers separated by periods:</p> <p style="padding-left: 40px;"><code>pathid.pathid.pathid...</code></p> <p><code>srcfile</code> The name of an NMMGR configuration file (NCONF file) that contains the subtree to be copied (source file). The format is:</p> <p style="padding-left: 40px;"><code>filename[.groupname[.accountname]]</code></p> <p>A file lockword may not be specified. A file equation may be employed through explicit use of the back-reference:</p> <p style="padding-left: 40px;">*DESIGNATOR</p> <p><code>destpath</code> The name of the path that describes where the subtree is to be placed in the destination file (destination path), in the same format as <code>srcpath</code>. Select and type-select path identifiers may be changed from the corresponding identifier in <code>srcpath</code> as long as the new identifier is type-compatible. If this parameter is not specified, the destination path is assumed to be the same as the path specified in <code>srcpath</code>.</p> <p><code>destfile</code> The name of an NMMGR configuration file that is to receive the copied data (destination file). The format is the same as <code>srcfile</code>. This file name may be the same as that specified in <code>srcfile</code>, which allows you to copy data from one location within a file to another location in the same file. If this parameter is not specified, the destination file is assumed to be the same as the source file.</p> <p><code>KEEP</code> Designates that if the <code>destpath</code> already exists in <code>destfile</code>, the operation will not be performed. The default (when <code>KEEP</code> is not specified) is to replace the destination subtree with the source path.</p> <p><code>NOVERS</code> Designates that no version check will be performed on the source or destination paths. The default is to perform version checks.</p>

COPYCONF

Description COPYCONF allows data to be copied from one configuration file into another file, or into the same file in a different location. Source and destination paths are used to direct where a subtree is to come from and where it is to be copied to. (You can also copy a configuration subtree using the NMMGR Configuration Subtree Copy screen in screen mode.)

Example To copy data from one file into another file using the same path (the command must be entered in one line):

```
NMMGR> COPYCONF  
NETXPORT.NI.LAN1.INTERNET:FILEA,NETXPORT.NI.LAN1.INTERNET;FILEB
```

To copy data to a different path in the same file:

```
NMMGR> COPYCONF LINKCONF.LINK1:FILEA, LINKCONF.LINK2:FILEA
```

DELETECONF

Deletes a subtree from the current configuration file.

Syntax	<code>DELETECONF path</code>
Parameters	<p><code>path</code> The name of a configuration path in the configuration file that describes the location of the subtree to delete. It is composed of one to eight path identifiers separated by periods, as follows:</p> <p style="padding-left: 40px;"><code>pathid.pathid.pathid...</code></p> <p>The last identifier in the path must be a select or type select identifier.</p>
Description	<p><code>DELETECONF</code> deletes the subtree of the specified path. All configuration records in the subtrees below the specified path are deleted. The configuration record identified by the specified path is also deleted.</p>
Example	<p>To delete all configuration records in the <code>NETXPORT.NI.LAN</code> subtree:</p> <pre>NMMGR> <i>DELETECONF NETXPORT.NI.LAN</i></pre>

DELETENODE

Deletes an entry from the network directory.

Syntax	DELETENODE [nodename] [;LOCAL] [;GLOBAL]	
Parameters	nodename	<p>The name of a node to delete from the directory in the format:</p> <p>nodename.domain.organization</p> <p>Each of the three names may be from one to sixteen characters long, must begin with a letter, and may contain letters, digits, underscores, or dashes.</p> <p>If omitted, then all entries of the selected class in the directory will be deleted.</p>
	LOCAL	Designates that only local entries in the directory are to be deleted.
	GLOBAL	Designates that only global entries in the directory are to be deleted. This is the default class if neither keyword is specified.
Description	DELETENODE deletes a single entry or all entries from the currently opened network directory. If you issue this command from a session, and do not specify <code>nodename</code> , then you are prompted with a delete confirmation message and a yes/no response is solicited to verify that you really want to delete all entries from the directory.	
Example	<p>To delete a single node entry:</p> <pre>NMMGR> DELETENODE NODE2.XLNET.ACCTG ;LOCAL</pre> <p>To delete all global entries from a directory:</p> <pre>NMMGR> [RETURN] Are you sure (Y/N)? Y</pre>	

EXIT

Exits from maintenance mode.

Syntax	EXIT
Parameters	None.
Description	If you are running maintenance mode interactively, type EXIT at the NMMGR> prompt to return to screen mode. If you are running maintenance mode from a job, EXIT terminates the job.
Example	NMMGR> <i>EXIT</i>

EXITVALIDATE

Validates a subsystem's configuration, if needed, upon exit from NMMGR.

Syntax	EXITVALIDATE subsystem [ON or OFF]	
Parameters	subsystem	The name of a configuration subsystem that is to be validated. Currently NETXPORT, DTS, or IBM is allowed.
	ON	This is the default and need not be specified. It indicates that exit validation is to be enabled for the specified subsystem.
	OFF	Indicates that exit validation is to be disabled for the specified subsystem.
Description	<p>Automatically validates the selected configuration (if needed) when you attempt to exit NMMGR. NMMGR will note that validation is needed whenever a configuration is changed without being validated. Output is directed to the formal designator <code>FORMLIST</code>, which defaults to <code>\$STDLIST</code>.</p> <p>If the configuration is not valid NMMGR will return you back to screen mode instead of exiting. If you want to exit, use the <code>EXIT</code> command or press the <code>[EXIT]</code> function key (on the <code>OPEN</code> screen) again.</p> <p>By default, exit validation is enabled for the DTS subsystem.</p>	
Example	NMMGR> EXITVALIDATE DTS	

EXITWARN

Warns that a subsystem needs to be validated before exiting NMMGR.

Syntax

```
EXITWARN subsystem [ON or OFF]
```

Parameters

`subsystem` The name of a configuration subsystem to which messages will be issued. Currently NETXPORT, DTS, or IBM is allowed.

`ON` This is the default and need not be specified. It indicates that an exit message is to be enabled for the specified subsystem.

`OFF` Indicates that an exit message is to be disabled for the specified subsystem.

Description

Automatically warns you that validation needs to be performed for the selected subsystem(s) when you attempt to exit NMMGR. NMMGR will note that validation is needed whenever a configuration is changed without being validated. Output is directed to the formal designator `FORMLIST`, which defaults to `$STDLIST`.

If the configuration is not validated, NMMGR will return you back to screen mode instead of exiting. If you want to exit, use the **EXIT** command or press the **[EXIT]** function key (on the `OPEN` screen) again.

By default, exit warning is enabled for the all subsystems.

Example

```
NMMGR> EXITWARN DTS
```

EXPANDDIR

Increases the capacity of a network directory file.

Syntax `EXPANDDIR numrecs`

Parameters `numrecs` The number of additional records to be added to the directory. The value must be from 0 through 32767.

Description `EXPANDDIR` increases the capacity of the currently opened directory file to allow additional entries to be added. Each entry in the directory requires one record, plus one for each network address referenced in the entry.

NOTE You can use the `EXPANDDIR` command only if you have exclusive access to the network directory. Therefore, the network transport must be shut down. In addition, to enter this command you must be logged onto the same account where the directory file resides.

Example To increase the current directory file by 500 records:
`NMMGR> EXPANDDIR 500`

HELP

Calls up the help function.

Syntax

HELP [keyword]

Parameters

keyword	The NMMGR topic about which you are seeking help information. Help is available on the following topics:
COMMANDS	A list of the commands available.
MAINT	General help on the maintenance mode interface.
OVERVIEW	Overview of NMMGR operation.
ROADMAP	A map of NMMGR screens.
INDEX	An index of configuration parameters
ALL	All NMMGR help topics.

Description

If you are running maintenance mode interactively, type `HELP` to enter the NMMGR help mode. If you entered a keyword, you will be presented with the help information for that keyword. If you did not enter a keyword, you will be presented with the list of available help topics and allowed to select a topic. You can browse through the topics until you terminate help mode by typing `end`, `exit`, or `∴`.

Example

To get an overview of NMMGR operation:

```
NMMGR> HELP OVERVIEW
```

LISTLDEV

Lists LDEVs for a DTC card in a format compatible with ADDLDEV.

Syntax	(dctname) LISTLDEV (dct-nodename) [filename] (station-address)
Parameters	<p>dctname The NMMGR nametag for the DTC being accessed. The nametag is the last name in the pathname of the DTC. For example, the dctname is DTC01 in the pathname DTS.DTC.SELECT.DTC01. The dctname is a one to eight character alphanumeric string.</p> <p>dct-nodename The nodename of the DTC that has been configured at the DTC nametag path. The name must conform to the NODENAME.ORGANIZATION.DOMAIN format. The name is a five to fifty character alphanumeric string.</p> <p>station-address The hexadecimal station of the DTC being accessed.</p> <p>filename A text file that contains the LDEVs to be listed. The file name's format is: filename[.groupname[.accountname]] A file lockword may not be specified. The contents of the file must be formatted as described below.</p>

Description If the filename parameter is specified, the file is created and opened. If the file exists, its contents are purged before it is opened. When the filename is supplied, the file is updated with a list of all the LDEVs configured for the selected DTC in a format compatible with ADDLDEV. If the filename parameter is not supplied, the LDEVs are printed on the \$STDLIST.

See also **ADDLDEV** and **PURGELDEV**.

Example

```
NMMGR> LISTLDEV dct01.ind.hp
LISTLDEV> 100, 1, 1, tr10d96;
LISTLDEV> 101, 1, 2, tr10d96;
LISTLDEV> 102, 1, 3, tr10d96;
LISTLDEV> 201, 2, tr10d96, pad1, 123456789012301

NMMGR>
```

LISTDIR

Lists the contents of a network directory.

Syntax	LISTDIR [nodename]
Parameters	<p>nodename The name of a node to display from the directory in the format:</p> <p>nodename.domain.organization</p> <p>Each of the three names may be from one to sixteen characters long, must begin with a letter, and may contain letters, digits, underscores, or dashes.</p> <p>If omitted, then all entries in the directory will be listed.</p> <p>When both global and local entries exist with the same name, both will be listed.</p>
Description	<p>LISTDIR displays zero or more entries in the current network directory. A summary of information about the directory file itself is listed first, followed by individual entry listings sorted alphabetically by node name within entry class. Local entries precede global entries.</p> <p>The summary includes the name of the network directory file, the date and time of last modification, the number of records available and used, and the directory's capacity shown as a percentage.</p> <p>For each entry listed, the node name and classification is shown (LOCAL entries are followed by "(L)"). Next is a list of one to eight network addresses associated with the entry. For each network address, the type, additional address, and transport services (TCP, TCP Checksum setting, PXP) are shown where applicable.</p> <p>The list file is directed to the formal designator FORMLIST, which defaults to \$STDLIST.</p>
Example	<pre>NMMGR> LISTDIR GLOBAL NETWORK DIRECTORY INFORMATION Directory File: NSDIR.PUB.SYS Modification Date: FRI, APR 20, 1990, 10:04 AM Modification Node: CECIL.DCL.IND Records Used: 9 Records Available: 991 Capacity: 1% full</pre>

Using NMMGR in Maintenance Mode
LISTDIR

Node Name	IP Address	Net Type	Additional Addr	T	C	P
				C	H	X
				P	X	P
POGO.DCL.IND (L)	C 194.107.213 017	IP X	NONE			X
ASTRO.MKTG.IND	C 194.107.213 009	IP	NONE	X		X
VENUS.FIN.IND	C 194.107.213 017	IP	NONE	X	X	X
	B 145.140 062.193	IP/IEEE802.3	F1-B3-58-73-A3-09	X	X	X
ZIGGY.LAB.IND	C 194.107.213 086	IP	NONE	X		X

LISTLU

Lists LUs in a format compatible with ADDLU.

Syntax	LISTLU SNA <code>nodename</code> [<code>filename</code>]
Parameters	<p>SNA<code>nodename</code> A one to eight character alphanumeric name that identifies the SNA node to be listed.</p> <p><code>filename</code> A text file that contains the LU name and number for each LU to be read from the configuration file. The file name's format is:</p> <p style="padding-left: 40px;"><code>filename[.groupname[accountname]]</code></p> <p>A file lockword may not be specified. The contents of the file must be formatted as described below.</p>
Description	<p>If the <code>filename</code> parameter is specified, the file is created and opened. If the file exists, its contents are purged before it is opened. If the <code>filename</code> is not specified the data will be printed to the <code>\$STDLIST</code>.</p> <p>See also ADDLU and PURGELU.</p>
Example	<pre>NMMGR> LISTLU SNA<code>node1</code> LISTLU> lu1,1; LISTLU> lu2,2; LISTLU> lu3,3; LISTLU> lu4,4; LISTLU> NMMGR></pre>

MAKESTREAM

Creates a job stream that can then be used to perform network directory or configuration file updates on remote nodes.

Syntax	<code>MAKESTREAM streamfile, nodefile, commandfile</code>
Parameters	<p><code>streamfile</code> The name of a file to be created that will contain the job stream commands. The format is:</p> <pre>filename[.groupname[.accountname]]</pre> <p>The file must not already exist. The default allocation of 5000 variable length records may be overridden through a file equation.</p> <p><code>nodefile</code> The name of the file that contains a list of nodes to be updated. The format is the same as that for <code>streamfile</code>. This file may be generated by redirecting the output of the <code>LISTDIR</code> command into a file, which may then be submitted directly to <code>MAKESTREAM</code> or edited with a text editor such as <code>TDP/3000</code>. All node name entries must begin with an alphabetic character.</p> <p><code>commandfile</code> The name of a file that contains NMMGR maintenance mode commands. The format is the same as that for <code>streamfile</code>. The commands in this file are applied to each node listed in <code>nodefile</code>.</p>

Description `MAKESTREAM` generates a text file of job stream commands suitable for updating a group of nodes. The job stream is created based on a list of nodenames contained in the `nodefile` supplied. The `nodefile` acts as a control file. The update status of each node is recorded for review in the event of update failures such as transport problems or a network being inaccessible.

The standard logon is `NETADMIN.SYS,PUB`. Progress messages are sent to `OPERATOR.SYS`. These and other parts of the job stream may be customized using a text editor once the stream file is created. The commands executed on each node in the `nodefile` are taken from `commandfile`. Commands may be any NMMGR maintenance mode commands and are executed on the remote side of the connection established for each node being updated.

Only lines that begin with an alphabetic character in column one of the `nodefile` are considered node name entries.

Example `nodefile` `NLIST` contains the following:

```
ASTRO.MKT.IND  
POGO.DCL.IND
```

commandfile CMDS contains the following:

```
OPENDIR NSDIR.PUB.SYS
:FILE SRCDIR=NSDIR.PUB.SYS:$BACK
MERGEDIR *SRCDIR;NOKEEP
LISTDIR
EXIT
```

To generate and run a job stream, use the following commands:

```
NMMGR> MAKESTREAM SFILE, NLIST, CMDS
```

```
Generating job statements for node ASTRO.MKT.IND
```

```
Generating job statements for node POGO.DCL.IND
```

```
NMMGR> :STREAM SFILE
```

```
#J1072
```

After job completion, file NLIST contains the following:

ASTRO.MKT.IND	UPDATED	04/20/90 11:09 AM
POGO.DCL.IND	UPDATED	04/20/90 11:14 AM

MERGEDIR

Merges entries from another network directory or configuration file into the current network directory.

Syntax

```
                {otherdir [,nodename]} [;LOCAL] [;KEEP      ]
MERGEDIR {configfile                }           [;NOKEEP     ]
                                                [;GLOBAL][;TIMESTAMP ]
```

Parameters

otherdir The name of another network directory file to merge one or more entries from. The format is:

```
filename[.groupname[.accountname]]
```

A file lockword may not be specified.

nodename The name of a single node entry to merge when the source file is a network directory. This parameter may not be specified if the source is a configuration file. The format is:

```
nodename.domain.organization
```

Each of the three names may be from one to sixteen characters long, must begin with a letter, and may contain letters, digits, underscores, or dashes.

configfile The name of an NMMGR configuration file (NCONF file) from which a single entry is to be extracted. The format of this filename is the same as that for **otherdir**.

LOCAL When the source file is a network directory, LOCAL indicates that only those entries classified as “local” will be merged into the current directory.

When the source is a configuration file, LOCAL specifies that the extracted entry will be classified as “local” in the current directory.

GLOBAL When the source file is a network directory, GLOBAL indicates that only those entries classified as “global” will be merged into the current directory.

When the source is a configuration file, GLOBAL specifies that the extracted entry will be classified as “global” in the current directory.

GLOBAL is the default classification when neither LOCAL nor GLOBAL is specified.

KEEP	<p>Indicates that entries in the current directory are to be retained when duplicate entries exist in the source directory.</p> <p>This keyword is not applicable when the source is a configuration file.</p>
NOKEEP	<p>Indicates that entries in the current directory are to be overwritten with duplicate entries found in the source directory.</p> <p>This keyword is not applicable when the source is a configuration file.</p>
TIMESTAMP	<p>Indicates that duplicate entries found in both directories are to be compared, and the one that was created most recently will be stored in the current directory.</p> <p>This is the default action taken when neither <code>KEEP</code>, <code>NOKEEP</code>, nor <code>TIMESTAMP</code> is specified.</p> <p>This keyword is not applicable when the source is a configuration file.</p>

Description

`MERGEDIR` takes entries from either another network directory or an NMMGR configuration file and merges them into the current directory. Entries that do not exist in the current directory are unconditionally added to the current directory. Duplicate entries are handled differently depending upon the source file type. If the source file is a network directory, then duplicate entries are either ignored or replaced in the current directory depending on the `KEEP`, `NOKEEP`, or `TIMESTAMP` keyword used. If the source file is an NMMGR configuration file, then the duplicate entry is replaced in the current directory.

Example

To merge an entry from the system configuration file and store it as a local entry, enter the following command:

```
NMMGR> MERGEDIR NMCONFIG.PUB.SYS ;LOCAL
```

To merge all global entries from another network directory, overwriting any duplicates in the current directory, enter the following command:

```
NMMGR> MERGEDIR RMOTEDIR ;NOKEEP
```

NICONF

Sets up paths to add or update NETXPORT NI configurations.

Syntax	<code>NICONF niname [nitype]</code>				
Parameters	<table><tr><td><code>niname</code></td><td>A one to eight alphanumeric character name that identifies the network interface to be added or modified.</td></tr><tr><td><code>nitype</code></td><td>The type of the network interface to be added. Valid types are: LAN, TOKEN, X25, SNA, GATEHALF, or ROUTER.</td></tr></table>	<code>niname</code>	A one to eight alphanumeric character name that identifies the network interface to be added or modified.	<code>nitype</code>	The type of the network interface to be added. Valid types are: LAN, TOKEN, X25, SNA, GATEHALF, or ROUTER.
<code>niname</code>	A one to eight alphanumeric character name that identifies the network interface to be added or modified.				
<code>nitype</code>	The type of the network interface to be added. Valid types are: LAN, TOKEN, X25, SNA, GATEHALF, or ROUTER.				
Description	<p>NICONF is used in place of the PATHCONF command to set up internal data structures in NMMGR. Subsequent WRITECONF, READCONF, READALLCONF, and UPDATECONF commands will access the configuration file in a similar way to the guided configuration screen corresponding to the NI type for the NI name.</p>				
Example	<pre>NMMGR> NICONF lanni NMMGR> WRITECONF ipaddress, "C 192.001.001.001" NMMGR> UPDATECONF</pre>				

OPENCONF

Opens a nodal configuration file and makes it the current configuration file.

Syntax `OPENCONF fileref`

Parameters `fileref` **The name of a configuration file to access in the format:**
`filename[.groupname[.accountname]]`
A file lockword may not be specified.

Description `OPENCONF` closes any previously opened configuration file and opens the file named in `fileref` for shared, read/write access. If the configuration file does not exist, then a new file is created and opened.

Example `NMMGR> OPENCONF NMCONFIG.PUB.SYS`

OPENDIR

Opens a network directory file and makes it the current directory.

Syntax

`OPENDIR fileref`

Parameters

`fileref` **The name of a network directory file to access in the format:**

`filename[.groupname[.accountname]]`

A file lockword may not be specified.

Description

OPENDIR closes any previously opened directory and opens the directory file named in `fileref` for shared, read/write access. If the directory file does not exist, than a new directory is created and opened.

Example

`NMMGR> OPENDIR NSDIR.PUB.SYS`

PAGECONF

Sets the page number for multipage data screens.

Syntax	<code>PAGECONF pageno</code>
Parameters	<code>pageno</code> A positive integer identifying the page number to be accessed when the screen being accessed is a multipage data screen.
Description	<p><code>PAGECONF</code> sets the current page number for a path referencing a multipaged data screen. A multipaged data screen is used to store lists of data that cannot be entered on a single screen. If the current path identifies a multipaged data screen, the commands <code>READCONF</code>, <code>READALLCONF</code>, <code>WRITECONF</code>, and <code>UPDATECONF</code> operate on data in the current page, as set by the <code>PAGECONF</code> command. Otherwise, the page number is ignored.</p> <p>The current page number is set to 1 when maintenance mode is entered.</p> <p>The <code>PAGECONF</code> command may be specified before or after a <code>PATHCONF</code> command for a multipaged data screen.</p>
Example	<code>NMMGR> PAGECONF 9</code>

PASSWORD

Changes the password to allow write access on the OPEN screen.
Validates the NETXPORT subsystem configuration.

Syntax	<code>PASSWORD [password]</code>
Parameters	<code>password</code> This sets a password. You must supply a maximum 16 alphanumeric character string on the OPEN screen to gain write access. When no password is supplied, the default is the null string. If a password is set up before the configuration file, you will need to enter the password at the open screen or you won't be able to create (write to) the configuration file.
Description	The password you supply on the OPEN screen is compared with the password string supplied here (or the default if no password command has been issued). If the user password does not match, you are only permitted to access the network directory or configuration file in BROWSE MODE.
Example	<code>NMMGR> PASSWORD guess</code>

PATHCONF

Sets the current path in the current configuration file.

Syntax `PATHCONF [=]path`

Parameters `path` The name of a path in the configuration file that describes the location of the desired record. It is composed of one to eight path identifiers separated by periods:
`pathid.pathid.pathid...`
The last identifier in the path must be a data identifier (must refer to a data screen).

Description `PATHCONF` sets the current path in the configuration file; that is, it points to the specified configuration record. The current data in the current path is operated on by the `READCONF`, `READALLCONF`, `WRITECONF`, and `UPDATECONF` commands. You must call the `VERSIONCONF` command before using this command. The `VERSIONCONF` command needs to be called only once in a session.

Example To set the current path in the configuration file to `NETXPORT.NI.niname` where `niname=LANNI`:

```
NMMGR> PATHCONF NETXPORT.NI.LANNI
```

PURGECONF

Deletes subtrees of records from the configuration file.

Syntax	<code>PURGECONF [pathname]</code>
Parameters	<p><code>pathname</code> The name of a path in the configuration file that describes the location of the desired subtree. It is composed of one to eight path identifiers separated by periods. The format for the pathname is:</p> <p style="padding-left: 40px;"><code>pathid.pathid.pathid...</code></p> <p>The last pathid specified must not exist in the configuration file. The second to last pathid must exist.</p>
Description	<p>PURGECONF purges records from the configuration file. It functions in the same way as the <code>DELETE</code> function key on screens (like the <code>NETXPORT.NI</code> screen) that require you to delete, rename, add, or modify a configuration subtree. Note that the subtree will be purged whether or not it contains data.</p> <p>See also <code>ADDCONF</code>, <code>READCONF</code>, <code>READALLCONF</code>, <code>VERSIONCONF</code>, <code>WRITECONF</code>, and <code>UPDATECONF</code>.</p>
Example	<pre>NMMGR> <i>ADDCONF netxport.ni.newname lan</i> NMMGR> <i>WRITECONF outbuf,256</i> NMMGR> <i>UPDATECONF</i> NMMGR> <i>PURGECONF netxport.ni.oldname</i></pre>

PURGELDEV

Purges LDEVs from a DTC card.

Syntax	{dctname}
	PURGELDEV {dct-nodename} [filename]
	{station-address}
Parameters	<p>dctname The NMMGR nametag for the DTC being accessed. The nametag is the last name in the pathname of the DTC. For example, the dctname is DTC01 in the pathname DTS.DTC.SELECT.DTC01. The dctname is a one to eight character alphanumeric string.</p> <p>dct-nodename The nodename of the DTC that has been configured at the DTC nametag path. The name must conform to the NODENAME.ORGANIZATION.DOMAIN format. The name is a five to fifty character alphanumeric string.</p> <p>station- address The hexadecimal station of the DTC being accessed.</p> <p>filename A text file that contains the LDEVs to be added or purged. The file name's format is: filename[.groupname[.accountname]]</p> <p> A file lockword may not be specified. The contents of the file must be formatted as described below.</p>
Description	<p>This command purges the selected LDEVs from the cards in the DTC's configuration. The first DTC found that matches the selection criteria will be operated on. For example, this could occur if more than one DTC is configured with the same station-address.</p> <p>LDEVs for one or more cards can be entered on each invocation of this command. If you don't specify a filename you will be prompted with the ADDLDEV> prompt. The format of each entry depends on the card type. The format for each entry is:</p> <pre>LDEV[,] cardno[,] [# my comment]</pre> <p>All text following the options number sign “#” will be interpreted as a comment.</p> <p>See also ADDLDEV and LISTLDEV.</p>
Example	<pre>NMMGR> PURGELDEV dct01.ind.hp</pre> <p>Enter LDEVs; (ldev, cardno)</p>

Using NMMGR in Maintenance Mode
PURGELDEV

```
PURGELDEV> 100, 1;  
PURGELDEV> 101, 1;  
PURGELDEV> 102, 1;  
PURGELDEV> 201, 2,  
NMMGR>
```

PURGELU

Purges LUs from the SNA node transport screen.

Syntax	<code>PURGELU SNAnodename [filename]</code>
Parameters	<p><code>SNAnodename</code> A one to eight character alphanumeric name that identifies the SNA node to be purged.</p> <p><code>filename</code> A text file that contains the LU names to be purged from the configuration file. The file name's format is: <code>filename[.groupname[accountname]]</code></p> <p>A file lockword may not be specified. The contents of the file must be formatted as described here.</p>
Description	<p>If the filename is not specified you will be prompted with the <code>PURGELU></code> prompt. The format for each interactive or filename is:</p> <p><code>LUName [;]</code></p> <p>The SNA node name must be a one to eight character alphanumeric name. It identifies the SNA node to be purged. If SNA node name is not specified the current (last used) name will be used. If no current name exists then the first name configured will be selected.</p> <p>The LUName is a one to eight character alphanumeric name that must be unique for the SNA node.</p> <p>See also <code>ADDLU</code> and <code>LISTLU</code>.</p>
Example	<pre>NMMGR> PURGELU SNAnode1 Enter LU names (luname [;]): PURGELU> lu1; PURGELU> lu2; PURGELU> lu3; PURGELU> NMMGR></pre>

PURGENI

Purges a network interface from the configuration file and performs cleanup.

Syntax PURGENI [niname]

Parameters niname A one to eight character alphanumeric name that identifies the network interface to be purged.

Description Purges a network interface from the configuration file and purges all the links it refers to from under the LINK path.

Example NMMGR> *PURGENI lanni*

PURGEVC

Purges an X.25 virtual circuit address key from the network directory and the configuration file.

Syntax PURGEVC [filename]

Parameters filename The name of a text file that contains X.25 address information for each remote node to be deleted from the configuration file and directory. The format for the file name is:

filename[.groupname[.accountname]]

A file lockword may not be specified. The contents of the file must be formatted as described below.

Description PURGEVC removes an address key from both the local network directory and the configuration file. If there are multiple occurrences of the same address key under a single NI, all occurrences are purged. The directory node associated with the address key to be purged will be purged itself if it contains no other addresses.

The directory and configuration files must be opened either via the Open Configuration/Directory File screen or via the **OPENDIR** and **OPENCONF** maintenance mode command before **ADDVC** is invoked.

PURGEVC can be run interactively, by entering maintenance mode from screen mode and typing the command, or it can be run from a batch job.

When PURGEVC is used interactively and no filename is specified, the user is prompted to enter address parameters for each remote node. When PURGEVC is run interactively and a filename is specified, or when the command is run from a job, entries must be made in the following format:

nodename[,] address key[,] NI name [;]

The description of each address key parameter is as follows:

nodename The name of a node for which the address key is to be purged. The format is:

nodename.domain.organization

Each of the three names may be from one to sixteen characters long, must begin with a letter, and may contain letters, digits, underscores, or dashes.

PURGEVC

address key The name tag used to relate a node name and IP address from the network directory with a switched or permanent virtual circuit address configured under an X.25 NI in the local configuration file. The name may contain a maximum of eight alphanumeric characters.

NI name The network interface name. The name of the local X.25 NI, (configured under the path `NETXPORT.NI`). The name may contain a maximum of eight alphanumeric characters.

Example

To purge a virtual circuit associated with the NI named X25 for the node named `NODE1.XLNET.ACCTG`:

```
NMMGR> OPENCONF NMCONFIG
```

```
NMMGR> OPENDIR NSDIR.NET.SYS
```

```
NMMGR> PURGEVC
```

```
Enter the node name (or press return to exit):
```

```
PURGEVC> NODE1.XLNET.ACCTG
```

```
Enter address key:
```

```
PURGEVC> NODE1
```

```
Enter NI name:
```

```
PURGEVC> X25
```

```
Address key NODE1 deleted.
```

```
Enter node name (or press return to exit):
```

```
NMMGR>
```

READALLCONF

Reads all data from the current configuration record.

Syntax	READALLCONF [;FORMAT]
Parameters	FORMAT Designates output formatting. Output is formatted in a WRITECONF format so that it can be re-entered into NMMGR's maintenance mode. If the format option is omitted, data will be formatted with one field per line when writing to a file.
Description	<p>READALLCONF reads and displays all the fields in the configuration record identified by the current path. If the current path is associated with a multipaged data screen, then all the pages of data associated with the screen are displayed, unless PAGECONF was used to set the current page.</p> <p>Output is directed to the file defined in the file equation FORMLIST. If FORMLIST is not defined, output is sent to \$STDLIST.</p> <p>You must enter the CARDCONF, then the PATHCONF command before using the READALLCONF command. This defines the pathname of the record from which the data will be read. If you want READALLCONF to display the data written in the previous WRITECONF commands, you must first enter the UPDATECONF command.</p> <p>If you are referencing a DTC card screen, you must use the CARDCONF command to set the current card number before issuing the READALLCONF command.</p>
Example	<p>To display all the fields in the NETXPORT.NI.GLOBAL screen:</p> <pre>NMMGR> PATHCONF NETXPORT.GLOBAL (Sets the path to the screen.) NMMGR> READALLCONF Displays all the fields in the screen.) NMMGR> PATHCONF NETXPORT.GLOBAL (Sets the path to the screen.) NMMGR> READALLCONF;FORMAT (Displays all the fields in the screen.) PATHCONF NETXPORT.GLOBAL WRITECONF HOMENET, "NETNAME" WRITECONF F, "2"</pre>

Using NMMGR in Maintenance Mode
READALLCONF

```
WRITECONF          G,    "3"  
WRITECONF          H,    "1"  
WRITECONF          INBUF, "256"  
UPDATECONF  
NMMGR
```

READCONF

Reads selected data from the current configuration record.

Syntax	<code>READCONF fieldname [;FORMAT]</code>
Parameters	<p><code>fieldname</code> The field name associated with the current path.</p> <p>Use <code>READALLCONF;FORMAT</code> to find the fieldnames in the current path.</p> <p><code>FORMAT</code> Designates output formatting. Output is formatted in a <code>WRITECONF</code> format so that it can be re-entered into NMMGR's maintenance mode. If the format option is omitted, data will be formatted with one field per line when writing to a file.</p>

Description `READCONF` reads and displays the selected field in the configuration record identified by the current path. If the current path is associated with a multipaged data screen, then the displayed value is from the current page set by `PAGECONF`.

You must enter the `CARDCONF`, then the `PATHCONF` command before using the `READCONF` command. This defines the pathname of the record from which the data will be read. If you want `READCONF` to display the data written in the previous `WRITECONF` commands, you must first enter the `UPDATECONF` command.

If you are referencing a DTC card screen, you must use the `CARDCONF` command to set the current card number before issuing the `READCONF` command.

Output is directed to the file defined in the file equation `FORMLIST`. If `FORMLIST` is not defined, output is sent to `$STDLIST`.

CAUTION The output should first be sent to a file, then the entire file should be printed. Otherwise, if output is sent directly to a printer, each `READCONF` command will generate a separate spool file, resulting in only one field printed per page.

Example To display the first field in the `NETXPORT.NI.GLOBAL` screen:

```
NMMGR> PATHCONF NETXPORT.GLOBAL
```

(Sets the path to the screen.)

```
NMMGR> READCONF HOMENET;FORMAT
```

(Reads and displays the named field.)

```
WRITECONF    homenet,    "netname"  
nmmgr
```

SUMMARYCONF

Prints a summary report for one or more communications subsystems.

Syntax	<code>SUMMARYCONF subsystem[, subsystem[, ...]]</code>
Parameters	<code>subsystem</code> The name of the subsystem(s) for which the report will be generated. If more than one subsystem is entered, a report will be printed for each subsystem in the order given. If ALL is entered, a report will be printed for every subsystem. Valid entries are ALL, DTS, NETXPORT, SNANODE, NRJE, IMF, DHCF, APPC, and RJE.

Description SUMMARYCONF displays a summary report for a particular subsystem. This command is identical to the Print Summary function in the NMMGR Output Configuration screen.

Output is directed to the file defined in the file equation FORMLIST. If FORMLIST is not defined, output is sent to \$STDLIST.

When you use SUMMARYCONF to print a summary report for the distributed terminal subsystem (DTS), you can also specify a summary option to designate additional items in the DTS subsystem you wish to have reported. You do so in one of two ways. The first way is to enter the option on the same line as the command. For example:

```
SUMMARYCONF DTS, LINK
```

will cause a report to be generated for the DTS link configuration. You can use this method regardless of whether you entered maintenance mode from screen mode you are running a job to generate output.

You can use the second way to specify a summary option for the DTS subsystem only if you have entered maintenance mode from screen mode. This method is to enter SUMMARYCONF DTS at the NMMGR maintenance mode prompt, with no option specified. A new prompt will appear, as follows:

```
DTS Summary>
```

You can enter the DTS print option at this prompt. If you do not want to generate any additional DTS reports, enter **E[EXIT]** at the prompt. You will be returned to the maintenance mode prompt.

The following DTS print summary options are available:

ALL	Displays all DTS configuration information.
DTC [dtcname]	Displays the configuration for all DTCs or for the DTC whose name is specified in dtcname.
DTS	Displays the DTS subsystem configuration parameters.

- E[XIT]** Leaves DTS Summary and returns you to the maintenance mode prompt.
- HELP** Displays the available DTS summary options.
- LDEV**
[ldev[/ldev]] Displays the configuration for all ldevs (logical devices), a single ldev, or a range of ldevs.
- LINK** Displays the link configuration for the DTS.
- PORT** [dctname
[card [port]]] Displays the configuration for all configured ports, all ports on a specified DTC, all ports on a specified DTC and card, or for a specific DTC, card, and port.
- PROFILE**
[profile] Displays the configuration for all profiles or for a specified profile.
- X.25 Card**
[card#[,option]] Displays the information about the Host-Based X.25 Card configuration.
- OPTIONS:**
- LEVEL12** Display the level 1 and 2 configuration.
 - LEVEL14** Display the level 3 configuration miscellaneous configuration data.
 - PAD** Display the Nailed PAD data.
 - SEC** Display the PAD security data.
 - SYS** Display the System to System configuration data.

Example

To display the summary report for NETXPORT:

```
NMMGR> SUMMARYCONF NETXPORT
```

To display the summary report for profiles defined in the DTS subsystem:

```
NMMGR> SUMMARYCONF DTS,PROFILE
```

Or:

```
NMMGR> SUMMARYCONF DTS
```

```
DTS Summary> PROFILE
```

UPDATECONF

Updates the current path in the configuration file.

Syntax	UPDATECONF
Parameters	No parameters.
Description	<p>UPDATECONF updates the current page of data for the current path in the configuration file. Data entered via previous WRITECONF commands is checked for VPLUS field edit errors. If all fields are correct, the data is stored.</p> <p>The CARDCONF then the PATHCONF command must be issued before UPDATECONF to define the current path.</p> <p>If you are referencing a DTC card screen, you must use the CARDCONF command to set the current card number before issuing the UPDATECONF command.</p>
Example	<pre>NMMGR> OPENCONF NMCONFIG.PUB.SYS (Opens the configuration file.) NMMGR> VERSIONCONF OVERRIDE (Checks the version number of NMMGR.) NMMGR> PATHCONF NETXPORT.NODE.NAME (Sets the path to the screen.) NMMGR> WRITECONF 1, MY.LOCL.NODE (Enters the data into the field.) NMMGR> UPDATECONF (Updates the configuration file.)</pre>

VALIDATECONF

Validates subsystem configuration.

Syntax	<code>VALIDATECONF subsystem</code>
Parameters	<code>subsystem</code> The name of a configuration subsystem to be validated. Valid subsystem names are: <code>NETXPORT</code> <code>DTS/LINK</code> <code>HP-IBM</code>
Description	Validates the subsystem configuration. Output is directed to the formal designator <code>FORMLIST</code> , which defaults to <code>\$STDLIST</code> .
Example	To validate the <code>NETXPORT</code> subsystem configuration: <code>NMMGR> VALIDATECONF NETXPORT</code>

VERSIONCONF

Checks whether the specified version number matches NMMGR's current version number.

Syntax	<code>VERSIONCONF version</code>
Parameters	<code>version</code> The NMMGR version number that you are checking against the current version of NMMGR. The version string may be enclosed in double quotes (" "). The value "OVERRIDE" matches any version of NMMGR.
Description	<code>VERSIONCONF</code> matches the specified version number with the current number for NMMGR. NMMGR's version number is displayed in the banner line on the first line of the screen and when NMMGR is started. This command is required only if the user is also planning to issue a <code>PATHCONF</code> command. However, <code>VERSIONCONF</code> must be issued prior to <code>PATHCONF</code> .
Example	<code>NMMGR> VERSIONCONF B.04.07</code>

WRITECONF

Writes data to individual fields of the current path in the configuration file.

Syntax	<code>WRITECONF fieldname, data</code>				
Parameters	<table><tr><td><code>fieldname</code></td><td>The field name associated with the current path.</td></tr><tr><td><code>data</code></td><td>The data to be written to the field. If the data contains embedded blanks, it must be enclosed in double quotes (“ ”).</td></tr></table>	<code>fieldname</code>	The field name associated with the current path.	<code>data</code>	The data to be written to the field. If the data contains embedded blanks, it must be enclosed in double quotes (“ ”).
<code>fieldname</code>	The field name associated with the current path.				
<code>data</code>	The data to be written to the field. If the data contains embedded blanks, it must be enclosed in double quotes (“ ”).				
Description	<p><code>WRITECONF</code> writes data to an internal buffer that initially contains the data associated with the current page of the current path in the configuration file. The file is updated when the <code>UPDATECONF</code> command is performed.</p> <p>The <code>CARDCONF</code> command (used to set the current card values) must be specified before a <code>PATHCONF</code> command for any DTC card screen.</p> <p>Once these commands are specified, the <code>WRITECONF</code> and <code>UPDATECONF</code> commands can be performed.</p>				
Example	<p>To update the value of field 1 for the current path:</p> <pre>NMMGR> OPENCONF NMCONFIG.PUB.SYS</pre> <p>(Opens the configuration file.)</p> <pre>NMMGR> VERSIONCONF V.uu.ff</pre> <p>(Checks the version number of NMMGR.)</p> <pre>NMMGR> PATHCONF NODENAME</pre> <p>(Sets the path to the screen.)</p> <pre>NMMGR> WRITECONF NODENAME, "MY.LOCAL.NODE"</pre> <p>(Enters the data into the field.)</p> <pre>NMMGR> UPDATECONF</pre> <p>(Updates the configuration file.)</p>				

Using NMMGR in Maintenance Mode
WRITECONF

This chapter describes the Node Management Services Maintenance Utility (NMMAINT). NMMAINT is a utility program you can use to display the individual and overall version numbers for the software modules and network link products configured through the node management services.

The following information is included in this chapter:

- An explanation of version numbers and how they work.
- How to run the NMMAINT utility.
- An example of the output provided by NMMAINT.
- An explanation of the features of the output provided by NMMAINT.

Software Version ID Numbers

Each data communications product consists of a variety of software modules. Each software module has an individual version number.

The software modules of all HP data communications products use a standard version stamp. This stamp has the format:

```
vuuffiii
```

where values represent the following:

- | | |
|---|---|
| v | The version number of the software. This corresponds to a major revision or a version for a new or revised system environment. |
| u | The update level of the software. This corresponds to a significant revision in product functionality. |
| f | The fix level of the software. This corresponds to a new, supported revision of the software. |
| i | The internal fix level of the software. This is for differentiating special releases of software that do not correspond to a normal release cycle. Under normal circumstances, you do not need to concern yourself with this field when you are determining the compatibility of a product. |

A subsystem is a grouping of software modules. The software modules within each subsystem usually have a common or similar function. Each software module within a subsystem has its own version ID number. If the version, update, and fix levels of these modules do not match, the subsystem will not work correctly. You can use NMMAINT to determine if your software installation is valid. The information provided by NMMAINT must be included in any service request submitted to HP. Refer to the *NS 3000/iX Error Message and Recovery Manual* or to the *Node Manager's Guide* for any HP-IBM product for information about submitting service requests (SRs).

Running NMMAINT

To run NMMAINT, enter the command:

```
:RUN NMMAINT.PUB.SYS
```

NMMAINT responds with the following:

```
NMS Maintenance Utility 32099-11018v.uu.ff (C) Hewlett Packard Co. 1985
```

NMMAINT then lists the version identification numbers for each software module and information for each subsystem. As shown in the example below, the NMMAINT utility displays version information for the subsystems of the products actually installed on your system. The node management services, link services, and network transport subsystems are displayed if an NS 3000/iX link product is installed. The Network Services subsystem is displayed if the NS 3000/iX services product is installed. The SNA Transport, SNA NRJE, RJE, SNA DHCF, APPC, HP SNADS, SNA/X.25, NS Over SNA, HP SNADS, and SNA IMF subsystems are displayed if the appropriate HP-to-IBM data communications products are installed on your system.

NMMAINT Output

This example of NMMAINT output shows a system with NS 3000/iX services and an IEEE 802.3 link installed. (The IPCVERSION module is port software. This is not part of the NetworkIPC user service, nor does it form a subsystem, but its individual version ID number is displayed by NMMAINT for your information.)

Notice that version ID numbers include version, update, fix levels, and an internal fix level in the format *vuuffiii*. For NMVERS00, the version ID number is A0103023. A is the version level, the next two digits represent the update level, and the next two digits are the fix level. The remaining numbers, 023, show the internal fix level, which is used only within Hewlett-Packard.

NOTE

The version numbers shown in this example are not intended to be the same as the version numbers of your software.

Example

```
:RUN NMMAINT.PUB.SYS
NMS Maintenance Utility 32098-20014B.00.08 (C) Hewlett Packard Co.
Subsystem version ID's
Node Management Services 32098-20014 module versions:
```

NMMAINT
Running NMMAINT

SL procedure:	NMVERS00	Version:	B0008037
SL procedure:	NMVERS01	Version:	B0008039
SL procedure:	NMVERS01	Version:	B0008008
SL procedure:	NMLOGSLVERS	Version:	B0008034
SL procedure:	NMLOGDATAVERS	Version:	B0008023
SL procedure:	NMVERS04	Version:	B0008011
SL procedure:	MWRITEVERS	Version:	B0008013
CM program file:	NMMAINT.PUB.SYS	Version:	B0008011
CM program file:	NMFILE.PUB.SYS	Version:	B0008009
CM program file:	NMTRCMON.PUB.SYS	Version:	B0008062
NM program file:	NMLOGMON.PUB.SYS	Version:	B0008021
NM program file:	NMCONSOL.PUB.SYS	Version:	B0008019
CM program file:	NMINIT.PUB.SYS	Version:	B0008006
CM program file:	NMDUMP.PUB.SYS	Version:	B0008064
Catalog file:	NMCAT.PUB.SYS	Version:	B0008035
NM program file:	NMLOGICS.PUB.SYS	Version:	B0008005
SL procedure:	SUBSYS0FMTVERS	Version:	B0008013
SL procedure:	NMINTERVERS	Version:	B0008003
SL procedure:	BFM'MOD'54'VERS	Version:	B0008009
NL procedure:	BMGR_MOD_51_VERS	Version:	B0008067
NL procedure:	BMGR_MOD_52_VERS	Version:	B0008070
NL procedure:	BMGR_MOD_53_VERS	Version:	B0008028
NL procedure:	NMVERS30	Version:	B0008010
NL procedure:	NMVERS33	Version:	B0008018
NL procedure:	NMVERS34	Version:	B0008024
NL procedure:	NMVERS32	Version:	B0008018

Node Management Services 32098-20014 overall version = B.00.08

@COMPUTERTEXTW = Network Transport 32098-20023 module versions:


```

NM program file:      NETCP.NET.SYS          Version:  B0507013
NL procedure:        NET_CF_VERS          Version:  B0507006
NL procedure:        NET_IPC_VERS        Version:  B0507014
NL procedure:        NET_IPC_VERS2       Version:  B0507013
NL procedure:        NET_IPC_VERS3       Version:  B0507012
NL procedure:        NET_IPC_VERS4       Version:  B0507011
NL procedure:        PIVERS              Version:  B0507010
NL procedure:        SIVERS              Version:  B0507009
Catalog file:       SOCKCAT.NET.SYS     Version:  B0507000
CM program file:    SOCKREG.NET.SYS     Version:  B0507001
NL procedure:       NWTMVERS            Version:  B0507011
NL procedure:       TI_T1_VERS          Version:  B0507004
NM program file:    PT2PNSTN.NET.SYS    Version:  B0507004
Catalog file:       NETMSG.NET.SYS      Version:  B0507003
SL procedure:       NET'UI'VERS         Version:  B0507004
SL procedure:       NET'SL'VERS         Version:  B0507002
NL procedure:       NET_NI_VERS         Version:  B0507008
SL procedure:       NET'PROBE'VERS      Version:  B0507001
NL procedure:       NET_ARP_VERS        Version:  B0507015
SL procedure:       NET'DIAL'VERS       Version:  B0507000
NM program file:    TCPSIP.NET.SYS      Version:  B0507000
SL procedure:       NET'STUB'VERS       Version:  B0507001
NL procedure:       NET_TCP_VERS        Version:  B0507062
NL procedure:       NET_UDP_VERS        Version:  B0507012
NL procedure:       NET_DICT_VERS       Version:  B0507001
SL procedure:       NET'XP0'VERS        Version:  B0507001
SL procedure:       NET'XP1'VERS        Version:  B0507000
NL procedure:       NET_IP_VERS         Version:  B0507007
SL procedure:       NET'IPU'VERS        Version:  B0507000
NL procedure:       NET_X25_VERS        Version:  B0507002
SL procedure:       NET'PD'VERS         Version:  B0507100
NL procedure:       NET_PD_VERS         Version:  B0507002
NL procedure:       NET_MAP_VERS        Version:  B0507008
NL procedure:       NET_GLBL_VERS       Version:  B0507013
NL procedure:       NET_REG_VERS        Version:  B0507001
SL procedure:       NET'REG'CM'VERS     Version:  B0507001
SL procedure:       DCLDM_FMT_VERS      Version:  B0507001
NL procedure:       DCLDM_PS_VERS       Version:  B0507002
NL procedure:       DCLDM_CONF_VERS     Version:  B0507002
NL procedure:       NSLOPENLINK_VERS    Version:  B0507004
NL procedure:       RLM_SERVER_VERS     Version:  B0507000
NL procedure:       RLM_CONFIG_VERS     Version:  B0507000
NL procedure:       RLM_LOAD_TABLE_VERS Version:  B0507000
SL procedure:       RLM_FMT_VERS        Version:  B0507000
NL procedure:       NET_FC_VERS         Version:  B0507000
SL procedure:       SOCKIOVERS          Version:  B0507000
SL procedure:       SOCKACCESSVERS      Version:  B0507000
SL procedure:       SOCKMISC1VERS       Version:  B0507002
SL procedure:       SUBSYS3FMTVERS      Version:  B0507006
SL procedure:       SUBSYS5FMTVERS      Version:  B0507001
NL procedure:       LEVEL2_RESOLVE_VERS Version:  B0507001
NM program file:    ICMPSERV.NET.SYS    Version:  B0507001
NM program file:    NETTOOL.NET.SYS     Version:  B0507012
NL procedure:       NETTMRVERS          Version:  B0507000

```

Network Transport 32098-20033 overall version = B.05.07

Network Services individual module versions:

NMMAINT
Running NMMAINT

NM program file:	DSDAD.NET.SYS	Version:	B0010007
SL procedure:	ASCXVERS	Version:	B0010008
SL procedure:	ASBUFVERS	Version:	B0010000
SL procedure:	ASENVVERS	Version:	B0010005
SL procedure:	DSUTILVERS	Version:	B0010007
SL procedure:	SUBSYS6FMTVERS	Version:	B0010001
Catalog file:	ASCAT.NET.SYS	Version:	B0010001
SL procedure:	VTSRVTVR	Version:	B0010000
NL procedure:	VTS_LDMVER	Version:	B0010005
NL procedure:	VTS_UTILVER	Version:	B0010005
CM program file:	LOOPBACK.NET.SYS	Version:	B0010000
CM program file:	LOOPINIT.NET.SYS	Version:	B0010000
CM program file:	NSSTATUS.NET.SYS	Version:	B0010002
NL procedure:	NSSTATUSNMVERS	Version:	B0010001
NL procedure:	NSINFONMVERS	Version:	B0010002
CM program file:	CONFPROG.NET.SYS	Version:	B0010000
CM program file:	MASTMAKE.NET.SYS	Version:	B0010000
NL procedure:	VTS_SMVER	Version:	B0010005
NL procedure:	NSUTILNMVERS	Version:	B0010001
NL procedure:	ASCXNMVERS	Version:	B0010001
NL procedure:	ASENVNMVERS	Version:	B0010001
NM program file:	RASERVER.NET.SYS	Version:	B0010003
NM program file:	VTSERVER.NET.SYS	Version:	B0010005
CM program file:	DSSERVER.NET.SYS	Version:	B0010000
SL procedure:	ASRFAVERS	Version:	B0010002
SL procedure:	ASPTOPVERS	Version:	B0010001
CM program file:	NFT.NET.SYS	Version:	B0010018
NL procedure:	NFTNMVERS	Version:	B0010001
Catalog file:	NFTCAT2.NET.SYS	Version:	B0010002
SL procedure:	ASRPMVERS	Version:	B0010001
NL procedure:	RPMNMVERS	Version:	B0010001
CM program file:	RPMDAD.NET.SYS	Version:	B0010003
NL procedure:	RFANMVERS	Version:	B0010001

Network Services overall subsystem version: B.00.10

Link Support Services 32098-20015 module versions:

NL procedure:	TRACE_INT_VERS	Version:	C0104016
NM program file:	TRACEMGR.PUB.SYS	Version:	C0104039
NL procedure:	TVPGEN00VERS	Version:	C0104007
SL procedure:	SUBSYS18FMTVERS	Version:	C0104008
XL procedure:	LSSLINKCONTROLVERS	Version:	C0104145
XL procedure:	LSSLINKCONTROLVERS01	Version:	C0104014
NL procedure:	LSSLKTBLVERS	Version:	C0104008
SL procedure:	LSSVERS00	Version:	C0104016
NL procedure:	DCC_VERSION	Version:	C0104006
NL procedure:	DCC_VALID	Version:	C0104003

XL procedure: Version: C0104014

NL procedure: Version: C0104008

SL procedure: Version: C0104012

NL procedure: Version: C0104506

NL procedure: Version: C0104503

Link Support Services 32098-20015 overall version = C.01.04

Node Management Configurator 32098-20016 module versions:

SL procedure:	NMCVERS	Version:	B0407000
SL procedure:	NMVERS06	Version:	B0407000
SL procedure:	NETDIRVERS	Version:	B0407000
NL procedure:	NMNETDIRVERS	Version:	B0407000
NM program file:	NMMGR.PUB.SYS	Version:	B0407035
CM program file:	NMMGRVER.PUB.SYS	Version:	B0407003
CM program file:	NMMGRVAL.PUB.SYS	Version:	B0407000
CM program file:	NMSIG.PUB.SYS	Version:	B0407000
V+ forms file:	NMMGRF.PUB.SYS	Version:	B0407026
Catalog file:	NMMGRCAT.PUB.SYS	Version:	B0407012
Catalog file:	NMMGRHLP.PUB.SYS	Version:	B0407013
NM conf file:	NMSAMP1.PUB.SYS	Version:	B0407004
NM conf file:	NMAUX1	Version:	B0407014
NM conf file:	NMNOVA.PUB.SYS	Version:	B0407003

Node Management Configurator 32098-20015 overall version = B.04.00

Explanation of NMMAINT Output

The first group of numbers in the above example are the version ID numbers of the modules of the Node Management Services subsystem. Notice that the first five characters of the version for each module listed in this group are the same. This means that all the software modules in the subsystem match. It is necessary for all the modules of a given subsystem to be the same version. If a subsystem module does not match, NMMAINT prints the following error message:

```
Program file: NMMAINT.PUB.SYS          ** MODULE ERROR **
ONE OR MORE SUBSYSTEM MODULES ARE INVALID. (NMERR 105)
```

This message indicates that the modules of the subsystem are not compatible.

Because the module version ID numbers match, NMMAINT displays the overall subsystem version number for the node management services; for the above example, it is A.01.03. The rest of the subsystems are handled in a similar fashion.

NMMAINT also checks that all the modules that belong with a particular subsystem are present. If a module is missing, NMMAINT displays the name of the module with the following error message in place of the version number.

```
SL procedure: NMVERS01          ** REQ'D MODULE MISSING **
ONE OR MORE REQUIRED SUBSYSTEM MODULES ARE MISSING. (NMERR 104)
```

If an optional module is not present, NMMAINT displays a message similar to the following:

```
Program file: NMDUMP.PUB.SYS **NOT INSTALLED**
```

If the modules were correct when installed, only unusual circumstances such as a reload, a disk problem, or a system failure would result in missing or invalid modules. Restore a known valid version of the modules in error.

Question marks displayed for the overall version number indicate that the fix levels of the individual modules do not match. Remember that the internal fix level, represented by the last three numbers of the version ID, does not need to match between modules for the software to be compatible. Fix numbers are requested in service requests for HP to use when troubleshooting.

As each subsystem is displayed, NMMAINT checks that all the modules are present and compatible. However, NMMAINT does not perform any cross-subsystem version verification. When a system has HP-to-IBM products as well as HP-to-HP products installed, the Node Management Services, link services and the port software are used by both types of data communications products. Therefore, it is important to check that the version numbers of these common subsystems and port software module are correct. It is possible for the HP-to-IBM products to use previous versions of the common software that are not compatible with the HP-to-HP products.

NMMAINT displays information on only the subsystems for the products installed on your system. In the example above, none of the HP-IBM products were installed, so their subsystems were not displayed.

Running NMMAINT With Subsystem ID

NMMAINT can also be executed to display the version information for just one subsystem, by entering a command: `NMMAINT, Subsystem number`, where the subsystem number can be obtained from running `NMDUMP`.

For example, `NMMAINT, 3` displays the version information for Network Transport 32098-20033.

The only exception for using the subsystem number found from running `NMDUMP` is for the NMS, Node Management Services, which would be 0. Use `NMMAINT, 10000` to display NMS version information.

This chapter describes the Node Management Services Trace/Log File Analyzer, commonly known as NMDUMP. NMDUMP allows you to decode and format the logging records and trace messages that are created in coded form.

The following describes information contained in this chapter.

- Running the NMS Trace/Log File Analyzer (NMDUMP).
- General options.

These options include two, ? and 0, that are used for menu display and are provided on all menus. Options 1–4 reflect the common structure of log and trace files.

- 802.3, 802.5, SDLC, LAP-B, RJE/BSC, NETXPORT, NetIPC, and Network Services logging options.

These options are log options and the number varies according to the subsystem used.

- 802.3, 802.5, NETXPORT, NetIPC, Network Services, SDLC, LAP-B, and RJE/BSC trace options.

These options are trace options and the number used relates to the subsystem used.

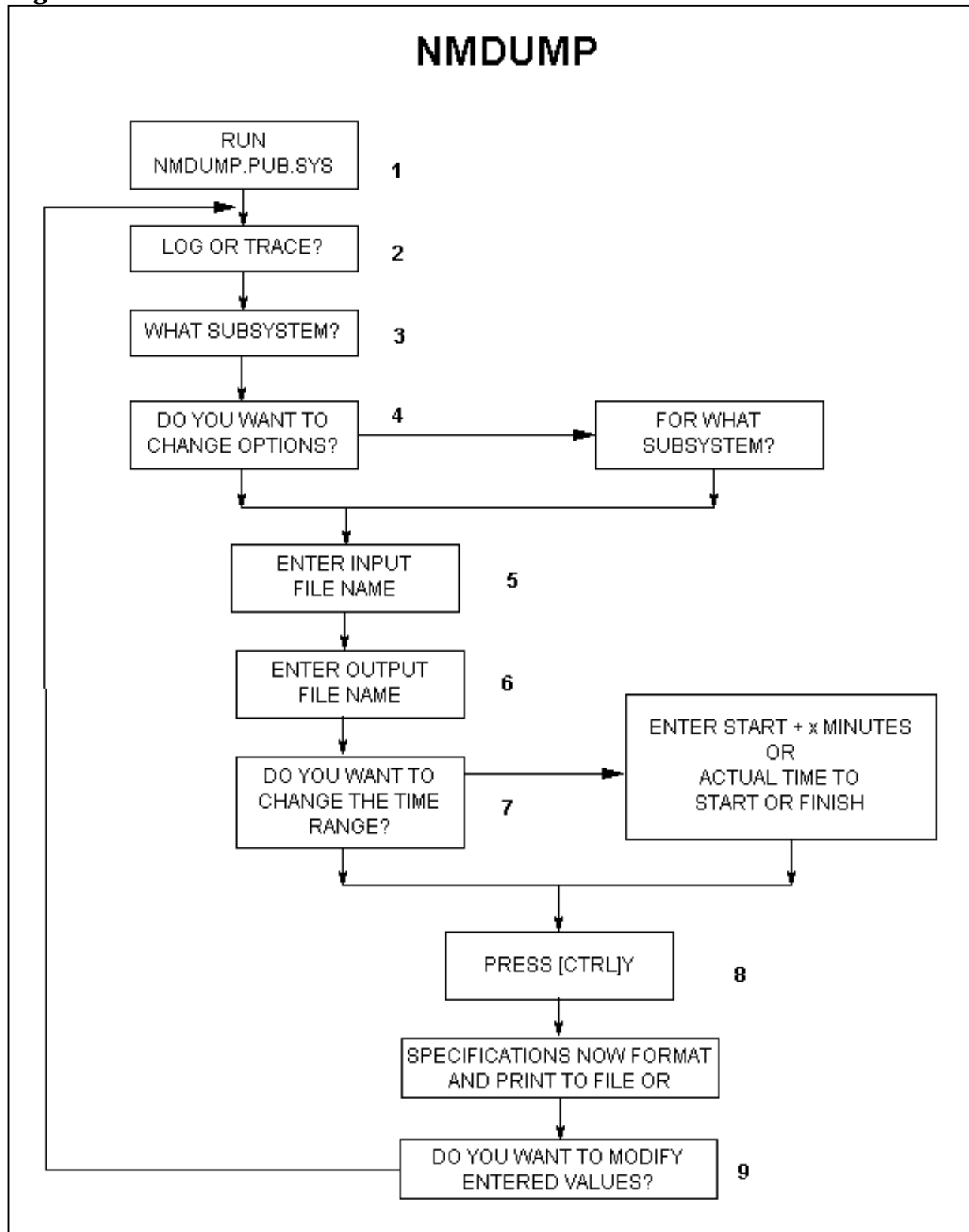
- SDLC, LAP-B, and RJE Filter sets.

Some of the options allow you to also add additional filters to make more precise selections for formatting.

For information on using logging and tracing for NS 3000/iX products, see the *NS 3000/iX Operations and Maintenance Reference Manual*. For information on using logging and tracing for HP-to-IBM products, see the *Node Manager's Guide* for each product.

See the flow for NMDUMP in Figure 7-1.

Figure 7-1 NMDUMP



To Run NMDUMP

Step 1. Type

`:RUN NMDUMP.PUB.SYS`

Step 2. Enter either (1) logging or (2) tracing.

Step 3. Enter the ID number for each subsystem you want to format. Use a comma to separate each number. (Default = ALL.)

NOTE

ID numbers can be used as parameters with NMMAINT.

Step 4. Change the default (NO) to (YES) if you would like to enter subsystem options. (NMDUMP will set the default options if (NO) is entered.)

- a. Enter the subsystem ID for the options you want to change.
- b. Enter the number of the option or <CR> to select the current options.

Step 5. Enter the input log or trace file name. (Must already exist on the system.)

`FILENAME.GROUP.ACCOUNT`

Step 6. Enter the output log or trace file name. Default = \$STDLIST. (Must *not* yet exist on the system.)

`FILENAME.GROUP.ACCOUNT`

Step 7. Change the default (NO) to (YES) if you want to specify a time range.

- a. Enter the starting time.
Respond Y or N if the displayed time is correct.
- b. Enter the finishing time.
Respond Y or N if the displayed time is correct.

Step 8. Press [CTRL]Y when you have completed your responses. (NMDUMP will then give you a chance to re-enter the values.)

Step 9. Use the default (NO) if you are satisfied with your entered values. NMDUMP then formats the logging or tracing information you specified.

Formatting Options

NMDUMP allows you to modify formatting options for specified subsystem IDs. There are three ways to change the formatting menu options.

- Most options toggle between two possible values, like YES or NO and ON or OFF.
- Some require you to enter an option number which then displays an additional menu and prompt.
- Several options prompt you to enter the numbers of certain items.

The following tables show the options for logging and tracing. Some logging and tracing options also have filters you can specify. Table 7-5 shows these filters.

You may type // at any of the main NMDUMP prompts to exit the program. If NMDUMP is displaying a subsystem menu, you must press **[RETURN]** to exit the menu and return to the main NMDUMP prompt before typing // to exit the program.

You may also type "Help" at any of the main NMDUMP prompts for help text.

See Table 7-1 for a description of general options.

Table 7-1 General Options

Subsystem	Option	Meaning	Description
802.3, 802.5, SDLC, LAP-B, RJE/BSC, FDDI, 100VG-AnyLAN, 100Base-T, X25	?	Redisplay Options	Displays current options. Additional input OK.
	0	Set Defaults	Set all options back to default values.
NETXPORT, NetIPC, Network Services	1	ASCII ON or OFF	ON = ASCII representation of data (OCTAL). OFF = Hexadecimal representation. Default = ON.
	2	Output Format	Automatically changes output format to HEX if currently in OCTAL or OCTAL if currently in HEX.
	3	Maximum Number	Allows a limit to the amount of data printed in the information and data sections by reducing the number of bytes per record to output.
	4	Verbosity	LOW = Summary, gives the formatted header and raw messages only. HIGH = Detail. Automatically changes LOW to HIGH or HIGH to LOW.

See Table 7-2 for a description of logging options.

Table 7-2 Log Options

Subsystem	Option	Meaning	Description
802.3, 802.5, FDDI, 100VG-AnyLAN, 100Base-T	1	Linknames	Select logging options by Linknames. @ = ALL
	2	Excluded Linknames	Select Linkname to be excluded from logging.
	3	Log Classes	Error message options (ERRORS, WARNINGS, INFO, ALL)
	4	Set Output Level	Toggle between Terse and Verbose. Verbose = Detail report, Terse = Summary.
SDLC, LAP-B, RJE/BSC	1	Linknames	Select logging options by Linknames. @ = ALL
	2	Class Selection	10 = Errors, 12 = Informational, 99 = ALL
NetIPC, Network Services, NETXPORT	5	Class Selection	Show LOG formatter memo with LOG classes configured within NMMGR.
	6	Entity or Module	Select specific entities (NETXPORT) or modules (NS) to format for logging.
	7	Event or PIN	Select event (NETXPORT) or PIN (NetIPC, NS) where error occurred.
NETXPORT Only	8	Port ID or PIN	Select a Port ID or PIN in hexadecimal format. Default = OFF.
	9	Display Summary Output	Allows a summary report of log entries either in additions to or instead of the normal formatting of log entries. Default = OFF.
	10	Save or Use Filter File	Allows saving of the filter option definitions to a file for later use or using previously saved filter file. 1= Use filter file, 2= Save filter file.
Link		No options	

See Table 7-3 for information on the trace formatter options.

Table 7-3 X.25 Trace Formatter

Options			Actual Settings	
	0	-	Set Default Values	
	3	-	Display Mode	Terse or Lab
	4	-	Layer	Level2_3 or Level 2 or Level 3
	5	-	Dump Packet	No or Yes
Level 2:				
	6	-	Full or Header	Header Only or Full Packet with Data
	8	-	Packet Type	All, or Select Combination of 9 Level or Packet Types
Level 3:				
	9	-	Full or Header	Header or Full Packet with Data
	10	-	Display Length	Amount of Data to Display
	11	-	Q bit	Both, or Value of Q-bit 0, 1, or Both
	12	-	VC Number	All, or Select Virtual Circuit Number
	13	-	Packet Type	All, or Select From 17 Level 3 Packet Types in any Combination
Enter the number or <CR> to select the current option: packet types in any combination.				

See Table 7-4 for a description of trace options.

Table 7-4 Trace Options

Subsystem	Option	Meaning	Description
802.3, 802.5, FDDI, 100VG-AnyLAN, 100Base-T	1	Change Filters	Allows definition of what characters each packet must match before it will be formatted.
	2	Change Output Flags	Allows reduction of output by selecting which parts of filtered packets to format
NETXPORT, NetIPC, Network Services	5	Type or Descriptor	Format events for a particular type (NETXPORT) or descriptor number (NetIPC, NS).
	6	Entity or Service	Format events for a particular entity (NETXPORT) or service (NS).
	7	Event or PIN	Format events for a particular event (NETXPORT) or PIN (NetIPC, NS). Call for network services displayed.
	8	Port ID or PIN	Select a Port ID or PIN in hexadecimal format. Default = OFF.
	9	Display Summary Output	Allows a summary report of log entries either in additions to or instead of the normal formatting of log entries. Default = OFF.
	10	Save or Use Filter File	Allows saving of the filter option definitions to a file for later use or using previously saved filter file. 1= Use filter file, 2= Save filter file.
	11	Source IP Address	Allows specification of a source IP address for header trace messages. Default = OFF.
	12	Destination IP Address	Allows specification of a destination IP address for header trace messages.
	13	Source TCP Port	Allows specification of a source TCP address for header trace messages.
	14	Destination IPC Port NS Messages	Allows specification of a destination TCP address for header trace messages. ON = NS messages displayed. OFF = NetIPC intrinsic calls for Network services displayed.
Network Services Only	8	Format NS Messages Only	Toggle ON and OFF. ON = Only Disply NS Protocols, (VT, NFT, RFA, PTOPI) OFF = Also Display NetIPC Intrinsic Level Activity

Subsystem	Option	Meaning	Description
SDLC, LAP-B, RJE/BSC 802.3, 802.5, FDDI, 100VG-AnyLAN, 100Base-T	1	Output Limit	Allow input of maximum bytes in line-data frames to reduce the amount of formatted data. Affects only <i>line-data-frames</i> .
	2	Filter Sets	Allows selection of filters for output data. All filter sets are displayed when selected.
	3	Show Raw Data	Allows printing of unformatted trace data along with the same data in decoded form. Default = YES.
	4	Show Decoded Data	Used with option 3, will disable printing of decoded data. (Prints only raw data.) Default = YES.
LAP-B, SDLC	7	Data Representation	Tells formatter what type of bit encoding is used. (ASCII or EBCDIC)
LAP-B Only	8	MODULO Count	Tells formatter whether frame data in trace file was a modulo-128 format rather than default modulo-8 format.
802.3, 802.5	5	Select Linknames	
FDDI, 100VG-AnyLAN, 100Base-T	6	Exclude Linknames	
	7	Select Character Representation	Toggle between ASCII and EBCDIC representation.
802.3, 802.5, FDDI	9	Filter ON Station Address	Select MAC or station address for filtering Source and Destination.
	10	Filter ON SAP	Select filtering for both SSAP and BSAP.
	11	Generate HP-UX Trace Site	Create trace output file or format, that 8.0 HP-UX formatter can use.
100VG-AnyLAN, 100Base-T	8	Filter ON Station Address	Select MAC or station address for filtering Source and Destination.
	9	Filter ON SAP	Select filtering for both SSAP and BSAP.

See Table 7-5 for a description of filter sets.

Table 7-5 Filter Sets

Subsystem	Number	Filter	Description
SDLC	1	Data frames sent/rcvd	Enables printing of frames sent and frames received on the datacomm link.
	2	Driver message sent/rcvd	Enables printing of all port messages sent to the driver by SNA Transport and other entities, or sent to them by the driver.
	3	Driver state-changes	Enables printing of changes in internal state within the SDLC driver modules.
	4	Driver intervals	Enables printing of details related to internal processing of internal driver requests, mainly those related to utility functions (not datacomm I/O).
	55	Card footprint	Enables printing of large blocks of footprint information from the downloaded SDLC firmware.
	99	ALL	Produces a full trace.
	0	Errors Only	Disables all filter sets and produces a listing of error only.
X25	0	Set Defaults	Set all options back to default.
	1	VC Number	Select Virtual Circuit numbers
	2	Packet Type	Select Packet types.
	3	Q-Bit	Toggles between ON and OFF selection of Q-bit (Control bit)

Subsystem	Number	Filter	Description
LAP-B	2	Driver messages sent/rcvd	Enables printing of all port messages sent to the driver by NS Transport and other entities, or sent to them by the driver.
	3	Driver state-changes	Enables printing of changes in internals state within the LAP-B driver modules.
	4	Driver internals	Enables printing of details related to internal processing of internal driver requests, mainly those related to utility functions (not datacomm I/O).
	51	Card frames sent/rcvd	Enables printing of frames sent and frames received on the datacomm link.
	53	Card state-changes	Enables printing of the individual state changes traced by the downloaded LAP-B firmware.
	99	ALL	Produces a full trace.
	0	Errors	Disables all filter sets and produces a listing of error only.

Subsystem	Number	Filter	Description
RJE	1		Enables printing of frames sent and frames received on the datacomm line.
	2		Enables printing of all port messages sent to the driver by the RJERCS intrinsics and other entities, or sent to them by the driver.
	3		Enables printing of changes in internal state within the RJE driver modules.
	4		Enables printing of details related to internal processing of internal driver requests, mainly those related to utility functions (not datacomm I/O).
	5		Enables printing of all calls to all RJERCS intrinsics (such as ROPEN) and all buffer data written to or read from the RJE driver.
	51		Enables printing of frames sent and frames received on the datacomm link.
	52		Enables printing of all state changes not already shown under set 51, and any other information traced by the downloaded Bisync firmware.
	99		Produces a full trace.
	0		Disables all filter sets and produces a listing of error only.

Link Subsystem Formatting

The link manager subsystem does not call any menus. NMDUMP formats logging messages only. The first line labels the error as a link manager error, and shows whether it is fatal or non-fatal. The next line contains the time and date of the event. This line is followed by the log message, the requestor ID, the link name, and the logical device (LDEV) of the link.

The requestor ID is for internal use only. Any underlying errors are reported below the LDEV field. Many messages correspond to NMERR messages that are documented in Appendix A, "NMS Error Messages," of this manual.

This chapter describes NMMGRVER, a conversion program that enables earlier versions of subsystems to be used with the current version of NMMGR.

This version of NMMGRVER will convert configuration files from MPE/V format and previous versions of MPE/iX to the current MPE/iX release format.

You can also perform the conversion procedure for a network running a combination of MPE/V X.25 (release V-delta 3 or later) and NS 3000/XL 1.0, 1.1 or 1.2. However, in this case, only the X.25 information from the NS 3000/V configuration file will be merged with the MPE/iX information. Therefore, if you also have LAN or point-to-point information in the MPE/V configuration file, this information would have to be reconfigured on your iX machines.

This chapter includes discussions of the following:

- Using the NMMGRVER conversion program.
- Converting configuration files from previous versions of MPE XL format to the current version of MPE/iX format.
- Converting configuration files from MPE/V format to the current version of MPE/iX format.
- Merging MPE/V configuration files with the current version of MPE/iX configuration files.

Using the Conversion Program

You need to convert files if you open an existing configuration file while using NMMGR and receive this message:

```
Version mismatch found on specified subsystem. Please  
run NMMGRVER. (NMGRERR 53)
```

You also need to convert files if you are performing NETCONTROL and receive the following class 2 logging message at the console:

```
Bad CONFIG File Version
```

NMMGRVER will create backup copies of your configuration files for you, and will name them NMBACKA, NMBACKB, NMBACKC, and so on. Therefore, you can go back to a source file if necessary.

The following three subsections describe the different conversion scenarios, which are:

- Converting a file from the previous version of MPE XL to the current version of MPE/iX.
- Converting a file from MPE/V to the current version of MPE/iX.
- Combining the above two conversions for the purpose of merging MPE/V X.25 (V-delta 3 or later) information with previous versions of MPE/iX for use with the current version of MPE/iX.

NOTE

If you are converting files from MPE/V to MPE/iX, you must first transport the files to a system running MPE/iX and this version of NMMGRVER.

Converting From the Previous MPE XL Version to the Current MPE/iX Version

Step 1. Execute NMMGRVER by entering:

```
:RUN NMMGRVER.PUB.SYS
```

After displaying a banner, the system prompts you for the name of the configuration file to be converted.

```
Fileset to be scanned?
```

Step 2. Enter one of the following filesets, or press the [RETURN] key to end the conversion program.

```
filename[.groupname[.acctname]]
```

```
file prefix@[.groupname[.acctname]]
```

```
@[.groupname[.acctname]]
```

```
@@.@[.acctname]
```

```
@@.@.@
```

NOTE

When converting from an earlier release of MPE XL to the current version of MPE/iX, the configuration file can have any valid MPE file name. If you have used another name instead of NMCONFIG, NMMGRVER will use that name as the final name for your conversion file. For example, if your configuration file is called MYCONFIG, NMMGRVER will convert it and save it under the same name, overwriting the original MYCONFIG. When the conversion is finished, you must rename or purge the existing NMCONFIG and then rename MYCONFIG to NMCONFIG, replacing the old NMCONFIG.

- Step 3.** NMMGRVER searches for files of type NCONF in the specified fileset. For each file found, it asks:

```
OK to convert filename.groupname.acctname?
```

where `filename.groupname.acctname` is the name of a configuration file. Enter Y for yes or either N or [RETURN] for no.

- Step 4.** NMMGRVER checks the configuration file to determine whether it is an MPE/V or an MPE/iX configuration file. If it is an MPE/iX file the conversion proceeds without further user input.

After each file is converted NMMGRVER will display the following message:

```
Conversion Completed Successfully (NMMGRVERMSG 0)
```

- Step 5.** Continue to enter either Y, N, or [RETURN] until you have converted all files.
- Step 6.** Run NMMGR and modify any of the configuration files, as needed.

Converting From MPE/V to MPE/iX

- Step 1.** Follow the instructions in steps one through four of the “Converting From the Previous MPE XL Version to the Current MPE/iX Version” subsection, then continue below.
- Step 2.** If the file is an MPE/V file, NMMGRVER prompts you for the type of MPE/V file you are converting, as follows:

```
What is the type of this file?
```

- 1) MPE V NSCONF
- 2) MPE V NMCONFIG
- 3) skip this file

```
Enter a value between 1 and 3.
```

- Step 3.** If you are converting only an NMCONFIG file, enter 2.
- Step 4.** If you are converting NS transport data as well as configuration data, enter 1. NMMGRVER will combine the MPE/V NSCONF file containing the transport data with the MPE/V NMCONFIG.PUB.SYS, convert the file and save it under the same name as the source NSCONF file.

NOTE

The NSCONF file can have any valid MPE file name. If you have used another name instead of NSCONF, NMMGRVER will use that name as the final name for your conversion file. For example, if you have two files, MYCONF and NMCONFIG.PUB.SYS, NMMGRVER will combine the files into a file called MYCONF and then convert it, overwriting the original MYCONF. When the conversion is finished, you must rename or purge the existing NMCONFIG.PUB.SYS and then rename MYCONF to NMCONFIG.PUB.SYS replacing the old NMCONFIG.PUB.SYS.

After each file is converted NMMGRVER will display the following message:

```
Conversion Completed Successfully (NMMGRVERMSG 0)
```

- Step 5.** Continue to enter either Y, N, or [RETURN] until you have converted all files.
- Step 6.** Run NMMGR and modify any of the configuration files, as needed.

Merging MPE/V With MPE/iX

This conversion procedure is for networks running a combination of NS 3000/V X.25 (release V-delta 3 or later) and NS 3000/XL 1.0, 1.1 or 1.2. Only the X.25 configuration information from NS 3000/V will be merged. If you also had LAN or point-to-point information in the MPE/V configuration file, you will have to reconfigure this information on your iX machines after using NMMGRVER.

The basic steps for this merge procedure are given in this section, but you also must refer to the migration information in the *HP 3000/iX network Planning and Configuration Guide*. That manual describes the process in detail and includes all X.25-specific considerations you must know about.

NOTE

Restore the NS 3000/V NSCONF configuration file to the NS 3000/iX system. Name the NS 3000/V file with the same name it had on the NS 3000/V node. This procedure assumes that there already is an NS 3000/iX NMCONFIG.PUB.SYS vers. 1.x configuration on the NS 3000/iX node. Do not overwrite it with the NS 3000/V version.

- Step 1.** At the MPE/iX prompt, type `RUN NMMGRVER.PUB.SYS`.

Step 2. Merge your NS 3000/V file with the existing NS 3000/iX NMCONFIG file, and convert it for use with NS 3000/iX by entering the MPE/V NSCONF file name. Enter Y to proceed when prompted.

Step 3. Next, you receive this prompt:

```
What is the type of this file?
```

```
1) MPE V NSCONF
```

```
2) MPE V NMCONFIG
```

```
3) skip this file
```

```
Enter a value between 1 and 3.
```

Step 4. Select type 1 for an NSCONF type file. NMMGRVER will merge the contents of the existing NMCONFIG file with the X.25 information in the NSCONF file you specified. It will be saved in the NSCONF file you specified.

Step 5. If you converted more than one NSCONF file, decide which one will be the network configuration you want on the NS 3000/iX system. Rename the file to NMCONFIG.PUB.SYS.

NMMGRVER
Using the Conversion Program

A

NMS Error Messages

This appendix includes listings of Node Management Services error messages, grouped in sets as shown below. The error messages in each set are listed numerically. Each error message listed includes at least one possible cause of the error and a recommended action for each cause.

Some of the messages, as shown in this manual, include an exclamation point (!), which is a substitution character that represents variable information. When the actual message is displayed, this substitution character will be replaced by appropriate information.

The following sets of messages are included in this appendix:

Message Set	Message Code
NMCN Error and Warning Messages	NMCNERR NMCNWARN
NMDUMP Error and Warning Messages	NMDUMPERR NMDUMPWARN
NM Error Messages	NMERR
NMFS Error and Warning Messages	NMFSERR NMFSWARN
NMGR Error and Warning Messages	NMGRERR NMGRWARN
NMMGRVER Messages, Errors and Warnings	NMMGRVERMSG NMMGRVERERR NMMGRVERWARN
ND Error Messages	NDIERR
FMT Error Messages	FMTERR

Resolving Problems

There are problems that are common to many situations, such as invalid software installation, version incompatibilities, insufficient MPE resources, corrupt configuration files, and file system errors. This section describes some of the resolutions for these problems. In many cases, you can use these descriptions to help you resolve these problems yourself. In addition, if you are running NMMGR, you can use the Error Information screen to help determine what the problem is. See Chapter 2, “Basics of NMMGR,” of this manual for more information on the Error Information screen.

Note that you may get an error which is caused by an internal procedure. Some internal errors can be remedied only by qualified HP representatives. The causes and actions listed with the error messages will tell you which ones these are. In such cases, you should file a service request (SR) to get help. To enable HP to solve your problem in an efficient manner, please follow the guidelines listed on the following pages.

Invalid Software Installation

A software installation may be invalid. Run NMMAINT to get a listing of all software modules and their version IDs. Check that all required modules are present and that the first five characters of the version ID numbers of these modules are the same within each subsystem (these are the *v.uu.ff* fields). Finally, check these version ID numbers with the *System Status Bulletin* or other HP source to be sure the versions of software you have are supported with the version of MPE you have. If there is a problem found with any of these checks, you have an incorrect software version installed. Locate a known valid version of the suspect software (perhaps from one of your system backup tapes) and install it correctly.

Version Incompatibilities

There may be version incompatibilities between NMS software and other subsystem software. Run NMMAINT to get a listing of version ID numbers for NMS and for all of the NMS-dependent subsystems. Locate the overall version ID numbers for NMS and for each subsystem. Compare the first five characters of these version ID numbers with those listed as compatible with each other in the *System Status Bulletin* or other HP sources. If a discrepancy is found, locate a known set of compatible software and install it.

Insufficient MPE Resources

There may be insufficient MPE resources, such as configured table sizes. Check if the MPE configuration has enough DST and PCB entries configured. (If possible, use the HP Glance/XL product to check MPE table utilization.) Reconfigure MPE to fix any problems found and restart the system.

Corrupt Configuration Files

The configuration file is possibly corrupt. If the error persists, use NMMGR to manually check the configuration file (if possible). If bad records seem to be localized to a particular item, delete that item and reconfigure it. If necessary, restore a backup copy of the file.

File System Errors

An NM and/or MPE file system error (NMFSEERR, NMFSWARN, FSERR) may have occurred while attempting to access the configuration file. Try to access the configuration file under the same user ID using NMMGR. Use the NMMGR Error Information screen to find out what the underlying error is. Correct the problem and try again.

Submitting an SR

The messages that refer you to this section can indicate an internal error. For further assistance from HP, submit an SR. Include the following information where applicable:

- A characterization of the problem. Describe the events leading up to and including the problem. Attempt to describe the source of the problem. Describe the symptoms of the problem.
- Your characterization should include: MPE commands, communication subsystem commands, job streams, result codes and messages, and data that can reproduce the problem.
- Illustrate as clearly as possible the context of any message(s). Prepare copies of information displayed at the system console and user terminal.
- Obtain the version, update and fix information for all software. Use NMMAINT to obtain this information for NS, DTS, NRJE, SNA and Node Management. This allows Hewlett-Packard to determine if the problem is already known and if the correct software is installed at your site.
- Record all result messages and numbers that appear at the user terminal and the system console.
- Run NMDUMP to format the NM log file (NMGLnnnn . PUB . SYS) that was active when the problem occurred. You may need to issue the MPE command SWITCHNMLOG to free the NM log file.

Using NMDUMP, format the log file for your NMS subsystem information. Inspect the formatted output and try to locate errors. Prepare the formatted output and a copy of the log file for your Hewlett-Packard representative to further analyze.
- Prepare a listing of the configuration file and the MPE configuration you are using for your Hewlett-Packard representative to further analyze. Inspect the output and try to locate errors.
- Try to determine the general area within the software where you think the problem exists. If you think the problem is caused by an NMS subsystem, refer to the manual(s) for that subsystem and try to resolve the problem by following the information-gathering guidelines in those manuals.
- Issue the `LINKCONTROLlinkname ; STATUS=` command for each link. Retain the output for your Hewlett-Packard representative to further analyze.

- Document your interim, or “workaround” solution. The cause of the problem can sometimes be found by comparing the circumstances in which it occurs with the circumstances in which it does not occur.
- Create copies of any trace files that were active when the problem occurred for your Hewlett-Packard representative to analyze.
- **In the event of a system failure, a full memory dump must be taken.** Always send the unformatted memory dump, a listing of the configuration file, a copy of the file `LOADMAP.PUB.SYS`, and the I/O configuration.

NMCN Error and Warning Messages

The first seven NMCNERR messages are written to the console by the NMMON process. The remainder of NMCNERR messages are written by one of the NMLOGMON processes to the console. “NM log Monitor” messages are returned by the “Main type Log Monitor;” this is the first NMLOGMON process created and later handles most tracing. “NM Log Process” messages are returned by the “Log type Monitor,” which is the NMLOGMON process that handles logging.

**MESSAGE: NMMON: Unable to allocate area for port table.
(NMCNERR 1)**

NMCNERR 1 CAUSE: NMMON is unable to expand the DL-DB area in its stack.
ACTION: See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: NMMON: Unable to obtain port data segment.
(NMCNERR 2)**

NMCNERR 2 CAUSE: INITPORTDST returned a DST number of 0. The system is
unable to allocate any extra data segments.
ACTION: See “Insufficient MPE Resources” at the beginning of this
appendix.

**MESSAGE: NMMON: Unable to create port in data segment.
(NMCNERR 3)**

NMCNERR 3 CAUSE: CREATEPORT returned a PORTID of 0.
ACTION: See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: NMMON: Unable to add port dictionary entry.
(NMCNERR 4)**

NMCNERR 4 CAUSE: DICTADD returned a non-zero result.
ACTION: See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: NMMON: CREATEPROCESS error *n* on NMFILE.PUB.SYS.
(NMCNERR 5)**

NMCNERR 5 CAUSE: CREATEPROCESS failed for NMFILE. The NMFILE.PUB.SYS
program file might not be present, or might not be Load-able. This
could happen if the NMS software is not correctly installed, or if there
is a mismatch between NMFILE and SL module versions. Also, there
could be other MPE limitations such as insufficient table space.

ACTION: Look up the CREATEPROCESS error number in the
Intrinsics Reference Manual. Correct this error. See also “Invalid
Software Installation” and “Insufficient MPE Resources” at the
beginning of this appendix.

- MESSAGE: NMMON: CREATEPROCESS error *n* on NMLOGMON.PUB.SYS. (NMCNERR 6)**
- NMCNERR 6 **CAUSE:** CREATEPROCESS failed for NMLOGMON. The NMLOGMON.PUB.SYS program file might not be present, or might not be Load-able. This could happen if the NMS software is not correctly installed, or if there is a mismatch between NMLOGMON and SL module versions. Also, there could be other MPE limitations such as insufficient table space.
- ACTION:** Look up the CREATEPROCESS error number in the *Intrinsics Reference Manual*. Correct this error. See also “Invalid Software Installation” and “Insufficient MPE Resources” at the beginning of this appendix.
- MESSAGE: NMMON: NMS version mismatch. NMS-based datacomm unavailable. (NMCNERR 7)**
- NMCNERR 7 **CAUSE:** Version mismatch detected in the Node Management Services subsystem software modules installed on the system.
- ACTION:** See “Invalid Software Installation” at the beginning of this appendix.
- MESSAGE: NMMON: Restart request rejected; not in proper state [!]. (NMCNERR 8)**
- NMCNERR 8 **CAUSE:** User attempted to perform an unsupported function.
- ACTION:** Use method supported by Hewlett Packard to achieve your goal. If uncertain, contact your HP representative.
- MESSAGE: NMMON: Programmatic shutdown request rejected; not in proper state [!]. (NMCNERR 9)**
- NMCNERR 9 **CAUSE:** User attempted to perform an unsupported function.
- ACTION:** Use method supported by Hewlett Packard to achieve your goal. If uncertain, contact your HP representative.
- MESSAGE: NMMON: CREATEPROCESS error *n* on NMINIT.PUB.SYS. (NMCNERR 11)**
- NMCNERR 11 **CAUSE:** CREATEPROCESS failed for NMINIT. The NMINIT.PUB.SYS program file might not be present, or might not be Load-able. This could happen if the NMS software is not correctly installed, or if there is a mismatch between NMFILE and SL module versions. Also, there could be other MPE limitations such as insufficient table space.
- ACTION:** Look up the CREATEPROCESS error number in the *Intrinsics Reference Manual*. Correct this error. See also “Invalid Software Installation” and “Insufficient MPE Resources” at the beginning of this appendix.

- MESSAGE: NM Log Monitor: Another MainLogMonitor exists. This one terminating. (NMCNERR 16)**
- NMCNERR 16 CAUSE: A Main Log Monitor process has found its entry already exists in the port dictionary.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Monitor: Unable to obtain port data segment. (NMCNERR 17)**
- NMCNERR 17 CAUSE: INITPORTDST returned a DST number of 0. The system is unable to allocate any extra data segments.
ACTION: See “Insufficient MPE Resources” at the beginning of this appendix.
- MESSAGE: NM Log Monitor: Unable to create port in data segment. (NMCNERR 18)**
- NMCNERR 18 CAUSE: CREATEPORT returned a PORTID of 0.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Monitor: Unable to add port in dictionary entry. (NMCNERR 19)**
- NMCNERR 19 CAUSE: DICTADD returned a non-zero result.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Monitor: Unable to add to NM Monitor port table. (NMCNERR 20)**
- NMCNERR 20 CAUSE: NMMONADDID failed for MainLogMonitor.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Monitor: Unable to create user logging data segment. (NMCNERR 21)**
- NMCNERR 21 CAUSE: Main Log Monitor is unable to acquire an extra data segment.
ACTION: See “Insufficient MPE Resources” at the beginning of this appendix.
- MESSAGE: NM Log Monitor: Unable to create trace dictionary data segment. (NMCNERR 22)**
- NMCNERR 22 CAUSE: Main Log Monitor is unable to acquire an extra data segment.
ACTION: See “Insufficient MPE Resources” at the beginning of this appendix.

- MESSAGE: NM Log Monitor: Input/Output error in accessing the system disc cold load area. (NMCNERR 23)**
- NMCNERR 23 **CAUSE:** An error occurred trying to access the area of disk where the next NMLG n , and NMTC n , file name numbers are stored. Check for other error indications that may affect the system disks, including I/O errors.
- ACTION:** Correct any situation that may cause disk I/O errors. If the problem persists, see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Monitor: Illegal parameter passed; create failed. (NMCNERR 24)**
- NMCNERR 24 **CAUSE:** The user has attempted to enter a parameter which is not valid.
- ACTION:** Check input parameters and try again.
- MESSAGE: NM Log Monitor: CREATEPROCESS error n on NMLOGMON.PUB.SYS. (NMCNERR 25)**
- NMCNERR 25 **CAUSE:** CREATEPROCESS failed for NMLOGMON. The NMLOGMON.PUB.SYS program file might not be present, or might not be load-able. This could happen if the NMS software is not correctly installed, or if there is a mismatch between NMLOGMON and SL module versions. Also, there could be other MPE limitations such as insufficient table space.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Process: Internal error trying to set up NMS logging. (NMCNERR 26)**
- NMCNERR 26 **CAUSE:** An unexpected error has occurred.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Process: Unable to obtain port data segment. (NMCNERR 30)**
- NMCNERR 30 **CAUSE:** INITPORTDST returned a DST number of 0. The system is unable to allocate any extra data segments.
- ACTION:** See “Insufficient MPE Resources” at the beginning of this appendix.
- MESSAGE: NM Log Process: Unable to create port data segment. (NMCNERR 31)**
- NMCNERR 31 **CAUSE:** CREATEPORT returned a PORTID of 0.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: NM Log Process: Unable to add port dictionary entry. (NMCNERR 32)**
- NMCNERR 32 CAUSE: DICTADD returned a non-zero result.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Process: Unable to add to NM Monitor port table. (NMCNERR 33)**
- NMCNERR 33 CAUSE: NMMONADDID failed for MainLogMonitor.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM Log Process: Unable to create logging buffer data segment. (NMCNERR 34)**
- NMCNERR 34 CAUSE: NM Log Process is unable to acquire an extra data segment.
ACTION: See “Insufficient MPE Resources” at the beginning of this appendix.
- MESSAGE: NMLG FILE NUMBER *nnnn* ERROR #*nnn*. NM LOGGING STOPPED. (NMCNERR 36)**
- NMCNERR 36 CAUSE: If the error number is greater than 1, this is the file system error that occurred when accessing file *NMLGnnnn*, where *nnnn* is the file number specified. If the error number is 1, then see the comments to NMCNERR 23.
ACTION: Correct this problem, then type RESUMENMLOG.
- MESSAGE: NMLG FILE NUMBER *nnnn* ERROR #*nnn*. NM LOGGING SUSPENDED. (NMCNERR 38)**
- NMCNERR 38 CAUSE: If the error number is greater than 1, this is the file system error that occurred when accessing file *NMLGnnnn*, where *nnnn* is the file number specified. If the error number is 1, refer to message NMCNERR 23.
ACTION: Correct this problem, then type RESUMENMLOG.
- MESSAGE: UNABLE TO ACCESS NMLG FILE NUMBER *nnnn*. (NMCNERR 42)**
- NMCNERR 42 CAUSE: The log buffer indicates the logging state is normal or suspended, but it contains a current file number of zero, or FFILEINFO returned a < > condition on the file.
ACTION: Try typing RESUMENMLOG. If SHOWNMLOG after this gives this message again, try rebooting the system to force logging to open a new *NMLGnnnn* file.
- MESSAGE: NM Log Process: Unable to create log dictionary data segment. (NMCNERR 44)**
- NMCNERR 44 CAUSE: NM Log Process is unable to acquire an extra data segment.

ACTION: See “Insufficient MPE Resources” at the beginning of this appendix.

MESSAGE: NM Log Process: Cannot format log msg. Cannot access formatter for subsystem !. Encountered LOADPROC error !. (NMCNERR 45)

NMCNERR 45

CAUSE: A request to write a formatted log message specifies an NMS subsystem number where formatter Log Process was unable to LOADPROC.

ACTION: The SUBSYS n LOGFORMA procedure, where n is the subsystem number specified in the message, either did not exist in SL.PUB.SYS or could not be loaded when NM Log Process started. Look up the LOADPROC error number in the *MPE Intrinsic Reference Manual*. Correct this error. Check that NMS subsystem n is completely, correctly installed. See “Invalid Software Installation” and “Insufficient MPE Resources” at the beginning of this appendix.

Table A-1

Subsystem Numbers for NMCNERR Messages

<i>nn</i>	Subsystem
0	Node Management Services (30299-11017)
1	SNA Transport (32099-11015)
2	SNA/NRJE (Product #30245)
3	Network Transport (Product #30242)
4	Port Translator (30299-11017)
5	Sockets
6	Network Services (Product #32344)
7	Buffer Manager (30299-11016)
8	Link Manager (part of Node Management Services)
9	Reserved for future use
10	Reserved for future use
11	SNA/IMF
12/15	Reserved for future use

MESSAGE: NM Log Process: Cannot format log msg. Unknown subsystem nn . (NMCNERR 46)

NMCNERR 46

CAUSE: A request to write a formatted log message specifies an unknown NMS subsystem number.

ACTION: This is an internal error. See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: NMLG FILES *mmmm* THRU *nnnn* SKIPPED. (NMCNERR 47)**
- NMCNERR 47 CAUSE: NM log files *mmmm* through *nnnn* were skipped over when NMS Logging tried to open a new disk log file. Files NMLG*mmmm*.PUB.SYS through NMLG*nnnn*.PUB.SYS already exist. This is an information message only; no error occurred.
- ACTION: None.
- MESSAGE: NMLG FILES 0000 THRU 9999 ALL USED, NONE AVAILABLE FOR NEXT LOGFILE. (NMCNERR 48)**
- NMCNERR 48 CAUSE: NMS Logging finds that files NMLG0000 through NMLG9999 all already exist. It is more likely that a directory problem or an internal problem exists.
- ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: MainLogMon: NMGLOBAL file found, purged (not needed for this version). (NMCNMSG 49)**
- NMCNMSG 49 CAUSE: Privileged file NMGLOBAL.PUB.SYS was found. This file is not needed in this version of NMS software. The file information is transferred to the Cold Load area of disk, and the file is purged.
- ACTION: None. Informative message.
- MESSAGE: NM Log Process: Cannot access NMCAT.PUB.SYS to format a log msg. (NMCNERR 50)**
- NMCNERR 50 CAUSE: NM Log Process could not open the message catalog and so could not format a logging message.
- ACTION: See "Invalid Software Installation" at the beginning of this appendix.
- MESSAGE: NM Log Process: Logging class ! not configured for subsystem ! in !. (NMCNERR 51)**
- NMCNERR 51 CAUSE: A logging message was received from NMS subsystem *m* that specified log class *n*. However, log class *n* is not configured. The log message is discarded.
- ACTION: Use NMMGR to configure logging class *n* under subsystem *m* in the specified configuration file. The NMMGR subtree is LOGGING. SUB*mmmm*.CLAS*nnnn*, where *mmmm* is the subsystem number *m* with leading zeros, and *nnnn* is the class number *n* with leading zeros.
- MESSAGE: Link Manager unable to open NM logging. (NMCNWARN 70)**
- NMCNWARN 70 CAUSE: A Link Manager process encountered an error from NMOPENLOG.

ACTION: The specific NMERR will be reported in a console message immediately following this message. The Link Manager process will continue to execute, but will be unable to log any errors, including I/O errors.

**MESSAGE: Trace Manager unable to open NM logging.
(NMCNWARN 71)**

NMCNWARN 71 CAUSE: NMCONFIG does not have logging subsystem 18 configured.

ACTION: None required.

**MESSAGE: Linkname Table creation error, subsys=! info=!.
(NMCNERR 80)**

NMCNERR 80 CAUSE: System call failure.

ACTION: Reboot the system.

NMDUMP Error and Warning Messages

MESSAGE: Unable to retrieve text of message #! of set #! from the message catalog. (NMDUMPERR 0)

NMDUMPERR 0 **CAUSE:** This message is actually not returned by the message catalog, but by the program, if the error message requested to be returned cannot be retrieved by the program. It will be displayed when there is no message catalog, NMCAT.PUB.SYS, or the message catalog is not valid (corrupt).

ACTION: Verify that the message catalog exists and is valid.

CAUSE: The version of the NMS message catalog on the system is not compatible with the current NMS software.

ACTION: Verify that the version of NMCAT.PUB.SYS on the system is compatible with the current NMS software.

CAUSE: File system error, a problem accessing and retrieving information from message catalog, or an internal error in the NMDUMP program.

ACTION: File an SR. Refer to “Submitting an SR” at the beginning of this appendix.

MESSAGE: Data type must be 1 or 2. (NMDUMPERR 1)

NMDUMPERR 1 **CAUSE:** User responded incorrectly to prompt for data type.

ACTION: Correct input and re-enter.

MESSAGE: Invalid subsystem ID entered. (NMDUMPERR 2)

NMDUMPERR 2 **CAUSE:** User responded incorrectly to prompt for subsystem ID.

ACTION: Correct input and re-enter.

MESSAGE: Input must be YES or NO. (NMDUMPERR 3)

NMDUMPERR 3 **CAUSE:** User responded incorrectly to a prompt requiring a Y or N answer. “Y”, “YES”, “y”, or “yes” are allowed for Y. “N”, “NO”, “n”, or “no” are allowed for N.

ACTION: Correct input and re-enter.

MESSAGE: Error — File is not of log type. (NMDUMPERR 4)

NMDUMPERR 4 **CAUSE:** User specified that he wanted to format a log file, but the input file specified was not type NLOG.

ACTION: Check spelling of filename. Check file’s type code. Correct input and re-enter.

- MESSAGE: Error — File is not of trace type. (NMDUMPERR 5)**
- NMDUMPERR 5 CAUSE: User specified that he wanted to format a trace file, but the input file specified was not type NTRAC.
- ACTION: Check spelling of filename. Check file's type code. Correct input and re-enter.
- MESSAGE: Invalid date and time string entered. (NMDUMPERR 6)**
- NMDUMPERR 6 CAUSE: User entered an invalid date and/or time. User entered the date and/or time in improper format. Type "Help" for a list of allowed formats.
- ACTION: Correct input and re-enter.
- MESSAGE: Time not within time range of file. (NMDUMPERR 7)**
- NMDUMPERR 7 CAUSE: User entered a date and/or time that is beyond the time range of the input file.
- ACTION: Correct input and re-enter.
- MESSAGE: Finishing time earlier than starting time. (NMDUMPERR 8)**
- NMDUMPERR 8 CAUSE: User entered a finishing date and time that was earlier than the starting date and time.
- ACTION: Correct input and re-enter.
- MESSAGE: LOADPROC failed on procedure !, LOADPROC error !. Will output this subsystemid's entries in dump format. (NMDUMPWARN 9)**
- NMDUMPWARN 9 CAUSE: NMDUMP was unable to LOADPROC (via MODCAL ADDR function) the trace or log formatter procedure for the specified subsystemid number. The procedure name is SUBSYSnLOGFORMAT or SUBSYSnTRACEFORMAT, for log or trace files, for subsystemid = n. NMDUMP will continue and will print out data for this subsystemid, but it will be in a raw dump (hex and ASCII) format. The procedure is not in an SL accessible to NMDUMP. Normally it should be present in SL.PUB.SYS on those systems that have installed the NMS software. Either the initial installation of these procedures was faulty, or these procedures have been deleted since their initial installation.
- ACTION: Get a known good copy of these procedures and install them in SL.PUB.SYS.
- MESSAGE: LOADPROC failed on procedure !, LOADPROC error !. Default formatting options will be assumed for this subsystemid. (NMDUMPWARN 13)**
- NMDUMPWARN 13 CAUSE: Similar to NMDUMPWARN 9, except the procedure that failed to load was a menu procedure.
- ACTION: Get a known good copy of these procedures and install them in SL.PUB.SYS.

**MESSAGE: Error — unexpected end of input data file.
(NMDUMPERR 20)**

NMDUMPERR 20 CAUSE: There was a system failure while tracing/logging was enabled and the file was closed improperly.

ACTION: Attempt to re-log or re-trace the error situation.

CAUSE: An internal error in the NMS trace/log facility or the NMDUMP facility.

ACTION: File an SR. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Data file has become corrupt.

ACTION: Attempt to recreate the trace or log file.

**MESSAGE: Error occurred during output of file header.
(NMDUMPERR 21)**

NMDUMPERR 21 CAUSE: A file system error occurred.

ACTION: Attempt to find out what file system error occurred: Re-run NMDUMP and see if error occurs.

CAUSE: An internal error in NMWRITE.

ACTION: Re-run NMDUMP. File an SR if the same problem occurs. Refer to “Submitting an SR” at the beginning of this appendix.

MESSAGE: No data records, from the subsystems selected, were found in the input file. (NMDUMPWARN 22)

NMDUMPWARN 22 CAUSE: No records were logged/traced to the file from the selected subsystems.

ACTION: None.

CAUSE: If the input file is a log file, logging for the subsystems selected may not be enabled.

ACTION: Check the logging configuration portion of NMCONFIG.PUB.SYS to ensure that logging to disk is enabled for the subsystem(s) and log class(es) desired. If it is not, make the appropriate changes to the configuration file through NMMGR.PUB.SYS.

CAUSE: An internal error in the NMS trace/log facility or the NMDUMP facility.

ACTION: File an SR. Refer to “Submitting an SR” at the beginning of this appendix.

MESSAGE: No data records, from the subsystems selected, were found within the time selected. (NMDUMPWARN 23)

NMDUMPWARN 23 CAUSE: No records were logged/traced to the file from the selected subsystems during the time range specified.

ACTION: None.

CAUSE: If the input file is a log file, logging for the subsystems selected may not be enabled.

ACTION: Check the logging configuration portion of NMCONFIG.PUB.SYS to ensure that logging to disk is enabled for the subsystem(s) and log class(es) desired. If it is not, make the appropriate changes to the configuration file through NMMGR.PUB.SYS.

CAUSE: An internal error in the NMS trace/log facility or the NMDUMP facility.

ACTION: File an SR. Refer to "Submitting an SR" at the beginning of this appendix.

MESSAGE: Error — invalid data record in trace file. (NMDUMPERR 24)

NMDUMPERR 24 CAUSE: There was a system failure while tracing was enabled and the file was closed improperly.

ACTION: Attempt to re-trace the error situation.

CAUSE: An internal error in the NMS trace facility or the NMDUMP facility.

ACTION: File an SR. Refer to "Submitting an SR" at the beginning of this appendix.

CAUSE: Data file has become corrupt.

ACTION: Attempt to recreate the trace file.

MESSAGE: Error — invalid data record in log file. (NMDUMPERR 25)

NMDUMPERR 25 CAUSE: There was a system failure while logging was enabled and the file was closed improperly.

ACTION: Attempt to re-trace the error situation.

CAUSE: An internal error in the NMS log facility or the NMDUMP facility.

ACTION: File an SR. Refer to "Submitting an SR" at the beginning of this appendix.

CAUSE: Data file has become corrupt.

ACTION: Attempt to recreate the logfile.

MESSAGE: Error — invalid trace data file. (NMDUMPERR 26)

NMDUMPERR 26 CAUSE: There was a system failure while tracing was enabled and the file was closed improperly.

ACTION: Attempt to re-trace the error situation.

CAUSE: An internal error in the NMS trace facility or the NMDUMP facility.

ACTION: File an SR. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Data file has become corrupt.

ACTION: Attempt to recreate the trace file.

MESSAGE: Error — invalid log data file. (NMDUMPERR 27)

NMDUMPERR 27 **CAUSE:** There was a system failure while logging was enabled and the file was closed improperly.

ACTION: Attempt to re-trace the error situation.

CAUSE: An internal error in the NMS log facility or the NMDUMP facility.

ACTION: File an SR. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Data file has become corrupt.

ACTION: Attempt to recreate the log file.

MESSAGE: EOF was reached on the output file. The output listing is incomplete. (NMDUMPWARN 28)

NMDUMPWARN 28 **CAUSE:** The output disk file was not built large enough to hold the full dump listing.

ACTION: Redirect the output to a non-disk file, or increase the number of records in the output file with a FILE equation or BUILD command.

MESSAGE: Error occurred during output of formatted data record. (NMDUMPERR 29)

NMDUMPERR 29 **CAUSE:** A file system error occurred when NMWRITE was trying to write to the output file. (A probable file system error in this case would be “out of disk space.”)

ACTION: Verify that the system is at least not “out of space”: Re-run NMDUMP and see if the same error occurs.

CAUSE: An internal error in NMWRITE.

ACTION: Re-run NMDUMP. File an SR if the same problem occurs. Refer to “Submitting an SR” at the beginning of this appendix.

MESSAGE: Invalid trace destination specified in global header. Reassigned according to file characteristics. (NMDUMPWARN 30)

NMDUMPWARN 30 **CAUSE:** An internal error in the NMS trace facility which caused bad data to be written to the data file.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, an SR may be filed against the trace facility. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Data file has become corrupt.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, you may attempt to recreate the data file.

MESSAGE: No data records are in the input file. (NMDUMPWARN 31)

NMDUMPWARN
31

CAUSE: No data records were logged/traced to the data file.

ACTION: None.

CAUSE: An internal error in the NMS trace/log facility or the NMDUMP facility.

ACTION: File an SR. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Data file has become corrupt.

ACTION: Attempt to recreate the data file.

MESSAGE: No additional data records are in the input file. (NMDUMPWARN 32)

NMDUMPWARN
32

CAUSE: It is the end of the file.

ACTION: None.

CAUSE: An internal error in the NMS trace/log facility or the NMDUMP facility.

ACTION: File an SR. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Data file has become corrupt.

ACTION: Attempt to recreate the data file.

MESSAGE: An out-of-range block length was found. It was reassigned the maximum allowable value, 1024. (NMDUMPWARN 33)

NMDUMPWARN
33

CAUSE: An internal error in the NMS log facility which caused bad data to be written to the log data file.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, an SR may be filed against the log facility. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Log data file has become corrupt.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, you may attempt to recreate the data file.

MESSAGE: An out-of-range data record length was found. It was reassigned the maximum allowable value, 2046. (NMDUMPWARN 34)

NMDUMPWARN
34

CAUSE: An internal error in the NMS log facility which caused bad data to be written to the log data file.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, an SR may be filed against the log facility. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Log data file has become corrupt.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, you may attempt to recreate the data file.

MESSAGE: An out-of-range start data record length was found. It was reassigned the maximum allowable value, 8192. (NMDUMPWARN 34)

NMDUMPWARN
35

CAUSE: An internal error in the NMS trace facility which caused bad data to be written to the trace data file.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, an SR may be filed against the log facility. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Trace data file has become corrupt.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, you may attempt to recreate the data file.

MESSAGE: An out-of-range continuation data record length was found. It was reassigned the maximum allowable value. (NMDUMPWARN 36)

NMDUMPWARN
36

CAUSE: An internal error in the NMS trace facility which caused bad data to be written to the trace data file.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, an SR may be filed against the log facility. Refer to “Submitting an SR” at the beginning of this appendix.

CAUSE: Trace data file has become corrupt.

ACTION: No action is actually needed. NMDUMP recovers from such an error in the data file. However, you may attempt to recreate the data file.

NM Error Messages

- MESSAGE: Invalid parameter specified. (NMERR 1)**
- NMERR 1 **CAUSE:** The caller of an NMS procedure has passed an invalid value for one or more of the parameters.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid SubsystemID parameter. (NMERR 2)**
- NMERR 2 **CAUSE:** The caller of an NMS procedure has passed an invalid value for the parameter SubsystemID. Returned by NMOPENTRACE, NMOPENLOG, NMGETTRACEID, NMVERSCHECK. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid UserID parameter. (NMERR 3)**
- NMERR 3 **CAUSE:** The caller of an NMS procedure has passed an invalid value for the parameter UserID. Returned by NMOPENTRACE, NMGETTRACEID. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid TraceElement parameter. (NMERR 5)**
- NMERR 5 **CAUSE:** The caller of an NMS procedure passed an invalid value to the TraceElement parameter. Returned by NMOPENTRACE, NMGETTRACE. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid Dest parameter. (NMERR 6)**
- NMERR 6 **CAUSE:** The caller of an NMS procedure passed an invalid value to the Dest parameter. Returned by NMOPENTRACE. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid TraceID parameter. (NMERR 7)**
- NMERR 7 **CAUSE:** The caller of an NMS procedure passed an invalid value to the TraceID parameter. Returned by NMWRITETRACE, NMCLOSETRACE. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Invalid InfoMode parameter. (NMERR 8)**
- NMERR 8 **CAUSE:** The caller of an NMS procedure passed an invalid value to the InfoMode parameter. Returned by NMWRITETRACE. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid Mode parameter. (NMERR 9)**
- NMERR 9 **CAUSE:** The caller of an NMS procedure passed an invalid value to the Mode parameter. Returned by NMWRITETRACE, NMCLOSETRACE, NMOPENLOG, NMWRITELOG, NMCLOSELOG. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid FileName, RecordSize, and/or FileSize parameter. (NMERR 10)**
- NMERR 10 **CAUSE:** The caller of an NMS procedure passed an invalid value to the FileName, RecordSize, and/or FileSize parameters. Returned by NMOPENTRACE, NMCONFOPEN. An invalid file name, record size, or filesize was specified by the user in a CT command, subsystem command, or NMMGR screen or in a configuration file.
- ACTION:** Correct and retry.
- CAUSE:** One or more of these parameters are being passed incorrectly by the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid LogID parameter. (NMERR 11)**
- NMERR 11 **CAUSE:** The caller of an NMS procedure passed an invalid value to the LogID parameter. Returned by NMWRITELOG, NMCLOSELOG. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid LogClass parameter. (NMERR 12)**
- NMERR 12 **CAUSE:** The caller of an NMS procedure passed an invalid value to the LogClass parameter. Returned by NMWRITELOG. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid LogDataMode parameter. (NMERR 13)**
- NMERR 13 **CAUSE:** The caller of an NMS procedure passed an invalid value to the LogDataMode parameter. Returned by NMWriteLog. This is usually an internal error in the calling subsystem.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Unable to create new datafile. (NMERR 15)**
- NMERR 15 CAUSE: Returned by NMCONFOPEN. NMCONFOPEN detected an error on MIDASOPEN, attempted on the user's stack, on a new file that was to be created. A File System error occurred. (Normal File System restrictions apply when creating NM files.)
- ACTION: See "File System Error" at the beginning of this appendix.
- MESSAGE: Unable to open the datafile. (NMERR 16)**
- NMERR 16 CAUSE: Returned by NMCONFOPEN. A File System error occurred. (Normal File System restrictions apply when accessing NM files.)
- ACTION: See "File System Error" at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to close the datafile. (NMERR 17)**
- NMERR 17 CAUSE: Returned by NMCONFPCLOSE. NMFILE detected an error on MIDASCLOSE.
- ACTION: See "Submitting an S" at the beginning of this appendix.
- MESSAGE: Unable to write to datafile. (NMERR 18)**
- NMERR 18 CAUSE: Returned by NMCONFGETDATA, NMCONFUPDATEDATA. NMFILE detected an error on MIDASGETDATA, besides NMFSERR 9 or 18.
- ACTION: See "File System Error" and "Submitting an SR" at the beginning of this appendix.
- CAUSE: Returned by NMOPENTRACE, NMWRITETRACE, NMCLOSETRACE, NMWRITELOG, and NMCLOSELOG. NMS Tracing or Logging could not write to a trace or log file. Check for File System errors such as out of file, group, account, or system disk space, or I/O errors.
- ACTION: If error persists and no File System error is detectable, then see "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to read from datafile. (NMERR 19)**
- NMERR 19 CAUSE: Returned by NMCONFGETDATA. NMFILE detected an error on MIDASGETDATA, besides NMFSERR 9 or NMFSERR 18. A File System error occurred. (Normal File System restrictions apply when accessing NM files.)
- ACTION: See "File System Error" at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See "Submitting an SR" at the beginning of this appendix.

- MESSAGE: Unable to obtain data segment for tracing. (NMERR 20)**
- NMERR 20 CAUSE: Main NMLogMon was unable to get an extra data segment, or if internal tracing was specified, was unable to lock the extra data segment it did get.
- ACTION: See “Insufficient MPE Resources” and “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Must have 1 <= data length <= 8192 bytes. (NMERR 21)**
- NMERR 21 CAUSE: A call to NMCONFadddata or NMCONFupdatedata cannot send more than 8192 bytes of data. This is probably an internal error in the calling subsystem.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Multiple accesses to a trace entity are not supported. (NMERR 25)**
- NMERR 25 CAUSE: The trace entity passed to NMOPENTRACE is a duplicate trace entry. NMS tracing will not support multiple NMOPENTRACE calls for the same trace entity. A trace entity is a unique combination of the parameters SubSystemID, TraceElement, and TraceType. A user entered a command requesting a particular kind of trace when this trace is already active.
- ACTION: Do not request a trace when that trace is already active.
- CAUSE: An internal error has occurred.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Trace entity is not currently being traced. (NMERR 26)**
- NMERR 26 CAUSE: A request was made for the TraceID of a trace entity that is not currently active. Returned by NMGETTRACEID. (A trace entity is composed of a SubSystemID, TraceElement, and TraceType).
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Request can not be completed immediately. (NMERR 27)**
- NMERR 27 CAUSE: A nowait type request cannot be processed immediately. Returned by some of the NMnnTRACE and NMnnLOG procedures when the MODE parameter is set to 1 (nowait mode) and NMS Tracing or NMS Logging cannot process the request immediately.
- ACTION: Normally this is not an error condition.
- MESSAGE: Subsystem not configured in logging configuration. (NMERR 28)**
- NMERR 28 CAUSE: The SubSystemID passed to NMOPENLOG cannot be found in the LOGGING subtree of the NMCONFIG.PUB.SYS configuration file. The subsystem has not been configured for logging, or the entry is spelled wrong, or the configuration file has been corrupted.

- ACTION:** Manually check the configuration using NMMGR and ensure the logging entry for that subsystem is configured properly. Refer to the appropriate reference manual for assistance.
- MESSAGE: LogClass not configured in configuration file. (NMERR 29)**
- NMERR 29 **CAUSE:** NMS logging cannot find the specified log class in the configuration file NMCONFIG.PUB.SYS. Returned by NMWRITELOG. The log class specified for the calling subsystem is not configured correctly in NMCONFIG.PUB.SYS.
- ACTION:** Use NMMGR to manually check and correct the logging configuration in CONFIG.PUB.SYS. Make sure that the class name is spelled correctly. Refer to the appropriate reference manual for assistance.
- MESSAGE: Unable to repetition trace to beginning of file. (NMERR 31)**
- NMERR 31 **CAUSE:** FCONTROL 5 failed.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: This program may not be run as a user process. (NMERR 32)**
- NMERR 32 **CAUSE:** User attempted to :RUN one of the NMS program files that are not allowed to be :RUN. These program files include LINKMGR.PUB.SYS, NMFILE.PUB.SYS, NMLOGMON.PUB.SYS, PCMANAGE.PUB.SYS, NMLOGICS.PUB.SYS.
- ACTION:** None.
- MESSAGE: Unable to access logging configuration file. (NMERR 33)**
- NMERR 33 **CAUSE:** An unexpected error occurred while NMS logging was trying to read the logging configuration data in NMCONFIG.PUB.SYS. Returned by NMOPENLOG.
- ACTION:** See “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: Invalid reference parameter specified. (NMERR 34)**
- NMERR 34 **CAUSE:** Condition code “>” returned from an internal data segment move routine. One of the parameters, passed by reference, would cause a bounds violation if written to. This message is returned if a bad condition code is received after call of one of the move routines between data segments: MBFDS, MFDS, MBTDS, MTDS. This is an internal error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Internal error: Invalid data segment number. (NMERR 35)**
- NMERR 35 CAUSE : Condition code ">" returned from an internal data segment move routine. An invalid DST number was specified. This message is returned if a bad condition code is received after call of one of the move routines between data segments: MBFDS, MFDS, MBTDS. This is an internal error.
- ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to find port for NM Monitor process. (NMERR 36)**
- NMERR 36 CAUSE : Returned by NMMONADDID and NMMONMAINTREQ. NMMON does not have an entry in Port Dictionary. Cause: internal problem, or bad software installation.
- ACTION: See "Version Incompatibilities" and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Calls from split stack are not supported. (NMERR 37)**
- NMERR 37 CAUSE : Returned by NMMONADDID, NMMONSTARTREQ, NMMONMAINTREQ, NMOPENLINK, NMCLOSELINK, NMMANAGELINK, NMLINKINFO and NMLINKDIAL. Attempt to call above procedures in Split stack. Caused by an internal problem, or bad software installation.
- ACTION: See "Invalid Software Installation" and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Parameter length out of range. (NMERR 38)**
- NMERR 38 CAUSE : Returned by NMMONSTARTREQ, NMOPENLINK, and NMOPENLOG2. Length given for string parameter negative or too long. Caused by an internal problem, or bad software installation.
- ACTION: See "Invalid Software Installation" and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: System shutdown in progress. Can't complete request. (NMERR 39)**
- NMERR 39 CAUSE : Returned by NMMONADDID, NMMONSTARTREQ, NMMONMAINTREQ, NMOPENLINK, NMCLOSELINK, NMMANAGELINK, NMLINKINFO and NMLINKDIAL. NMMON and Link Manager are in the process of shutting down.
- ACTION: This is normally not an error condition.
- MESSAGE: Port table full. Unable to expand capacity. (NMERR 40)**
- NMERR 40 CAUSE : Returned by NMMONADDID. NMMON cannot expand its DL DB area. Caused by an internal problem, or bad software installation.
- ACTION: See "Invalid Software Installation" and "Submitting an SR" at the beginning of this appendix.

- MESSAGE: Port identifier not found in port table. (NMERR 41)**
- NMERR 41 **CAUSE:** Returned by NMMONDELETEID. Port ID to be deleted does not exist in NMMON's table, NMMONADDID was not called for this ID. Caused by an internal problem, or bad software installation.
- ACTION:** See "Invalid Software Installation" and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to create specified system process. (NMERR 42)**
- NMERR 42 **CAUSE:** Returned by NMMONSTARTREQ. Error calling CREATEPROCESS intrinsic. Caused by not enough MPE resources in system, an internal error, a loader error, or bad software installation.
- ACTION:** See "Insufficient MPE Resources," "Invalid Software Installation," and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to obtain data segment for port. (NMERR 43)**
- NMERR 43 **CAUSE:** Returned by NMOPENLINK. Link Manager found an error calling procedure INITPORTDST.
- ACTION:** See "Insufficient MPE Resources," "Invalid Software Installation," and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to create IPC port. (NMERR 44)**
- NMERR 44 **CAUSE:** Returned by NMOPENLINK. Link Manager found an error calling CREATEPORT.
- ACTION:** See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Add to NM Monitor port table failed. (NMERR 45)**
- NMERR 45 **CAUSE:** Returned by NMOPENLINK. Error calling procedure NMMONADDID (see message NMERR 40). Caused by an internal error, or bad software installation.
- ACTION:** See "Invalid Software Installation" and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Add to port dictionary failed. (NMERR 46)**
- NMERR 46 **CAUSE:** Returned by NMOPENLINK. Error calling procedure DICTADD to add Link Manager in Port Dictionary. Caused by an internal error, or bad software installation.
- ACTION:** See "Invalid Software Installation" and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to access message catalog NMCAT.PUB.SYS. (NMERR 47)**
- NMERR 47 **CAUSE:** Returned by Version Checking Routines. Unable to FOPEN file NMCAT.PUB.SYS. Caused by a bad software installation.

ACTION: See “Invalid Software Installation” at the beginning of this appendix.

MESSAGE: Unable to open \$STDIN for process. (NMERR 48)

NMERR 48 **CAUSE:** Returned by NMOPENLINK. Unable to FOPEN \$STDIN for Link Manager process. Caused by an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Unable to open \$STDLIST for process. (NMERR 49)

NMERR 49 **CAUSE:** Returned by NMOPENLINK. Unable to FOPEN \$STDIN for Link Manager process. Caused by an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Unable to find port for Link Manager process. (NMERR 50)

NMERR 50 **CAUSE:** Returned by NMOPENLINK. Link Manager does not have an entry in Port Dictionary. Caused by an internal problem, or bad software installation.

ACTION: See “Invalid Software Installation” and “Submitting an SR” at the beginning of this appendix.

MESSAGE: Length of data to be logged not in range 1 <= logDataSize <= max allowed (ICS, =58 bytes; non-ICS =2034 bytes. (NMERR 51)

NMERR 51 **CAUSE:** Caller of NMWRITELOG has requested either too much or too little data to be logged.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Invalid NMCONF pathname. Non-printable characters not allowed. (NMERR 53)

NMERR 53 **CAUSE:** Returned by most NMCONF intrinsics. Caller has sent NMCONF intrinsic a pathname with non-printable character(s). May be a subsystem problem.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Invalid transaction number. (NMERR 54)

NMERR 54 **CAUSE:** Returned by most of the NMCONF procedures.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: NMTC FILES 0000 THRU 9999 ALL USED, NONE AVAILABLE FOR NEXT TRACEFILE. (NMERR 55)

NMERR 55 **CAUSE:** NMS Trace finds that files NMTC0000 through NMTC9999 all already exist. It is more likely that a directory problem or an internal problem exists.

ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Invalid infolen, must be in range: 1 <= infolen <= 8. (NMERR 56)**
- NMERR 56 CAUSE: Returned by: NMCONFFILEINFO.
ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Duplicate identifier already exists. (NMERR 57)**
- NMERR 57 CAUSE: Returned by NMCONFADDPATH, NMCONFRENAMEPATH.
NMFILE detected NMFSERR 21 on MIDASADDPATH. User of configuration program entered erroneous information.
ACTION: Enter correct data specifications.
CAUSE: Configuration database has internal error.
ACTION: See "Corrupt Configuration File" at the beginning of this appendix.
CAUSE: Internal software error.
ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to find identifier in path name. (NMERR 58)**
- NMERR 58 CAUSE: Returned by NMCONFGETDATA, NMCONFADDPATH, NMCONFPURGEPATH, NMCONFNEXTPATH, NMCONFADDDATA, NMCONFUPDATEDATA, NMCONFDATALENGTH, NMCONFRENAMEPATH, NMCONFPURGEDATA. NMFILE detected message NMFSERR 9. User of configuration program or caller of procedure entered erroneous pathname.
ACTION: Enter correct pathname.
CAUSE: Configuration file internal error.
ACTION: See "Corrupt Configuration File" at the beginning of this appendix.
CAUSE: Internal error.
ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Path depth < minimum or > maximum allowed. (NMERR 59)**
- NMERR 59 CAUSE: Returned by NMCONFNEXTPATH. Procedure received a path depth < 0, or > 256. Returned by: NMCONFADDDATA, NMCONFUPDATEDATA, NMCONFGETDATA, NMCONFDATALENGTH, NMCONFPURGEDATA, NMCONFRENAMEPATH, NMCONFPURGEPATH, NMCONFADDPATH. Procedure received a path depth < 1, or > 256. Internal error in the calling program
ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to find NM Log Monitor. (NMERR 60)**

- NMERR 60 CAUSE: An NM Trace or Logging procedure is unable to locate the server trace or log process (NMLogMon). Returned by NMOPENTRACE, NMGETTRACEID, NMCLOSETRACE, NMOPENLOG, NMCLOSELOG, and by the SHOWNMLOG CI command. The trace or log server process creation failed at system startup due to a bad software installation, a loader error, or an internal error.
- ACTION: See “Invalid Software Installation” and “Submitting an SR” at the beginning of this appendix.
- CAUSE: An =SHUTDOWN or NMMAIN,SHUTDOWN has been executed prior to the Trace or Logging procedure call. The server process has already shut down. This is not an error condition.
- ACTION: None.
- MESSAGE: DB register at absolute. (NMERR 61)**
- NMERR 61 CAUSE: Caller’s DB register is at an absolute DB location (WHERE’SDB returned a < condition code). This is not allowed in the called procedure. Returned by those trace and log procedures that can otherwise be called in split stack mode. This is probably an internal error by the calling subsystem.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM trace dictionary table is full. (NMERR 62)**
- NMERR 62 CAUSE: An unexpectedly large number of NMOPENTRACE calls have been made, each specifying a different combination of SubSystemID, TraceType, and TraceElement. If this is being done by user request, turn off some of the traces, then retry. If this is not being done by user request, then this is an internal error.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: NM log table is full. (NMERR 63)**
- NMERR 63 CAUSE: An unexpectedly large number of NMOPENTRACE calls have been made, each specifying internal memory tracing or a different destination filename. If this is being done by user request, turn off some of the traces, then retry. If this is not being done by user request, then this is an internal error.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Specified file is a system file. (NMERR 64)**
- NMERR 64 CAUSE: The file name (FileName) parameter of the NMOPENTRACE procedure contains a system file name (the first ASCII character is “\$”). User specified an incorrect filename either in the command that starts tracing, or in the configuration file.
- ACTION: Specify a valid file name and retry.

- MESSAGE: Specified file is a back reference file. (NMERR 65)**
- NMERR 65 CAUSE: The file name (FileName) parameter of the NMOPENTRACE procedure contains a back referenced file name (the first ASCII character is "*"). User specified an incorrect filename either in the command that starts trace for that subsystem, or in the configuration file for that subsystem.
- ACTION: Specify a valid file name and retry.
- MESSAGE: User logging entries are not available. (NMERR 67)**
- NMERR 67 CAUSE: The LogBuf XDS used for a particular NMS trace file or for NMS logging has no more available entries to add one more user. An additional entry is used for tracing whenever additional traces are requested to go to an existing open trace file. An additional entry is used for logging whenever a subsystem opens a log file. The user has requested an unexpectedly large number of concurrent traces to go to the same trace file.
- ACTION: Turn off some of the traces and retry.
- CAUSE: An internal error has occurred.
- ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to create the trace process. (NMERR 69)**
- NMERR 69 CAUSE: The tracing subsystem is unable to create a trace server process for the NMOPENTRACE request (NMMONSTARTREQ failed).
- ACTION: See "Invalid Software Installation," "Insufficient MPE Resources," and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Unable to initialize the trace process. (NMERR 70)**
- NMERR 70 CAUSE: The tracing subsystem is unable to initialize the trace server process for the NMOPENTRACE request (unable to create a port or acquire a data segment).
- ACTION: See "Invalid Software Installation," "Insufficient MPE Resources," and "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Logging has stopped. (NMERR 71)**
- NMERR 71 CAUSE: An I/O error or File System error occurred earlier and logging is not currently taking place. Returned by NMOPENLOG.
- ACTION: Enter the SHOWLOG command to find out the status of the log file and the type of error. Correct the error, and restart logging with a RESUMENMLOG or a SWITCHNMLOG command. Then retry the action that led to this error.

- MESSAGE: This command has no parameter. (NMERR 72)**
- NMERR 72 **CAUSE:** Parameters were specified for an NMS command that does not require any parameters. Returned by SHOWNMLOG, RESUMENMLOG, and SWITCHNMLOG. User entered parameters for an NMS CI command SHOWNMLOG, SWITCHNMLOG, or RESUMENMLOG.
- ACTION:** Enter the command name alone without any other text on the \$STDIN or \$STDINX record.
- MESSAGE: Invalid logging configuration file. (NMERR 73)**
- NMERR 73 **CAUSE:** NMCONFIG.PUB.SYS contains invalid logging configuration data. Returned by NMOPENLOG, NMWRITELOG.
- ACTION:** See “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: NM Log dictionary table is full. (NMERR 74)**
- NMERR 74 **CAUSE:** Network management logging facility has a log dictionary table with a fixed number of available entries. If no free entries are available to complete the caller request this error message is returned. Incompatible software versions installed.
- ACTION:** See “Invalid Software Installation” and “Version Incompatibilities” at the beginning of this appendix. If this does not resolve the problem, then see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Data is already associated with this identifier. (NMERR 75)**
- NMERR 75 **CAUSE:** Returned by: NMCONFADDDATA. NMFILE detected NMFSERR 12. User attempted to add data to a path location where data already exists. This may not necessarily be an error if the calling program is trying to determine if data already exists at that location. This could also be caused by database corruption, or by an internal error.
- ACTION:** If data base corruption is suspected, then see “File System Error” at the beginning of this appendix. If an internal error is suspected, then see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: File associated with this transaction is not locked. (NMERR 76)**
- NMERR 76 **CAUSE:** Returned by: NMCONFUNLOCKFILE. NMFILE determined that an NMCONFUNLOCKFILE was attempted on a transaction without a corresponding NMCONFLOCKFILE. This is not necessarily an error if the intent of the caller was to determine the lock status of the file. This could also be caused by an internal error.
- ACTION:** If an internal error is suspected, see “Submitting an SR” at the beginning of this appendix.

- MESSAGE: File associated with this transaction is locked. (NMERR 77)**
- NMERR 77 CAUSE: Returned by: NMCONFADDDATA, NMCONFUPDATEDATA, NMCONFPURGEDATA, NMCONFADDPATH, NMCONFPURGEPTH, NMCONFRENAMEPATH. Some other process has the NMCONF type file locked.
- ACTION: Wait until the file is unlocked by the other user(s) before proceeding.
- MESSAGE: No data associated with this identifier. (NMERR 78)**
- NMERR 78 CAUSE: Returned by: NMCONFGETDATA, NMCONFDATALENGTH, NMCONFPURGEDATA, NMCONFUPDATEDATA. NMFILE detected NMFSEERR 18. This may not be an error if the call to these procedures was using this return to test if data was associated with the identifier. If it was an error, it could be due to corruption of the database.
- ACTION: If file corruption is suspected, see “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: Buffer length parameter out of allowable range. (NMERR 82)**
- NMERR 82 CAUSE: Returned by NMCONFGETDATA. Length parameter is longer than 8192 or less than 7. Probable internal error by caller.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Transaction table is full. (NMERR 83)**
- NMERR 83 CAUSE: Returned if the maximum number of transactions via NMCONF are already opened, and a call to NMCONFOPEN is made.
- ACTION: See “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: Data structures internal error in NMFILE. (NMERR 85)**
- NMERR 85 CAUSE: Returned by most NMCONF procedures.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Switch to CM failed. (NMERR 86)**
- NMERR 86 CAUSE: Returned by native mode NMS procedures if an error is returned by SWITCH.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: CM data segment improperly mapped to NM object. (NMERR 87)**
- NMERR 87 CAUSE: Returned by native mode NMWRITETRACE if an error is returned by wrap-dst.
- ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Parameter not aligned properly. (NMERR 88)**
- NMERR 88 CAUSE: Internal error by the calling subsystem.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid path type value, must be 1 or 2. (NMERR 90)**
- NMERR 90 CAUSE: Returned by NMCONFNEXTTPATH. NMCONFNEXTTPATH detected invalid path type value. Internal error by the calling subsystem.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Unable to purge datafile. (NMERR 92)**
- NMERR 92 CAUSE: Returned by NMCONFPURGE NMOPENTRACE. File system error.
ACTION: Try to purge the file from a CI session, and note the error. Correct this and retry.
- MESSAGE: No identifiers beyond this point in datafile. (NMERR 94)**
- NMERR 94 CAUSE: Returned by NMCONFNEXTTPATH. NMFILE detected warning NMFSWARN 23, in MIDASNEXTTPATH. This may not be an error if the caller’s intention is to search the data file. Otherwise it might indicate corruption of the file.
ACTION: If file corruption is suspected, see “Corrupt Configuration File” at the beginning of this appendix. If this is not a problem, it may be due to incompatible software modules, or an internal error by the calling subsystem. See “Version Incompatibilities” and “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Read truncated to capacity of buffer. (NMERR 95)**
- NMERR 95 CAUSE: Returned by NMCONFGETDATA. NMFILE detected NMFSWARN 19 on MIDASGETDATA. This is probably an internal error by the calling subsystem.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: File code mismatch. (NMERR 96)**
- NMERR 96 CAUSE: Returned by NMCONFOPEN. NMFILE detected NMFSWARN 6 on MIDASOPEN. The file is not a valid configuration file.
ACTION: Type LISTF <filename>, 1 on the file. The file type should be type NCONF.
CAUSE: Internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Unable to find port for NMFILE process. (NMERR 97)**
- NMERR 97 CAUSE: Returned by all NMCONF procedures. Error detected on DICTSEND.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Subsystem does not support version checking. (NMERR 100)**
- NMERR 100 CAUSE: Returned by NMVERSCHECK. Coding error by caller of NMVERSCHECK. The SUBSYSID parameter must refer to a subsystem number that has a second level version cross check routine.
- ACTION: See “Invalid Software Installation” at the beginning of this appendix.
- MESSAGE: Fix levels differ in one or more modules. (NMERR 101)**
- NMERR 101 CAUSE: There is a version mismatch between the various modules of the subsystem. Incorrect installation of the subsystem software.
- ACTION: See “Invalid Software Installation” at the beginning of this appendix.
- MESSAGE: Update levels differ in one or more modules. (NMERR 102)**
- NMERR 102 CAUSE: There is a version mismatch between the various modules of the subsystem. Incorrect installation of the subsystem software.
- ACTION: See “Invalid Software Installation” at the beginning of this appendix.
- MESSAGE: Version levels differ in one or more modules. (NMERR 103)**
- NMERR 103 CAUSE: There is a version mismatch between the various modules of the subsystem. Incorrect installation of the subsystem.
- ACTION: See “Invalid Software Installation” at the beginning of this appendix.
- MESSAGE: One or more subsystem modules are missing. (NMERR 104)**
- NMERR 104 CAUSE: A module required for normal operation of the subsystem is missing.
- ACTION: See “Invalid Software Installation” at the beginning of this appendix.
- MESSAGE: One or more subsystem modules are invalid. (NMERR 105)**
- NMERR 105 CAUSE: An error has occurred trying to read the version ID of one or more of the subsystem’s modules. An I/O error, disk error, or similar has prevented reading the version stamp correctly.

ACTION: Correct this problem and retry. If necessary see “Invalid Software Installation” at the beginning of this appendix.

CAUSE: Some of the program files and data files have the version stamp located in the last user label record. Perhaps the file was copied without copying its user label records properly.

ACTION: See “Invalid Software Installation” at the beginning of this appendix.

MESSAGE: MODULE FLAGS parameter invalid. (NMERR 106).

NMERR 106

CAUSE: The MODULE FLAGS MODE field (bits 7:6) is not in the range 0 to 5, or the TYPE field (bits 13:3) is not in the range 0 to 2. Returned by NMSUBSYSVERS, SUBSYSOVERS, and other subsystem level 2 version check procedures. Probable internal error by caller.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: FLAGS options are incompatible. (NMERR 107)

NMERR 107

CAUSE: Some mutually incompatible option bits were set in the FLAGS parameter. Returned by NMSUBSYSVERS, SUBSYSOVERS, and other subsystem level 2 version check procedures.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Unable to create the link manager process. (NMERR 130)

NMERR 130

CAUSE: A non-zero result code was returned by NMMONSTARTREQ to NMOPENLINK.

Returned by NMOPENLINK. Loader error trying to load LINKMGR.PUB.SYS program file.

ACTION: Try to **ALLOCATE** LINKMGR.PUB.SYS. If this fails, correct the problem according to the error messages given. If this succeeds, retry the action that led to the problem. If this error occurs again, this is not the problem.

CAUSE: Out of MPE resources.

ACTION: See “Insufficient MPE Resources” at the beginning of this appendix.

CAUSE: A non-zero result code was returned by NMMONSTARTREQ to NMOPENLINK. Returned by NMOPENLINK. Internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Invalid item detected in configuration record. (NMERR 131)

NMERR 131

CAUSE: Error reading and/or interpreting data from configuration file. Returned by NMOPENLINK.

ACTION: See “Corrupt Configuration File” at the beginning of this appendix.

**MESSAGE: Link in exclusive use by another subsystem.
(NMERR 132)**

NMERR 132 CAUSE: Link has already been opened by another process. Returned by NMOPENLINK. Another process has this link opened.

ACTION: Shut down the other process to free the link.

CAUSE: A LINKMGR process which had this link previously did not close it when expected. This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix. If possible, include a memory dump with the SR.

MESSAGE: Startparm length error in Link Manager. (NMERR 133)

NMERR 133 CAUSE: Either a software version mismatch, or an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: A successful NMOPENLINK for this link must occur before executing this function. (NMERR 134)

NMERR 134 CAUSE: NMOPENLINK has not yet been called successfully. Returned by NMCLOSELINK, NMMANAGELINK, NMLINKINFO, and NMLINKDIAL. This is usually an internal error in the calling subsystem.

ACTION: See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Required items missing in configuration record.
(NMERR 135)**

NMERR 135 CAUSE: Error reading data from configuration file. Returned by NMOPENLINK. Configuration file is not valid.

ACTION: See “Corrupt Configuration File” at the beginning of this appendix.

**MESSAGE: Parameter information exceeds permissible length.
(NMERR 136)**

NMERR 136 CAUSE: Information buffer given by caller exceeds 128 words in length. Returned by NMMANAGELINK and NMLINKDIAL. This is usually an internal error in the calling subsystem.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: A successful NMOPENLINK for this link must occur before executing this function. (NMERR 137)

NMERR 137 CAUSE: NMOPENLINK has not been executed successfully for this link. Returned by NMCLOSELINK, NMMANAGELINK, NMLINKINFO and NMLINKDIAL. This is usually an internal error in the calling subsystem.

ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Unable to find DC/LDM in system I/O tables. (NMERR 138)**
- NMERR 138 CAUSE: The NSLINK ldev was not configured for the link in NMCONFIG.PUB.SYS when the system was started.
- ACTION: Ensure the NSLINK ldev is configured for the link used by NS, and re-boot. More information may be found in the NMLG log file.
- MESSAGE: Unable to find the specified linkname in system I/O tables. (NMERR 139)**
- NMERR 139 CAUSE: The specified linkname is not configured in the LINK subtree of the configuration file.
- ACTION: Check that the linkname specified to the subsystem has a matching linkname configured under the LINK configuration subtree.
- MESSAGE: Status request to communication board failed. (NMERR 142)**
- NMERR 142 CAUSE: Call to procedure TRAN'GETINFO failed. Returned by NMLINKINFO and LINKCONTROL. Bad software installation.
- ACTION: Make sure that the versions of NMS software and port translator software are compatible. See "Invalid Software Installation" at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: User specified buffer inadequate for request. (NMERR 146)**
- NMERR 146 CAUSE: Caller did not supply a buffer large enough for returned data. Returned by NMLINKINFO. Bad software installation.
- ACTION: Make sure that the versions of NMS software and port translator software are compatible. See "Invalid Software Installation" at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See "Submitting an SR" at the beginning of this appendix.
- MESSAGE: Link manager buffer area inadequate for request. (NMERR 147)**
- NMERR 147 CAUSE: Link Manager's internal buffer is not large enough to handle this request. Returned by NMLINKINFO. Bad software installation.
- ACTION: Make sure that the versions of NMS software and port translator software are compatible. See "Invalid Software Installation" at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See "Submitting an SR" at the beginning of this appendix.

- MESSAGE: Specified item code is out of range. (NMERR 148)**
- NMERR 148 CAUSE: No information item corresponds to the given item code. Returned by NMLINKINFO. Bad software installation.
- ACTION: Make sure that the versions of NMS software and port translator software are compatible. See “Invalid Software Installation” at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Dial request to communication board failed. (NMERR 149)**
- NMERR 149 CAUSE: Error calling procedure TRAN'CONFIGDIAL. Returned by NMLINKDIAL. Bad software installation.
- ACTION: Make sure that the versions of NMS software and port translator software are compatible. See “Invalid Software Installation” at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Dial facility is not supported. (NMERR 154)**
- NMERR 154 CAUSE: Call to LINKDIALREQ failed. Returned by NMLINKDIAL. Bad software installation.
- ACTION: Make sure that the versions of NMS software and port translator software are compatible. See “Invalid Software Installation” at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Multicast address downloading is not supported. (NMERR 155)**
- NMERR 155 CAUSE: Call to NMLINKDOWNMC is not supported. Bad software installation.
- ACTION: Make sure that the versions of NMS software and port translator software are compatible. See “Invalid Software Installation” at the beginning of this appendix.
- CAUSE: An internal error occurred.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Invalid ParmArray code. (NMERR 156)**
- NMERR 156 CAUSE: The caller of an NMOPENLINK2 procedure has passed an invalid item code in the parameter ParmArray.
- ACTION: Returned by NMOPENLINK2.

- CAUSE: An internal error occurred.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: DS/LDM open request failed. (NMERR 157)
- NMERR 157 CAUSE: The request to open the DC/LDM failed. Returned by NMOPENLINK. Bad software installation.
ACTION: Make sure that the versions of NMS software and port translator software are compatible. See “Invalid Software Installation” at the beginning of this appendix.
CAUSE: An internal error occurred.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: DS/LDM close request failed. (NMERR 158)
- NMERR 158 CAUSE: The request to close the DC/LDM failed. Returned by NMCLOSELINK. Bad software installation.
ACTION: Make sure that the versions of NMS software and port translator software are compatible. See “Invalid Software Installation” at the beginning of this appendix.
CAUSE: An internal error occurred.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Unable to lock the Link Manager port DST. (NMERR 159)
- NMERR 159 CAUSE: Returned by NMOPENLINK.
ACTION: Call to procedure failed.
CAUSE: Bad software installation.
ACTION: Make sure that the versions of NMS software are compatible.
CAUSE: An internal error occurred.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Number of parameters exceeds maximum of 20. (NMERR 160)
- NMERR 160 CAUSE: Returned after entering LINKCONTROL command incorrectly.
ACTION: Check the parameters against the LINKCONTROL syntax. Try again.
MESSAGE: Expects link name parameter. (NMERR 161)
- NMERR 161 CAUSE: Returned after entering LINKCONTROL command incorrectly.
ACTION: Specify the link name parameter and try again.

- MESSAGE: Expects a name from one to eight characters long.
(NMERR 162)**
- NMERR 162 CAUSE: Returned after entering LINKCONTROL command incorrectly.
ACTION: Check the spelling and try again.
- MESSAGE: Expects alphanumeric name starting with alphabetic.
(NMERR 163)**
- NMERR 163 CAUSE: Returned after entering LINKCONTROL command incorrectly.
ACTION: Check the spelling and try again.
- MESSAGE: Expects a semicolon after link name parameter.
(NMERR 164)**
- NMERR 164 CAUSE: Returned after entering LINKCONTROL command incorrectly.
ACTION: Check the spelling and try again.
- MESSAGE: Expects TRACE keyword. (NMERR 165)**
- NMERR 165 CAUSE: Returned after entering LINKCONTROL command incorrectly.
ACTION: Specify keyword and try again.
- MESSAGE: Expects an equals sign after keyword. (NMERR 166)**
- NMERR 166 CAUSE: Returned after entering LINKCONTROL command incorrectly.
ACTION: Correct and try again.
- MESSAGE: Specified linkname is not an active datacomm device.
(NMERR 171)**
- NMERR 171 CAUSE: The specified linkname does not exist.
ACTION: Check the spelling of your entry and try again.
CAUSE: The device specified is not configured.
ACTION: Check the list of configured devices and try again.
- MESSAGE: Specified pathname is not a datacomm device.
(NMERR 172)**
- NMERR 172 CAUSE: The specified pathname is not a valid datacomm device
address.
ACTION: Check the pathname in the configuration file and re-enter.
- MESSAGE: Unexpected internal error accessing configuration data.
(NMERR 175)**
- NMERR 175 CAUSE: An unexpected error has occurred.
ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Locked(!) HW Recover(!) HW Sick(!) HW Dead(!) Resource(!). Run diagnostics for more information. (NMERR 177)**
- NMERR 177 CAUSE: This message is likely caused by a hardware problem, and is a generic status request to the I/O manager returned with the specified bits set. One particular example is that the user has entered the `LINKCONTROL` command while the system is in power fail recovery.
- ACTION: Correct the problem and try again.
- MESSAGE: Link H/W device indicates self test failure. Run diagnostics for more information. (NMERR 178)**
- NMERR 178 CAUSE: A failure has occurred in the datacomm hardware.
- ACTION: Run diagnostics and replace the defective hardware as necessary.
- MESSAGE: Unexpected internal error accessing I/O manager. (NMMERR 179)**
- NMERR 179 CAUSE: The I/O Manager is an unknown state.
- ACTION: Run diagnostics for more information.
- MESSAGE: Trace buffer size must be in the range 1 to 16. (NMERR 181)**
- NMERR 181 CAUSE: The user has entered a number that is not in the acceptable range. The current buffer sizes supported are within the ranges of 1K to 16K. Returned by the `LINKCONTROL` command parsing routine.
- ACTION: Enter a valid number (1 through 16).
- MESSAGE: HPE status : info =!, subsystem ID = !. (NMERR 182)**
- NMERR 182 CAUSE: Status information reported by each individual module.
- ACTION: Look at "DHPESTAT.HPESTD.OFFICIAL" for the definitions of subsystem constants. Find out the error information by checking the status reporting file for that particular module.
- MESSAGE: Only the LANIC link is supported. (NMERR 185)**
- NMERR 185 CAUSE: No link other than LAN is currently supported.
- ACTION: Specify only the LANIC for this application.
- MESSAGE: Trace request for *linkname* failed due to : HPE status: INFO = ! subsystem ID = !.**
- NMERR 186 CAUSE: You attempted to start or stop tracing, but tracing was already enabled or disabled.
- ACTION: None.
- CAUSE: An improper value was specified in the `LINKCONTROL` command.

- ACTION:** Reissue the `LINKCONTROL` command with the correct value.
- CAUSE:** An error occurred while accessing the specific I/O manager.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE:** Trace for *linkname* has been initiated with some exceptions : HPE status: INFO = ! subsystem ID = !.
- NMERR 187 **CAUSE:** This error is often returned even though tracing has been enabled.
- ACTION:** None. If this error occurs frequently, submit an SR. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE:** Invalid length for a trace file name.
- NMERR 189 **CAUSE:** MPE/iX trace file names are in the format of `filename.group.account` and must contain a maximum of eight characters in the filename, group, and account fields.
- ACTION:** Reissue the command using a valid trace file name which contains no more than eight characters in the filename, group, and account field.
- MESSAGE:** Trace buffer size for a LAPB, SDLC or RJE link must be between 5 & 16. (NMERR 193)
- NMERR 193 **CAUSE:** The current buffer sizes supported for LAPB and SDLC are 5K to 16K.
- ACTION:** Configure values in the correct range.
- MESSAGE:** Unable to access ! subsystem message catalog !. (NMERR 200)
- NMERR 200 **CAUSE:** The first parameter is the subsystem name or subsysid. The second parameter is the message catalog file name. This is returned by a datacomm subsystem message-generating routine. The specified subsystem encountered an error trying to access an error message in the specified message catalog file.
- ACTION:** Something is wrong with the specified message catalog file. Either it does not exist, or is the wrong version, or is inaccessible due to someone else either storing it or accessing it exclusively, or some other I/O error has occurred. Correct the problem with the message catalog and retry.
- MESSAGE:** Error accessing NMCAT.PUB.SYS set=! msg=!. (NMERR 201)
- NMERR 201 **CAUSE:** Returned by `NMPRINTERMSG` and usually followed by one or more of messages 202 through 205 below, which further clarifies the error. **NOTE:** This message is actually hard-coded in `NMPRINTERMSG` and is included here only for documentation purposes.

ACTION: Look for one or more of NMERR 202 through 205 following this message, and take the remedial action as suggested. Read the text and comments for the original message specified in the message, and take the suggested actions.

MESSAGE: OPEN FSERR ! on NMCAT.PUB.SYS. (NMERR 202)

NMERR 202 **CAUSE:** Returned by NMPRINTERRMSG and usually followed by the text of the FSerror message.

ACTION: Correct the FOPEN problem and retry.

MESSAGE: Encountered GENMESSAGE error !. (NMERR 203)

NMERR 203 **CAUSE:** Returned by NMPRINTERRMSG. If error number is 1 or 2, NMERR 204 follows with a further description. Otherwise the error is described in the *MPE Intrinsic Manual* under GENMESSAGE.

ACTION: If the error number is 1 or 2, see the NMERR 204 message and comments. If the error number is not 1 or 2, look up the error number in the *MPE Intrinsic Manual* under GENMESSAGE. It is likely the problem is due to a bad software installation. If this is consistent with the GENMESSAGE error, see "Getting Help" at the beginning of this appendix. Otherwise, correct the problem causing the GENMESSAGE error and try again.

MESSAGE: GENMESSAGE encountered FSERR !. (NMERR 204)

NMERR 204 **CAUSE:** Returned by NMPRINTERRMSG. This message follows NMERR 203 message, and is usually followed with the text of the FSerror message as well.

ACTION: Correct the File System error and retry.

MESSAGE: FCLOSE FSERR ! NMCAT.PUB.SYS. (NMERR 205)

NMERR 205 **CAUSE:** Returned by NMPRINTERRMSG after printing a message from NMCAT.PUB.SYS. The FCLOSE of NMCAT.PUB.SYS failed.

ACTION: Correct the File System error and retry.

MESSAGE: !: Error trying to access ! msgnum ! setnum !. (NMERR 206)

NMERR 206 **CAUSE:** Returned by a subsystem message-generating routine when it was unable to access the specified message catalog. The first parameter is the Subsys (module) name. The second parameter is the Subsys message catalog name. The third parameter is the message number. The fourth parameter is the set number. Note that this message is usually followed by one or more of messages NMERR 207 through 210.

ACTION: Check to see that the names entered actually exist and are spelled correctly. Read any other error messages which are also displayed, and take the action(s) recommended to correct the problem(s) described by those messages.

- MESSAGE: Encountered FOPEN FSERR ! on !. (NMERR 207)**
- NMERR 207 CAUSE: Returned by a subsystem message-generating routine when it was unable to FOPEN the specified message catalog. The first parameter is the FSERR number. The second parameter is the message catalog name. This message is usually preceded by message NMERR 206.
- ACTION: Correct the FOPEN error and retry.
- MESSAGE: Encountered GENMESSAGE error !. (NMERR 208)**
- NMERR 208 CAUSE: Returned by a subsystem message-generating routine, usually following NMERR 206. The parameter is the GENMESSAGE errnum. If the error number is 1 or 2, NMERR 209 follows with a further description. Otherwise, the error is described in the *MPE Intrinsic Manual* under GENMESSAGE.
- ACTION: If the error number is 1 or 2, see message NMERR 209. If the error number is not 1 or 2, look up the error number in the *MPE Intrinsic Manual* under GENMESSAGE. It is likely the problem is due to a bad software installation. If this is consistent with the GENMESSAGE error, the configuration file may be corrupted. Run NMMGR and verify that the configuration file is okay. Otherwise, correct the problem causing the GENMESSAGE error and try again.
- MESSAGE: GENMESSAGE encountered FSERR !. (NMERR 209)**
- NMERR 209 CAUSE: Returned by a subsystem message-generating routine. The parm is the FSERR number. This message usually follows NMERR 208, and is usually followed with the text of the FSerror message as well (by calling the intrinsic FErrMsg).
- ACTION: Correct the FS error and retry.
- MESSAGE: Encountered FCLOSE FSERR ! on !. (NMERR 210)**
- NMERR 210 CAUSE: Returned by a subsystem message-generating routine after reading a message from the specified message catalog. The first parameter is the FSERR number. The second parameter is the message catalog name. The FCLOSE of the message catalog failed.
- ACTION: Correct the File System error and retry.
- MESSAGE: Config file internal error detected and recovery failed. (NMERR 220)**
- NMERR 220 CAUSE: The configuration file is possibly corrupted.
- ACTION: See "Corrupt Configuration Files" at the beginning of this appendix.

**MESSAGE: Total data length too large to return as integer.
(NMERR 221)**

NMERR 221

CAUSE: Returned by NMCONFSONINFO. The total data length associated with the path name and all its first level sons was greater than 32767 and could not be returned to caller. It is possible that the configuration file is corrupt. It is also possible that there is no error at all. It is theoretically possible, although unlikely, to have more than 32767 bytes of data associated with a path and its first level sons.

ACTION: See “Corrupt Configuration Files” at the beginning of this appendix.

CAUSE: Possible internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Son count too large to return as integer. (NMERR 222)

NMERR 222

CAUSE: Returned by NMCONFSONINFO. The number of first level sons linked to the path name sent by the calling subsystem exceeds 32767. It is possible that the configuration file is corrupt. It is also possible that an internal error occurred.

ACTION: See “Getting Help” at the beginning of this appendix.

**MESSAGE: Request type out of bounds — error in port msg to
NMFILE. (NMERR 223)**

NMERR 223

CAUSE: Returned if NMFILE receives a request type that it does not recognize as being a valid NMCONF intrinsic request on its NMCONF subqueue.

ACTION: Internal error. See “Getting Help” at the beginning of this appendix.

**MESSAGE: Will use LOGGING configuration for this subsystem that
is already active. (NMERR 301)**

NMERR 301

CAUSE: Returned by NMOPENLOG, NMOPENLOG2. The open log was successful and logging may proceed. Note that there is another openlog outstanding for the same subsystem id, so the configuration information already in use will continue to be used. This result code is returned as a negative number (-301) to indicate it is not an error and that the openlog was in fact successful.

ACTION: None.

NMFS Error and Warning Messages

NMFSERR and NMFSWARN messages are produced by the NMS File Server (NMFILE.PUB.SYS). In most cases, they are accompanied by other messages (NMGRERRs or MPE File System errors). You should take the action recommended for the accompanying messages first.

MESSAGE: Unable to create new datafile. (NMFSERR 1)

NMFSERR 1 CAUSE: This error occurs when NMFILE cannot create a new file that is requested by a call to NMCONFOPEN, because of an error in an FOPEN. It could be due to a faulty call to NMCONFOPEN or an error due to specific problems on the system itself, such as insufficient disk space or an I/O error on the file label.

ACTION: See “File System Error” and “Submitting an SR” at the beginning of this appendix.

MESSAGE: Unable to write root directory entry to datafile. (NMFSERR 2)

NMFSERR 2 CAUSE: This error occurs when NMFILE calls MIDASBUILDROOT when processing an NMCONFOPEN.

ACTION: See “File System Error” and “Submitting an SR” at the beginning of this appendix.

MESSAGE: Unable to close datafile. (NMFSERR 3)

NMFSERR 3 CAUSE: FCLOSE failure in MIDASCLOSE, called by NMFILE when processing an NMCONFPCLOSE or NMCONFPCPURGE.

ACTION: See “File System Error” and “Submitting an SR” at the beginning of this appendix.

MESSAGE: Unable to open datafile. (NMFSERR 4)

NMFSERR 4 CAUSE: FOPEN failure in MIDASOPEN called by NMFILE when processing an NMCONFOPEN, or an FOPEN failure in MIDASCOMPRESS. File does not exist.

ACTION: Create file first.

CAUSE: FOPEN failure in MIDASOPEN called by NMFILE when processing an NMCONFOPEN, or an FOPEN failure in MIDASCOMPRESS. File system error.

ACTION: See “File System Error” and “Submitting an SR” at the beginning of this appendix.

MESSAGE: Unable to retrieve filecode from datafile. (NMFSERR 5)

NMFSERR 5 CAUSE: This error occurs when NMFILE calls MIDASOPEN which fails on FGETINFO after an NMCONFOPEN was called. This may indicate that the file label has been corrupted.

ACTION: See “File System Error” at the beginning of this appendix.

**MESSAGE: Datafile does not match user specified filecode.
(NMFSWARN 6)**

NMFSWARN 6 **CAUSE:** This warning occurs when a caller of NMCONFOPEN tries to open a file that does not have a CONF file code either because the data file specified is not a configuration file (most likely), or because the data file label has been corrupted in some way.

ACTION: See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Unable to read root directory entry in datafile.
(NMFSERR 7)**

NMFSERR 7 **CAUSE:** NMFILE called MIDASFILEINFO which failed on FREADDIR after NMCONFFILEINFO was called; or MIDASFINDENTRY was called by NMFILE, and FREADDIR failed. Most NMCONF procedures result in a call to MIDASFINDENTRY.

ACTION: See “File System Error” and “Corrupt Configuration File” at the beginning of this appendix.

**MESSAGE: Unable to find root directory entry in datafile.
(NMFSERR 8)**

NMFSERR 8 **CAUSE:** This error occurs when the root of the file cannot be found in either MIDASFILEINFO or MIDASFINDENTRY. The first is called as a result of a call to NMCONFFILEINFO. The latter is called by many other MIDAS procedures.

ACTION: See “File System Error” and “Corrupt Configuration File” at the beginning of this appendix.

MESSAGE: Unable to find identifier in pathname. (NMFSERR 9)

NMFSERR 9 **CAUSE:** This error happens when MIDASFINDENTRY cannot find an entry with the given path name. This procedure is called internally by several MIDAS procedures. It also results for the same reason in MIDASRENAMEPATH (from a call to NMCONFRENAMEPATH) and MIDASPURGEPATH (from a call to NMCONFPURGEPATH). This is a user error. Make sure the pathname requested was previously entered into the file.

ACTION: Check spelling.

CAUSE: This error happens when MIDASFINDENTRY cannot find an entry with the given path name. This procedure is called internally by several MIDAS procedures. It also results for the same reason in MIDASRENAMEPATH (from a call to NMCONFRENAMEPATH) and MIDASPURGEPATH (from a call to NMCONFPURGEPATH). The file might be corrupt

ACTION: See “Corrupt Configuration File” at the beginning of this appendix

- MESSAGE: Directory linkage error in datafile. (NMFSEERR 10)**
- NMFSEERR 10 **CAUSE:** This error occurs when there is a failure in an FREADDIR in the MIDAS procedures shown in the table when the next link or the root cannot be found. Specifically, an unexpected end of file was found.
- ACTION:** See “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: Unable to read directory entry in datafile. (NMFSEERR 11)**
- NMFSEERR 11 **CAUSE:** This error is similar to message NMFSEERR 10 except that the end of file was not the error when FREADDIR was called.
- ACTION:** See “File System Error” and “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: Data is already associated with this identifier. (NMFSEERR 12)**
- NMFSEERR 12 **CAUSE:** This error is returned by MIDASADDDATA when data already exists at the location where it was to be added.
- ACTION:** See “Corrupt Configuration File,” “Invalid Software Installation,” and “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Unable to retrieve freespace pointer from datafile. (NMFSEERR 13)**
- NMFSEERR 13 **CAUSE:** This error is returned by the MIDAS procedures listed in the table when there is an FGETINFO to find the last record and there is a failure of that call.
- ACTION:** See “File System Error” and “Corrupt Configuration” at the beginning of this appendix.
- MESSAGE: Filespace exhausted. Unable to add entry. (NMFSEERR 14)**
- NMFSEERR 14 **CAUSE:** This is caused when FGETINFO returns insufficient file space left for an additional entry in the configuration file.
- ACTION:** Compress configuration file. If this does not resolve the error, add records to the configuration file.
- MESSAGE: Unable to write data record to datafile. (NMFSEERR 15)**
- NMFSEERR 15 **CAUSE:** This is due to an FWRITEDIR failure.
- ACTION:** See “File System Error” and “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Unable to write directory entry to datafile. (NMFSEERR 16)**
- NMFSEERR 16 **CAUSE:** This is due to an FWRITEDIR failure.
- ACTION:** See “File System Error” at the beginning of this appendix.

- MESSAGE: No data associated with this identifier. (NMFSERR 18)**
- NMFSERR 18 CAUSE: In all MIDAS procedures returning this, there is a failure of MIDASFINDENTRY.
- ACTION: See “File System Error” and “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: Read truncated to capacity of data buffer. (NMFSWARN 19)**
- NMFSWARN 19 CAUSE: This error occurs when caller of NMCONFGETDATA specifies a buffer length smaller than the actual data entry size.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Unable to read data record from datafile. (NMFSERR 20)**
- NMFSERR 20 CAUSE: This error results from a failure of FREADDIR in those MIDAS procedures that call it. (The failure is not an end-of-file found.)
- ACTION: See “File System Error” at the beginning of this appendix.
- MESSAGE: Duplicate identifier already exists. (NMFSERR 21)**
- NMFSERR 21 CAUSE: This error is returned when trying to add a path that already exists.
- ACTION: See “File System Error” and “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Resultant file size beyond permissible range. (NMFSERR 22)**
- NMFSERR 22 CAUSE: This error results in MIDASCOMPRESS when the spacebias + maximum file size is greater than 64K. Check the spacebias of MIDASCOMPRESS call in user interface. The file might also be too large or the file label might be corrupt.
- ACTION: See “File System Error” and “Submitting an SR” at the beginning of this appendix.
- MESSAGE: No identifiers exist beyond this path. (NMFSWARN 23)**
- NMFSWARN 23 CAUSE: This happens when NMCONFnextpath is called and no further path identifiers exist. This may not be an error. Applications calling NMCONFnextpath may use this to find the end of a data branch. Otherwise, it may indicate file corruption.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Pathname exceeds user specified maximum depth. (NMFSERR 24)**
- NMFSERR 24 CAUSE: This is returned by MIDASPARSEPATH when the user-specified pathname is longer than the path depth. No NMCONF procedure calls this intrinsic.

- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Identifier exceeds maximum permissible length. (NMFSERR 25)**
- NMFSERR 25 **CAUSE:** This is returned by MIDASPARSEPATH when the pathname is too long. No NMCONF procedure calls this intrinsic.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Pathname length exhausted user specified buffer. (NMFSERR 26)**
- NMFSERR 26 **CAUSE:** This is returned by MIDASTRAVERSE when the maxlevel parameter is exceeded by the pathlevel parameter. This is probably caused by an excessive pathdepth parameter in NMCONF procedure calls.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Unable to rename old datafile prior to replacement. (NMFSERR 27)**
- NMFSERR 27 **CAUSE:** This is caused by an FRENAME failure in MIDASCOMPRESS, and is currently only returned by the user interface.
- ACTION:** See “File System Error” at the beginning of this appendix.
- MESSAGE: Unable to purge old datafile prior to replacement. (NMFSWARN 28)**
- NMFSWARN 28 **CAUSE:** This is due to an FCLOSE failure in MIDAScompress, and is currently returned only by the user interface.
- ACTION:** See “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: Datafile is empty. (NMFSWARN 29)**
- NMFSWARN 29 **CAUSE:** This is returned by MIDAScompress when existing data file has no data in it. This might not be an error if compress is called from the user interface but no data was put into the file.
- ACTION:** If you suspect that there should have been data, then see “Corrupt Configuration File” at the beginning of this appendix.
- MESSAGE: Parameter out of range. (NMFSERR 30)**
- NMFSERR 30 **CAUSE:** This is a generic error returned from several MIDAS procedures. Check parameters in calls to NMCONF procedures to see if they are in permissible range.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Unable to open message catalog NMCAT.PUB.SYS.
(NMFSEERR 31)**

NMFSEERR 31

CAUSE: Returned by MIDASERRMSG if there is a failure to open NMCAT.PUB.SYS. See if this file is on the system. If it is, it might be corrupt.

ACTION: See "Invalid Software Installation" at the beginning of this appendix.

**MESSAGE: Unable to read message catalog NMCAT.PUB.SYS.
(NMFSEERR 32)**

NMFSEERR 32

CAUSE: Returned by MIDASERRMSG. The file might be corrupted.

ACTION: See "Invalid Software Installation" at the beginning of this appendix.

**MESSAGE: Unable to close message catalog NMCAT.PUB.SYS.
(NMFSEERR 33)**

NMFSEERR 33

CAUSE: Returned by MIDASERRMSG. FCLOSE failure on the file.

ACTION: See "Submitting an SR" at the beginning of this appendix.

NMGR Error and Warning Messages

**MESSAGE: Terminal is of incorrect type or cannot be opened.
(NMGRERR 1)**

NMGRERR 1

CAUSE: The user's terminal is not a block mode terminal supported by VPLUS/3000.

ACTION: Check the terminal type and strap settings.

CAUSE: The user is attempting to run NMMGR from a batch job. Batch operation is not supported.

ACTION: None.

CAUSE: A terminal I/O or internal VPLUS/3000 error occurred.

ACTION: Check the version of VPLUS/3000 and repeat VPLUS/3000 installation if necessary.

MESSAGE: Form file is missing or cannot be opened. (NMGRERR 2)

NMGRERR 2

CAUSE: NMMGR was unable to open the forms file NMMGRF.PUB.SYS at program startup. The file NMMGRF.PUB.SYS is missing.

ACTION: See "Invalid Software Installation" at the beginning of this appendix.

CAUSE: A file equation exists for NMMGRF.PUB.SYS.

ACTION: Check for file equations using LISTEQ5.PUB.SYS and **RESET** if necessary.

CAUSE: File NMMGRF.PUB.SYS is not a valid VFAST or VFORM forms file, or it has become corrupted.

ACTION: Restore a back-up copy of NMMGRF.PUB.SYS.

CAUSE: An internal VPLUS/3000 error occurred.

ACTION: Check the version of VPLUS/3000 and repeat VPLUS/3000 installation if necessary.

**MESSAGE: That type is not defined for this class of items.
(NMGRERR 3)**

NMGRERR 3

CAUSE: The user entered a type name in the TYPE field of a typed-select screen that is not defined for this screen.

ACTION: Check the subsystem manual for correct type names and try again.

- MESSAGE: That function is not implemented. (NMGRERR 4)**
- NMGRERR 4 CAUSE: The user pressed an invalid function key (with a blank label), or pressed the [ENTER] in a screen without a command window (currently only the OPEN FILE screen).
- ACTION: None.
- MESSAGE: Not a valid <NMMGR cmd> or @<pathname or : <MPE cmd>. (NMGRERR 5)**
- NMGRERR 5 CAUSE: The user typed an unrecognizable command in the command window and pressed [ENTER].
- ACTION: Check the spelling of the command, and check the list of valid commands in your subsystem node management or configuration manual.
- MESSAGE: End of file on \$STDINX. Cannot accept further input. (NMGRERR 6)**
- NMGRERR 6 CAUSE: The user typed :EOF or :EOD in response to the prompt: "Press Return when done viewing screen contents."
- ACTION: This error is irrecoverable since the terminal is closed for further input. Run NMMGR again to continue configuration.
- MESSAGE: Warning: Screen changed. Use Save Data key to save data. (NMGRWARN 7)**
- NMGRWARN 7 CAUSE: The user changed information on a data screen and pressed a key other than UPDATE. This warning prevents accidental exit from the screen without saving changes.
- ACTION: The user may ignore the warning by pressing a key other than UPDATE, or may save changes by pressing UPDATE.
- MESSAGE: There are no entries at this level to display. (NMGRWARN 8)**
- NMGRWARN 8 CAUSE: The user pressed the PREV PAGE or NEXT PAGE key in a selection screen when there are no items to be displayed on this select screen. Scrolling with these keys is only necessary when there are already items configured.
- ACTION: None.
- MESSAGE: Internal NM configuration file error. (NMGRERR 9)**
- NMGRERR 9 CAUSE: NMMGR has encountered an unexpected condition in the configuration file.
- ACTION: Check the NMCONF error (if one is reported) for further information.

CAUSE: NMMGR has encountered an unexpected condition in the configuration file. Two or more users are updating the same configuration file concurrently, and one renames or deletes a path which another is configuring.

ACTION: Coordinate activity between users.

CAUSE: NMMGR has encountered an unexpected condition in the configuration file. An internal error occurred. Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

ACTION: Check the version of NMCONF.

MESSAGE: Unexpected type: NM config file corrupt or bad version. (NMGRERR 10)

NMGRERR 10 **CAUSE:** NMMGR has encountered a link data record with a type code (word #1) that is not currently supported. The configuration file may have been corrupted by a file system or disk error.

ACTION: Restore an old version of the configuration file if possible, or delete and reconstruct the corrupt link data record.

MESSAGE: Type must be present. (NMGRERR 11)

NMGRERR 11 **CAUSE:** The user attempted to add a new LINK without specifying a link type.

ACTION: The type for a new link must be specified.

MESSAGE: Unexpected data: NM config file corrupt or bad version. (NMGRERR 12)

NMGRERR 12 **CAUSE:** NMMGR has encountered unrecognizable data in the configuration file. A file system or disc error may have corrupted the configuration file. Possible situations which may cause this error include: 1) A data record does not match the expected format. 2) A link data record has an unexpected type code (word #1). 3) A link exists without a data record to indicate its type.

ACTION: Restore an old version of the configuration file if possible, or delete and reconstruct the corrupt link data record.

MESSAGE: Maximum number of allowed items already configured. (NMGRERR 13)

NMGRERR 13 **CAUSE:** The user attempted to add more items than the maximum allowed at this level.

ACTION: Check the NMMGR manual for these maximum values.

MESSAGE: Cannot build command table; NMCONF.PUB.SYS corrupt. (NMGRERR 14)

NMGRERR 14 **CAUSE:** The file NMCONF.PUB.SYS is not a valid message file, does not exist, or is corrupt.

ACTION: See “Invalid Software Installation” at the beginning of this appendix.

CAUSE: A file equation exists for NMMGRCAT.PUB.SYS.

ACTION: Check for file equations using LISTEQ2.PUB.SYS and **RESET** if necessary.

CAUSE: The table of commands in the NM catalog file NMCAT.PUB.SYS is corrupt or missing. File NMCAT.PUB.SYS is not a valid catalog file, or it has become corrupted.

ACTION: Restore a back-up copy of NMMGRF.PUB.SYS.

CAUSE: The table of commands in the NM catalog file NMCAT.PUB.SYS is corrupt or missing. Set 7 of NMCAT.PUB.SYS (the command set) is missing, or some commands have been deleted from this set.

ACTION: Restore a back-up copy of NMMGRF.PUB.SYS.

MESSAGE: Missing data: NM config file corrupt or bad version. (NMGRERR 15)

NMGRERR 15 **CAUSE:** NMMGR was unable to locate type code in data record.

ACTION: Restore an old version of the configuration file if possible, or delete and reconstruct the corrupt link data record.

MESSAGE: Cannot set up form for next screen. (NMGRERR 16)

NMGRERR 16 **CAUSE:** The forms file NMMGRF.PUB.SYS may be missing or corrupt.

ACTION: Go to the Errors screen and check any other errors which are displayed. See “Invalid Software Installation” at the beginning of this appendix.

CAUSE: A terminal I/O error may have occurred. A user may have entered :EOF or :EOD in response to the prompt “Press RETURN when done viewing contents,” thereby closing the terminal for further input.

ACTION: Check the state of the terminal. Run NMMGR again if the terminal is closed for input.

CAUSE: A data record may be corrupted, making it impossible for NMMGR to display it.

ACTION: Go to the Errors screen and check any other errors which are displayed. See “Invalid Software Installation” at the beginning of this appendix.

CAUSE: NMMGR was unable to display the form for the screen which the user selected. An internal VPLUS/3000 or NMCONF error may have occurred.

ACTION: Check the version of VPLUS/3000 and NMCONF and restore back-up copies if necessary.

- MESSAGE: No errors have yet occurred. (NMGRWARN 17)**
- NMGRWARN 17 CAUSE: The user has gone to the ERRORS screen to check the last error, but no errors have occurred.
- ACTION: None.
- MESSAGE: MPE command error. (NMGRERR 19)**
- NMGRERR 19 CAUSE: The user executed an MPE command (by entering the command preceded by a colon and pressing ENTER), and the command terminated in an error state.
- ACTION: Use the Error Information screen and check the Command Interpreter error for further information.
- MESSAGE: Item does not exist: use the ADD key to create a new item. (NMGRERR 20)**
- NMGRERR 20 CAUSE: The user tried to DELETE, RENAME, or UPDATE an item in a select screen, but the item does not exist in the configuration file.
- ACTION: Use the ADD key if you intend to add the new item; otherwise check the spelling of the item name.
- MESSAGE: Item already exists. (NMGRERR 21)**
- NMGRERR 21 CAUSE: The user tried to ADD an item in a select screen, but the item already exists.
- ACTION: Check the spelling of the item name.
- MESSAGE: Cannot open NM configuration file. (NMGRERR 22)**
- NMGRERR 22 CAUSE: A file system error occurred.
- ACTION: Go to the Errors screen and check for a file system error (FSERR). Correct the error and try again.
- CAUSE: The NMFILE.PUB.SYS process of the Node Management Services is not running.
- ACTION: Go to the Errors screen and check for FSERR 97. If this error occurred, the problem may be due to a version mismatch in the NMS subsystem. See “Invalid Software Installation” at the beginning of this appendix.
- MESSAGE: Cannot reopen NM configuration file. (NMGRERR 23)**
- NMGRERR 23 CAUSE: NMMGR was unable to reopen the configuration file after closing it for compression.
- ACTION: Check the NMCONF or File System error (if one is reported) for further information. This error is fatal and cannot be recovered except by running NMMGR again. See message NMGRERR 22.
- MESSAGE: Cannot compress NM configuration file. (NMGRERR 24)**
- NMGRERR 24 CAUSE: A file system error occurred.

ACTION: Go to the Errors screen and check for a file system error (FSERR). Correct the error and try again.

CAUSE: You are not the creator of the configuration file.

ACTION: Go to the Errors screen and check for FSERR 94. If this error occurred, you can copy the file and then compress it, or ask the creator to compress the file.

CAUSE: NMMGR was unable to compress the configuration file because at least one other user is currently accessing the file.

ACTION: COMPRESS requires exclusive access to the configuration file. Use LISTF,2 to check whether other users are accessing this file. Wait until the file is not being accessed and try again.

CAUSE: The absolute value of the number of records to add or remove is too large. The resulting file would not have been able to contain all the records in the file, or, if a positive number was specified, the resulting file would have exceeded the 64,000 record limit.

ACTION: Enter a different value.

MESSAGE: NA or NM capability is needed to run NMMGR. (NMGRERR 25)

NMGRERR 25 **CAUSE:** The user does not have the Node Manager or Network Administrator capability required to run NMMGR.

ACTION: Check user capability with program LISTDIR5.PUB.SYS, and contact the account manager or system manager if an additional capability is needed.

MESSAGE: File already exists. Use OPEN FILE (f1). (NMGRERR 26)

NMGRERR 26 **CAUSE:** The user tried to CREATE a file in the OPEN FILE screen when the file already exists.

ACTION: Delete the file to create a new, empty configuration file, or use the OPEN key to open an existing file.

MESSAGE: Must specify new name for rename. (NMGRERR 27)

NMGRERR 27 **CAUSE:** The user tried to RENAME an item in a select screen without specifying the new name.

ACTION: Enter a name in the rename field and try again.

MESSAGE: File does not exist. Use CREATE FILE (f2). (NMGRERR 28)

NMGRERR 28 **CAUSE:** The user tried to OPEN a file in the OPEN FILE screen when the file does not exist.

ACTION: Use the CREATE key to create a new file.

**MESSAGE: That command is ambiguous — use more letters.
(NMGRERR 31)**

NMGRERR 31 CAUSE: The user typed an ambiguous command prefix in the command window and hit ENTER.

ACTION: Make the prefix unambiguous by using more letters of the command. Check the NMMGR manual for unambiguous command prefixes.

MESSAGE: Maximum path depth exceeded. (NMGRERR 32)

NMGRERR 32 CAUSE: This error is an internal NMMGR error. NMMGR has created a path whose depth exceeds the maximum allowable depth for paths.

ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Path name format is invalid. (NMGRERR 33)

NMGRERR 33 CAUSE: NMMGR encountered a path name whose format is not recognized. A possible situation which may cause this error is that the user has entered an incorrect path name in the command window.

ACTION: Check your subsystem node management or configuration manual for correct format of a path name and check the subsystem manual for valid paths.

CAUSE: An internal NMMGR error has occurred.

ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Error occurred while listing configuration file.
(NMGRERR 34)**

NMGRERR 34 CAUSE: An error occurred during output of the tree structure or data records of a configuration file.

ACTION: Check the NMCONF or File System error to determine the specific error.

CAUSE: The configuration file may have corrupt data records or invalid paths.

ACTION: Delete and reconstruct the corrupt link data record, or restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

CAUSE: If the file FORMLIST is equated to a disk file, the file may be too small to accommodate the output listing.

ACTION: Check the size of the file and change the file size specification if necessary.

- MESSAGE: Invalid syntax for file name. (NMGRERR 36)**
- NMGRERR 36 CAUSE: The user attempted to OPEN or CREATE a configuration file with an invalid file name.
- ACTION: Check the spelling and syntax of the file name.
- MESSAGE: ENTER executes commands: the command field is blank. (NMGRERR 37)**
- NMGRERR 37 CAUSE: The user pressed [ENTER] without putting a command in the command window. NMMGR uses [ENTER] ONLY for commands. Modifications to the configuration file are all made using function keys.
- ACTION: Make modifications to the configuration file by using the function keys.
- MESSAGE: MPE command warning. (NMGRERR 38)**
- NMGRERR 38 CAUSE: The user executed an MPE command (by entering the command preceded by a colon and pressing ENTER), and the command terminated in a warning state.
- ACTION: Use the Error Information screen and check the Command Interpreter error for further information.
- MESSAGE: Unable to set termination trap handler. (NMGRERR 39)**
- NMGRERR 39 CAUSE: The termination trap handling procedure for program aborts cannot be set. This error indicates an internal MPE problem in the procedure XDSNTRAP, which places a termination procedure PLABEL in the process context for use by MPE during process termination.
- ACTION: Check the MPE installation to see that XDSNTRAP is present and working.
- MESSAGE: Must open a file before using this command. (NMGRERR 40)**
- NMGRERR 40 CAUSE: The user is trying to view a configuration screen without first opening a configuration file.
- ACTION: Open the configuration file and enter the command again.
- MESSAGE: Internal error: Unexpected screen length. (NMGRERR 41)**
- NMGRERR 41 CAUSE: The configuration file is corrupted.
- ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- CAUSE: The forms file is corrupted or is a bad version.
- ACTION: See “Invalid Software Installation” at the beginning of this appendix.

- MESSAGE: Internal error: Unexpected screen contents.
(NMGRERR 42)**
- NMGRERR 42 **CAUSE:** This is an internal NMMGR error. NMMGR has encountered unexpected data from the screen.
- ACTION:** Check to see that the correct version of NMMGR is installed. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: Unexpected data record length.
(NMGRERR 43)**
- NMGRERR 43 **CAUSE:** This is an internal NMMGR error. NMMGR cannot properly create a data record from the input from the screen.
- ACTION:** Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: Unexpected data record contents.
(NMGRERR 44)**
- NMGRERR 44 **CAUSE:** NMMGR cannot properly display a data field in the configuration file on the screen. The configuration file is corrupted.
- ACTION:** Restore a back-up copy of the configuration file if possible.
- MESSAGE: Internal error: Unexpected status code from procedure.
(NMGRERR 45)**
- NMGRERR 45 **CAUSE:** This is an internal NMMGR error. An unknown status code is returned from a procedure.
- ACTION:** Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Specified path is not in this configuration file.
(NMGRERR 46)**
- NMGRERR 46 **CAUSE:** The user has entered a path name in the command field that is not in the configuration file.
- ACTION:** Check the path name entered and try again.
- MESSAGE: Internal error: No child with this type is in schema.
(NMGRERR 47)**
- NMGRERR 47 **CAUSE:** This is an internal NMMGR error. NMMGR cannot match a path name and a type code to an internal table.
- ACTION:** Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: Can't find this path in the schema.
(NMGRERR 48)**
- NMGRERR 48 **CAUSE:** This is an internal NMMGR error. NMMGR cannot match a path name to an internal table.

ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Internal error: The root node has parent node. (NMGRERR 49)

NMGRERR 49 **CAUSE:** This is an NMMGR internal error. NMMGR is scanning the configuration file off the boundary.

ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Internal error: The schema has an invalid format. (NMGRERR 50)

NMGRERR 50 **CAUSE:** This is an internal NMMGR error. NMMGR cannot locate a node in an internal table describing the configuration file structure.

ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: No screen for this path. (NMGRERR 51)

NMGRERR 51 **CAUSE:** There is no screen to display that is associated with this path name. A path exists in the configuration file but is not recognized by NMMGR.

ACTION: This path is for internal use only. Check the pathname and try again.

MESSAGE: Internal error: Cannot create version stamps. (NMGRERR 52)

NMGRERR 52 **CAUSE:** NMMGR creates version stamps for each subsystem in configuration file at file creation time, and in some cases at file open time. This is an internal NMMGR error. NMMGR cannot create version stamps in the configuration file due to an NMCONF error. Check the NMCONF error number for detail.

ACTION: Purge this new file and try to recreate it. If an error still occurs, see “Submitting an SR” at the beginning of this appendix.

MESSAGE: Version mismatch found on specified subsystem. Please run NMMGRVER. (NMGRERR 53)

NMGRERR 53 **CAUSE:** NMMGR checks version stamps of each subsystem in the configuration file at file open time. Version checking results show that there is configuration data for at least one subsystem in the configuration file that is not supported by this version of NMMGR.

ACTION: Run the version control program NMMGRVER to update the file, or open another file, or create a new file.

- MESSAGE: Internal error: Version checking routine failed.
(NMGRERR 54)**
- NMGRERR 54 **CAUSE:** NMMGR checks version stamps of each subsystem in the configuration file at file open time. An error has occurred in the version checking routine. The configuration file may have corrupt data records or invalid paths.
- ACTION:** Restore a back-up copy of the configuration file if possible.
- MESSAGE: Internal error: Version-flag checking failed.
(NMGRERR 55)**
- NMGRERR 55 **CAUSE:** An internal NMMGR error has occurred: unable to get vsflag status. The possible causes include: internal error in vsflag_check_driver, or the parameters file_num, file_type_column, or vsflag_path do not match those stored in vsflag array at open time.
- ACTION:** Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Version mismatch found on specified subsystem.
(NMGRERR 56)**
- NMGRERR 56 **CAUSE:** NMMGR checks version stamps of each subsystem in the configuration file at accessing time. The version checking result shows that the specified subsystem has a mismatched version stamp in the configuration file that is not supported by this version of NMMGR.
- ACTION:** Since this version stamp is greater than what NMMGR supports, use NMMGR to create a new file. In this case, the NMMGRVER conversion utility will not help.
- MESSAGE: Internal error: Unable to get info on VPLUS field.
(NMGRERR 70)**
- NMGRERR 70 **CAUSE:** NMMGR was unable to retrieve information on the screen field via VPLUS utilities.
- ACTION:** Go to the Errors screen and check the VPLUS error message to determine the specific error. Correct the error and try again.
- CAUSE:** NMMGR was unable to retrieve information on the screen field via VPLUS utilities. The forms file NMMGRF.PUB.SYS and NMMGR are different versions, or the forms file is corrupt.
- ACTION:** See “Invalid Software Installation” at the beginning of this appendix.
- MESSAGE: Internal error: Unable to get info on VPLUS form.
(NMGRERR 71)**
- NMGRERR 71 **CAUSE:** NMMGR was unable to retrieve information on the screen field via VPLUS utilities.

ACTION: Go to the Errors screen and check the VPLUS error messages to determine the specific error. Correct the error and try again.

CAUSE: NMMGR was unable to retrieve information on the screen field via VPLUS utilities. The forms file NMMGRF.PUB.SYS and NMMGR are different versions, or the forms file is corrupt.

ACTION: See “Invalid Software Installation” at the beginning of this appendix.

MESSAGE: Internal error: Data field alignment error. (NMGRERR 72)

NMGRERR 72 **CAUSE:** This is an NMMGR internal conversion table error.

ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Internal error: Data field extraction is out of bounds. (NMGRERR 73)

NMGRERR 73 **CAUSE:** This is an NMMGR internal conversion table error. NMMGR cannot locate data for a field to display on this screen.

ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Internal error: Conversion code not yet implemented. (NMGRERR 74)

NMGRERR 74 **CAUSE:** This is an NMMGR internal conversion table error. NMMGR encountered an unknown conversion code.

ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Internal error: String overflow. (NMGRERR 75)

NMGRERR 75 **CAUSE:** This is an internal NMMGR error. A character string passed to one of the conversion routines is too long.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Internal error: Screen conversion ptr is out of bounds. (NMGRERR 76)

NMGRERR 76 **CAUSE:** This is an internal NMMGR error.

ACTION: Go to the Errors screen and check for a VPLUS error message to determine the specific error. Correct any errors and try again.

CAUSE: This is an internal NMMGR error. The forms file NMMGRF.PUB.SYS and NMMGR are not the same version, or the forms file is corrupt.

ACTION: Restore a back-up copy of NMMGRF.PUB.SYS.

- MESSAGE: Internal error: Data conversion ptr is out of bounds. (NMGRERR 77)**
- NMGRERR 77 CAUSE: This is an internal NMMGR conversion table error.
- ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: Missing description for this screen. (NMGRERR 78)**
- NMGRERR 78 CAUSE: This is an NMMGR internal table error. The screen name is not in an internal conversion table.
- ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: Invalid scr field position from VPLUS. (NMGRERR 79)**
- NMGRERR 79 CAUSE: This is an internal NMMGR error. NMMGR cannot properly locate field data from this screen.
- ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: Data field not on proper unit boundary. (NMGRERR 80)**
- NMGRERR 80 CAUSE: This is an internal NMGR conversion table error.
- ACTION: Submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Cannot lock NM configuration file. (NMGRERR 81)**
- NMGRERR 81 CAUSE: NMMGR was unable to successfully lock the configuration file.
- ACTION: Go to the Errors screen and check for any NMERR or FSERR error messages to determine the specific error. Correct the error and try again. If necessary, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Cannot unlock NM configuration file. (NMGRERR 82)**
- NMGRERR 82 CAUSE: NMMGR was unable to successfully unlock the configuration file.
- ACTION: Go to the Errors screen and check for any NMERR or FSERR error messages to determine the specific error. Correct the error and try again. If necessary, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Press Delete again to confirm deletion. (NMGRERR 83)**
- NMGRERR 83 CAUSE: The Delete key needs to be pressed twice to accomplish the deletion.

- ACTION:** Press the Delete key a second time to confirm the deletion.
- MESSAGE: Cannot access the NMMGR help catalog. (NMGRERR 84)**
- NMGRERR 84 **CAUSE:** NMMGR was unable to open the NMMGR help catalog, NMMGRHLP.PUB.SYS.
- ACTION:** Restore the NMMGR help catalog.
- MESSAGE: Incomplete summary printed. (NMGRERR 85)**
- NMGRERR 85 **CAUSE:** Some configuration data could not be found or printed in the summary.
- ACTION:** Check the summary to ensure that all required fields are configured.
- CAUSE:** The data that could not be found or printed is replaced with asterisks in the summary printout.
- ACTION:** Check the summary to ensure that all required fields are configured.
- MESSAGE: Cannot invoke subsystem summary routine. (NMGRERR 86)**
- NMGRERR 86 **CAUSE:** The subsystem summary output routine cannot be load processed from the group, account, or system SL.
- ACTION:** Stream the install job I00INMAC.NMA.HPPL87 to add the routine to system SL.
- MESSAGE: Invalid SNA LU Name Format. Must be XXXXXXXX.XXXXXXXX. (NMGRERR 87)**
- NMGRERR 87 **CAUSE:** The additional address in the Network Directory data screen must be in the format of AXXXXXXX.AXXXXXXX, where A is any alpha char and X is any alphanumeric character.
- ACTION:** Use correct format.
- MESSAGE: Error in NMMGR help catalog. (NMGRERR 88)**
- NMGRERR 88 **CAUSE:** The MPE HELP subsystem could not use the help file NMMGRHLP.PUB.SYS.
- ACTION:** Make sure that the file NMMGRHLP.PUB.SYS is properly formatted (RUN MAKECAT.PUB.SYS,HELP).
- CAUSE:** The MPE HELP subsystem could not use the help file NMMGRHLP.PUB.SYS.
- ACTION:** RESTORE the file NMMGRHLP.PUB.SYS.

- MESSAGE: Warning: Incompatible selection. Press key again to confirm. (NMGRWARN 89)**
- NMGREWARN 89 **CAUSE:** The user pressed a GO TO type function key on the DTS screen that was not compatible with the type of DTS subsystem specified on that screen.
- ACTION:** Press the correct key or, to force selection of the incompatible subsystem, press the incompatible key a second time.
- MESSAGE: Invalid IP Address; press Help for more information. (NMGRERR 90)**
- NMGRERR 90 **CAUSE:** The user entered an IP address that failed IP address edits (address was invalid).
- ACTION:** Enter a valid IP address; check the class letter (A, B, C, or E accepted). (Press the Help key for more information on entering a valid IP address.)
- MESSAGE: Must be xx-xx-xx-xx-xx-xx where x is a hex number. (NMGRERR 91)**
- NMGRERR 91 **CAUSE:** The user entered a LAN station address that failed station address edits (address was invalid).
- ACTION:** Enter a valid LAN station address; must be six pairs of hex digits. (Press the Help key for more information on entering a valid LAN station address.)
- MESSAGE: Reachable Net IP Addr can't be the same as the Gateway IP Addr. (NMGRERR 92)**
- NMGRERR 92 **CAUSE:** A reachable network IP address is the same as the gateway IP address. The network portion of these addresses must be different.
- ACTION:** Correct either the reachable network IP address or the gateway IP address and re-enter.
- MESSAGE: Enter the required Reachable Net IP Address with Hops. (NMGRERR 93)**
- NMGRERR 93 **CAUSE:** User attempted to update information without entering required data. At least one Reachable Net IP Address/Hop pair is required on page 1 of the Reachable Networks screen.
- ACTION:** Enter the required information and continue.
- MESSAGE: Maximum page count exceeded. (NMGRERR 94)**
- NMGRERR 94 **CAUSE:** User attempted to go to next page at the maximum page count (256).
- ACTION:** Use CONDENSE PAGE.

CAUSE: User attempted to do “LAST PAGE” or “CONDENSE PAGE”. The configuration file may have Reachable Network paths in excess of the maximum page count.

ACTION: Restore the configuration file with Reachable Network paths within the maximum page count.

MESSAGE: You must enter a configuration file name to open or create. (NMGRERR 95)

NMGRERR 95 **CAUSE:** The user pressed “Open Config” or “Create Config” but did not enter the configuration file name on the OPEN screen.

ACTION: Supply the configuration file name.

MESSAGE: You must enter a directory file name to open or create. (NMGRERR 96)

NMGRERR 96 **CAUSE:** The user pressed “Open Directory” or “Create Directory”, but did not fill in the Network Directory File Name field on the OPEN screen.

ACTION: Supply the network directory file name.

MESSAGE: You must enter a directory file name to open or create. (NMGRERR 97)

NMGRERR 97 **CAUSE:** The user entered the NEXT command but there is no next screen.

ACTION: None.

MESSAGE: There is no entry to be condensed. (NMGRERR 98)

NMGRERR 98 **CAUSE:** No reachable networks exist in the file to be condensed.

ACTION: None.

MESSAGE: Condense Page function failed. (NMGRERR 99)

NMGRERR 99 **CAUSE:** Error occurs during “CONDENSE PAGE” while doing an “nmconfgetdata” or “nmconfrenamepath”. It can be caused by a corrupted configuration file. Another possibility is that an internal error is occurring with NMCONF intrinsics.

ACTION: Restore a back up copy of the configuration file and try again. If the error still occurs, see “Submitting an SR” at the beginning of this appendix.

MESSAGE: Internal error: Nmconf file number not in file table. (NMGRERR 100)

NMGRERR 100 **CAUSE:** The file number was changed in NMMGR but not entered in the table.

ACTION: Exit NMMGR, then rerun it and try to observe what damage has been done. Repair if possible or restore the configuration file.

- CAUSE:** The file number was changed in NMMGR but not entered in the table.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: Midas file number not in file table. (NMGRERR 101)**
- NMGRERR 101 **CAUSE:** The file number was not located in a search through the table. It is likely that a file number was changed in NMMGR but not entered in the table.
- ACTION:** Exit NMMGR, and rerun NMMGR and try to observe what damage has been done. Repair if possible or restore the configuration file. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: Unable to remove closed file from file table. (NMGRERR 102)**
- NMGRERR 102 **CAUSE:** An attempt to clear the file table of a closed file failed.
- ACTION:** Exit NMMGR. It is possible that no damage occurred. Rerun NMMGR. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal error: NMMGR file table inconsistent. (NMGRERR 103)**
- NMGRERR 103 **CAUSE:** On trying to access the file table, an error was found in the table. This will happen at open time if an attempt is made to put a file into the file table and if the slot in the table is already occupied.
- ACTION:** Exit NMMGR. It is possible that no damage occurred. Rerun NMMGR. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Netxport has locked the file; cannot begin guided task; wait. (NMGRERR 104)**
- NMGRERR 104 **CAUSE:** The network transport is being started using the file that NMMGR has open as the active configuration file. A guided dynamic update cannot be started until the transport has been started.
- ACTION:** Wait until the transport is started and then try again.
- MESSAGE: The file has been locked; type ‘STOP’ to abort, or wait. (NMGRERR 105)**
- NMGRERR 105 **CAUSE:** Either the transport is being started using the file NMMGR has open as the active configuration file, or NMMGR is processing a guided dynamic update which cannot continue until the transport has been started.
- ACTION:** Wait until the transport is started and then try again.

- MESSAGE: The file has been locked; cannot begin guided task. (NMGRERR 106)**
- NMGRERR 106 CAUSE: The transport is using the file NMMGR has open as the active configuration file. Guided configuration cannot be performed on an active configuration file (only guided dynamic updates can).
- ACTION: None.
- MESSAGE: The file has been locked; Type 'STOP' to abort. (NMGRERR 107)**
- NMGRERR 107 CAUSE: The transport is being started using the file NMMGR has open as the active configuration file. NMMGR is performing a guided configuration which cannot continue while the transport is up. The file cannot be modified except with guided dynamic updates until the transport is brought down.
- ACTION: Type 'STOP' in the command window and press ENTER to stop guided configuration.
- MESSAGE: The file has been locked; cannot make any modifications. (NMGRERR 108)**
- NMGRERR 108 CAUSE: Transport is using the file NMMGR has open as the active configuration file. The file cannot be changed except with guided configuration.
- ACTION: Enter guided configuration to perform this function.
- MESSAGE: This file has been locked; subtree copy aborted. (NMGRERR 109)**
- NMGRERR 109 CAUSE: The transport is being initiated using the file that NMMGR has open as the active configuration file, and NMMGR was in the middle of a subtree copy.
- ACTION: When the transport is no longer running, purge the subtree you were copying into and restart the subtree copy.
- MESSAGE: Internal error: Cannot check file lock status; data not saved. (NMGRERR 110)**
- NMGRERR 110 CAUSE: NMMGR cannot determine whether or not the transport is using this file.
- ACTION: If the transport is being started or shut down, wait until it is finished and then try again. If the problem still exists, see "Submitting an SR" at the beginning of this appendix.
- MESSAGE: NETXPORT not validated. Type exit again to leave NMMGR. (NMGRERR 111)**
- NMGRERR 111 CAUSE: Data in the NETXPORT subsystem was changed and NETXPORT was not successfully validated afterwards.

- ACTION:** Go to the validation screen and validate NETXPORT or type exit again, this leaves the file unvalidated.
- MESSAGE: DTS/LINK not validated. Type exit again to leave NMMGR. (NMGRERR 112)**
- NMGRERR 112 **CAUSE:** Data in the DTS or LINK subsystems was changed and DTS/LINK was not successfully validated afterwards.
- ACTION:** Go to the validation screen and validate DTS/LINK or type exit again, this leaves the file unvalidated.
- MESSAGE: HP-IBM not validated. Type exit again to leave NMMGR. (NMGRERR 113)**
- NMGRERR 113 **CAUSE:** Data in the SNANODE, NRJE, or IMF subsystems was changed and HP-IBM was not successfully validated afterwards.
- ACTION:** The user can go to the validation screen and validate HP-IBM. The user can type exit again and leave the file unvalidated.
- MESSAGE: Cannot find validation program NMMGRVAL.PUB.SYS. (NMGRERR 114)**
- NMGRERR 114 **CAUSE:** File does not exist.
- ACTION:** Check to see what happened to the file NMMGRVAL.PUB.SYS. If it has been inadvertently purged, try restoring it from a backup tape.
- MESSAGE: Cannot send mail to validation program. (NMGRERR 115)**
- NMGRERR 115 **CAUSE:** Internal error.
- ACTION:** Contact your Hewlett-Packard representative.
- MESSAGE: Cannot activate validation program NMMGRVAL.PUB.SYS. (NMGRERR 116)**
- NMGRERR 116 **CAUSE:** Internal error.
- ACTION:** Contact your Hewlett-Packard representative.
- MESSAGE: Cannot receive mail from validation program. (NMGRERR 117)**
- NMGRERR 117 **CAUSE:** Internal error.
- ACTION:** Contact your Hewlett-Packard representative.
- MESSAGE: LU Number “!” on page ! is a duplicate. (NMGRERR 118)**
- NMGRERR 118 **CAUSE:** The user entered two LU's with the same LU Numbers. The duplicate numbers may be on the same page of LU data, or one may be on page 1 of LU data and the other on page 2 of LU data.
- ACTION:** Make sure all LU's have unique numbers.

- MESSAGE: LU Number “!” on page ! is a duplicate. (NMGRERR 119)**
- NMGRERR 119 CAUSE: You have entered two LUs with the same LU name. These names may be on the same page (1 or 2) of LU data, or one name may be on page 1 and the other on page 2.
- ACTION: Make sure all LUs have unique names.
- MESSAGE: If the Node Type is “2.0”, then the LU # is required. (NMGRERR 120)**
- NMGRERR 120 CAUSE: The user entered an LU Number out of the acceptable range of 1–255.
- ACTION: Enter an LU Number that is in the range 1–255.
- MESSAGE: IP Address with node portion of zeros is reserved for broadcast. (NMGRERR 121)**
- NMGRERR 121 CAUSE: You entered an IP address with the node portion of the IP address equal to zero.
- ACTION: Modify the node portion of the IP address to a valid IP address.
- MESSAGE: LU Name must be a letter followed by letters for digits. (NMGRERR 122)**
- NMGRERR 122 CAUSE: The user entered a string that contained some non alpha-numeric characters.
- ACTION: Re-enter the string with alpha-numeric characters only.
- MESSAGE: IP Mask can only contain digits separated by periods or spaces. (NMGRERR 123)**
- NMGRERR 123 CAUSE: The IP mask was entered incorrectly. Each octet (XXX) can only contain digits. The octets can be separated by periods or blank spaces.
- ACTION: Enter a mask in the correct format.
- MESSAGE: IP Mask octets can only contain values between 0 and 255. (NMGRERR 124)**
- NMGRERR 124 CAUSE: One or more of the octets entered in the IP mask contains a number less than 0 or greater than 255.
- ACTION: Enter a mask with octets within the range 0 to 255.
- MESSAGE: IP Mask must contain exactly four octets. (NMGRERR 125)**
- NMGRERR 125 CAUSE: More or less than four octets (XXX) were entered.
- ACTION: Re-enter the mask with exactly four octets.

- MESSAGE: IP Subnet Mask of 255.255.255 is not allowed. (NMGRERR 126)**
- NMGRERR 126 CAUSE: An IP Subnet Mask of 255.255.255 was entered. This is not a legal mask.
- ACTION: Re-enter the mask with a different value.
- MESSAGE: If Node 2.1 Dependent LU Support, then LU #'s must be blank. (NMGRERR 127)**
- NMGRERR 127 CAUSE: If the PU Type is 2.1 and the PU Dependent Support is N, then there cannot be any LU Numbers associated with the LU names.
- ACTION: Make all the LU Numbers blank and try again.
- MESSAGE: Invalid SNA LU Name Format. Must be XXXXXXXX.XXXXXXXX. (NMGRERR 128)**
- NMGRERR 128 CAUSE: The user entered an invalid SNA LU name. The SNA LU Name must be in the format of AXXXXXXX . AXXXXXXX, where A is any alpha character and X in any alphanumeric character.
- ACTION: Make all the LU Numbers blank and try again.
- MESSAGE: No previous page. (NMGRERR 130)**
- NMGRERR 130 CAUSE: The user pressed the PREV PAGE function key on a paged data screen and there was no previous page of data.
- ACTION: None.
- MESSAGE: Ldev of ! is not valid. Valid range is -1 to 4679. (NMGRERR 131)**
- NMGRERR 131 CAUSE: The user entered an Ldev that is out of range.
- ACTION: Re-enter an Ldev within the allowed range.
- MESSAGE: Names can only be 16 characters long. (NMGRERR 132)**
- NMGRERR 132 CAUSE: The user entered a name in a field that allows more characters than a valid name allows. This field is usually used for more than one type of entry. The program believes that the user is trying to store a name that is too long.
- ACTION: Enter a new name 16 characters or shorter.
- MESSAGE: Allowed name chars are "A".."Z", "0".."9", "_" and "-". (NMGRERR 133)**
- NMGRERR 133 CAUSE: The user has tried to enter a name with invalid characters in it.
- ACTION: Enter a name with valid characters.

**MESSAGE: IP Address with node portion of zero's reserved.
(NMGRERR 134)**

NMGRERR 134 CAUSE: The node portion of the IP address is all zeros.

ACTION: Check the IP address and make sure that the node portion is not all zeros. Enter a valid IP address. (Press the Help key for more information on entering a valid IP address.)

**MESSAGE: IP Address with network portion of zero's reserved.
(NMGRERR 135)**

NMGRERR 135 CAUSE: The network portion of the IP address is all zeros.

ACTION: Check the IP address and make sure that the network portion is not all zeros. Enter a valid IP address. (Press the Help key for more information on entering a valid IP address.)

**MESSAGE: IP Address A 127 XXX.XXX.XXX is reserved for Loopback.
(NMGRERR 136)**

NMGRERR 136 CAUSE: The IP address entered has a network address of 127. This network address with any node address is reserved for loopback.

ACTION: Check the IP address and make sure that the network address is not 127. Enter a valid IP address. (Press the Help key for more information on entering a valid IP address.)

**MESSAGE: IP Address E 255.255.255.255 is reserved for Broadcast.
(NMGRERR 137)**

NMGRERR 137 CAUSE: The IP address the user entered is a reserved address.

ACTION: Enter a different IP address. (Press the Help key for more information on entering a valid IP address.)

MESSAGE: Bad LAN address. Format is xx-xx-xx-xx-xx-xx; x is 0-9 or A-F. (NMGRERR 138)

NMGRERR 138 CAUSE: The user entered an invalid LAN address on a screen or in a maintenance mode command.

ACTION: Correct the LAN address and repeat the last command or action. (Press the Help key for more information on entering a valid LAN address.)

**MESSAGE: Invalid response. you must enter ON or OFF.
(NMGRERR 139)**

NMGRERR 139 CAUSE: The user, while using the `DTSYNDYNCONF` command in maint mode, they entered in invalid char. The only valid response is either ON or OFF.

ACTION: Enter either ON or OFF.

- MESSAGE: SNA/DS not validated. Type exit again to leave NMMGR. (NMGRERR 140)**
- NMGRERR 140 **CAUSE:** Data in the SNA.DS subsystem was changed and SNA/DS was not successfully validated afterwords.
- ACTION:** Go to the validation screen and validate SNA/DS or type exit again to leave the file unvalidated.
- MESSAGE: Subsystem(s) are not validated. Type ERR for more information. (NMGRERR 141)**
- NMGRERR 141 **CAUSE:** One or more of the subsystems in NMMGR have not been validated.
- ACTION:** To see which subsystems have not been validated, type **ERRORS** in the command line and press the Enter key. Go to the validation screen to validate the unvalidated subsystems or type exit again to leave the file unvalidated.
- MESSAGE: Error in build statement table. (NMGRERR 200)**
- NMGRERR 200 **CAUSE:** This is an internal NMMGR error. The number of statements in an internal table does not match the number expected by NMMGR.
- ACTION:** Restore the file `NMMGRCAT.PUB.SYS`. Then run `NMMAINT.PUB.SYS` to make sure the version of NMMGR is correct.
- MESSAGE: Internal error in Guided config scanner. (NMGRERR 201)**
- NMGRERR 201 **CAUSE:** This is an internal guided configuration error caused by a corrupt `NMMGRCAT.PUB.SYS` file.
- ACTION:** Restore `NMMGRCAT` and retry. If this fails see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Aux NCONF file already open. (NMGRERR 202)**
- NMGRERR 202 **CAUSE:** This is an internal guided configuration error caused when more than one `NMCONF` file is opened by the guided configuration open statement.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Cannot open source, destination, or Aux NCONF file. (NMGRERR 203)**
- NMGRERR 203 **CAUSE:** This is caused when the source/destination file or the file `NMAUX1.PUB.SYS` is either missing, is the wrong version, is locked for exclusive access, or was corrupted during a subtree copy.
- ACTION:** If doing a subtree copy, check to see that the source and destination files really exist. If performing a guided configuration task, copy `NMAUX1.PUB.SYS` from backup tape, and run `NMMAINT.PUB.SYS` to make sure that you have the correct version.

- MESSAGE: Aux NCONF file not opened. (NMGRERR 204)**
- NMGRERR 204 CAUSE: This is an internal guided configuration error caused when data is copied from the auxiliary file to the user file and the auxiliary file was not opened.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Aux file does not contain specified path. (NMGRERR 205)**
- NMGRERR 205 CAUSE: This is a guided configuration error caused when NMMGRCAT specifies a path in the auxiliary file that does not exist.
- ACTION: Copy NMAUX1 . PUB . SYS from back-up tape, and run NMAINT . PUB . SYS to make sure that the version of NMAUX1 is the same as the version of NMMGR.
- MESSAGE: Path to subtree in user file does not exist. (NMGRERR 206)**
- NMGRERR 206 CAUSE: This problem could be caused by a corrupt file or by an old configuration file that needs to be updated.
- ACTION: Run NMMGRVER . PUB . SYS. If needed, restore a known good configuration file from a back-up tape, or create a new configuration file with NMMGR.
- MESSAGE: Internal error; Guided token overflow. (NMGRERR 207)**
- NMGRERR 207 CAUSE: This is an internal guided configuration error.
- ACTION: Restore NMMGRCAT . PUB . SYS from a back-up tape. If this fails see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Unexpected Guided Config error. (NMGRERR 208)**
- NMGRERR 208 CAUSE: An unexpected or internal guided configuration error occurred.
- ACTION: Type the “ERROR” command after this message is displayed for clarification of the error(s). A PC value is specified at the end of this error message. If you are unable to include the value problem, submit an SR. See “Submitting an SR” at the beginning of this appendix. Be sure to include the value of the PC with the SR.
- MESSAGE: Cannot Stop Guided Configuration. (NMGRERR 209)**
- NMGRERR 209 CAUSE: The STOP command is allowed only on screens which contain a “path.” This is most likely to occur when the user types the command “STOP” on the errors screen during guided configuration.
- ACTION: Move to a screen which contains a “path” at the top of the menu and retype the stop command.
- MESSAGE: Cannot perform NEXT function. (NMGRERR 211)**
- NMGRERR 211 CAUSE: This error occurs when the user attempts to use the NEXT command when no selection screen has been encountered.

- ACTION:** There is no need to use this function at this time.
- MESSAGE: Function is not allowed during Guided configuration. (NMGRERR 214)**
- NMGRERR 214 **CAUSE:** The user has pressed a function key that is not allowed during guided configuration. If the user is on a data screen, it is possible to advance by pressing the Update function key.
- ACTION:** Press a labeled function key.
- MESSAGE: Illegal vplus field specified in Guided config. (NMGRERR 215)**
- NMGRERR 215 **CAUSE:** This is an internal guided configuration error that is caused by missing information in the forms file.
- ACTION:** Restore NMMGRF.PUB.SYS from back-up tape, and run NMMAINT.PUB.SYS. If this fails see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Illegal Guided config variable name. (NMGRERR 216)**
- NMGRERR 216 **CAUSE:** This is an internal guided configuration error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Illegal path iden name in Guide config. (NMGRERR 217)**
- NMGRERR 217 **CAUSE:** This is an internal guided configuration error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Max num of items that can be put to a screen exceeded. (NMGRERR 218)**
- NMGRERR 218 **CAUSE:** This is an internal guided configuration error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: String overflow. (NMGRERR 219)**
- NMGRERR 219 **CAUSE:** This is an internal guided configuration error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Boolean logic error. (NMGRERR 220)**
- NMGRERR 220 **CAUSE:** This is an internal guided configuration error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Missing ENDIF statement. (NMGRERR 221)**
- NMGRERR 221 **CAUSE:** This is an internal guided configuration error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Select loops nested too deep. (NMGRERR 222)**
- NMGRERR 222 **CAUSE:** This is an internal guided configuration error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Select stack underflow probably missing SELECT.
(NMGRERR 223)**

NMGRERR 223 **CAUSE:** This is an internal guided configuration error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Missing ENDSELECT statement. (NMGRERR 224)

NMGRERR 224 **CAUSE:** This is an internal guided configuration error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Unknown statement in Guided Configuration driver.
(NMGRERR 226)**

NMGRERR 226 **CAUSE:** This is an internal guided configuration error.

ACTION: Restore NMMGRCAT.PUB.SYS from back-up tape. If this fails see “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Command not allowed on error or version screen.
(NMGRERR 227)**

NMGRERR 227 **CAUSE:** Certain commands are only allowed on states which contain a path. This is likely to occur when the user types STOP on the errors screen or the version screen during guided configuration.

ACTION: Move to a state which contains a path and retype the stop command.

MESSAGE: The network interface data and the topology key must match. (NMGRERR 228)

NMGRERR 228 **CAUSE:** The type of the network interface does not match the topology key which you selected.

ACTION: Make sure you pressed the correct topology key and have the correct network interface name. Check the type of the network interface name by going to NEXPORT.NI (do a direct branch).

**MESSAGE: The Network interface must of type POINT-TO-POINT.
(NMGRERR 229)**

NMGRERR 229 **CAUSE:** The Network Interface must be of type POINT-TO-POINT.

ACTION: Check the type of the network interface name by going to NETXPORT.NI (do a direct branch).

**MESSAGE: The Network interface may not be of type LOOPBACK.
(NMGRERR 230)**

NMGRERR 230 **CAUSE:** There is no Internet data to configure under the loopback network interface.

ACTION: Do not use this function with loopback.

**MESSAGE: No network interface found, or unknown type.
(NMGRERR 231)**

NMGRERR 231 CAUSE: You may have spelled the name incorrectly.
ACTION: Check the spelling and reenter.
CAUSE: The type may be unknown.
ACTION: Check the type of the network interface name by going to NETXPORT.NI (do a direct branch). File an SR if the type is labeled as UNKNOWN. (See “Submitting an SR” at the beginning of this appendix). Delete the unknown type and retry.

**MESSAGE: Unable to open source NCONF file for copy.
(NMGRERR 232)**

NMGRERR 232 CAUSE: File does not exist or is the wrong version.
ACTION: If in guided configuration, then NMAUXI.PUB.SYS could not be opened. If performing a copy subtree, check the source file to make sure it exists and is the correct version.

**MESSAGE: Unable to open destination NCONF file for copy.
(NMGRERR 233)**

NMGRERR 233 CAUSE: File does not exist or is the wrong version.
ACTION: If in guided configuration, then NMCONFIG.PUB.SYS or the user file does not exist, or is corrupt. You may check the version by running NMMAINT.PUB.SYS. You may also run NMMGRVER to determine if your file is corrupt.
If performing a copy subtree, check the destination file to make sure it exists. Check the version and check to see if the file is corrupt (as above).

**MESSAGE: No PC return value is on the Gosub stack.
(NMGRERR 234)**

NMGRERR 234 CAUSE: There is an internal G-code error.
ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Illegal PC value specified in statement. (NMGRERR 235)

NMGRERR 235 CAUSE: There is an internal G-code error.
ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: The Gosub stack is full. (NMGRERR 236)

NMGRERR 236 CAUSE: There is an internal G-code error.
ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: The Network interface must be of type X.25.
(NMGRERR 237)**
- NMGRERR 237 CAUSE: The operation is illegal if the NI is not an X.25 link.
ACTION: Check to make sure that the NI is an X.25 link.
- MESSAGE: Data must be entered and Saved before continuing.
(NMGRERR 240)**
- NMGRERR 240 CAUSE: While running guided configuration, the user tried to press Next Screen without first pressing Update Data while at the path SNANODE.nodename.
ACTION: Enter the correct data and press Update Data.
- MESSAGE: The NI Name must be specified. (NMGRERR 250)**
- NMGRERR 250 CAUSE: At the Guided HP Configuration screen, the user attempted to fine tune the parameters for an NI configuration without specifying the NI name in the NI Name field.
ACTION: Enter a valid NI name in the NI Name field and press the FineTune Parmes key again.
- MESSAGE: The NI Name does not exist in the configuration file.
(NMGRERR 251)**
- NMGRERR 251 CAUSE: The user attempted to perform an operation on a non-existent NI. Either the NI is not configured or the specified NI name is incorrect.
ACTION: Specify the correct NI name of a configured NI and try again.
- MESSAGE: The NI Name already exists and is of another type.
(NMGRERR 253)**
- NMGRERR 253 CAUSE: The user attempted to create an NI using an NI name that has already been configured for another NI of a different type.
ACTION: Specify an NI name that has not already been used and try again.
- MESSAGE: This link name is used by another NI; select another name. (NMGRERR 254)**
- NMGRERR 254 CAUSE: While configuring an NI, the user specified a link name that has already been configured for a different NI and cannot be shared.
ACTION: Specify a different link name and try again.
- MESSAGE: A link name must be entered. (NMGRERR 255)**
- NMGRERR 255 CAUSE: The user attempted to update the configuration file without specifying a link name, which is required for this screen.
ACTION: Enter a link name in the Link name field and try again.

- MESSAGE: This link cannot be renamed. It is used by another NI. (NMGRERR 256)**
- NMGRERR 256 **CAUSE:** The user attempted to change the name of a link that is used by more than one NI.
- ACTION:** Leave the link name as it is or reconfigure one or the other of the NIs to use a different link.
- MESSAGE: The NI name does not exist. Please specify a type to create it. (NMGRERR 257)**
- NMGRERR 257 **CAUSE:** At the Guided HP Configuration screen, the user entered a new NI name and pressed the Config Network key without specifying a type in the NI type field. The type must be specified if the NI does not already exist.
- ACTION:** If you are configuring a new NI, enter the type of the new NI in the NI type field and press Config Network. If you are updating an existing NI and entered the wrong name in the NI name field, enter the correct NI name and press Config Network.
- MESSAGE: Data saved, but profile doesn't exist. Use GoToProfiles command to create it. (NMGRERR 258)**
- NMGRERR 258 **CAUSE:** At the DTS Configuration screen or at one of the DTC card configuration screens, the user specified the name of a profile that is not configured and then pressed the save data key.
- ACTION:** Press the Go To Profiles key if one exists for the screen. If not, type GoToProfiles in the command line and press Enter. This will take you to the profile configuration screens. Configure the nonexistent profile(s) and save the information in the configuration file. When you are finished, press the Prior Screen key until NMMGR returns you to the screen you were at when you originally entered the nonexistent profile name. There is no need to re-enter the data on this screen, since it has already been saved. Continue with the next configuration task.
- MESSAGE: A DTC name must be specified. (NMGRERR 259)**
- NMGRERR 259 **CAUSE:** At the DTC Configuration screen, the user pressed the Read DTC function key without specifying a DTC name.
- ACTION:** Enter a valid DTC name and try again.
- MESSAGE: The DTC name does not exist; enter data and press Save Data to create it. (NMGRERR 260)**
- NMGRERR 260 **CAUSE:** At the DTC Configuration screen, the user specified a nonexistent DTC name and pressed either the Config Card key or the Read DTC key.

ACTION: If an incorrect DTC name was entered, enter the correct DTC name and try again. If the DTC name is correct but the DTC has not yet been configured, enter the information for the DTC and press the Save Data key, then try again.

MESSAGE: The DTS Link does not exist. Enter a Link name and press Sate Data. (NMGRERR 261)

NMGRERR 261 **CAUSE:** At the DTS Configuration screen, the user entered a nonexisting link name and pressed the Tune DTS Link key.

ACTION: If an incorrect link name was entered, enter the correct link name and try again. If the link name is correct but the link has not yet been configured, enter the information for the link and press the Save Data key, then try again.

MESSAGE: Must be a number from 0 to 5. (NMGRERR 262)

NMGRERR 262 **CAUSE:** At the DTC Configuration screen, the user entered an invalid character in the field specifying the card to be configured and pressed the Config Card key.

ACTION: Enter the number of the card to be configured and press Config Card again. The number must be between 0 and 5 and must correspond to the DTC slot number of the card being configured.

MESSAGE: Data saved, but the home Network Interface does not exist. (NMGRERR 263)

NMGRERR 263 **CAUSE:** The user specified a nonexisting NI name as the home network interface and saved the data on the screen.

ACTION: If an incorrect NI name was specified, correct the NI name and press Save Data again. If the NI name is correct but the NI has not yet been configured, configure the NI. There is no need to re-enter the information on the current screen since it has already been saved.

MESSAGE: Data saved, but the SNA does not exist. (NMGRERR 264)

NMGRERR 264 **CAUSE:** The user specified a nonexisting SNA node and saved the data on the screen.

ACTION: If an incorrect SNA node was specified, correct the SNA node name and press Save Data again. If the SNA node name is correct but the SNA node has not yet been configured, configure the SNA node. There is no need to re-enter the information on the current screen since it has already been saved.

MESSAGE: This link name does not exist for this router NI. (NMGRERR 265)

NMGRERR 265 **CAUSE:** The user entered a nonexisting link name and pressed the Link Routing key.

- ACTION:** If an incorrect link name was specified, correct the link name and try again. If link name is correct but the link has not yet been configured, configure the link.
- MESSAGE: The path report for the node is full; no new address can be added. (NMGRERR 266)**
- NMGRERR 266 **CAUSE:** The user attempted to add an address to the network directory for a node whose path report is already full. No additional addresses can be added.
- ACTION:** Go to the Network Directory Data screen for the node and delete some of the addresses assigned to the node name.
- MESSAGE: The node name must be configured first. (NMGRERR 267)**
- NMGRERR 267 **CAUSE:** The node name was not configured.
- ACTION:** Go to the Main screen and configure the node name.
- MESSAGE: Missing IP address. (NMGRERR 268)**
- NMGRERR 268 **CAUSE:** The user neglected to enter the IP address in the appropriate field.
- ACTION:** Enter the IP address and try again.
- MESSAGE: You must enter a backup configuration file name. (NMGRERR 269)**
- NMGRERR 269 **CAUSE:** The user pressed the Open Config or Create Config key with no file name specified in the backup configuration file name field.
- ACTION:** Enter a valid file name in the backup configuration file name field and press Open Config or Create Config again.
- MESSAGE: Cannot open node information file for ADDVC or PURGEVC. (NMGRERR 270)**
- NMGRERR 270 **CAUSE:** NMMGR was unable to open the file whose name was specified in the ADDVC or PURGEVC command, either because the file does not exist or because a more serious file system error occurred.
- ACTION:** 1. The file name specified may not exist. Try the command again with a file that exists.
- ACTION:** 2. A more serious file system error may have occurred. See the accompanying file system error message for resolution.
- MESSAGE: You must open the configuration and directory files first. (NMGRERR 271)**
- NMGRERR 271 **CAUSE:** The user attempted to perform an ADDVC or PURGEVC command without first opening the configuration and/or directory files.
- ACTION:** Open a configuration file with the OPENCONF command and a directory file with the OPENDIR command.

**MESSAGE: The link exists, but its type is not correct for this NI.
(NMGRERR 272)**

NMGRERR 272 CAUSE: The user specified an existing link name on one of the custom NI update screens. The selected link's type was not correct; that is, a LAPB type link was specified for an X.25 NI.

ACTION: Enter the name of a link with the correct type or delete the link configuration.

MESSAGE: The selected card number is not configured with a card type. (NMGRERR 273)

NMGRERR 273 CAUSE: At the DTC Configuration screen, the user selected a card number and pressed the Config Card key. No type was entered in the Type field associated with the selected card.

ACTION: Fill in a card type in the Type field for the selected card and press the Save Data key. Type must be "D" for direct connect, "M" for modem, or "P" for PAD. Once the data has been saved, select the card and press the Config Card key again.

MESSAGE: The config is valid, but could not be backed up; Type ERR for info. (NMGRERR 274)

NMGRERR 274 CAUSE: The user pressed the validate key and the configuration validated correctly, but NMMGR could not back up the configuration file because an error occurred while writing the backup file.

ACTION: Type ERR on the command line and view the errors that occurred. After correcting the errors, retry the validate operation.

MESSAGE: You must specify either a switched or permanent virtual circuit address. (NMGRERR 275)

NMGRERR 275 CAUSE: The user failed to enter either a valid switched virtual circuit address or a valid permanent virtual circuit address. One or the other must be entered.

ACTION: Enter a valid address as appropriate for the VC, either switched or permanent.

**MESSAGE: The NI name exists, but its type is not X.25.
(NMGRERR 276)**

NMGRERR 276 CAUSE: The user entered the name of an existing NI and specified the type as X.25. The NI exists but its type is not X.25.

ACTION: If you are updating an existing NI, enter the correct NI name and the correct type and try again. If you are configuring a new NI, enter a name that has not already been used and try again.

- MESSAGE: Duplicate address key; it must be unique for the X.25 NI. (NMGRERR 277)**
- NMGRERR 277 **CAUSE:** The user specified an address key that was not unique for the NI specified at the VC Configuration screen or through the ADDVC command.
- ACTION:** Go to the SVC and PVC paths screens for the NI to see the names that are already configured. Choose an address key that is not used in either of these screens.
- MESSAGE: Missing quote; the IP address must be enclosed in quotes. (NMGRERR 278)**
- NMGRERR 278 **CAUSE:** While using the ADDVC command in maintenance mode, the user forgot to enter the IP address with either an opening or a closing quote.
- ACTION:** Re-issue the command with the correct IP address enclosed in quotes.
- MESSAGE: The source path was not found. (NMGRERR 280)**
- NMGRERR 280 **CAUSE:** The path to the subtree to copy was not found.
- ACTION:** Check to make sure you have the correct file and check the source path spelling.
- MESSAGE: The destination path was not found. (NMGRERR 281)**
- NMGRERR 281 **CAUSE:** The destination path, which is created by substituting any destination IDs into the source path, was not accessible. The path in the file was not an exact match, or the destination path was missing.
- ACTION:** Check the source and destination path spelling and make sure you have the correct file.
- MESSAGE: The destination path exists. Use the overwrite option to replace. (NMGRERR 282)**
- NMGRERR 282 **CAUSE:** The destination path already exists in the file.
- ACTION:** Enter 'Y' in the overwrite option.
- MESSAGE: Source and destination do not map with each other correctly. (NMGRERR 283)**
- NMGRERR 283 **CAUSE:** The source and destination paths must start at the same spot in the NMMGR schema. Most likely the user attempted to change the name of an item in the destination of a subtree copy.
- ACTION:** Check to see if the item that was changed was a select or type select identifier. If not, that will cause the subcopy to fail.
- Check to make sure that any destination type select items, if changed, were changed to items of the same type (as in LAN to LAN, instead of LAN to router).

- MESSAGE: Internal ERROR in subtree copy. (NMGRERR 284)**
- NMGRERR 284 CAUSE: Internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: A non select screen id was changed in the destination path. (NMGRERR 285)**
- NMGRERR 285 CAUSE: Incorrect ids in the destination path.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Illegal path name identifier in destination path name. (NMGRERR 286)**
- NMGRERR 286 CAUSE: A path id in the destination pathname is not legal.
ACTION: Check the destination path id for typing mistakes.
- MESSAGE: Invalid destination path — path too long. (NMGRERR 287)**
- NMGRERR 287 CAUSE: The source and destination paths must be the same length. When entering data on the subtree copy screen, the source path may appear longer, but should this be the case, the destination path uses IDs from the source path. This error is generated in the other case when the destination path is longer than the source path.
ACTION: Check to make sure that you are not missing path ids in the source path.
- MESSAGE: Source path contains empty path identifiers. (NMGRERR 288)**
- NMGRERR 288 CAUSE: This occurs when the user leaves path IDs empty in the middle of the source path field on the copy subtree screen.
ACTION: Check the source path, and fix the path, so that none of the source path IDs in the middle of the source path are blank.
- MESSAGE: The source and destination may not be the same file and path. (NMGRERR 289)**
- NMGRERR 289 CAUSE: The user is attempting to copy over the source data, which is not allowed.
ACTION: Select another file or path to copy into.
- MESSAGE: The file does not exist or cannot be opened. (NMGRERR 290)**
- NMGRERR 290 CAUSE: An NMCONF file to be opened for a copy could not be accessed.
ACTION: Check the spelling of the filename. Do a “listf <filename>” to see if file exists.

- MESSAGE: Source path is not allowed to be copied. (NMGRERR 291)**
- NMGRERR 291 CAUSE: The source path is not permitted to be copied by the subtree command.
- ACTION: None.
- MESSAGE: Internal NMMGR error: cannot close current Network Directory. (NMGRERR 300)**
- NMGRERR 300 CAUSE: This is an internal error.
- ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Internal NMMGR error: corrupt file likely. (NMGRERR 301)**
- NMGRERR 301 CAUSE: This is an internal error.
- ACTION: The directory file is probably corrupt and should be replaced by a copy from a back-up tape. Restore both data and key files. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: No next page of node names. (NMGRERR 302)**
- NMGRERR 302 CAUSE: This is an informative message that is issued when the user hits **NEXT PAGE** and there are no subsequent names in the directory, or when the name supplied does not exist.
- ACTION: None.
- MESSAGE: No previous page of node names. (NMGRERR 303)**
- NMGRERR 303 CAUSE: This is an informative message that is issued when the user hits **PREV PAGE** and there are none, or when the name supplied does not exist.
- ACTION: None.
- MESSAGE: A node with the same name and global/local setting already exists. (NMGRERR 304)**
- NMGRERR 304 CAUSE: This is an informative message that is issued when the user tries to add a node name that already exists into the directory. The name is probably misspelled, or the wrong global/local setting was given.
- ACTION: Correct the node name, the global/local setting, the type, and/or the enable flag.
- MESSAGE: Cannot find a node with this name and global/local setting. (NMGRWARN 305)**
- NMGRWARN 305 CAUSE: This is an informative message that is issued when the user tries to delete or update a node name that does not exist. The name is probably misspelled, or the wrong global/local setting was given.
- ACTION: Correct the node name, the global/local setting, the type, and/or the enable flag.

MESSAGE: RENAME requires a new node name and/or new global/local setting. (NMGRERR 306)

NMGRERR 306 CAUSE: This is an informative message that is issued when the user tries to rename a node name (global/local setting), but both the new node name and new global/local setting were omitted.

ACTION: Specify the missing information.

MESSAGE: The current node name entry has been deleted by another user. (NMGRERR 307)

NMGRERR 307 CAUSE: The user attempted to delete or update a network address, or path data, but another user who is modifying the same directory file has just deleted the entry.

ACTION: Coordinate update activities with other user(s).

MESSAGE: Duplicate IP address. (NMGRERR 308)

NMGRERR 308 CAUSE: The user attempted to add a network address that already exists in the current path report.

ACTION: Either choose a different network address, or make sure you are updating the correct node name global/local setting.

MESSAGE: Not enough room in the path report list for this addition. (NMGRERR 321)

NMGRERR 321 CAUSE: This is an informative message that is issued when the user attempts to add or update a path in a very large path report list. This can happen only on very large gateway nodes, such as a node with more than 15 network addresses.

ACTION: See "Submitting an SR" at the beginning of this appendix. (Request an expansion on the limit on path reports.)

MESSAGE: Internal NMMGR error — corrupt path report list data. (NMGRERR 322)

NMGRERR 322 CAUSE: Severe error indicating an internal logic error.

ACTION: See "Submitting an SR" at the beginning of this appendix.

MESSAGE: No directory file open. (NMGRERR 323)

NMGRERR 323 CAUSE: Maintenance mode interface: An informative message that is issued when a user gives a command prior to completing a successful `OPENDIR` command.

ACTION: Open or create a directory file using `OPENDIR`, then reissue the command.

- MESSAGE: Cannot find this entry in the directory. (NMGRWARN 324)**
- NMGRWARN 324 **CAUSE:** Maintenance mode interface: An informative message that is issued when no directory entry (either global, local, or neither — if no ;GLOBAL or ;LOCAL keyword given) could be found in the directory matching the specified node name.
- ACTION:** Correct the node name.
- MESSAGE: Cannot open source file / wrong file type. (NMGRERR 325)**
- NMGRERR 325 **CAUSE:** Maintenance mode interface: An informative message issued when an invalid file was specified in a **MERGEDIR** command. Possible causes are:
- Nonexistent file
 - Wrong type of file (not directory or configuration file)
 - Security violation
 - A system file name was given
 - Other file system problem
- ACTION:** Correct the filename.
- MESSAGE: Cannot specify a node name when source is a configuration file. (NMGRERR 326)**
- NMGRERR 326 **CAUSE:** Maintenance mode interface: Informative message issued when a user specified a node name in conjunction with a configuration file in a **MERGEDIR** command.
- ACTION:** Omit the node name from the command or use a directory file as the source and retain the node name.
- MESSAGE: Local and global entries exist for this node name; choose one. (NMGRERR 327)**
- NMGRERR 327 **CAUSE:** Maintenance mode interface: An informative message issued when the user has given a **DELETENODE** command, specifying a node name that is not unique. For example, both a local and global entry could exist for the node name.
- ACTION:** Explicitly state the entry to be deleted using ;LOCAL or ;GLOBAL.
- MESSAGE: The node name must be of the form NAME.DOMAIN.ORG. (NMGRERR 328)**
- NMGRERR 328 **CAUSE:** A node name was expected, however, the data present did not conform to the node name format.
- ACTION:** Correct the node name.
- CAUSE:** The node name is more than 50 characters long.
- ACTION:** Correct the node name.

**MESSAGE: The catalog file has an error in the Batch Command list.
(NMGRERR 329)**

NMGRERR 329 CAUSE: An internal error in NMMGR has occurred.

ACTION: Run NMMMAINT.PUB.SYS to make sure that you have the correct version of NMMGR. If necessary, restore the file NMMGRCAT.PUB.SYS from a back-up tape. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Extra data was specified for this command.
(NMGRERR 330)**

NMGRERR 330 CAUSE: The user specified too much data.

ACTION: Check syntax of command or type “help” for more information.

MESSAGE: A key operator was already specified. (NMGRERR 332)

NMGRERR 332 CAUSE: The user specified both a ;LOCAL and ;GLOBAL key operator.

ACTION: Retype the command with only a ;LOCAL or ;GLOBAL key operator.

MESSAGE: A merge operator was already specified. (NMGRERR 333)

NMGRERR 333 CAUSE: The user specified more than one merge operator (KEEP, NOKEEP, TIMESTAMP).

ACTION: Retype the command with only one merge operator.

MESSAGE: Unknown command encountered. (NMGRERR 334)

NMGRERR 334 CAUSE: The user typed in an incorrect command.

ACTION: If the command is an MPE command, the command must start with a ‘:’. Check the spelling of the command name and reenter as needed.

MESSAGE: Parameter length overflow. (NMGRERR 335)

NMGRERR 335 CAUSE: A parameter’s length in characters exceeds the maximum length permitted.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Unexpected semicolon encountered. (NMGRERR 336)

NMGRERR 336 CAUSE: A semicolon was encountered before other expected data was entered.

OPENDIR: no options (no semicolon) are allowed.
MERGEDIR: no filename was specified.
LISTDIR: no options (no semicolon) are allowed.
EXPANDDIR: no options (no semicolon) are allowed.

ACTION: Check syntax of the command or type “help” for more information.

- MESSAGE: Expected parameter after command. (NMGRERR 337)**
- NMGRERR 337 CAUSE: A parameter is needed after certain commands. This error occurs if the user does not specify that parameter. OPENDIR: needs a filename. MERGEDIR: needs a filename. EXPANDDIR: needs an integer.
- ACTION: Check syntax of the command or type “help” for more information.
- MESSAGE: Unknown or extra keyword parameter specified. (NMGRERR 338)**
- NMGRERR 338 CAUSE: This occurs in DELETENODE or MERGEDIR when the keyword local, global, keep, nokeep, or timestamp is spelled incorrectly or you have a duplicate type of keyword. DELETENODE only allows local or global keywords.
- ACTION: Check spelling of keywords. Check for duplicate keyword types. Type “help” for correct syntax.
- MESSAGE: Illegal configuration file name. (NMGRERR 339)**
- NMGRERR 339 CAUSE: Configuration file name is invalid.
- ACTION: Check the file name for validity. Also, make sure the name is not too long.
- MESSAGE: Illegal directory file name. (NMGRERR 340)**
- NMGRERR 340 CAUSE: Directory name may be too long, or contains illegal characters.
- ACTION: Recheck file name specified.
- MESSAGE: No keywords are allowed for this command. (NMGRERR 341)**
- NMGRERR 341 CAUSE: This command does not allow keywords.
- ACTION: Check syntax of the command or type “help” for more information.
- MESSAGE: Node Name length must be from 5 to 50 chars in length. (NMGRERR 342)**
- NMGRERR 342 CAUSE: The node name length is wrong.
- ACTION: Check the length of each segment in the node name. Each segment (name, domain, org) must be 1–16 characters in length.
- MESSAGE: Name segment in node name must be from 1 to 16 chars in length. (NMGRERR 343)**
- NMGRERR 343 CAUSE: The name portion of the node name is the incorrect length.
- ACTION: Fix the length of the name in NAME.domain.org.

- MESSAGE: Domain segment in node name must be from 1 to 16 chars in length. (NMGRERR 344)**
- NMGRERR 344 CAUSE: The domain portion of the node name is the incorrect length.
ACTION: Fix the length of the domain in name.DOMAIN.org.
- MESSAGE: org segment in node name must be from 1 to 16 chars in length. (NMGRERR 345)**
- NMGRERR 345 CAUSE: The org portion of the node name is the incorrect length.
ACTION: Fix the length of the org in name.domain.org.
- MESSAGE: Each segment in the node name must begin with an alphabetic char. (NMGRERR 346)**
- NMGRERR 346 CAUSE: Each segment in node name (name, domain, and org) must begin with an alphabetic character.
ACTION: Check to see that the first char in each segment is in the set ['A' .. 'Z'].
- MESSAGE: Node names may only be composed of alpha, numeric and _, "-". (NMGRERR 347)**
- NMGRERR 347 CAUSE: Illegal character specified.
ACTION: Check each segment for an illegal character.
- MESSAGE: Expected the destination path and file to be formatted as PATH:FILE. (NMGRERR 348)**
- NMGRERR 348 CAUSE: Incorrect format specified.
ACTION: Check to make sure that the three components—path, colon, and file—are present.
- MESSAGE: Expected three filename parameters : streamfile, nodefile, cmdfile. (NMGRERR 349)**
- NMGRERR 349 CAUSE: Incorrect format specified.
ACTION: File name parameters incorrectly specified.
- MESSAGE: Missing or invalid source file name. (NMGRERR 350)**
- NMGRERR 350 CAUSE: Missing or invalid source file name specified.
ACTION: Check to make sure that an MPE file name was specified after the : delimiter to the copyconf command.
- MESSAGE: Missing comma. (NMGRERR 351)**
- NMGRERR 351 CAUSE: The syntax of the command requires a comma.
ACTION: Reissue the command using a comma.

- MESSAGE: Need to save data on previous screen before adding domain name. (NMGRERR 352)**
- NMGRERR 352 CAUSE: Data was not updated for this node.
ACTION: Update the data for this node.
- MESSAGE: The path specified does not point to a paged data screen. (NMGRERR 353)**
- NMGRERR 353 CAUSE: You did not access a paged data screen which has only one page.
ACTION: Check the path specified in the `PATHCONF` command.
- MESSAGE: Entry selected is empty. (NMGRERR 354)**
- NMGRERR 354 CAUSE: User selected an empty selection from the entry selection window.
ACTION: Select an existing entry.
- MESSAGE: Domain labels can only end in an alphabetic character or digit. (NMGRERR 355)**
- NMGRERR 355 CAUSE: User entered a name which contained a label that terminated with an invalid character. Valid terminating characters are A..Z...,a..z, or 0..9.
ACTION: Enter the name correctly.
- MESSAGE: Domain labels can only begin with an alphabetic character. (NMGRERR 356)**
- NMGRERR 356 CAUSE: User entered a domain name which began with an invalid character. Domain name labels can only begin with an alphabetic character.
ACTION: Enter the name correctly.
- MESSAGE: Domain labels can only consist of A..Z, a..z, 0..9, or -. (NMGRERR 357)**
- NMGRERR 357 CAUSE: User entered an invalid domain name. Valid characters consist of A..Z, a..z, 0..9 or -.
ACTION: Enter the name correctly.
- MESSAGE: Domain label lengths cannot exceed 63 characters. (NMGRERR 358)**
- NMGRERR 358 CAUSE: Valid label length is 1 to 63 characters. User entered more than 63 characters.
ACTION: Enter the name correctly.

- MESSAGE: Domain name is empty. (NMGRERR 359)**
- NMGRERR 359 CAUSE: The user selected an operation which required a domain, yet neglected to enter a domain.
- ACTION: Re-enter the information with the domain name specified.
- MESSAGE: Domain screen can be accessed only after an NS nodename addition. (NMGRERR 360)**
- NMGRERR 360 CAUSE: User can access the domain screen only after using the add function key to add an NS nodename.
- ACTION: Follow the instructions in "Cause."
- MESSAGE: Select an entry between 1 and 8, or enter the full node name. (NMGRERR 361)**
- NMGRERR 361 CAUSE: User pressed a key which required that an entry selection be provided.
- ACTION: User must either select an entry via the entry field, or enter the full node name in the nodename field.
- MESSAGE: User cannot add a domain name to a record already containing one.**
- NMGRERR 362 CAUSE: User attempted to go to the domain screen after having just added a domain entry.
- ACTION: None.
- MESSAGE: Entry field must contain a value between 1 and 8. (NMGRERR 363)**
- NMGRERR 363 CAUSE: The entry field was empty or contained a value not in the range 1 to 8.
- ACTION: Enter a value in the correct range.
- MESSAGE: Nodename too long. Max for NS is 50; Max for Domain name is 255. (NMGRERR 364)**
- NMGRERR 364 CAUSE: User entered a name that exceeded 255 characters for DDN name, or user entered a name that exceeded 50 characters for NS name.
- ACTION: Re-enter the name correctly.
- MESSAGE: File name entered is invalid; max length is 36 characters. (NMGRERR 365)**
- NMGRERR 365 CAUSE: User entered a file name that exceeded 36 characters.
- ACTION: Enter a filename of correct length.
- MESSAGE: Domain name entered already exists. (NMGRERR 366)**
- NMGRERR 366 CAUSE: User entered a domain name that already existed in the directory.

- ACTION: None.
- MESSAGE: User is not allowed to merge individual domain entries. (NMGRERR 367)**
- NMGRERR 367 CAUSE: The **MERGEDIR** command not permit the merging of a single domain entry. However, you can merge domain entries as a group, such as all the global domains or all the local domains.
- ACTION: None.
- MESSAGE: User must enter: Node Name, Type, Global, and Enable settings. (NMGRERR 368)**
- NMGRERR 368 CAUSE: User has selected a function that needs the above information.
- ACTION: Enter the above information.
- MESSAGE: User cannot select using both Entry Name Field and Name Field. (NMGRERR 369)**
- NMGRERR 369 CAUSE: User has entered a name into the node name field and data into the entry number field. User can only specify one at a time for the operation selected (update, delete).
- ACTION: Re-try with the correct information.
- MESSAGE: The options when merging from a config file are LOCAL and GLOBAL. (NMGRERR 370)**
- NMGRERR 370 CAUSE: The user is using the merged command and is attempting to merge from a configuration file. In this case, the only valid options that can be specified are LOCAL and GLOBAL.
- ACTION: Specify correct options.
- MESSAGE: User must save data prior to using NEXT function. (NMGRERR 371)**
- NMGRERR 371 CAUSE: User is on the directory data screen and wants to use NEXT branching. User cannot do so until the current data is updated.
- ACTION: Press UPDATE; then NEXT can be used.
- MESSAGE: Problem accessing the existing directory file. (NMGRERR 380)**
- NMGRERR 380 CAUSE: Maintenance mode interface: An operation on the existing directory file could not be performed. The possible operations are: FOPEN the file as a KSAM file exclusively, FGETINFO and FGETKEYINFO on the file, or FCLOSE the file with the delete option.
- ACTION: Check the accompanying file system error for more information. If the error reflects an exclusive access violation, correct the multiple access and/or the user capabilities.

**MESSAGE: Problem accessing the new (expanded) directory file.
(NMGRERR 381)**

NMGRERR 381

CAUSE: Maintenance mode interface: An operation on a COPY of the existing directory file could not be performed. The possible operations are:

- FOPEN the file (new) as a KSAM file (opened with a temporary file name "ZTMPxxxx").
- FWRITE to the file.
- FCLOSE with the save option on.
- FOPEN the data file in copy mode.
- FREADLABEL the data file.
- FWRITELABEL the data file.
- FOPEN the key file in copy mode.
- FREAD from the key file.
- FUPDATE the key file.
- FCLOSE the key file.

ACTION: Check the accompanying file system error for more information. If the error reflects a security violation, then you are most likely (a) trying to access a file for read/write access for which you do not have adequate capabilities, or (b) trying to expand the file in a different account than your logon account. Since the expand operation involves a RENAME, you MUST be logged into the same account as the directory file that you are trying to expand. If the original directory file does not exist, but the temporary files ("ZTMPxxxx" and "ZTMPxxxK") do exist, then the directory can be recovered by building a new KSAM file manually (use KSAMUTIL) with attributes identical to that of the original file. Use FCOPY to copy the data and key files SEPARATELY into the newly built KSAM data and key files. Be sure to use the ";NOKSAM" option of FCOPY. If the temporary files do not exist, then the original directory must be restored from a back-up tape.

**MESSAGE: Incompatible version of KSAM for file rename operation.
(NMGRERR 382)**

NMGRERR 382

CAUSE: Maintenance mode interface: The location of internal KSAM data and key information has changed and thus cannot be updated with this version of the NMC software.

ACTION: For an intermediate solution, use KSAMUTIL to build a larger (expanded) file and use FCOPY to copy the directory to the new file. If the problem still exists, see "Submitting an SR" at the beginning of this appendix.

- MESSAGE: Cannot specify a negative number for expansion.
(NMGRERR 383)**
- NMGRERR 383 **CAUSE:** Maintenance mode interface: The user gave a negative number of records to expand the file.
- ACTION:** Supply a positive number of records.
- MESSAGE: Cannot open command file "NMMGRCMD".
(NMGRERR 384)**
- NMGRERR 384 **CAUSE:** The command file `NMMGRCMD` could not be opened.
- ACTION:** Check for any file equations set for "NMMGRCMD". See the accompanying file system error message for problem resolution.
- MESSAGE: An NMMGR configuration file name must be specified.
(NMGRERR 385)**
- NMGRERR 385 **CAUSE:** Maintenance mode interface: An error message is issued when the configuration file argument for the `OPENCONF` command is missing.
- ACTION:** Reissue the command with the configuration file name.
- MESSAGE: Invalid subsystem name, enter valid name (ie, NETXPORT,
SNANODE). (NMGRERR 386)**
- NMGRERR 386 **CAUSE:** Maintenance mode interface: An error message is issued when an invalid subsystem name is entered.
- ACTION:** Reissue the command with a correct subsystem name.
- MESSAGE: Unable to OPEN, and unable to CREATE config file.
(NMGRERR 387)**
- NMGRERR 387 **CAUSE:** File system error.
- ACTION:** Check to see if user is allowed to access file. Check to see if user and account capabilities of NA or NM are set.
- MESSAGE: Attempted to access non data or page data screen with
PATHCONF. (NMGRERR 388)**
- NMGRERR 388 **CAUSE:** Incorrect use of `PATHCONF` command.
- ACTION:** Make sure that the screen you are trying to access is data or paged data. This can be checked by looking at the screen and seeing if there is a data flag in the upper right corner of the screen. If not, you are trying to access a screen which has no data fields.
- MESSAGE: Attempt to access field which does not exist.
(NMGRERR 389)**
- NMGRERR 389 **CAUSE:** You are trying to access a field `N+k` when there are only `N` fields on the form.

ACTION: Use NMMGR to go to the path which you specified in the **PATHCONF** command. Make sure that your field count matches the field number you are trying to access. Make sure you are not trying to use Vplus field numbers to access the field.

MESSAGE: Path not specified, or path specified does not exist. (NMGRERR 390)

NMGRERR 390 **CAUSE:** PATHCONF was not previously issued.

ACTION: Check to see if you set the path with the PATHCONF command. Check to see if the path that you specified exists in the configuration file

MESSAGE: Version stamp in VERSIONCONF does not match NMMGR version. (NMGRERR 391)

NMGRERR 391 **CAUSE:** Version stamp must match NMMGR version.

ACTION: Change the version stamp in your batch file to match the version displayed on the NMMGR banner line.

MESSAGE: VERSIONCONF must be called before this command may be called. (NMGRERR 392)

NMGRERR 392 **CAUSE:** Tried to perform OPENCONF before VERSIONCONF.

ACTION: Call VERSIONCONF with the version stamp which NMMGR displays on the banner line.

MESSAGE: Missing or invalid destination path name. (NMGRERR 393)

NMGRERR 393 **CAUSE:** The **copyconf** command will not operate without a valid destination path.

ACTION: Check to make sure an NMCONF path name was specified for the **copyconf** command.

MESSAGE: Missing or invalid destination file name. (NMGRERR 394)

NMGRERR 394 **CAUSE:** The **copyconf** command will not operate without a valid destination file name.

ACTION: Check to make sure that an MPE file name was specified after the colon (:) delimiter in the **copyconf** command.

MESSAGE: Invalid option specified for copyconf command. (NMGRERR 395)

NMGRERR 395 **CAUSE:** An option other than KEEP was specified.

ACTION: Retry with valid option.

MESSAGE: Cannot open the nodelist file. (NMGRERR 400)

NMGRERR 400 **CAUSE:** The nodelist file could not be opened for read/write access.

ACTION: See the accompanying file system error message for resolution.

- MESSAGE: Record size of nodelist file too small; must be >= 80 bytes. (NMGRERR 401)**
- NMGRERR 401 CAUSE: The record size of the nodelist file is too small to be used.
- ACTION: If creating the nodelist file using the LISTDIR command, then do not include a ;REC= parameter in the file equation. Copy the nodelist file into a file with a larger record width.
- MESSAGE: Filecode of nodelist file non zero. (NMGRERR 402)**
- NMGRERR 402 CAUSE: The nodelist file supplied did not have a 0 filecode—it was not a standard EDITOR-type file.
- ACTION: If creating the nodelist file using the LISTDIR command, then do not include a ;CODE= parameter in the file equation. Copy the nodelist file into a file created with no file code.
- MESSAGE: FREADDIR failed trying to read from nodelist file. (NMGRERR 403)**
- NMGRERR 403 CAUSE: Could not issue a directed read to the nodelist file. The file most likely has a variable-length record structure.
- ACTION: See the accompanying file system error message for resolution.
- MESSAGE: FWRITEDIR failed trying to write to nodelist file. (NMGRERR 404)**
- NMGRERR 404 CAUSE: Could not issue a directed write against the nodelist file.
- ACTION: See the accompanying file system error message for resolution.
- MESSAGE: Cannot close nodelist file. (NMGRERR 405)**
- NMGRERR 405 CAUSE: Could not close the nodelist file.
- ACTION: See the accompanying file system error message for resolution.
- MESSAGE: FCONTROL failed trying to set EOF marker on nodelist file. (NMGRERR 406)**
- NMGRERR 406 CAUSE: Internal error.
- MESSAGE: FPOINT failed on nodelist file. (NMGRERR 407)**
- NMGRERR 407 CAUSE: Could not set the record pointer in the nodelist file.
- ACTION: See the accompanying file system error message for resolution.
- MESSAGE: FGETINFO failed on nodelist file. (NMGRERR 408)**
- NMGRERR 408 CAUSE: Internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: FREAD failed trying to read from nodelist file.
(NMGRERR 409)**

NMGRERR 409 **CAUSE:** Could not read sequentially from the nodelist file.

ACTION: See the accompanying file system error message for resolution.

MESSAGE: Cannot gain access to the stream file. (NMGRERR 410)

NMGRERR 410 **CAUSE:** A check to verify that the stream file does not already exist could not be completed.

ACTION: See the accompanying file system error message for resolution.

**MESSAGE: The stream file already exists; choose another name.
(NMGRERR 411)**

NMGRERR 411 **CAUSE:** The stream file given already exists as a permanent file. The **MAKESTREAM** command requires that this file not exist.

ACTION: Choose another file name or rename the existing file to another name.

MESSAGE: Cannot gain access to the command file. (NMGRERR 412)

NMGRERR 412 **CAUSE:** A check to verify that the command file does exist could not be completed.

ACTION: See the accompanying file system error message for resolution.

MESSAGE: The command file does not exist. (NMGRERR 413)

NMGRERR 413 **CAUSE:** The command file given does not exist.

ACTION: Supply the name of an existing command file.

**MESSAGE: Internal catalog error: job text identifier table overflow.
(NMGRERR 414)**

NMGRERR 414 **CAUSE:** Message catalog NMMGRCAT.PUB.SYS is incorrect.

ACTION: RESTORE NMMGRCAT.PUB.SYS from a backup tape. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.

MESSAGE: Internal catalog error: incorrect format for job text ID entry. (NMGRERR 414)

NMGRERR 415 **CAUSE:** Message catalog NMMGRCAT.PUB.SYS is incorrect.

ACTION: RESTORE NMMGRCAT.PUB.SYS from a backup tape. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Error converting a catalog entry into a numeric value.
(NMGRERR 416)**

NMGRERR 416 CAUSE: Internal error.

ACTION: RESTORE NMMGRCAT.PUB.SYS from a backup tape. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Catalog entry value not in range -32768..32767.
(NMGRERR 417)**

NMGRERR 417 CAUSE: Message catalog NMMGRCAT.PUB.SYS is incorrect.

ACTION: RESTORE NMMGRCAT.PUB.SYS from a backup tape. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.

**MESSAGE: Cannot read an entry from the message catalog.
(NMGRERR 418)**

NMGRERR 418 CAUSE: Message catalog NMMGRCAT.PUB.SYS is incorrect.

ACTION: RESTORE NMMGRCAT.PUB.SYS from a backup tape. If the problem still exists, see “Submitting an SR” at the beginning of this appendix.

MESSAGE: Cannot open the stream file. (NMGRERR 419)

NMGRERR 419 CAUSE: The stream file could not be opened.

ACTION: See the accompanying file system error message for resolution.

**MESSAGE: FWRITE failed trying to write to the stream file.
(NMGRERR 420)**

NMGRERR 420 CAUSE: Could not write to the stream file. Most likely, the end-of-file has been reached and the file is full.

ACTION: See the accompanying file system error message for resolution. If end-of-file has been reached, issue a file equation for the stream file: FILE yourfile;DISC=nnnn,32,1 where “yourfile” is the name of the stream file, and “nnnn” is the number of records needed in the file. Approximately 150 records should be allocated for each node in the nodelist file. Note that the stream file is created as a variable-length file, so fewer records should be required per node. The file is opened with a default of 5000 records. Retry the MAKESTREAM command with the new file equation.

MESSAGE: Cannot close the stream file. (NMGRERR 421)

NMGRERR 421 CAUSE: The stream file could not be closed.

ACTION: See the accompanying file system error message for resolution.

- MESSAGE: Missing equal sign. (NMGRERR 500)**
- NMGRERR 500 CAUSE: An equal sign was missing in the command syntax.
ACTION: Re-enter the command with the proper syntax.
- MESSAGE: Missing or invalid pathname parameter. (NMGRERR 501)**
- NMGRERR 501 CAUSE: The syntax of the command requires a pathname parameter.
ACTION: Check pathname and reissue the command.
- MESSAGE: Missing or invalid field number. (NMGRERR 502)**
- NMGRERR 502 CAUSE: Either the field number parameter was not specified or the field number was not terminated with a comma.
ACTION: Check the field number on the screen.
- MESSAGE: Missing data. Data follows a comma. (NMGRERR 503)**
- NMGRERR 503 CAUSE: **WRITECONF** command did not list data to be stored.
ACTION: The syntax of the command requires a data parameter. The data may be enclosed in quotes.
- MESSAGE: Invalid option specified. (NMGRERR 504)**
- NMGRERR 504 CAUSE: An invalid option was specified for the command.
ACTION: Use help to enter correct option.
- MESSAGE: Missing or invalid version string. (NMGRERR 505)**
- NMGRERR 505 CAUSE: Did not specify version correctly.
ACTION: The syntax of the command requires a valid version string parameter.
- MESSAGE: Missing or invalid page number. (NMGRERR 506)**
- NMGRERR 506 CAUSE: The syntax of the command requires a page number.
ACTION: The page number must be a positive integer.
- MESSAGE: Invalid path, a select or type select path is required. (NMGRERR 507)**
- NMGRERR 507 CAUSE: The path must be for a select or type select screen.
ACTION: Check the path and reissue.
- MESSAGE: Unable to open Formlist as OLD or NEW. (NMGRERR 508)**
- NMGRERR 508 CAUSE: File system error.
ACTION: Check the file equation. See if the file is locked open or cannot be accessed. Check to see if there is disk space.
- MESSAGE: The new data is larger than the field size. (NMGRERR 509)**
- NMGRERR 509 CAUSE: **WRITECONF** error.

ACTION: Check to see that you are accessing the correct field, or reduce the size of the data you are entering.

MESSAGE: There are Vplus field edit errors. (NMGRERR 510)

NMGRERR 510 **CAUSE:** UPDATECONF error.

ACTION: Examine all WRITECONF statements before the screen associated with the UPDATECONF which caused the error. One or more of these fields does not match the edits which are associated with this field. Go to the NMMGR screen which corresponds to the path for further explanation of the Vplus error.

MESSAGE: Field number must be a positive integer. (NMGRERR 511)

NMGRERR 511 **CAUSE:** A READCONF or WRITECONF error occurred.

ACTION: Check to see if the field number entered is greater than zero.

MESSAGE: Missing closing quote. (NMGRERR 512)

NMGRERR 512 **CAUSE:** A closing quote is needed.

ACTION: Retype the erroneous string with a closing quote.

MESSAGE: Must open config file before executing this command. (NMGRERR 514)

NMGRERR 514 **CAUSE:** The user tried to perform some maint mode command like **SUMMARYCONF**, **COMPRESSCONF**, **PATHCONF**, etc. that requires an open file.

ACTION: Open a config file with the **OPENCONF** command first.

MESSAGE: Unexpected parameter encountered. (NMGRERR 550)

NMGRERR 550 **CAUSE:** You specified an invalid LDEV range while using the **SUMMARYCONF** command to obtain a DTS critical summary report on a range of logical devices.

ACTION: Reenter the **SUMMARYCONF** command with a correctly specified LDEV range. The LDEV range must be separated by a slash. (Example: **SUMMARYCONF DTS,LDEV 35/83**)

MESSAGE: The parameters for this command must be an integer. (NMGRERR 551)

NMGRERR 551 **CAUSE:** While using the **SUMMARYCONF** command to obtain a DTS critical summary report, you specified one or more of the parameters as a non-integer. The correct format for the LDEV specification is LDEV [xxx[/yyy]], where xxx and yyy are integers.

ACTION: Reenter the command with the parameters specified as integers.

**MESSAGE: Extra data was specified in the command line.
(NMGRERR 552)**

NMGRERR 552 CAUSE: While using the **SUMMARYCONF** command to obtain a DTS critical summary report on a range of logical devices, you entered more data than was expected in the command line.

ACTION: Reenter the command with the parameters specified in the correct format (LDEV [xxx[/yyy]], where xxx and yyy are integers).

**MESSAGE: The lower LDev # must be less than the upper LDev #.
(NMGRERR 553)**

NMGRERR 553 CAUSE: While using the **SUMMARYCONF** command to obtain a DTS critical summary report on a range of logical devices, the first LDEV number you specified was higher than the second LDEV number you specified. This is an invalid range specification.

ACTION: Reenter the command with the LDEV range specified correctly, with the first number in the range lower than the second number in the range.

**MESSAGE: There are no LDevs within the specified range.
(NMGRERR 554)**

NMGRERR 554 CAUSE: While using the **SUMMARYCONF** command to obtain a DTS critical summary report on a range of logical devices, you specified a valid range; however, there are no LDEVs within that range.

ACTION: Reenter the command with a correct range of logical devices specified (one that includes LDEVs).

**MESSAGE: The DTC Name specified is not configured.
(NMGRERR 555)**

NMGRERR 555 CAUSE: You specified an incorrect DTC name while using the **SUMMARYCONF** command to obtain a DTS critical summary report on a specific DTC. Either the DTC does not exist or no data has been configured for that DTC.

ACTION: If the name was entered incorrectly, reenter the **SUMMARYCONF** command with the correct DTC name specified. If the DTC exists but is not correctly configured, use NMMGR to configure the data for the DTC, then reenter the **SUMMARYCONF** command.

**MESSAGE: The Card specified is not configured in the specified DTC.
(NMGRERR 556)**

NMGRERR 556 CAUSE: You specified an incorrect card number while using the **SUMMARYCONF** command to obtain a DTS critical summary report on a specific DTC. Either the DTC does not exist or the card specified is not configured for that DTC.

ACTION: Reenter the command with the correct card number and DTC specified. If the card exists but is not properly configured, use NMMGR to correct the card configuration, then reenter the **SUMMARYCONF** command.

MESSAGE: That Port is not configured in the DTC and Card specified. (NMGRERR 557)

NMGRERR 557 **CAUSE:** You specified an incorrect port number while using the **SUMMARYCONF** command to obtain a DTS critical summary report on a specific card in a specific DTC. Either the DTC does not exist, the card specified is not configured for that DTC, or the port is not configured for that card.

ACTION: Reenter the command with the correct port number, card number, and DTC specified. If the port exists but is not properly configured, use NMMGR to correct the configuration, then reenter the **SUMMARYCONF** command.

MESSAGE: The DTC subsystem has not been configured. (NMGRERR 558)

NMGRERR 558 **CAUSE:** You entered a **SUMMARYCONF** DTS command on a system where no distributed terminal subsystem is configured (the **HOST/PC** flag has not been set).

ACTION: Configure the distributed terminal subsystem, then reenter the **SUMMARYCONF** DTS command.

MESSAGE: Illegal delimiter given. Type HELP for command syntax. (NMGRERR 559)

NMGRERR 559 **CAUSE:** While using the **SUMMARYCONF** command to obtain a DTS critical summary report, you entered an illegal delimiter.

ACTION: Type **HELP** at the prompt to access the **HELP** messages for the **SUMMARYCONF** command. Study these messages to determine the proper syntax to obtain the desired information. Reenter the command using the correct delimiters.

MESSAGE: The card number must be an integer from 0 to 5. (NMGRERR 560)

NMGRERR 560 **CAUSE:** While using the **SUMMARYCONF** command to obtain a DTS critical summary report on a specific card in a DTC, you entered an invalid card number. Card numbers must be entered as integers, from 0 to 5.

ACTION: Reenter the command with a card number specified in the valid range, 0 through 5.

**MESSAGE: The port number must be an integer from 0 to 7.
(NMGRERR 561)**

NMGRERR 561 CAUSE: While using the **SUMMARYCONF** command to obtain a DTS critical summary report on a specific port, you entered an invalid port number. Port numbers must be entered as integers, from 0 to 7.

ACTION: Reenter the command with a port number specified in the valid range, 0 through 7.

MESSAGE: Expected a parameter after the delimiter. (NMGRERR 562)

NMGRERR 562 CAUSE: You entered a **SUMMARYCONF DTS** command that ended in a delimiter when another parameter could have been entered. For example, you may have entered "LDEV 23/" instead of "LDEV 23".

ACTION: Reenter the command correctly. Type **HELP** to access the help messages if you do not know the correct syntax for the command you are trying to enter.

MESSAGE: Cannot end a command with a delimiter. (NMGRERR 563)

NMGRERR 563 CAUSE: You entered a **SUMMARYCONF DTS** command that ended in a delimiter (" ", "/", etc.)

ACTION: Reenter the command correctly. Type **HELP** to access the help messages if you do not know the correct syntax for the command you are trying to enter.

NMMGRVER Messages, Errors and Warnings

The following messages may be returned from the NMMGRVER utility (n represents the message number). Note that NMMGRVER may also provide you with messages which tell you that the operation has completed successfully.

(NMMGRVERWARN n) messages are displayed when conversion failed and the file is *not* changed.

(NMMGRVERERR n) messages are displayed when conversion has failed and the file *may be* changed. These warning messages are listed and described together at the end of the following error messages.

**MESSAGE: CONVERSION completed successfully.
(NMMGRVERMSG 0)**

NMMGRVERMSG CAUSE: Successful completion.
0

ACTION: None.

MESSAGE: NO NEED TO CONVERT. (NMMGRVERMSG 1)

NMMGRVERMSG CAUSE: Configuration file version is correct; file does not require
1 conversion.

ACTION: None.

**MESSAGE: OPEN FILE ERROR: Cannot convert file.
(NMMGRVERWARN 2)**

NMMGRVER CAUSE: NMMGRVER was unable to open the configuration file during
WARN 2 conversion. More than one user is accessing the file.

ACTION: Execute the LISTDIR5 subsystem and type LISTF to check whether other users are accessing or storing this file. NMMGRVER needs exclusive access to the configuration file. Run NMMGRVER when file is freed.

CAUSE: Internal file system unable to LOCK and OPEN the file with write access due to file system security.

ACTION: Resolve the MPE security restriction and retry. Run LISTDIR5 and type LISTSEC configFileName to determine the security restrictions of the file.

CAUSE: Internal file system unable to OPEN the file if incorrect LOCKWORD was provided.

ACTION: Rerun NMMGRVER with correct LOCKWORD.

CAUSE: Another internal error has occurred when opening the file.

ACTION: An internal file system error has occurred. See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: INTERNAL ERROR: cannot convert file.
(NMMGRVERWARN 3)**

NMMGRVER
WARN 3

CAUSE: The configuration file is corrupted. One or more of the following situations were detected in the file.

- Paths are missing.
- Version stamps are missing or are incorrect.
- A LINKCONF detail data record has unexpected record length.
NOTE: This corrupted configuration file is not changed.

ACTION: Restore an old configuration file if possible and rerun NMMGRVER. If the error still occurs, see “Submitting an SR” at the beginning of this appendix.

**MESSAGE: FILE CORRUPT: Conversion Failed, file might be changed.
(NMMGRVERERR 4).**

NMMGRVERERR
4

CAUSE: NMMGRVER was unable to complete the configuration file conversion because a LINKCONF detail data record has the incorrect item identification number. Note: The configuration file may have been changed.

ACTION: The configuration file may be corrupted. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

CAUSE: NMMGRVER was unable to complete the configuration file conversion because a data record has incorrect record length.

ACTION: The configuration file may be corrupted. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

CAUSE: NRJE has the wrong previous version stamp. Note that the configuration file may have been changed.

ACTION: The configuration file may be corrupted. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: INTERNAL ERROR: Conversion Failed, file might be changed. (NMMGRVERERR 5).

NMMGRVERERR
5

CAUSE: Disk file space is used up.

ACTION: Purge unnecessary files from disk to recover some space. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

CAUSE: An internal error occurred with `intrinsic`s, `midasgetdata`, `midasnextpath`, `midasupdatedata`, or `midasaddpath`.

ACTION: The configuration file may be corrupted. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

CAUSE: An unexpected internal error has occurred.

ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: CLOSE FILE ERROR: File may have been changed. (NMMGRVERERR 6).

NMMGRVERERR
6 **CAUSE:** An internal NMMGRVER error has occurred when attempting to close the configuration file.

ACTION: Note that the configuration file may have been changed. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: User has Insufficient Capability to Run NMMGRVER. (NMMGRVERWARN 7)

NMMGRVER
WARN 7 **CAUSE:** The user is required to have NM or NA capability to run NMMGRVER. However, the current user does not have sufficient capability.

ACTION: Check user capability with program `LISTDIR5.PUB.SYS`, and modify the capability list. Contact the account manager or system manager, if needed.

MESSAGE: ACCESS VIOLATION: Cannot convert file. (NMMGRVERWARN 8)

NMMGRVER
WARN 8 **CAUSE:** NMMGRVER was unable to write (update or add data) to the existing configuration file due to inconsistent access type (FSERR 40). Usually occurs when updating a file across account boundary. The `WRITE`, `SAVE` access types of the `GROUP` or `ACCOUNT` for this configuration file are limited to `ACCOUNT` only. The file is `SECURED`. **NOTE:** The configuration file is *not* changed.

ACTION: Release file security and rerun NMMGRVER, or run NMMGRVER in the `GROUP` and `ACCOUNT` where the configuration file is stored.

MESSAGE: Config File Version Is Newer than NMMGRVER can support (NMMGRVERWARN 9).

NMMGRVER
WARN 9

CAUSE : At least one version stamp of the configuration file is newer than NMMGRVER can support. NMMGRVER cannot convert this file. This configuration file is not changed.

ACTION: Check the module version of NMMGRVER and overall NMC. Install the newer version of NMC and run the newer NMMGRVER if needed or, restore an old configuration file if possible and rerun NMMGRVER.

MESSAGE: File NMCONFIG.PUB.SYS couldn't be opened. (NMMGRVERWARN 12)

NMMGRVER
WARN 12

CAUSE : NMCONFIG was already open for exclusive access, or MIDASOPEN detected an error.

ACTION: Check NMCONFIG and retry.

MESSAGE:

Error during merge of configuration files.

Path: !

Midasstat = !

(NMMGRVERERR 13)

NMMGRVERERR
13

CAUSE : There is an error in one of the cells in the file hierarchy. This error has been detected as an error in the configuration file.

ACTION: Check the midasstat value to determine what the problem is. It may be necessary to use some other tool to determine which cell has the problem. If possible, manually edit the data in this cell and verify it manually. If this is not possible, delete the cell and run NMMGRVER again.

CAUSE : The configuration file is corrupted.

ACTION: Since the destination file has been changed, recovery is not possible. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

MESSAGE:

Path not found in the config file.

Path: !

(NMMGRVERERR 14)

NMMGRVERERR
14

CAUSE : This may be a normal condition if the user does not have NS on the system. However, it may also indicate that you are trying to convert NMCONFIG.PUB.SYS on a non-XL system, when you should actually be converting an NSCONF-like file.

ACTION: The conversion will operate correctly. The user is being warned to be sure that the correct file is being converted.

MESSAGE:

Invalid data length.

Path: !

Length: !

(NMMGRVERERR 15)

NMMGRVERERR 15 CAUSE: The length of the data array which was read from the cell was incorrect. This could indicate that an incorrect cell was accessed or that the user is trying to convert an invalid configuration file. The cell is not converted.

ACTION: Verify that the original file was a valid version. Using another tool, examine the cell data and verify the data. Since the cell was not touched, the data may have to be entered manually.

MESSAGE:

Conversion failure.

PATH: !

MIDASSTAT: !

(NMMGRVERERR 16)

NMMGRVERERR 16 CAUSE: This is a generic message which allows the path name and status to be output.

ACTION: Depends on status and user needs.

MESSAGE:

Path not allowed for this version. Path purged.

Path: !

(NMMGRVERERR 17)

NMMGRVERERR 17 CAUSE: Certain paths are not supported on the current version of the configuration file, even though they were supported on previous versions.

ACTION: None necessary. You may want to verify which paths have been deleted.

MESSAGE: File type has not been defined. (NMMGRVERERR 18)

NMMGRVERERR 18 CAUSE: Internal error. User entered valid data but it somehow has been corrupted. The type of the file passed to NMMGRVER is not within the valid range of: 1= MPE V NSCONF type; 2= MPE V NMCONF type.

ACTION: Run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

MESSAGE: Unable to create LINK subtree (NMMGRERR 19)

NMMGRVER ERR 19 CAUSE: You specified that the configuration file was an MPE V file. Therefore, NMMGRVER checked to make sure the LINK subtree did not exist. Since it did not exist, NM tried to create it because iX

configuration files need it. However, the NM intrinsic failed during this process. One possible reason for this is that the configuration file may be full.

ACTION: Run NMMGRVER again. If the error still occurs, submit a Service ReRun NMMGR and expand the size of the configuration file. Then run NMMGRVER again.

MESSAGE: Unable to purge LINKCONF subtree (NMMGRVERERR 20)

NMMGRVERERR 20 **CAUSE:** Internal error. File has been converted. However, in the attempt to purge the subtree LINKCONF, the NM intrinsic failed.

ACTION: The configuration file may be corrupted. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, see "Submitting an SR" at the beginning of this appendix.

MESSAGE: Error accessing NMMGRCAT.PUB.SYS set=! msg=!. (NMMGRVERERR 21)

NMMGRVERERR 21 **CAUSE:** Returned by NMCPRINTERMSG. Usually followed by one or more of messages 22 through 25 below, which further clarifies the error.

ACTION: Look for one or more of NMMGRVERERR 22 through 25 following this message, and take the remedial action suggested below. Look up the text and comments for the original message specified in the message, and take the suggested actions.

MESSAGE: FOPEN FSERR ! on NMMGRCAT.PUB.SYS. (NMMGRVERERR 22)

NMMGRVERERR 22 **CAUSE:** Returned by NMCPRINTERMSG and usually followed by the text of the FSERR message.

ACTION: If the error number is 1 or 2, NMMGRVERERR 24 will also be displayed. See the NMMGRVERERR 24 causes and actions for further information. Returned by NMCPRINTERMSG.

MESSAGE: Encountered GENMESSAGE error !. (NMMGRVERERR 23)

NMMGRVERERR 23 **CAUSE:** Possible bad software installation (NMMGRCAT.PUB.SYS).

ACTION: If the error number is not 1 or 2, look up the error number in the MPE Intrinsic Manual under GENMESSAGE. The problem may be due to a corrupt NMMGRCAT.PUB.SYS. Restore NMMGRCAT.PUB.SYS and run NMMGRVER again. Otherwise, correct the problem causing the GENMESSAGE error and run NMMGRVER again.

MESSAGE: GENMESSAGE encountered FSERR !. (NMMGRVERERR 24)

NMMGRVERERR 24 **CAUSE:** Returned by NMCPRINTERMSG. This message follows NMMGRVERERR 23 message, and is usually followed with the text of the file system error message as well.

- ACTION:** Correct the file system error and run NMMGRVER again.
- MESSAGE: FCLOSE FSERR ! on NMMGRCAT.PUB.SYS.
(NMMGRVERERR 25)**
- NMMGRVERERR 25 **CAUSE:** Returned by NMCPRINTERRMSG after printing a message from NMMGRCAT.PUB.SYS. The FCLOSE of NMMGRCAT.PUB.SYS failed.
- ACTION:** Correct the file system error and run NMMGRVER again.
- MESSAGE: Merge failed. Error in NMCONFIG.PUB.SYS
(NMMGRVERR 26)**
- NMMGRVERERR 26 **CAUSE:** During the merge of NMCONFIG and the file to be converted, an error was found in one of the paths in NMCONFIG.
- ACTION:** The configuration file may have been changed. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- CAUSE:** The file NMCONFIG.PUB.SYS is not valid.
- ACTION:** The configuration file may be corrupted. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix
- CAUSE:** Depth of paths exceed max_path_depth.
- ACTION:** The configuration file may be corrupted. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: File full; no conversion done. (NMMGRVERWARN 27)**
- NMMGRVER WARN 27 **CAUSE:** The configuration file to be converted is full. There must be at least two (and possibly more than two) records available in the configuration file to do a conversion.
- ACTION:** Go to the Compress utility screen in NMMGR and expand the file.
- MESSAGE: Cannot copy configuration file to NMTEMP; no conversion done. (NMMGRVERR 40)**
- NMMGRVERERR 40 **CAUSE:** The configuration file could not be copied to NMTEMPa.
- ACTION:** Check if there is any disk space left on LDEV 1.
- MESSAGE: Could not rename config file; no conversion done. (NMMGRVERR 41)**
- NMMGRVERERR 41 **CAUSE:** Could not rename or copy the configuration file to NMMGBAK, or could not rename or copy NMMGRTMP to the configuration file.
- ACTION:** Check if there is any disc space left on LDEV 1.

MESSAGE: File not converted NMMGRVERMSG 56.

NMMGRVERMSG 56 CAUSE: You selected the skip option when asked for a file type during the configuration file conversion.

ACTION: None. This is an informative message.

MESSAGE:

Unable to add path.
Path: !
Midasstat = !
(NMMGRVERERR 60)

NMMGRVERERR 60 CAUSE: An internal error occurred while adding the displayed path.

ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix. Note: not user solvable. A qualified HP representative should check the midasstat value to determine what the problem is and take appropriate action.

MESSAGE:

Unable to add data.
Path: !
Midasstat = !
(NMMGRVERERR 61)

NMMGRVERERR 61 CAUSE: Internal error occurred while adding data to the displayed path.

ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix. Note: not user solvable. A qualified HP representative should check the midasstat value to determine what the problem is and take appropriate action.

MESSAGE:

Unable to purge path.
Path: !
Midasstat = !
(NMMGRVERERR 62)

NMMGRVERERR 62 CAUSE: Internal error occurred while purging displayed path.

ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix. Note: not user solvable. A qualified HP representative should check the midasstat value to determine what the problem is and take appropriate action.

MESSAGE:

Unable to purge data.
Path: !
Midasstat = !
(NMMGRVERERR 63)

NMMGRVERERR 63 CAUSE: Internal error occurred while purging data at displayed path.
ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.
Note: not user solvable. A qualified HP representative should check the midasstat value to determine what the problem is and take appropriate action.

MESSAGE:

Unable to get son path.
Path: !
Midasstat = !
(NMMGRVERERR 64)

NMMGRVERERR 64 CAUSE: Internal error, could not get the son of the displayed path.
ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.
Note: not user solvable. A qualified HP representative should check the midasstat value to determine what the problem is and take appropriate action.

MESSAGE:

Unable to get data.
Path: !
Midasstat = !
(NMMGRVERERR 65)

NMMGRVERERR 65 CAUSE: Internal error occurred while attempting to get data from the displayed path.
ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.
Note: not user solvable. A qualified HP representative should check the midasstat value to determine what the problem is and take appropriate action.

MESSAGE:

Unable to get brother path.
Path: !
Midasstat = !
(NMMGRVERERR 66)

NMMGRVERERR 66 CAUSE: Internal problem accessing path in the configuration file. Brother of displayed path could not be obtained.

ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
Note: not user solvable. A qualified HP representative should check the midasstat value to determine what the problem is and take appropriate action.

MESSAGE:

Unable to update data.
Path: !
Midasstat = !
(NMMGRVERERR 67)

NMMGRVERERR 67 **CAUSE:** Internal problem updating data in configuration file.

ACTION: Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.
Note: not user solvable. A qualified HP representative should check the midasstat value to determine what the problem is and take appropriate action.

MESSAGE: Error in MPE-V Phase I file. (NMMGRVERR 70)

NMMGRVERERR 70 **CAUSE:** An error occurred in the converting of the file from MPE V phase I to MPE V phase II. The process of converting an MPE V configuration file to an MPE/iX file includes checking whether the file is NS I or NS II. If the file is NS I, NMMGR first converts it to NS II and then to MPE/iX. This error message was generated because NMMGR detected an error during the conversion from NS I to NS II.

ACTION: The configuration file may be corrupted. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: ** Converting MPE V Nsconf file to MPE/iX file **

NMMGRVERERR 72 **CAUSE:** This is an informative message.

ACTION: None.

MESSAGE: ** Converting MPE V Nmconfig file to MPE/iX file **

NMMGRVERERR 73 **CAUSE:** This is an informative message.

ACTION: None.

MESSAGE: ** Converting MPE/iX config file **

NMMGRVERERR 74 **CAUSE:** This is an informative message.

ACTION: None.

MESSAGE:

Invalid path found in source file.

Path: !

(NMMGRVERERR 75)

NMMGRVERERR 75 CAUSE: An invalid path was found in the source configuration file. The path may have been created by an unofficial NMMGR tool. Conversion will continue if possible. NMMGRVERERR 76 will usually be displayed along with this message.

ACTION: Note that the configuration file may have been changed. Depending on which subsystem is involved, the invalid path may or may not be deleted from the converted file. Restore a backup copy of the configuration file if possible and run NMMGRVER again. If the error still occurs, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

MESSAGE: Attempting to continue conversion. (NMMGRVERERR 76)

NMMGRVERERR 76 CAUSE: This is used to inform the user that NMMGRVER is continuing the conversion process.

ACTION: None.

MESSAGE: The default NS LINK physical path is 6/4.2; User modification may be needed. (NMMGRVERERR 77)

NMMGRVERERR 77 CAUSE: The default physical path has been set to 6/4.2.

ACTION: Confirm that this value is correct for your system and modify it with NMMGR if needed.

MESSAGE: The default DTS LINK physical path is 2/4.2; User modification may be needed. (NMMGRVERERR 78)

NMMGRVERERR 78 CAUSE: The default physical path has been set to 2/4.2.

ACTION: Confirm that this value is correct for your system and modify it with NMMGR if needed.

MESSAGE: An error has occurred during LINKCONF CONVERSION. (NMMGRVERERR 80)

NMMGRVERERR 80 CAUSE: An error occurred during the LINKCONF part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

**MESSAGE: An error has occurred during IMF CONVERSION.
(NMMGRVERERR 81)**

NMMGRVERERR 81 CAUSE: An error occurred during the IMF part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

**MESSAGE: An error has occurred during SNA CONVERSION.
(NMMGRVERERR 82)**

NMMGRVERERR 82 CAUSE: An error occurred during the SNA part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

**MESSAGE: An error has occurred during NRJE CONVERSION.
(NMMGRVERERR 83)**

NMMGRVERERR 83 CAUSE: An error occurred during the NRJE part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

**MESSAGE: An error has occurred during LOGGING CONVERSION.
(NMMGRVERERR 84)**

NMMGRVERERR 84 CAUSE: An error occurred during the LOGGING part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: An error has occurred during NETXPORT CONVERSION. (NMMGRVERERR 85)

NMMGRVERERR 85 **CAUSE:** An error occurred during the NETXPORT part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: An error has occurred during LAPB LINK CONVERSION. (NMMGRVERERR 86)

NMMGRVERERR 86 **CAUSE:** An error occurred during the LAPB LINK part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

MESSAGE: An error has occurred during DTS CONVERSION. (NMMGRVERERR 87)

NMMGRVERERR 87 **CAUSE:** An error occurred during the DTS part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See “Submitting an SR” at the beginning of this appendix.

**MESSAGE: An error has occurred during LAN LINK CONVERSION.
(NMMGRVERERR 88)**

NMMGRVERERR 88 CAUSE: An error occurred during the LAN LINK part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

**MESSAGE: Duplicate host luname (!) found in node !.
(NMMGRVERERR 89)**

NMMGRVERERR 89 CAUSE: The configuration file contains an SNANODE that contains two or more lus that have the same name. Only the first lu found is converted. The other names are skipped, and the conversion will continue.

ACTION: Use the same version of NMMGR that created it to modify the unconverted configuration file. Delete the duplicate lu names or change them to unique names and then convert the configuration file.

**MESSAGE: Can't find host luname. Nau = !, Node = !.
(NMMGRVERERR 90)**

NMMGRVERERR 90 CAUSE: The host luname is not configured in the configuration file. Therefore, this nau is not converted.

ACTION: Use the same version of NMMGR that created it to modify the unconverted configuration file. Either delete the host luname or add the host lu and then convert the configuration file.

**MESSAGE: An error has occurred during LINK CONVERSION.
(NMMGRVERERR 91)**

NMMGRVERERR 91 CAUSE: An error occurred during the LINK part of the conversion process. The actual error is listed in an error message which should be displayed along with this one.

ACTION: Restore a backup copy of the configuration file if possible. Use the version of NMMGR that created the configuration file to make sure that each data screen in the configuration file has data associated with it and that its data flag is set to Y. Run NMMGRVER again. If the same error occurs again, check any accompanying error message and take the action listed for it in this appendix. If this fails, submit a Service Request. See "Submitting an SR" at the beginning of this appendix.

MESSAGE: The default SNA/SDLC LINK physical path is 24; User modification may be needed. (NMMGRVERERR 92)

NMMGRVERERR 92 CAUSE: The default physical path has been set to 24, which may be correct for the given system.

ACTION: Run NMMGR, confirm this value, and modify it as needed.

MESSAGE: The default LAPB LINK physical path is 24; User modification may be needed. (NMMGRVERERR 93)

NMMGRVERERR 93 CAUSE: The default physical path has been set to 24, which may be correct for the given system.

ACTION: Run NMMGR, confirm this value, and modify it as needed.

MESSAGE: An error has occurred during APPC CONVERSION. (NMMGRVERERR 94)

NMMGRVERERR 94 CAUSE: During the APPC conversion process an error occurred.

ACTION: User should restore file with backup copy and use the version of NMMGR that had created it to confirm that each data screen has data associated with it. Each data screen should have its data flag set to Y. If this does not solve the problem, consult your Hewlett-Packard representative.

ND Error Messages

NDIERR messages are produced by errors from the Network Directory intrinsics. In most cases, they are accompanied by other messages (NMGRERRs or MPE File System errors). You should take the action recommended for the accompanying messages first.

MESSAGE: Directory file not open. (NDIERR 001)

NDIERR 001

CAUSE: No directory file was opened.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Directory is not open for write access. (NDIERR 002)

NDIERR 002

CAUSE: The currently opened directory was not opened with write access.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: FLOCK failed — internal error. (NDIERR 003)

NDIERR 003

CAUSE: This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Requires Network Administrator capability. (NDIERR 004)

NDIERR 004

CAUSE: User does not have network Administrator capabilities.

ACTION: Change user capabilities.

MESSAGE: Not enough room in directory for new entry. (NDIERR 006)

NDIERR 006

CAUSE: The directory file is full.

ACTION: Expand the directory file capacity using the NMMGR maintenance mode **EXPANDDIR** command.

MESSAGE: FCONTROL/FUNLOCK failed — internal error. (NDIERR 007)

NDIERR 007

CAUSE: The directory file is full.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Name type invalid; must be 1 (NS node name). (NDIERR 008)

NDIERR 008

CAUSE: This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Name length invalid for name type. (NDIERR 009)

NDIERR 009

CAUSE: This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Path report list length cannot be negative. (NDIERR 010)**
- NDIERR 010 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Path report list length > than ND’CREATE maximum. (NDIERR 011)**
- NDIERR 011 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Duplicate node name in directory — cannot add new entry. (NDIERR 012)**
- NDIERR 012 CAUSE: An entry with the same node name and global/local flag setting already exists in the directory.
ACTION: Supply a different node name and/or global/local setting.
- MESSAGE: FFINDBYKEY failed — corrupt file likely. (NDIERR 013)**
- NDIERR 013 CAUSE: Possible corrupt network directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Directory file not open. (NDIERR 020)**
- NDIERR 020 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Cannot close directory file — internal error. (NDIERR 021)**
- NDIERR 021 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Requires Node Manager or Network Administrator capability. (NDIERR 022)**
- NDIERR 022 CAUSE: User does not have Node Manager or Network Administrator capabilities.
ACTION: Change user capabilities.
- MESSAGE: Directory size too small; must be > 0. (NDIERR 040)**
- NDIERR 040 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Directory size too large; must be <= 10,000 records. (NDIERR 041)**
- NDIERR 041 CAUSE: Directory size parameter too large.

ACTION: If a larger file is really desired, create one at the maximum size, then use NMMGR maintenance mode **EXPANDDIR** command to increase the file to desired size. If this fails, see “Submitting an SR” at the beginning of this appendix.

MESSAGE: Maximum path report list length negative; must be > 0. (NDIERR 042)

NDIERR 042 **CAUSE:** This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Maximum path report list length too large; must be <= 500. (NDIERR 043)

NDIERR 043 **CAUSE:** This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Cannot create directory file. (NDIERR 044)

NDIERR 044 **CAUSE:** The network directory file could not be opened.

ACTION: See the accompanying file system error message for problem resolution.

MESSAGE: FWRITE of header record failed — internal error. (NDIERR 045)

NDIERR 045 **CAUSE:** This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: FCLOSE failed — internal error. (NDIERR 046)

NDIERR 046 **CAUSE:** This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

MESSAGE: Directory name cannot contain a lockword. (NDIERR 047)

NDIERR 047 **CAUSE:** Directory file names may not be lockword protected.

ACTION: Resubmit the file name with no lockword or a null lockword.

MESSAGE: Requires Network Administrator capability. (NDIERR 048)

NDIERR 048 **CAUSE:** User does not have Node Manager or Network Administrator capabilities.

ACTION: Change user capabilities.

MESSAGE: ND'FSERR called when no file system error had occurred. (NDIERR 060)

NDIERR 060 **CAUSE:** This is an internal error.

ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: Directory file not open. (NDIERR 080)**
- NDIERR 080 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Item number invalid; must be 1, 2, 3, 4, 5, or 6. (NDIERR 081)**
- NDIERR 081 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Requires Node Manager or Network Administrator capability. (NDIERR 082)**
- NDIERR 082 CAUSE: User does not have Node Manager or Network Administrator capabilities.
ACTION: Change user capabilities.
- MESSAGE: FGETINFO failed — internal error. (NDIERR 083)**
- NDIERR 083 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FLOCK failed — internal error. (NDIERR 084)**
- NDIERR 084 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FCONTROL/FUNLOCK failed — internal error. (NDIERR 085)**
- NDIERR 085 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Cannot open directory file. (NDIERR 100)**
- NDIERR 100 CAUSE: Could not open the directory file due to various MPE file system errors.
ACTION: Consult accompanying file system error message for problem resolution.
- MESSAGE: FGETINFO failed — internal error. (NDIERR 101)**
- NDIERR 101 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Wrong filecode for directory file; expected 1211. (NDIERR 102)**
- NDIERR 102 CAUSE: The file name specified is not a network directory file.
ACTION: Correct filename to refer to a network directory file.

- MESSAGE: Access mode invalid; must be 0 or 1. (NDIERR 103)**
- NDIERR 103 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Share option invalid; must be 0, 1, 2 or 3. (NDIERR 104)**
- NDIERR 104 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FLOCK failed — internal error. (NDIERR 105)**
- NDIERR 105 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Incompatible directory version — outdated directory. (NDIERR 106)**
- NDIERR 106 CAUSE: The current level of software does not support the format of the directory file.
ACTION: Install correct versions of NMC software or restore correct version of the network directory file.
- MESSAGE: FCONTROL/FUNLOCK failed — internal error. (NDIERR 107)**
- NDIERR 107 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FCLOSE failed — internal error. (NDIERR 108)**
- NDIERR 108 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Directory name cannot contain a lockword. (NDIERR 109)**
- NDIERR 109 CAUSE: The network directory file cannot be lockword protected.
ACTION: Remove the lockword from the filename, or replace it with a null lockword.
- MESSAGE: Requires Node Manager or Network Administrator capability. (NDIERR 110)**
- NDIERR 110 CAUSE: User does not have Node Manager or Network Administrator capabilities.
ACTION: Change user capabilities.
- MESSAGE: File is not a Network Directory. (NDIERR 111)**
- NDIERR 111 CAUSE: User calling ND’OPEN passed a file that is not a network directory file. The most likely CAUSE is that the file is not a KSAM file.
ACTION: Correct the filename.

- MESSAGE: One or more required parameters are missing. (NDIERR 120)**
- NDIERR 120 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Directory file not open. (NDIERR 121)
- NDIERR 121 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Relop parameter invalid; must be 0, 1 or 2. (NDIERR 122)
- NDIERR 122 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Name type invalid; must be 1 (NS node name). (NDIERR 123)
- NDIERR 123 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Name length invalid for name type. (NDIERR 124)
- NDIERR 124 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: FFINDBYKEY failed — corrupt file likely. (NDIERR 125)
- NDIERR 125 CAUSE: Possible corrupt network directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: Cannot find a matching node name in the directory. (NDIERR 126)
- NDIERR 126 CAUSE: In the directory, no entry could be found with the requested nodename and global/local flag setting, or a partial nodename (generic key) was requested and no match could be found.
ACTION: Supply the nodename of an existing entry, or a generic key to satisfy the match.
MESSAGE: FREAD failed — corrupt file likely. (NDIERR 127)
- NDIERR 127 CAUSE: Possible corrupt network directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: FLOCK failed — internal error. (NDIERR 128)
- NDIERR 128 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.

- MESSAGE: FCONTROL/FUNLOCK failed — internal error. (NDIERR 129)**
- NDIERR 129 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Requires Node Manager or Network Administrator capability. (NDIERR 130)**
- NDIERR 130 CAUSE: User does not have Node Manager or Network Administrator capabilities.
ACTION: Change user capabilities.
- MESSAGE: Select parameter invalid; must be 0, 1 or 2. (NDIERR 131)**
- NDIERR 131 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FSPACE failed — corrupt file likely. (NDIERR 132)**
- NDIERR 132 CAUSE: Probable corrupt directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Directory is not open. (NDIERR 140)**
- NDIERR 140 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Directory is not open for write access. (NDIERR 141)**
- NDIERR 141 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FLOCK failed — internal error. (NDIERR 142)**
- NDIERR 142 CAUSE: Internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Cannot remove node name — internal error. (NDIERR 143)**
- NDIERR 143 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Requires Network Administrator capability. (NDIERR 144)**
- NDIERR 144 CAUSE: User does not have Network Administrator capabilities.
ACTION: Change user capabilities.
- MESSAGE: FREAD failed — corrupt file likely. (NDIERR 145)**
- NDIERR 145 CAUSE: Possible corrupt network directory file.

- ACTION:** Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: FCONTROL/FUNLOCK failed — internal error. (NDIERR 146)
- NDIERR 146 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Name type invalid; must be 1 (NS node name). (NDIERR 147)
- NDIERR 147 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Name length invalid for name type. (NDIERR 148)
- NDIERR 148 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: FFINDBYKEY failed — corrupt file likely. (NDIERR 149)
- NDIERR 149 **CAUSE:** Possible corrupt network directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: No such name in directory — cannot remove it. (NDIERR 150)
- NDIERR 150 **CAUSE:** The name does not exist in the directory file.
ACTION: Correct the nodename and/or global/local setting.
MESSAGE: Directory file not open. (NDIERR 160)
- NDIERR 160 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Requires Node Manager or Network Administrator capability. (NDIERR 161)
- NDIERR 161 **CAUSE:** User does not have Node Manager or Network Administrator capabilities.
ACTION: Change user capabilities.
MESSAGE: Request parameter invalid; must be 1 or 2. (NDIERR 162)
- NDIERR 162 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: FREADBYKEY failed — corrupt file likely. (NDIERR 163)
- NDIERR 163 **CAUSE:** Possible corrupt network directory file.

- ACTION:** Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: FREAD failed — corrupt file likely. (NDIERR 164)
- NDIERR 164 **CAUSE:** Possible corrupt network directory file.
- ACTION:** Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: FLOCK failed — internal error. (NDIERR 165)
- NDIERR 165 **CAUSE:** This is an internal error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
MESSAGE: FCONTROL/FUNLOCK failed — internal error. (NDIERR 166)
- NDIERR 166 **CAUSE:** This is an internal error.
- ACTION:** See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Cannot read node name backreference record — corrupt file likely. (NDIERR 167)
- NDIERR 167 **CAUSE:** Possible corrupt network directory file.
- ACTION:** Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: FOPEN of message catalog failed. (NDIERR 180)
- NDIERR 180 **CAUSE:** The message catalog NMMGRCAT.PUB.SYS could not be opened. Possible CAUSES and solutions include incorrect software installation, insufficient user access rights to the file, or incorrect version of software.
- ACTION:** Restore NMMGRCAT.PUB.SYS from a back-up tape, increase user’s access rights, or reinstall the product.
MESSAGE: GENMESSAGE failed. (NDIERR 181)
- NDIERR 181 **CAUSE:** A message could not be read from the message catalog. A possible CAUSE is incorrect version of the software.
- ACTION:** Reinstall the product.
MESSAGE: Error in NMCONF Intrinsic; check for error status. (NDIERR 190)
- NDIERR 190 **CAUSE:** A problem was encountered when calling an NMCONF procedure.
- ACTION:** Refer to the accompanying NMCONF error message.
MESSAGE: Error in Network Directory intrinsic; check for error status. (NDIERR 191)
- NDIERR 191 **CAUSE:** This is an internal error.

	<p>ACTION: Refer to the accompanying NMCONF error message. If the associated error is number 58, then the configuration file to merge from does not have any directory data in it. The file must first be read by the network transport by bringing up the transport in order to extract the directory data.</p> <p>MESSAGE: Requires Network Administrator capability. (NDIERR 192)</p>
NDIERR 192	<p>CAUSE: User does not have Network Administrator capabilities.</p> <p>ACTION: Change user capabilities.</p> <p>MESSAGE: File recovery: cannot open message catalog. (NDIERR 200)</p>
NDIERR 200	<p>CAUSE: The message catalog NMMGRCAT.PUB.SYS could not be opened. Possible CAUSEs include: improper product installation, insufficient user access rights to the catalog file, or an incorrect version of the software installed.</p> <p>ACTION: Reinstall the product, increase the user's access rights, or restore NMMGRCAT.PUB.SYS from a back-up tape.</p> <p>MESSAGE: File recovery: FOPEN of temporary command file failed. (NDIERR 201)</p>
NDIERR 201	<p>CAUSE: MPE could not open a scratch file to write file recovery commands into. This could be CAUSED by one or more of the following reasons:</p> <ul style="list-style-type: none">• Duplicate file name. BeCAUSE the file name generated is random, this CAUSE is very unlikely.• User does not have Save Files capability.• Other file system error. <p>ACTION: 1. Consult the associated file system error for problem resolution.</p> <p>ACTION: 2. Attempt manual recovery of the directory file using KSAMUTIL.PUB.SYS.</p> <p>MESSAGE: File recovery: GEMMESSAGE failed. (NDIERR 202)</p>
NDIERR 202	<p>CAUSE: Could not read a message from the catalog NMMGRCAT.PUB.SYS. A possible CAUSE is that an incorrect version of the software is installed.</p> <p>ACTION: Reinstall the product, restore NMMGRCAT.PUB.SYS, or attempt manual recovery of the directory file using KSAMUTIL.PUB.SYS.</p> <p>MESSAGE: File recovery: FWRITE to temporary command file failed. (NDIERR 203)</p>
NDIERR 203	<p>CAUSE: This is an internal error.</p>

- ACTION:** See “Submitting an SR” at the beginning of this appendix.
MESSAGE: File recovery: FCLOSE of temporary command file failed. (NDIERR 204)
- NDIERR 204 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: File recovery: CREATEPROCESS of KSAMUTIL.PUB.SYS failed. (NDIERR 205)
- NDIERR 205 **CAUSE:** Problem encountered trying to create a son process to run KSAM.PUB.SYS. It is possible that the program file KSAMUTIL.PUB.SYS is missing.
ACTION: Restore KSAMUTIL.PUB.SYS
CAUSE: Out of some type of system resource — check SYSDUMP configuration.
ACTION: Consult CREATEPROCESS errors in the MPE Intrinsic Reference Manual.
MESSAGE: File recovery: cannot open directory file exclusively. (NDIERR 206)
- NDIERR 206 **CAUSE:** The network directory file could not be opened exclusively in order to recover the file.
ACTION: See the accompanying file system error message. If FSERR 192 is displayed, recover the network directory file.
MESSAGE: File recovery: FCLOSE failed — internal error. (NDIERR 207)
- NDIERR 207 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: File recovery: FFINDBYKEY failed — internal error. (NDIERR 208)
- NDIERR 208 **CAUSE:** Network directory file is irrecoverable.
ACTION: Attempt manual recovery of the file using KSAMUTIL.PUB.SYS or restore the data and key files from a back-up tape.
MESSAGE: File recovery: FREAD failed — internal error. (NDIERR 209)
- NDIERR 209 **CAUSE:** Network directory file is irrecoverable.
ACTION: Attempt manual recovery of the file using KSAMUTIL.PUB.SYS or restore the data and key files from a back-up tape.

- MESSAGE: FPOINT to header record failed — corrupt file likely. (NDIERR 220)**
- NDIERR 220 CAUSE: The file is corrupt, empty, or is not a network directory file.
ACTION: Restore the data and key files from a back-up tape.
- MESSAGE: FREADC of header record failed — corrupt file likely. (NDIERR 221)**
- NDIERR 221 CAUSE: The file is not a KSAM file (and thus not a network directory file), or is a corrupt network directory.
ACTION: Restore the proper KSAM file from a back-up tape (data and key files) or attempt manual recovery on the file using KSAMUTIL.PUB.SYS.
- MESSAGE: Length of header record incorrect — corrupt file likely. (NDIERR 222)**
- NDIERR 222 CAUSE: Possible corrupt network directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FPOINT to header record failed. (NDIERR 230)**
- NDIERR 230 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FUPDATE of header record failed. (NDIERR 231)**
- NDIERR 231 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FUPDATE of existing record failed. (NDIERR 240)**
- NDIERR 240 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: FWRITE of new record failed. (NDIERR 241)**
- NDIERR 241 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Actual path report list length differs from passed length. (NDIERR 250)**
- NDIERR 250 CAUSE: This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
- MESSAGE: Path report list length too small to support minimal report. (NDIERR 251)**
- NDIERR 251 CAUSE: This is an internal error.

- ACTION:** See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Domain report in path report list too short (< 6 bytes). (NDIERR 252)
- NDIERR 252 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Version of domain report in path report list < 0. (NDIERR 253)
- NDIERR 253 **CAUSE:** The version number (1st octet) of a domain indicates an unsupported version.
ACTION: Possible version mismatch; reinstall the product. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: Domain number of domain report in path report list 1. (NDIERR 254)
- NDIERR 254 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: Cannot read a node name back reference record — corrupt file likely. (NDIERR 260)
- NDIERR 260 **CAUSE:** Possible corrupt network directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: A required node name record is not in dir — corrupt file likely. (NDIERR 261)
- NDIERR 261 **CAUSE:** Possible corrupt network directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.
MESSAGE: FUPDATE failed — internal error. (NDIERR 262)
- NDIERR 262 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: FGETINFO failed — internal error. (NDIERR 270)
- NDIERR 270 **CAUSE:** This is an internal error.
ACTION: See “Submitting an SR” at the beginning of this appendix.
MESSAGE: FFINDBYKEY failed — corrupt file likely. (NDIERR 271)
- NDIERR 271 **CAUSE:** Possible corrupt network directory file.
ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.

MESSAGE: FREAD failed — corrupt file likely. (NDIERR 272)

NDIERR 272

CAUSE: Possible corrupt network directory file.

ACTION: Restore the data and key files from a back-up tape. If this fails, see “Submitting an SR” at the beginning of this appendix.

FMT Error Messages

Listed are the messages that are generated by the Link Trace Formatter. They are displayed on the user terminal when running NMDUMP.

If you must submit an SR or call your HP representative, please copy the error *exactly as it appears on the terminal*; it will make determining the CAUSE of the problem easier. These messages are not logged.

The messages are listed in numerical order according to the error number.

**MESSAGE: SUBSYSxxTRACEFORMAT CM STUB ERROR (nnn,sss)
FROM HPLOADNMPROC**

UNABLE TO CALL NM TRACE FORMATTER ROUTINE (FMTERR 995)

FMTERR 995 CAUSE: The CM Stub could not load an NM WAN Trace Formatter routine for subsystem “xx” from the system library XL.PUB.SYS.

ACTION: Incorrect software installation to run Native-Mode Trace Formatters. The SWITCH error number is “nnn” and the subsystem reporting the error is “sss”. Call your HP representative.

**MESSAGE: SUBSYSTEM_xx_MENU CM STUB ERROR (nnn,sss)
FROM HPSWTONMNAME**

UNABLE TO CALL NM MENU ROUTINE (FMTERR 996)

FMTERR 996 CAUSE: The CM Stub could not call the named NM WAN Trace Formatter options menu routine for subsystem “xx” from the system library XL.PUB.SYS.

ACTION: Incorrect software installation to run Native-Mode Trace Formatters. This could also be CAUSED by incorrect privilege levels. The SWITCH error number is “nnn” and the subsystem reporting the error is “sss”. Call your HP representative.

**MESSAGE: SUBSYSxxTRACEFORMAT CM STUB ERROR (nnn,sss)
FROM HPSWTONMPLABEL**

UNABLE TO CALL NM TRACE FORMATTER ROUTINE (FMTERR 998)

FMTERR 998 CAUSE: The CM stub successfully loaded the NM WAN Trace Formatter routine for subsystem “xx” from the system library XL.PUB.SYS, but could not call it.

ACTION: Incorrect software installation to run Native-Mode Trace Formatters. This could also be CAUSED by incorrect privilege levels or a bug in the NM WAN Trace Formatter CM Stub. The SWITCH error number is “nnn” and the subsystem reporting the error is “sss”. Call your HP representative.

- MESSAGE: SUBSYSxxTRACEFORMAT CM STUB ERROR (nnn,sss)
FROM HPSWTONMNAME**
- UNABLE TO CALL NM TRACE FORMATTER ROUTINE (FMTERR 999)**
- FMTERR 999 **CAUSE:** The CM Stub could not call the named NM WAN Trace Formatter routine for subsystem “xx” in the system library XL.PUB.SYS.
- ACTION:** Incorrect software installation to run Native-Mode Trace Formatters. This could also be CAUSEd by incorrect privilege levels. The SWITCH error number is “nnn” and the subsystem reporting the error is “sss”. Call your HP representative.
- MESSAGE: ALL overrides other selections entered at the same time**
- 4024 **CAUSE:** Among the filter-set numbers you entered, you also specified the number for ALL. This is a warning.
- ACTION:** Check your input. Unless you mistyped one of the other set-numbers, it does not make sense to specify ALL along with other items, beCAUSE ALL would include the other sets anyway. To retype your input after this warning you must first return to the filter-set selection menu.
- MESSAGE: Warning: Errors always print; for Errors only don’t include other sets**
- 4025 **CAUSE:** Among the filter-set numbers you entered, you also specified the number for ERRORS-ONLY. This is a warning.
- ACTION:** Check your input. Unless you mistyped one of the other set-numbers, it does not make sense to specify ERRORS-ONLY along with other items, beCAUSE including the other items would defeat the meaning of ERRORS-ONLY. To retype your input after this warning you must first return to the filter-set selection menu.
- MESSAGE: Input truncated to 80 characters**
- 4026 **CAUSE:** The input file to the user menu was given more than 80 characters of input, but the menu can only accept 80. This is a warning.
- ACTION:** If the extra characters are just extra blanks, ignore this message or reduce the width of the input file. But if the extra characters are non-blank, you must edit the input file, finding a way to reduce the width of the input data to no more than 80 characters.
- MESSAGE: Extra input ignored**
- 4027 **CAUSE:** Only one number was expected, but you entered more than one, and the extra number(s) were ignored. This is a warning.
- ACTION:** Check your input and, if necessary, return to that prompt and retype the input.

- MESSAGE: Range error at position shown; other values accepted if allowed**
- 4028 CAUSE: One of the numbers you entered was out of range; a “^^” indicator appears below the illegal number. The number entered was probably much too large.
- ACTION: The bad value was not accepted. You may press the Return key to keep the other values on the same line, or else retype the entire input using only legal values.
- MESSAGE: Syntax error at position shown; other values accepted if allowed**
- 4029 CAUSE: Some of the numbers on the input line contained illegal characters, or were separated by illegal characters. Legal inputs are digits 0–9 and the question mark “?”. Legal separators for a list are the comma “,” and the blank “ ”.
- ACTION: Retype the input.
- MESSAGE: Invalid set number NN; reenter all or hit RETURN to keep others**
- 4030 CAUSE: One of the filter-set numbers you selected is not one of the valid filter sets for this formatter.
- ACTION: Check your input against the available sets shown in the menu. You may press the Return key to keep the other number(s) you entered on the same line, or you may retype the entire input. You may also return to the main menu and “set all options back to their default values.”
- MESSAGE: Output limit out of range; enter another number or hit RETURN**
- 4031 CAUSE: You have selected a value which is less than the lower output limit or greater than the upper output limit.
- ACTION: The value you selected was not accepted. Reenter a value which is within the range shown in the prompt. The prompt is meant as a reminder; values up to 4096 are also legal.
- MESSAGE: Invalid option number NN ignored; others accepted**
- 4032 CAUSE: One of the option numbers you selected at the main menu was not a valid option number for this formatter.
- ACTION: The illegal option number was ignored, but any other options on the same line were executed. Check your input and retype if necessary.
- MESSAGE: Number of inputs exceeds storage capacity, rest ignored**
- 4033 CAUSE: Bug in Trace-Formatter numeric input processing. The formatter could not process all the numbers entered by the user.

ACTION: Check your input and retype if necessary. If the problem continues to occur, submit an HP Service Request form against the Trace Formatter, specifying the input you tried and the subsystem you were trying to format. A temporary solution might be to type fewer numbers.

MESSAGE: CIERROR NNNN while executing MPE command

4034

CAUSE: The MPE command you tried encountered an error. MPE returned error number NNNN to the Formatter (MPE warnings are ignored).

ACTION: Check your input. If necessary, retype the MPE command. You may look up the Command Interpreter error number in the *NS 3000/iX Error Messages Reference Manual*.

MESSAGE: MISSING OPT EXECUTOR #NN; PLEASE SUBMIT HP SERVICE REQUEST

4035

CAUSE: Bug in Trace-Formatter option-execution processing. The formatter recognized an option you typed, but could not find processing for the option.

ACTION: Submit an HP Service Request form against the Formatter, specifying what input you typed and what subsystem you were trying to format.

MESSAGE: MISSING MESSAGE #NNNN

none

CAUSE: Bug in Trace-Formatter error message processing. The explanatory text for error number NNNN is missing from the formatter.

ACTION: Submit an HP Service Request form against the Formatter, specifying what input you typed and what subsystem you were trying to format.

NMS Error Messages
FMT Error Messages

A

access port A special interface card in the system cabinet through which the system console is connected.

address A numerical identifier defined and used by a particular protocol and associated software to distinguish one node from another.

address key *See* **X.25 address key**.

address resolution In NS networks, the mapping of node names to IP addresses and the mapping of IP addresses to subnet addresses.

address resolution protocol

ARP. A protocol used by LAN links with Ethernet enabled that provides a means of exchanging addressing information between Ethernet nodes.

adjacent A node on a point-to-point network that is connected to another node by a single link with no intervening nodes.

ASCII American Standards Committee on Information Interchange. A standard used by computers for interpreting binary numbers as characters.

asynchronous Term used to describe a device's mode of operation whereby a sequence of operations are executed

irrespective of time coincidence with any event. Devices that are directly accessible by people (for example, terminal keyboards) operate in this manner.

attachment unit interface The cable that runs between each node (host, DTC, or other device) and the Medium Attachment Unit (MAU) that connects it to the LAN in a ThickLAN configuration.

AUI *See* **attachment unit interface**.

autodial A dial link in which the remote node's telephone number is automatically dialed by a modem or other device with this capability.

B

backbone LAN A thick LAN cable conforming to the IEEE 802.3 Type 10 BASE 5 standard.

back-to-back configuration A DTC configuration whereby MPE users connected to one DTC can communicate with a non-MPE/iX system connected to another DTC via the LAN. (*See also* **local switching**)

backup configuration file A file that contains a copy of the information contained in the configuration file. The backup file, called `NMCBACK.group.account` by default, is updated each time the configuration file is successfully validated.

Glossary

banner A welcome message displayed on your screen. On the local OpenView workstation a banner appears when a remote connection is established with the OpenView DTC Manager. A banner also can appear when you log on to MPE.)

baud Measure of the speed at which information travels between devices, most commonly used in reference to terminal speed settings. Baud represents signal events per second. When one bit represents each signal change, baud is the same as “bits per second”.

binary mode Data transfer scheme in which no special character processing is performed. All characters are considered to be data and are passed through with no control actions being taken.

bit Binary digit. A unit of information that designates one of two possible states, which are represented by either 1 or 0.

block mode Terminal processing mode in which groups, or “blocks,” of data are transmitted all at once.

BNC T-Connector Connector used to connect a computer or a component such as a DTC to the LAN in a ThinLAN configuration.

boundry *See network boundary.*

bps Bits per second. The number of bits passing a point per second

broadcast Communication method of sending a message to all devices on a link simultaneously.

byte A sequence of eight consecutive bits operated on as a unit.

C

call In X.25, a call is an attempt to set up communication between two DTEs using a virtual circuit. Also known as a virtual call.

call collision A conflict that occurs at a DTE/DCE interface when there is a simultaneous attempt by the DTE and DCE to set up a call using the same logical channel identifier.

called address When a node sends out a call request packet, the packet contains the address of the destination node. The address of the destination node is the called address.

calling address When a node receives an incoming call packet, the packet contains the address of the sending node. The address of the sending node is the calling address.

carrier A continuous wave that is modulated by an information bearing signal.

catenet *See internetwork.*

CCITT Consultative Committee for International Telephony and Telegraphy. An international organization of communication carriers, especially government telephone monopolies, responsible for developing telecommunication standards by making recommendations. No carrier is required to adhere to a CCITT recommendation, although most do so in their own interest.

circuit-switching network A type of data communications network wherein a physical and exclusive link is maintained between two communicating devices for the call duration. An all-digital, circuit-switching network is often referred to as an X.21 network.

closed user group An X.25 user facility that allows communication to and from a pre-specified group of users and no one else.

compatibility mode Processing mode on HP 3000 Series 900 computers that allows applications written for MPE V/E-based systems to be ported and run without changes or recompilation.

computer network A group of computer systems connected in such a way that they can exchange information and share resources.

configuration 1) The way in which computer equipment is physically interconnected and set up to operate as a system.

2) The layout of the computer system, including the MPE table, memory, and buffer sizes, that tells which peripheral devices are (or can be) connected to the computer and how they can be accessed.

3) The process of defining the characteristics of a network in software. For MPE/iX-based computers, the operating systems are configured through use of the SYSGEN utility. Next, the distributed terminal subsystem (DTS) link is configured by using NMMGR (running on the host) and may, in addition, be configured using the OpenView DTC Manager software (running on the OpenView Windows Workstation) depending on the type of network management you use. If any of the NS link products are installed on the system, network configuration is accomplished through use of NMMGR and, if PC-based X.25 connections are required, through the OpenView DTC Manager.

configuration file The configuration file, which you create and update using the NMMGR utility, contains:

1) the information that the network needs in order to operate.

2) Information necessary for link-level and NetIPC logging.

3) Information required to connect terminals and printers to the system through one or more DTC.

The only file name that the system recognizes as the configuration file is `NMCONFIG.PUB.SYS`.

control-X echo Three exclamation marks (! ! !) output to the terminal screen when the cancel character (normally `[CTRL]-X`) is entered.

control-Y trap User-written procedure to which control is passed when the subsystem break character (normally `[CTRL]-Y`) is entered during execution of a program with subsystem break enabled.

cross-validate The process of assuring that information contained in two locations is consistent where it is imperative that it be consistent. For example, an automatic cross-validation occurs when you enter `SYSGEN` to assure that information contained in `NMCONFIG.PUB.SYS` agrees with system configuration data

CSMA/CD Carrier Sense Multiple Access with Collision Detect, transmission access method used by the IEEE 802.3 LAN standard.

CSN *See* **circuit-switching network**.

CTB The cache transfer bus in the backplane of an HP 3000.

CUG *See* **closed user group**.

D

data Basic elements of information that can be processed or produced by a computer.

Datacommunications and Terminal Controller *See* **DTC**.

data overrun Transmitted data that is sent faster than the equipment on the receiving end is capable of receiving it. The resulting overflow data is lost. *See also* **flow control**.

Datapac The national public PSN of Canada.

Datex-P The national public PSN of West Germany.

D bit Delivery confirmation bit. Used in the X.25 protocol, the setting of the D bit in DATA packets indicates whether delivery acknowledgment of the packet is required from the local DCE or from the remote DTE. It therefore allows the choice between local and end-to-end acknowledgment.

DCE Data circuit-terminating equipment. The interfacing equipment required in order to interface to data terminal equipment (DTE) and its

transmission circuit. Synonyms: data communications equipment, dataset.

DDX The national public PSN of Japan.

dedicated printer A printer that can be used by only one host on the LAN; the one specified in the Destination Node Name in that printer's configuration screen.

default gateway One (and only one) gateway accessible by a system may be designated as a default gateway. The network will then send any transmitted messages for which it is unable to locate a destination through normal means to the default gateway in a final effort to determine a transmission route.

demodulation The process by which the information-bearing signal is retrieved from a modulated carrier wave. The inverse of modulation.

destination node name In DTS configuration, it is either 1) the name of a host that a user can be connected to by default (if switching is not enabled for that user, or if automatic modem connection is enabled), or 2) the name of the only host that can access a dedicated printer.

device class A collection of devices that have some user-defined relation. Device

classes are assigned through use of the NMMGR configuration utility.

device-dependent characteristic A file specification for which modifications are restricted because of the type of device on which the file is opened. For example, data directed to terminals must have a blocking factor of one.

device driver Software module that controls a specific type of input/output device including NS 3000/iX links.

devicefile A file being input to or output from any peripheral device except a disc. MPE allows operations to be performed on the device itself as if it were a file.

device independence A characteristic of the operating system that allows users to selectively redirect input/output from a program, session, or job without regard to the nature of the device.

device name *See* **PAD name**.

Dial ID protocol A proprietary Hewlett-Packard protocol that provides security checking and address exchange for dial links.

dial link A connection made through public telephone lines.

direct-connect device

Asynchronous device that is connected directly to a DTC through an RS-232-C or RS-422 cable, with no intervening communications equipment. Also referred to as a “local connection.”

direct connection A leased line, private line, or other non-switched link in a network.

direct dial A dial link through which only one remote node can be reached.

direct-path branching The process of directly accessing any screen in NMMGR by entering path names in the **Command:** field. The path name must be preceded by an at sign (@).

domain name A name designated for a system in ARPANET standard format. This name can be used by other nodes on the network to access the host for which it is configured.

download The process of loading operating code and configuration files into the DTC’s memory. The DTC is downloaded by the host computer for LANs using host-based network management, and by the PC for DTCs managed by the OpenView DTC Manager.

driver *See device driver.*

DTC Datacommunications and Terminal Controller. The DTC is a hardware device, configured as a node on a LAN, that enables

asynchronous devices to access HP 3000 Series 900 computers. Terminals can either be directly connected to the DTC, or they can be remotely connected through modem or through a Packet Assembler Disassembler (PAD).

DTC identifier An identifier used only within NMMGR to define the branch of the configuration file containing information about a particular DTC. The identifier must begin with a letter and can be up to eight characters long

DTC Manager *See OpenView DTC Manager.*

DTC node name Unique name used to identify a DTC on the LAN. Node name format is nodename.domain.organization, with each of the three parts having up to 16 characters and beginning with either a letter or a digit.

DTC station address (802.3 address) 12-digit hexadecimal number used to identify the DTC as a node belonging to the network configuration. Also called the LAN address.

DTC switching A facility enabling terminal users to select any host system that they want to connect to. DTC switching is available only when the OpenView DTC Manager is used for network management.

DTC/X.25 Network Access The X.25 software that resides on the Datacommunications and Terminal Controller (DTC). To configure access to an X.25 network, you must configure two software components: the X.25 iX System Access (residing on the HP 3000 host), and the DTC/X.25 Network Access. DTC/X.25 Network Access is configured through use of the OpenView DTC Manager software for systems using PC-based network management or through NMMGR for systems using host-based network management.

DTC/X25 Network Access card This is the hardware card and channel adapter that provides X.25 Network Access. It resides in the Datacommunications and Terminal Controller (DTC).

DTC/X25 iX Network Link

Software and hardware that provides access to private and public X.25 networks. The X.25 iX System Access software resides on an HP 3000 host and is configured through use of NMMGR.

DTE Data terminal equipment. Equipment that converts user information into data-transmission signals or reconverts received data signals into user information. Data terminal equipment operates in conjunction with data circuit-terminating equipment.

DTS Distributed terminal subsystem. This consists of all the Datacommunications and Terminal Controllers (DTCs) on a LAN, their LANIC cards (attached to the host), the LAN cable, and the host and DTC software that controls all related DTS hardware.

duplex Transmission method that allows two-way communication. If both ends of the transmission link can transmit simultaneously, it is called full duplex. If only one end can transmit at a time, it is half-duplex transmission.

E

entry priority The ranking that identifies the most desirable route used to reach a given remote node from a given local node in a point-to-point network.

environment A session that is established on a remote node.

escape from data transfer character A character that allows a user who is connected to a host system through the DTC to break that connection and return to the DTC switching user interface. The default is [CTRL]-K. This character is used only on networks managed by the OpenView Windows Workstation

escape sequence A sequence of characters beginning with the escape character and followed by

one or more other characters, used to convey control directives to printers, plotters, or terminals.

Ethernet A Local Area Network system that uses baseband transmission at 10 Mbps over coaxial cable. Ethernet is a trademark of Xerox Corporation.

event log One of three circular files stored on the OpenView workstation containing lists of all significant events reported by the DTCs for which it is the owner; that is, whose operating software/configuration it has downloaded.

extended packet sequence numbering One of the optional network subscribed facilities that provides packet sequence numbering using modulo 128. If not subscribed, modulo 8 is used.

F

facility An optional service offered by a packet switching network's administration and requested by the user either at the time of subscription for network access or at the time a call is made. Also known as user facility.

facility set A facility set defines the various X.25 connection parameters and X.25 facilities that can be negotiated for each virtual circuit on a per-call basis.

fast select An optional packet-switching network facility by which user data may be transmitted as part of the control packets that establish and clear a virtual connection.

FCS Frame check sequence. A sequence of bits generated by X.25 at level 2 that forms part of the frame and guarantees the integrity of its frame's content. The FCS is also used by the IEEE 802.3 protocol to check the validity of frames.

file equation Assignment statement used to associate a file with a specific device or type of device during execution of a program

file number Unique number associated with a file when the file is opened. The file number is returned in the FOPEN or HPFOPEN call used to open the file. It can be used to access that file until the file is closed.

file specification The name and location of a file. The full specification for a file includes the file name, group, and account.

file system The part of the operating system that handles access to input/output devices (including those connected through the DTC), data blocking, buffering, data transfers, and deblocking.

flow control A means of regulating the rate at which data transfer takes place between devices to protect against data overruns.

flow control negotiation One of the network subscribed facilities, selected at subscription time. This facility allows the flow control parameter to be negotiated at call set-up time, as opposed to having a predefined value.

formal file designator Name that can be used programmatically or in a file equation to refer to a file.

FOS Fundamental operating system. The programs, utilities, and subsystems supplied on the master installation tape that form the basic core of the operating system.

full gateway A full gateway is a node that belongs to more than one network and has one IP address for each network. It uses store and forward to transfer packets between each network that it belongs to.

G

gateway A node that connects two dissimilar network architectures. A gateway can be either a single node (full gateway) or two gateway halves.

gateway half A node that works in conjunction with another node on another network to form an internetwork. The only protocol used by gateway halves is the NS Point-to-Point 3000/iX Link. See also full gateway.

gateway-half link A link between the two nodes of a gateway-half pair. Each of the two nodes of a gateway-half pair has a configured link (hardware interface card) that is used for the gateway half network interface. The NS Point-to-Point 3000/iX Link is the only link that can be used as a gateway-half link.

gateway-half pair A set of two nodes that are joined by a gateway-half link. Each node in the pair must have a gateway-half network interface configured, using the link.

guided configuration A method of configuring a node in which a subset of the complete NMMGR interface is presented and defaults of configurable values are used automatically.

H

handshaking A communications protocol between devices or between a device and the CPU. Provides a method of determining that each end of a communications link is ready to transmit or receive data and that transmission has occurred without error.

hop count *See* **internet hop count** and **intranet hop count**

host-based network management Method of managing asynchronous communications for HP 3000 Series 900 computers. All of the control software is configured on a single host and is downloaded to the DTCs that are managed by that host. With host-based management, there is a permanent relationship between each DTC and the host, and terminal users can access only the single system that owns the DTC their terminal is connected to.

host-based X.25 The management of X.25 network connections from a host computer. Host-based X.25 network connections are made through a DTC Network Access card installed in a DTC managed by the host. All configuration is accomplished using the NMMGR utility. It is not necessary for a PC to be part of the LAN when you are using host-based X.25.

host computer The primary or controlling computer on a network. The computer on which the network control software resides. For HP purposes, it may also be used to distinguish the HP 3000 Series 900 system (host) from the DTC.

HP block mode Block mode transmission method employed by HP computers where the

system controls the block mode handshake. When HP block mode is used, the user program need not concern itself with data transfer protocol.

HP PPN Hewlett-Packard Private Packet Network. Hewlett-Packard's own packet-switching X.25 network, which gives users full control over the administration and security of their data communications.

HP TSS A terminal server that can support up to eight asynchronous serial connections. When used in back-to-back configuration, users can access HP 3000 MPE/V systems on it via a DTC.

I

idle device timeout Timeout defined by the Configure:CPU command. When the timer lapses, a device connected to the DTC user interface that is still inactive will be disconnected.

IEEE 802.3 A standard for a broadcast local area network published by the Institute for Electrical and Electronics Engineers (IEEE). This standard is used for both the ThinLAN and ThickLAN implementations of the LAN.

IEEE 802.3 multicast address

A hexadecimal number that identifies a set of nodes. This address is used for multicast delivery.

IEEE 802.3 nodal address A unique hexadecimal number that identifies a node on an IEEE 802.3 LAN.

IEEE 802.5 A standard for a token ring network published by the Institute for Electrical and Electronics Engineers (IEEE). This standard is used for the Token Ring 3000/iX Network Link.

initialization string A sequence of control characters used to initialize a terminal, printer, or plotter when a connection is established from a host on the network.

interactive communications

Processing that allows users to enter commands and data at the terminal and receive an immediate response.

internet communication

Communication that occurs between networks.

internet hop count The number of full gateways plus the number of gateway-half links that a packet must pass through in moving from source node to destination.

internet protocol A protocol used to provide routing between different local networks in an internetwork, as well as among nodes in the same local network. The internet protocol corresponds

to layer 3, the network layer, of the OSI model. *See also IP address.*

internet routing Internet routing involves all the processes required to route a packet from a node on one network to a destination node on another network.

internetwork Two or more networks joined by gateways, bridges, or routers

intranet communication

Communication that occurs between nodes in a single network.

intranet hop count The number of intermediate nodes that lie between a source and destination node on the same point-to-point network.

intranet routing Intranet routing involves all the processes required to route a packet from one node in a network to another node in the same network.

intrinsic System routine accessible by user programs which provides an interface to operating system resources and functions. Intrinsic perform common tasks such as file access and device control.

IP *See internet protocol.*

IP address Internet protocol address. An address used by the Internet Protocol to perform

internet routing. A complete IP address comprises a network portion and a node portion. The network portion of the IP address identifies a network, and the node portion identifies a node within the network.

IP subnet mask *See* **subnet mask**.

ISO International Standards Organization. An international federation of national standards organizations involved in developing international standards, including communication standards.

L

LAN Local Area Network. A collection of data communication systems sharing a common cable whereby each system can communicate directly with another.

LAN address *See* **station address**.

LANIC *See* **Local Area Network Interface Controller**.

LANIC physical path The physical location (slot number) of the LANIC within the SPU.

LANIC self-test A ROM-based program on a LANIC card that tests and reports the status of the LANIC hardware.

LAP Link access protocol. The data link protocol specified by older versions (prior to 1980) of

X.25 at level 2 but still permitted and therefore usable. All new implementations of X.25 must use LAP-B, and all old implementations must migrate to LAP-B at a future date.

LAP-B Link access protocol - balanced. The data link protocol specified by the 1980 version of X.25 at level 2 that determines the frame exchange procedures. LAP-B must also be used over direct-connect NS Point-to-Point 3000/iX Links.

LCI Logical channel identifier. Local value on a network node which identifies the channel used to establish a virtual circuit (SVC or PVC) through an X.25 network.

ldev *See* **logical device number**.

leased line Data-grade telephone line leased directly to a subscriber and allocated specifically for the subscriber's needs.

line speed Speed at which data is transferred over a specific physical link (usually measured in bits or kilobits per second).

link name The name that represents a hardware interface card. The link name can contain as many as eight characters. All characters except the first can be alphanumeric; the first character must be alphabetic.

Local Area Network Interface Controller (LANIC)

A hardware card that fits into the backplane of the HP 3000 Series 900 computer and provides a physical layer interface for local area networks.

local connection *See* **direct connection**.

local node The computer that you are configuring or that you are logged on to.

local switching Feature of the DTC which permits back-to-back configuration (for connections to an HP 3000 MPE/V host), using two ports of the same DTC.

local user group A list defined for a particular DTC and card that specifies which remote nodes this DTC can send data to and also which remote nodes this DTC can receive data from. (*See also* **Closed User Group**).

logging The process of recording the usage of network resources. Events can be logged to both the OpenView workstation and to the MPE host.

logging class A number defining the severity of any given event logged. An operator uses the logging classes to specify which events are to be logged. Class 1 (catastrophic event) is always logged.

logical device number (ldev)

A value by which the operating system recognizes a specific device. All DTC devices that are configured as nailed devices through the NMMGR configuration have ldev numbers permanently assigned. The DTC devices can then be accessed programmatically through use of their ldev number. Non-nailed devices have ldev numbers that are assigned from a pool of available ldev numbers for the life of their connection to a system. You cannot access non-nailed devices programmatically.

log off The termination of a job or session.

log on The process of initiating a job or session.

logon device *See* **session-accepting device**.

loopback The routing of messages from a node back to itself.

LUG *See* **local user group**.

M

map, network A drawing that shows the topology of the network. For networks managed by the OpenView DTC Manager, a network map must be created through use of the OVDRAW capability provided with the management software. A network map is also a hardcopy drawing

used when planning a network. It shows network topology, node and network names, addresses, network boundaries (for an internetwork map), and link types.

mapping A set of characteristics that describe a route taken by messages to reach a destination node. This set of characteristics is configured with NMMGR at every node on a point-to-point network. One mapping is configured at each node for every other node on the network to which messages will be sent.

MAU *See* **medium attachment unit**.

M bit More data bit. Setting this bit in a DATA packet indicates that at least one more DATA packet is required to complete a message of contiguous data.

medium attachment unit A device attached to a ThickLAN coaxial cable that provides the physical and electrical connection from the AUI cable to the coaxial cable.

MIT Master installation tape. Magnetic tape containing the fundamental operating system for a HP 3000 Series 900 computer.

modem Modulator/demodulator. A device that modulates and demodulates signals. Primarily used for modulating digital signals onto carriers for transmission and for performing

the inverse function at the receiving end. Modems are essential for transmitting and receiving digital signals over telephone lines.

modulo Value used as the counting cycle for determining the send sequence number (N(S)) of frames sent across an X.25 network.

modulation Process in which certain characteristics of a carrier signal are altered in accordance with the changes of an information-bearing signal.

MPE/iX MultiProgramming Executive/integrated POSIX. The operating system of HP 3000 Series 900 computers. The NS 3000/iX network services operate in conjunction with the MPE/iX operating system.

multiplexer MUX. A device that allows multiple communication links to use a single channel.

N

nailed device A device with a permanently associated ldev that was assigned through the NMMGR configuration of the host system on which the association is established. Nailed devices can be accessed programmatically through their ldev number. In contrast, non-nailed devices have ldev numbers that are assigned from a pool of available ldev numbers for the life of their connection to a system.

native mode The run-time environment of MPE/iX. In Native Mode, source code has been compiled into the native instruction set of the HP 3000 Series 900 computer.

neighbor gateway A gateway that is in the same network as a given node.

NetIPC Network Interprocess Communication. Software that enables programs to access network transport protocols.

network A group of computers connected so that they can exchange information and share resources.

network address This can be either 1) the network portion of an IP address as opposed to the node portion, or 2) when referring to X.25 networks, it is a node's X.25 address.

network boundary The logical division between networks in an internetwork.

network directory A file containing information required for one node to communicate with other nodes in 1) an internetwork, 2) an X.25 network, or 3) a network that contains non-HP nodes. The active network directory on a node must be named `NSDIR.NET.SYS`.

network interface (NI). The collective software that enables data communication between a system and a network. A node

possesses one or more network interfaces for each of the networks to which it belongs. Network interface types are LAN, point-to-point (router), X.25, token ring, SNA, loopback, and gateway half. The maximum number of supported NIs is 12, one of which is reserved for loopback.

network management The collective tasks required to design, install, configure, maintain, and if necessary, change a network.

network map A drawing that shows the topology of the network. For networks managed by the OpenView DTC Manager, a network map must be created through use of the OVDRAW capability provided with the management software. A network map is also a hardcopy drawing used when planning a network. It shows network topology, node and network names, addresses, network boundaries (for an internetwork map), and link types.

Network Services NS. Software application products that can be used to access data, initiate processes, and exchange information among nodes in the network. The NS 3000/iX Network Services include RPM, VT, RFA, RDBA, and NFT.

network subscribed facilities

A set of parameters that the user chooses when he subscribes to the X.25 network; they include flow control negotiation, use of D-bit, throughput class negotiation and extended packet sequence numbering.

network transport Software that corresponds to layers 4 and 3 of the OSI network architecture model. The function of this software is to send data out over the appropriate communications link, to receive incoming data, and to route incoming or outgoing data to the appropriate destination node.

NFT Network File Transfer. The network service that transfers disc files between nodes on a network.

NI *See* **network interface**.

NMCBACK.PUB.SYS The default file name for the file that contains a copy of the information contained in the configuration file (**NMCONFIG.PUB.SYS**). The backup file is updated each time the configuration file is successfully validated.

NMCONFIG.PUB.SYS A file that contains all the network configuration data for the HP 3000 Series 900 computer on which it resides. It includes information about the DTCs that can access the system as well as information about any Network

Services (NS) products running on the system. This is the only file name allowed.

NMDUMP Node management services trace/log file analyzer. A utility used to format log and trace files.

NMMAINT Node management services maintenance utility. A utility that lists the software module version numbers for all HP AdvanceNet products, including NS 3000/iX. It detects missing or invalid software modules.

NMMGR Node management services configuration manager. A software subsystem that enables you to configure DTC connectivity and network access parameters for a HP 3000 Series 900 computer.

NMMGRVER Node management services conversion utility. A conversion program that converts configuration files created with NMMGR from an earlier version to the latest format.

NMSAMP1.PUB.SYS Sample configuration file supplied with FOS that can be used as a template for DTS configuration.

node A computer that is part of a network. The DTC is also considered to be a node and has its own address.

node address The node portion of an IP address, which consists of a node portion and a network portion.

node management services configuration manager *See* NMMGR.

node name A character string that uniquely identifies each system in a network or internetwork. Each node name in a network or internetwork must be unique; however, a single node can be identified by more than one node name.

node names list List defined on the OpenView workstation and subsequently downloaded to all DTCs for which it is the “owner.” The list specifies all the HP 3000 Series 900 hosts on the LAN that are accessible from the DTCs.

non-adjacent Describes a node on an NS Point-to-Point 3000/iX network that is separated from a given node by intervening or intermediate node.

non-nailed device A session accepting device that is not permanently associated with an ldev number at configuration time. When the user at such a device logs on to a HP 3000 Series 900, an ldev is assigned from a pool of ldevs set aside for this purpose at configuration time. The association between a non-nailed device and this temporarily assigned ldev exists only for the duration of the

session. One advantage of the use of non-nailed device connections is that configuration is simplified, since it is not required that each non-nailed device be individually configured.

NS 3000/iX A Hewlett-Packard data communication product that provides networking capabilities for HP 3000 Series 900 minicomputers. NS 3000/iX consists of one or more links and network services.

NS 3000/iX Link Software and hardware that provides the connection between nodes on a network. Some of the NS 3000/iX links available are the ThinLAN 3000/iX Link and its ThickLAN option, the DTC/X.25 iX Network Link, the NS Point-to-Point 3000/iX Link, and the Token Ring 3000/iX Network Link.

NS 3000/iX Network Services

Software applications that can be used to access data, initiate processes, and exchange information among nodes in a network. The services are RPM, VT, RFA, RDBA, and NFT

NS Point-to-Point 3000/iX Link Hardware and software necessary to create networks in which data is transmitted from node to node over a defined route until it reaches its destination. This technique is referred to as store and forward. Systems in a point-to-point network are connected by means of leased or dial-up telephone lines. HP 3000

systems attach to the point-to-point network via HP 3000 Programmable Serial Interface (PSI) cards that fit into the back of each system's SPU.

NSDIR.NET.SYS Name of the active network directory file. *See also network directory.*

O

octet An eight-bit byte operated upon as an entity.

OpenView DTC Manager

OpenView Windows application that enables you to configure, control, monitor, and troubleshoot the operation of the datacommunications and terminal subsystems on the LAN

OpenView Admin An

OpenView windows program that enables you to configure how your OpenView Windows applications will function. For example, it enables you to set a default map for the OpenView DTC Manager.

OpenView Draw An OpenView windows program that enables you to draw the network map, and to label the components on it.

OpenView Run An OpenView windows program that covers most of the control features used by the DTC Manager, including monitoring and diagnostic functions.

OpenView Windows The set of three programs: OV Admin, OV Draw and OV Run, running on the OpenView workstation under MS Windows, that acts as the platform for all OpenView applications, such as DTC Manager.

OpenView Windows

Workstation The personal computer that provides software downloads to enable operation of the Datacommunications and Terminal Controller (DTC). The configuration software that runs on this workstation is called the OpenView DTC Manager software.

OSI model Open Systems Interconnection model. A model of network architecture devised by the International Standards Organization (ISO). The OSI model defines seven layers of a network architecture, with each layer performing specified functions.

P

packet A block of data whose maximum length is fixed. The unit of information exchanged by X.25 at level 3. There are DATA packets and various control packets. A packet type is identified by the encoding of its header.

packet exchange protocol

PXP. A transport layer protocol used in NS 3000/iX links to initially establish communication between nodes when NetIPC socket registry is used.

packet-switched network

name The name of a data communication network adhering to the CCITT X.25 recommendation. This can be a PDN or a private network, such as the HP PPN.

PAD (packet assembler/disassembler) A device that converts asynchronous character streams into packets that can be transmitted over a packet switching network (PSN).

PAD name A name of up to eight characters that is associated with a configured PAD device. The PAD name is known to both the DTC and the host systems that the device can access.

PAD profile Terminal or printer profile that specifies the configuration characteristics for PAD-connected devices.

partner gateway half When gateway halves are used, two gateway halves are required in order to provide communication between two networks. Each is the partner of the other.

path name When configuring with NMMGR, you can type a string in the **COMMAND:** field on display screens to branch to

another screen. Each screen has a unique path name that corresponds to its location in the hierarchy of configuration screens presented by NMMGR.

PDN Public data network. A data communication network whose services are available to any user willing to pay for them. Most PDNs use packet switching techniques.

point-to-point A link that connects either two nodes in an NS Point-to-Point 3000/iX network or two gateway halves.

port An outlet through which a device can be connected to a computer, consisting of a physical connection point and controlling hardware, controlling software, and configurable port characteristics. Ports can be thought of as data paths through which a device communicates with the computer.

Precision Architecture The hardware design structure for the HP 3000 Series 900 computer family.

printer name Character string of up to 16 characters specified in the DTC Manager configuration (for networks using OpenView Network Management) to define a printer by name. Can be shared by several printers (port pool).

printer profile A set of configuration characteristics that can be associated with one or

more printers through the NMMGR configuration. Printer profile specifications include the printer type, line speed, device class assignment, and other values relevant to printers connected through a DTC.

printer type A collection of characteristics that cause a printer connected to a HP 3000 Series 900 system to act and react in a specified manner. You can configure a printer to use one of the system-supplied printer types or you can create custom printer types using workstation configurator.

privileged mode A capability assigned to accounts, groups, or users allowing unrestricted memory access, access to privileged CPU instructions, and the ability to call privileged procedures.

probe protocol An HP protocol used by NS 3000/iX IEEE 802.3 networks to obtain information about other nodes on the network.

probe proxy server A node on an IEEE 802.3 network that possesses a network directory. A probe proxy server can provide a node with information about other nodes on the same or other networks of an internetwork.

profile A method of grouping device connection specifications and characteristics so that the set of characteristics can be easily

associated with groups of like devices. *See also* **printer profile**, **terminal profile**.

program captive device *See* **programmatic device**.

Programmable Serial Interface PSI. A hardware card that fits into the backplane of the HP 3000 Series 900 computer. It provides a physical layer interface for NS Point-to-Point 3000/iX Links.

programmatic device A device operating under control of a program running on a computer. Programmatic devices can be used for input, output, or both, depending on the device and how it is opened by the controlling program.

protocol A set of rules that enables two or more data processing entities to exchange information. In networks, protocols are the rules and conventions that govern each layer of network architecture. They define what functions are to be performed and how messages are to be exchanged.

PSN Packet-Switching Network. Any data communication network using packet-switching techniques wherein data is disassembled into packets at a source interface and reassembled into a data stream at a destination interface. A public PSN offers the service to any paying customer.

PSS Packet-Switching System. The national public PSN of the United Kingdom.

PVC Permanent Virtual Circuit. A permanent logical association between two physically separate DTEs that does not require call set-up or clearing procedures.

PXP *See* **packet exchange protocol**.

Q

Q bit Qualified bit. When set in DATA packets the Q bit signifies that the packet's user data is a control signal for the remote device, not a message for its user.

QuickVal A software program that tests whether Network Services are operating correctly between nodes.

R

RDBA Remote Data Base Access. A network service that allows users to access data bases on remote nodes.

reachable network A network that can be accessed (with additional internet hops possibly required) by a particular gateway.

remote connect device

Asynchronous device that is connected to a DTC indirectly, using a modem and telephone hook-up, or a PAD.

remote node A node on an internetwork other than the node you are currently using or referring to.

retransmission count (N2) The maximum number of times a frame will be retransmitted following the expiration of the retransmission timer, T1.

retransmission timer (T1)

Length of time the transmitter will wait for an acknowledgment from the destination address before attempting to retransmit the frame. When choosing this value, factors like the line speed and maximum frame size should be taken into account.

RFA Remote File Access. A network service that allows users to access files and devices on remote nodes.

router network *See* **point-to-point**.

routing The path that packets, or fragments of a message, take through a network to reach a destination node.

RPM Remote Process Management. A network service that allows a process to programmatically initiate and terminate other processes throughout a network from any node on the network.

RS-232-C Electronic Industries Association (EIA) level 1 protocol specification that defines

electrical circuit functions for 25 connector pins. HP provides two implementations of this standard: a 3-pin version for direct connections up to a distance of 15 meters (50 feet), and a version which makes use of additional circuits and can be used for either modem or direct connections.

RS-422 Electronic Industries Association (EIA) level 1 protocol specification implemented by HP in a 5-pin version which can be used for direct device connection up to a distance of 1500 meters (4000 feet).

S

security string An alphanumeric character string that functions as a password for dial links. The security string is used by the dial IP protocol.

serial device Any device that is attached to and communicates with a computer by means of a serial transmission interface. Terminals, printers, and plotters are among the devices that communicate serially with HP 3000 Series 900 computers.

serial transmission Method of transferring data in which characters are transmitted one bit at a time and received one bit at a time in the order of transmission. This transmission scheme is employed by devices connected to the system via the DTC.

session-accepting device A terminal or personal computer running in terminal-emulation mode that is able to establish an interactive (conversational) session with an HP 3000 computer. Also referred to as a logon device.

shared dial A dial link that provides connection to more than one remote system, although to only one at a time.

shared-line access Feature that allows two or more HP 3000 Series 900 hosts to use the same DTC/X.25 Network Access card on a DTC to access an X.25 network.

SIC Serial interface card. Card installed in the front of the DTC that acts as an interface between a corresponding connector card (CC) and the DTC's processor.

slaved device A device that shares the same DTC port as another device and is connected to the other device, referred to as its master, by a cable. The actions of the slaved device are controlled by the master device.

spooled device A printer that is accessed through the spooling facility. The spooling facility allows a nonsharable device to be shared among several users by temporarily storing output data on disc and managing the selection of output spool files destined for the spooled device.

start bit Data bit used to signal the start of a character being transmitted in an asynchronous communication mode.

station address A 12-digit hexadecimal link-level address used by the IEEE 802.3 protocol. Every node on an IEEE 802.3 network has its own station address.

stop bit Data bit used to signal the end of a character being transmitted in an asynchronous communication mode.

store and forward A technique in which messages are passed from one node to another in a network to reach their destination. Point-to-point networks use the store and forward technique to transmit messages.

subnet Another name for a network, especially if the network is part of an internetwork. The word subnet is also a synonym for intranet.

subnet mask Grouping of bits that determines which bits of the IP address will be used to define a subnetwork. The subnet mask is configured using the NMMGR utility and specified in the same format as an IP address.

SVC Switched Virtual Circuit. Path through an X.25 network that is established at call set-up time.

switching *See* **DTC switching**.

Switching user interface User interface available when DTC switching is enabled that allows terminal users to choose the 900 Series HP 3000 computer with which they want to establish a communication link.

synchronous A mode of operation or transmission whereby a continuous data stream is generated without intervals between characters. The data stream is synchronized by clock signals at the receiver and transmitter. As a result, fast transmission speeds (above 9600 bps) are attainable.

SYSGEN The software program that allows you to configure the operating system on HP 3000 Series 900 computers.

system configuration The way you tell the operating system what peripheral I/O devices are attached and what parameters are required for system operation.

T

TCP *See* **transmission control protocol**.

Telenet A proprietary public data network in the USA.

TermDSM Terminal online Diagnostic Support Manager. A utility that provides diagnostic services for DTC connections by means of a series of commands accessible through the SYSDIAG

utility. TermDSM is used only when DTCs are managed by a host system.

terminal name Character string of up to 16 characters specified in the Openview DTC Manager configuration (for networks using OpenView Network Management) to define a terminal by name. May be shared by several terminals (pool port).

terminal profile A set of configuration characteristics that can be associated with one or more terminals through the NMMGR configuration. Terminal profile specifications include the terminal type, line speed, device class assignment, and other values relevant to terminals connected through a DTC.

terminal type A collection of characteristics that cause a terminal connected to an MPE system to act and react in a specified manner. You may configure a terminal to use one of the system-supplied terminal types, or you may create custom terminal types using the workstation configurator.

ThinLAN A LAN media that conforms to the IEEE 802.3 Type 10 BASE 2 standard LAN.

ThinLAN 3000/iX Link

Hardware and software necessary to create a broadcast network, which uses the IEEE 802.3 LAN cable to transmit messages to all the nodes on the network. The

messages are then accepted only by the node or nodes to which they are addressed. Also includes the ThickLAN and StarLAN 10 options.

throughput class A value assigned to a given virtual circuit that defines how many network resources should be assigned to a given call. It is determined by the access line speed, packet and window sizes, and the local network's internal mechanisms.

throughput class negotiation

One of the network subscribed facilities defined at subscription time. This allows the user to negotiate the throughput class at call set-up time.

timer (T3) Length of time that a link can remain in an idle state. After the expiration of the timer, the link is considered to be in a non-active, non-operational state and is automatically reset. The value should be chosen carefully. In particular, it must be sufficiently greater than the retransmission timer (T1) so that no doubt exists about the link's state.

token ring A collection of data communication systems sharing a common cable and communicating by means of the IEEE 802.5 protocol. In a token ring network, access is controlled by the passing of a token from node to node. Outgoing messages are attached to the token and

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passed with the token until they arrive at the node to which they are addressed.

Token Ring 3000/iX Network Link Hardware and software required to connect a HP 3000 Series 900 system to a token ring network.

topology The physical arrangement of nodes in a network. Some common topologies are bus, star, and ring.

transmission control protocol

A network protocol that establishes and maintains connections between nodes. TCP regulates the flow of data, breaks messages into smaller fragments if necessary (and reassembles the fragments at the destination), detects errors, and retransmits messages if errors have been detected.

Transpac The national public PSN of France.

transparent mode Data transfer scheme in which only a limited number of special characters retain their meaning and are acted on by the system. All other characters are considered to be data and are passed through with no control actions being taken.

transport, network Software that corresponds to layers 4 and 3 of the OSI network architecture model. The function of this software is to send data out over

the appropriate communications link, to receive incoming data, and to route incoming or outgoing data to the appropriate destination node.

Tymnet A proprietary public data network in the USA.

typeahead A facility that allows terminal users to enter data before a read is actually posted to the terminal.

U

unacknowledged frame number (K) The number of frames that can be transmitted without receiving an acknowledgment from the destination address. When this number (K) frame is reached, the same K frames are retransmitted.

unedited mode *See transparent mode.*

V

V.24 The CCITT recommendation that defines the function of the interchange circuits between a DTE and a DCE.

validation The process of ascertaining whether the network transport configuration file has been correctly configured. In guided NMMGR, you do this by pressing the Validate Netxport key.

VAN Value-Added Network. A data communication network that uses and pays for facilities belonging to another carrier. The value-added package is then sold to a user.

VC *See* **virtual circuit**.

virtual circuit A logical association between two physically separate DTEs.

virtual terminal A network service that allows a user to establish interactive sessions on a node.

VPLUS Software used to generate screens such as those displayed by NMMGR.

V-Series (V.##) CCITT A set of CCITT recommendations related to data communication over a voice-grade telephone network.

VT *See* **virtual terminal**.

W

workstation configurator A utility (TTUTIL) that allows users to create customized terminal and printer types by entering data through a series of VPLUS screens.

X

X.3 Defines the user facilities that should be internationally available from the packet

assembler/disassembler (PAD) facility when this is offered by a public data network.

X.21 Defines the physical interface between a DTE and a DCE of a public data network where the access to the network is made over synchronous digital lines.

X.25 Defines the interface between a DTE and a DCE for packet mode operation on a public data network (PDN).

X.25 address The X.25 address provided by the network administration if you are connected to a public data network (PDN).

X.25 address key An X.25 address key is a label that maps a node's IP address to its X.25 address and its associated X.25 parameters. You have a combined maximum of 1024 X.25 address keys in the SVC and PVC path tables.

X.25 LUG address X.25 address of a node belonging to a local user group (LUG).

X.25 iX System Access The software that works in conjunction with the DTC/X.25 Network Access software to provide access to X.25. The software resides on an HP 3000 host and is configured through use of NMMGR. To configure access to an X.25 network, you must configure two software

components: the X.25 iX System Access (residing on the HP 3000 host), and the DTC/X.25 Network Access. DTC/X.25 Network Access is configured through use of the OpenView DTC Manager software for systems using PC-based network management or through NMMGR for systems using host-based network management.

X.29 Defines the interface for data exchange between a packet-mode DTE and a remote packet assembly/disassembly (PAD) facility over a packet switching network.

XON/XOFF protocol Flow control used by MPE/iX systems to protect against data overruns. XON/XOFF protocol is controlled by the data recipient who sends an XOFF character (ASCII DC3) to the sender if it is unable to continue to receive data. The sender suspends transmission until it receives an XON character (ASCII DC1).

X.Series (X.##) CCITT recommendations A set of recommendations for data communication networks governing their services, facilities, and the operation of terminal equipment and interfaces.

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