NORTEL NETWORKS

Preside Multiservice Data Manager

Configuration Management for Passport

User Guide

241-6001-023

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Configuration Management for Passport

User Guide

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Contents

About this document

This document is a guide to defining, configuring and maintaining service data for a Passport node.

The following topics are discussed in this section:

Who should read this document and why

This document is intended for persons responsible for defining, configuring, and maintaining service data for a Passport node. Persons who install and engineer the Passport network can also use this guide.

What you need to know

Before you read this document, you need to be familiar with how to log on to the Preside Multiservice Data Manager (MDM) workstation and how to work with the user interface. An understanding of the Passport network and service data ia also helpful.

How this document is organized

This guide introduces the tools for Configuration for Passport Devices and how to start them. Subsequent sections provide information on using the various applications and tools.

241-6001-023 *Preside MDM Configuration Management for Passport User Guide* contains the following sections:

- "Introducing Configuration for Passport Devices" (page 23) briefly describes the tools in the Passport Devices Configuration toolset.
- "Starting Configuration for Passport tools" (page 29) describes the steps involved in logging on to a Preside Multiservice Data Manager (MDM) workstation and accessing a particular application.
- "Software Download and Configuration" (page 37) describes how the Software Distribution and Configuration application is used to upgrade, configure, and download software to the Passport network.
- "Component Provisioning" (page 83) describes how the Component Provisioning application is used to define, edit, and display service data.
- "Network Activation" (page 157) describes how the Network Activation tool is used to automate the activation process.
- "Global Data Manager" (page 211) describes how the Passport Global Data Manager command line tool is used to propagate global service data from a Passport switch to other selected switches and to replace attribute values.
- "Using HP OpenView NNM desktop" (page 225) describes how you can access the Passport Devices confiugration tools from the HP OpenView NNM desktop application.

For information on the nodal and service provisioning tools, see the following:

- for the Nodal Provisioning tool, see 241-6001-610 *Preside MDM Nodal Provisioning User Guide* and 241-6001-611 *Preside MDM Nodal and Service Provisioning Reference Guide*
- for Service Provisioning - ATM, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*

- for Service Provisioning - CES SVC, see 241-6001-602 *Preside MDM Service Provisioning for CES SVC User Guide*
- for Service Provisioning - Frame Relay, see 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*
- for Service Provisioning - IP -VPN Global Update, see 241-6001-601 *Preside MDM Service Provisioning for IP VPN Global Update User Guide*

For information on the Passport/SNMP Service Data Backup/Restore tool, see 241-6001-807 *Preside MDM Passport/SNMP Devices Backup and Restore User Guide*.

For information on the Inventory Reports tool, see 241-6001-808 *Preside MDM Device Inventory Tools User Guide*.

For information on the Network Reporting System, see 241-6001-022 *Preside MDM Network Reporting System User Guide*.

What's new in this document

There are no changes in this document for this release.

Text conventions

This document uses the following text conventions:

- `nonproportional spaced plain type`

  Nonproportional spaced plain type represents system generated text or text that appears on your screen.

- **nonproportional spaced bold type**

  Nonproportional spaced bold type represents words that you should type or that you should select on the screen.

- *italics*

  Statements that appear in italics in a procedure explain the results of a particular step and appear immediately following the step.

  Words that appear in italics in text are for naming.

- [optional_parameter]

  Words in square brackets represent optional parameters. The command can be entered with or without the words in the square brackets.

- <general_term>

  Words in angle brackets represent variables which are to be replaced with specific values.

- UPPERCASE,lowercase

  In Preside Multiservice Data Manager (MDM), uppercase and lowercase letters that appear in UNIX commands and parameters must be matched exactly. The system matches upper and lowercase characters differently.

- |

  This symbol separates items from which you may select one; for example, ON|OFF indicates that you may specify ON or OFF. If you do not make a choice, a default ON is assumed.

- ...

  Three dots in a command indicate that the parameter may be repeated more than once in succession.

The term absolute pathname refers to the full specification of a path starting from the root directory. Absolute pathnames always begin with the slash (/) symbol. A relative pathname takes the current directory as its starting point, and starts with any alphanumeric character (other than /).

Mouse function reference

When we want you to press and release the mouse button, we refer to it as *clicking*. Depending on the action to be taken, the text will read “click *select*” or “click *modify*”.

When you access a menu, you need to press and hold the mouse menu button down. After you select the menu option, you can release the mouse button. The text will read “press *menu*”.

The *Select* and *menu* mouse buttons also have window manipulation functions. See 241-6001-802 *Preside MDM User Interface Primer*.

Common dialogs

All Passport Devices configuration tools share dialogs that prompt you for action in the event of certain errors, questions, and warnings and in the processing of certain tasks.

Error dialog

There is an error. Click *OK* to close the dialog.

Question dialog

You need to respond before you can proceed. Click *Yes* to perform the action requested. Click *No* to proceed without performing the action requested.

Warning dialogs

You need to respond before you can proceed. Click *OK* to close the dialog.

Processing dialogs

Click *Stop* to confirm that you want to stop the task in progress.

Using the keyboard and online help

The following sections provide help on using the keyboard and the online help facilities in Configuration for Passport Devices.

Help on Keys

You can use the keyboard instead of the mouse to perform the default action in a dialog, to select a menu function, or to execute a command using a command shortcut.

Performing the default action

Some dialogs have a default (live) action button distinguished from the other buttons by the extra box around it. You can perform the default action by pressing the *Enter* key anywhere in the dialog.

Selecting a menu function

You can use mnemonics to perform any of the functions available from the menu bar. Mnemonics are single characters that uniquely identify a menu item. The mnemonic for each menu item is identified by an underscore.

You can use a mnemonic by pressing the F10 key and then entering the mnemonic string for the menu function you want to use. You can press the meta key and the mnemonic for the menu you want to access, followed by the mnemonic for the specific menu function.

For example, to invoke the *Authenticate* (mnemonic A) function on the *Options* (mnemonic O) menu, use either of the following key sequences:

- F10 O a
- Meta-O A

Using command shortcuts

The tool provides the following command shortcuts:

- *CTRL-E* to exit from the tool
- *Meta-H* to display help information for the dialog, menu item, or button that the cursor is currently on. When you press *Meta-H*, the cursor changes to a question mark symbol. Move the cursor to the item for which you want help. Press the *Select* button to display help information for the item.

Help on Help

One set of help information describes the anchor window. It gives a brief overview of the tool and has subsections that describe key parts of the main window. You can view it by pulling down the *Help* menu and selecting the *On Window* option.

Help for each menu is also available from the last entry on each menu, appropriately labelled *Help*.

One set of help information is available for each major dialog of the user interface. You can view the help information for a dialog by clicking the *Help* button for that dialog.

The *Context Help* button changes the mouse cursor into a question mark symbol. You then slide the cursor over the component for which you want to get help, and press the *Select* mouse button.

Related documents

See the following documents for related information:

- 241-6001-011 *Preside MDM Fault Management User Guide*
- 241-6001-012 *Preside MDM Configuration Management for DPN User Guide*
- 241-6001-022 *Preside MDM Network Reporting System User Guide*
- 241-6001-304 *Preside MDM Configuration Management for DPN Administrator Guide*
- 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*
- 241-6001-601 *Preside MDM Service Provisioning for IP VPN Global Update User Guide*
- 241-6001-602 *Preside MDM Service Provisioning for CES SVC User Guide*
- 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*
- 241-6001-610 *Preside MDM Nodal Provisioning User Guide*
- 241-6001-611 *Preside MDM Nodal and Service Provisioning Reference Guide*
- 241-6001-807 *Preside MDM Passport/SNMP Devices Backup and Restore User Guide*
- 241-6001-808 *Preside MDM Device Inventory Tools User Guide*
- 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*
- NN10600-605 *Passport - MDM Network Security: Operations*
- 241-5701-050 *Passport 7400, 15000, 20000 Commands*

Chapter 1
Introducing Configuration for Passport Devices

This section gives a brief overview of Configuration for Passport Devices. In this chapter, you can find the following information:

- "Passport Devices configuration tools" (page 23)
- "Date Convention" (page 28)

Passport Devices configuration tools

Configuration for Passport Devices is a set of tools used to manage Passport software and service data. It provides a human-readable presentation of Passport service data, which is stored in machine-readable format for maximum efficiency. It also provides a simplified logical presentation of operating parameters.

See the following for information on the Passport Devices configuration toolset submenu for managing Passport software and services.

- "Nodal Provisioning" (page 24)
- "Component Provisioning" (page 24) in
- "Service Provisioning" (page 24)
  - "ATM" (page 25)
  - "CES SVC" (page 25)
  - "Frame Relay" (page 25)
  - "IP VPN Global Update" (page 25)

- "Administration" (page 25)
  - "Passport/SNMP Service Data Backup/Restore" (page 26)
- "Software Download and Configuration" (page 26)
  - "Network Activation" (page 26)
- "Inventory Reports" (page 26)
- "Network Reporting System" (page 26)
  - See "Service Integrity Audit" (page 27)
  - "Configuration Reports" (page 27)
  - "Configuration Differences" (page 27)

See "Global Data Manager command line tool" (page 27) for information on a command line tool that is used with Configuration for Passsport Devices.

See "Connection Manager" (page 27) for information on a server process that is used with Configuration for Passport Devices.

Nodal Provisioning

You can use Nodal Provisioning to provision Passport components and selected services. For additional information, see 241-6001-610 *Preside MDM Nodal Provisioning User Guide*.

Component Provisioning

You can use Component Provisioning, a forms-based provisioning system, to define, edit, and display service data for a Passport node.

See "Component Provisioning" (page 83) for more information.

Service Provisioning

Service Provisioning contains the following menu items:

- "ATM" (page 25)
- "CES SVC" (page 25)
- "Frame Relay" (page 25)
- "IP VPN Global Update" (page 25)

ATM

ATM opens the ATM service provisioning application that allows you to provision ATM permanent virtual connections, soft permanent virtual connections, and selected Frame Relay to ATM connections (FRF.8 standard for service interworking (SIWF)). The tool populates the Administration Database with circuit data. For additional information, see 241-6001-600 *Preside MDM Service Provisioning for ATM User Guide*.

CES SVC

CES SVC opens the CES SVC service provisioning application that allows you to provision circuit emulation service over ATM switched virtual circuit connections. For additional information, see 241-6001-602 *Preside MDM Service Provisioning for CES SVC User Guide*.

Frame Relay

Frame Relay opens the Frame Relay service provisioning application that allows you to provision Frame Relay permanent virtual circuits between two Passport switches. TheAdministration Database is populated with circuit data.For additional information, see 241-6001-603 *Preside MDM Service Provisioning for Frame Relay User Guide*.

IP VPN Global Update

IP VPN Global Update opens the IP VPN Global Update service provisioning application which allows you to set up and perform global updating of a customer IP VPN, by using either a graphical user interface or a command line interface. For additional information, see 241-6001-601 *Preside MDM Service Provisioning for IP VPN Global Update User Guide*.

Administration

Administration contains the following items:

- “Passport/SNMP Service Data Backup/Restore” (page 26)
- “Software Download and Configuration” (page 26)
- “Network Activation” (page 26)

Passport/SNMP Service Data Backup/Restore

The Passport/SNMP Service Data Backup/Restore tool is a stand-alone tool for backing up and restoring the service data on selected devices. You can perform full, incremental, and selective backups and restores. See, 241-6001-807 *Preside MDM Passport/SNMP Devices Backup and Restore User Guide* for additional information

Software Download and Configuration

You can use Software Download and Configuration to configure, download, and upgrade software in the Passport network. You can obtain the software from a Software Distribution Site (SDS).

See "Software Download and Configuration" (page 37) for more information.

Network Activation

You can use Network Activation (NAT) to simplify and automate the activation process for multiple nodes in a network. For Passport, you can activate and commit a View using NAT.

See "Network Activation" (page 157) for more information.

Inventory Reports

The Inventory Reports item opens the Device Inventory tool. This tool lets you report on the hardware and software of selected devices in your network.

See 241-6001-808 *Preside MDM Device Inventory Tools User Guide* for more information.

Network Reporting System

Network Reporting System contains the following items:

- "Service Integrity Audit" (page 27)
- "Configuration Reports" (page 27)
- "Configuration Differences" (page 27)

Service Integrity Audit

You can use Service Integrity Audit to populate the Network Reporting System (NRS) database for DPN and/or Passport modules, and, optionally, to execute the NRS-based Service Integrity checks (NSICs), and to populate the Network Configuration Database (NCD). With Service Integrity Audit you retrieve the Passport View Files directly from the modules.

See 241-6001-022 *Preside MDM Network Reporting System User Guide* for more information about the Service Integrity Audit tool.

Configuration Reports

The Configuration Reports item opens the Configuration Report dialog that lets you produce simple configuration hierarchy reports.

See Configuration Report (xnrsdatah) in 241-6001-022 *Preside MDM Network Reporting System User Guide* for more details.

Configuration Differences

The Configuration Differences item opens the Configuration Differences dialog which lets you select two sets of configuration data and produce a report on the differences between the two configurations.

See Configuration Differences (xnrsdiff) in 241-6001-022 *Preside MDM Network Reporting System User Guide* for more details.

Connection Manager

You use the Connection Manager (CM) to manage your network connections. The CM Authentication dialog is displayed when you access any of the the tools for Passport Devices configuration.

See “The Connection Manager and authentication” (page 31) for more information.

Global Data Manager command line tool

You can use the Global Data Manager (pgdm), a command line tool, to propagate global data components from a Passport switch to other selected Passports or to replace the attribute values for the components during propagation. In addition, you can use pgdm to replace the attribute values for selected Passports in the network.

By allowing data to be copied and propagated, pgdm enables you to provision global data and to replace attribute values globally. Pgdm enables this more quickly than with Component Provisioning and with reduced risk of errors due to mistakes in keying in service data.

See “Global Data Manager” (page 211) for more information.

Date Convention

In this document you will often see dates in the format *yymmdd*. Such dates are used as parameters in certain line commands or appear in a dialog or as part of a file name.

To account for the year 2000 and beyond, Passport Devices configuration interprets 000101 as later than 991231. The base year has been chosen as 1980. This means 800101 precedes 900101 which precedes 000101 which precedes 790101. In other words:

```
if (yy < 80)
  year = 2000 + yy
else
  year = 1900 + yy
```

This means:

80 => 1980
90 => 1990
99 => 1999
00 => 2000
10 => 2010
79 => 2079.

Chapter 2
Starting Configuration for Passport tools

This section explains how you can access the Configuration Management tools for Passport devices. In this chapter, you can find the following information:

Capability privileges

To access Passport Devices Configuration tools, you need to have the correct capability privileges.

For more information on capability privileges, refer to the chapter on security in NN10600-605 *Passport - MDM Network Security: Operations.*

Opening a Configuration tool

1. In the Preside MDM window, select Configuration -> Passport Devices

   The Passport Devices Configuration toolset submenu is displayed.

2. Select the tool you want to use.

The tool's main window is displayed. If the Authentication dialog is displayed over the main window, see "The Connection Manager and authentication" (page 31) for more details.

Closing a Configuration tool

1 From the File menu in the title bar of the tool window, choose Exit.

The tool's main window closes.

Starting the Configuration tools from a UNIX shell

You can access command line applications by using the command line syntax from a UNIX shell.

Accessing UNIX

1 In the Preside MDM window, select System -> Utilities -> UNIX access.

The UNIX window is displayed.

2 Enter the command for the tool you want displayed.

For Software Download and Configuration the command is
/opt/MagellanNMS/bin/fsdui

For Component Provisioning the command is
/opt/MagellanMNS/bin/pui -falcon
For Passport/SNMP Devices Backup and Restore the command is
/opt/MagellanNMD/bin/nsui

For Service Integrity Audit the command is
/opt/MagellanNMS/bin/sisautui

For Network Activation the command is
/opt/MagellanNMS/bin/natui [-NAF <NAF_filename>]

The tool's main window appears. If the Authentication dialog is displayed over the main window, see "The Connection Manager and authentication" (page 31) for more details.

See 241-6001-802 *Preside MDM User Interface Primer* for more information about the Preside Multiservice Data Manager (MDM) workstation interface.

The Connection Manager and authentication

The Connection Manager (CM) is a server process residing on the Preside Multiservice Data Manager (MDM) workstation. The CM manages all the network connections that are created for your session. The CM displays the Authentication dialog when you access any of the Configuration tools.

Note: For CM set-up and administrator functions, see 241-6001-011 *Preside MDM Fault Management User Guide*.

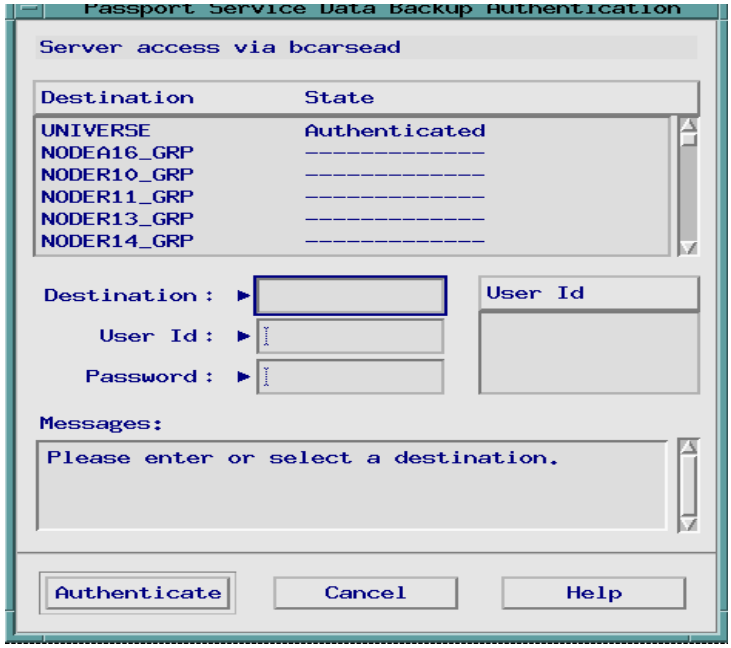
Authentication dialog

The Authentication dialog displays a list of network destinations and their connection states. Valid network destinations for Passport are Passport groups. You can select a Passport group from the destination list and enter a valid userid and password. Error messages are displayed in the message area. Upon successful network logon, the Authentication dialog automatically closes.

When you log off from the Preside Multiservice Data Manager (MDM), all network connections associated with your userid are shut down automatically by the CM. The CM allows only the tool that opened the network connection to close (disconnect) the connection. Accordingly, when you log off from your MDM session, the CM shuts down all the active network connections belonging to your userid.

See the figure “Authentication dialog” (page 32).

Figure 1
Authentication dialog



The Authentication dialog allows you to log on to a network destination, with a valid userid and password. This dialog provides the following information:

- *Server Host* displays the server host name. All network communications are performed through this host.
- *Destination list* lists all the network destinations that are available from the current server host. The destination is either a destination mnemonic name for the DPN network or a group name for the Passport network. Select a destination to set the *Destination* field and populate the *User Id list*. Double-click on the *Destination list* to set the destination and perform the authentication (you need to supply a userid and password first). The destination state is *Authenticated* if authentication data is available for the destination.

- *User Id list* lists all previously authenticated userids associated with the selected destination. It allows you to reuse authentication data. Select a userid to set the *User Id* and *Password* fields. Double-click on the userid to set the *User Id* and *Password* fields and perform the authentication action.
- *Destination* allows you to manually enter the destination in this field or select one from the *Destination* list.
- *User Id* allows you to manually enter the userid in this field or select one from the *User Id list*.
- *Password* allows you to manually enter the password in this field or select one, along with a userid, from the *User Id list*.
- *Message* displays messages related to the current authentication request.
- *Authenticate* performs the authentication. The dialog closes upon successful completion. Otherwise, an error message is displayed in the *Message* area. You can choose to alter parameters and try again or to cancel the request.
- *Cancel* closes the dialog without performing an authentication request.

See "Selecting a Passport group" (page 33) for information on completing the Authentication dialog.

Performing authentication

The following procedure shows how you perform authentication by logging on to the network through a Passport group.

Selecting a Passport group

1. In the Authentication dialog, enter the *Destination* manually or select one from the *Destination list*. The destination must be a Passport group.

   The selected destination is displayed in the Destination area.

2. Enter your userid and password.
3. Click *Authenticate* or press the return key.

   If the authentication fails, an error message is displayed. Otherwise, the Authentication dialog closes and the main window of the tool is displayed.

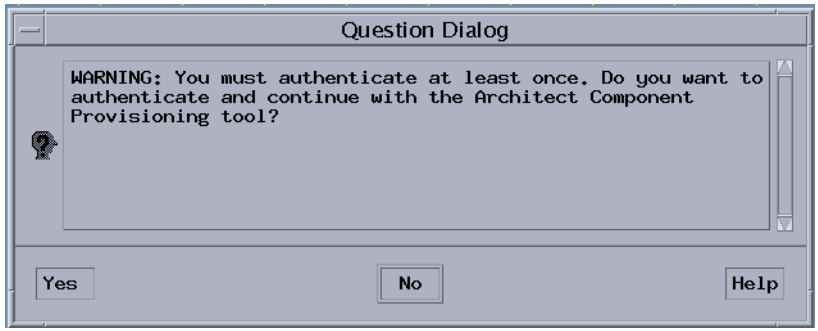
If you click *Cancel* for the “Software Download and Configuration” or “Component Provisioning”, see “Authentication warning dialog” (page 34).

Authentication warning dialog

The Authentication warning dialog is displayed when you cancel the authentication process for the Configuration tools “Software Download and Configuration” and “Component Provisioning”. It indicates that the tool cannot communicate with the network until authentication is successful.

See the figure “Authentication warning dialog” (page 34).

Figure 2
Authentication warning dialog



Click *Yes* to re-display the Authentication dialog.

If you click *No*, the Configuration application session is terminated.

Performing re-authentication

During a session it may become necessary to change the Passport group you are working with. You do this by performing the authentication process again. When re-authentication takes place, the current connection is closed.

Redisplay the Authentication dialog by clicking *Authenticate* from the Security menu of the Configuration tool you are working in. From there, follow the process described in “Selecting a Passport group” (page 33).

Enabling log files

A log file contains processing and error messages that are produced by the application. Logging can be enabled by means of the graphical user interface, command line, or command file.

If the *-log* option is specified in the command file or on the command line, the output is directed to the log file and to *stdout/stderr*. The same messages are displayed in both. If the log file already exists, the new data is appended to the file. If the log file does not exist, a new one is created.

If two or more applications are running concurrently, the log file may be locked by one of the applications. The other applications wait and retry the lock later. If the maximum number of lock retries is exceeded, the application is aborted.

For more information on command line syntax and the number of lock retries permitted, see the individual tool sections in this guide.

Using the keyboard

For all Passport Devices configuration tools, you can use the keyboard instead of the mouse to perform the default action in a dialog, select a menu item, or execute a command by using an accelerator.

Performing the default action

Dialogs have a default action button that can be distinguished from other buttons in the dialog by the highlight box around it. The default action is performed when you press the *Return* key while keyboard focus (the cursor) is in the dialog.

Menu items

Mnemonics are single characters that uniquely identify a particular menu item. Mnemonics can be used to perform any function on the menu bar. The single character that selects a given menu item is shown by an underscore under that letter in the name of the menu item.

You can use mnemonics by pressing the F10 key, entering the mnemonic for the menu, and then entering the mnemonic for the entry you want to use; or by pressing the meta key with the mnemonic for the menu you want to access, followed by the mnemonic for the specific menu item.

For example, to use the Authenticate (mnemonic A) item in the Security (mnemonic S) menu, use either of the following key sequences:

- F10 S A
- META+S A

Command accelerators

The Configuration tools provide the following accelerators:

- *Ctrl+E* closes the tool.
- *Shift+Help* changes the cursor into a pointer in the shape of a question mark. You can access specific help for a window object by placing the cursor over the object and pressing Select.

Chapter 3
Software Download and Configuration

This section describes the Software Download and Configuration tool and the procedures for using it. In this chapter, you can find the following information:

The Software Download and Configuration tool

Software Download and Configuration allows you to configure, download, and upgrade software in the Passport network. You can use 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*, as a reference when performing the procedures in this chapter. This document discusses the concepts and components associated with configuring a Passport network and provides information on transferring software onto the Software Distribution Site (SDS).

The Passport Software Download and Configuration tool resides on an Preside Multiservice Data Manager (MDM) workstation. It uses the Connection Manager (CM) services to establish the connection to the Passport system; it uses services provided by other processes to modify the service data view and to send commands to the Passport.

See also...

- “About Passport software” (page 38)
- “Software Download and Configuration main window” (page 40)
- “Software Download and Configuration dialogs” (page 47)
- “Software Download and Configuration procedures” (page 56)

About Passport software

A Passport module can hold up to 16 processor cards. Each processor card is identified by its slot number. To load software for Passport processor cards, define the feature (service) and version supported on each processor card in the service data view.

The application version list (AVL) is a provisionable attribute of the Passport software component. The AVL contains a list of application versions installed (or to be installed) on a Passport module. Only one logical processor type (LPT) is associated with the control processor (CP) and the name *CP* is reserved for this LPT. A logical processor (LP) represents the entire body of software to be run on a processor card. Because an LP is a logical entity, it can be mapped to any processor card according to your configuration. An LP can be mapped to one processor card as the main (active) card for supporting a service, and to a standby card for backup should the main card fail. See 241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide* for more information on installing Passport software.

The following is a summary of provisionable attributes related to the software configuration of an LPT, an LP, and a Card. See 241-7501-210, Passport Components for more information on provisionable attributes.

LPT

The attributes are as follows:

- *Feature List:* A list of features (services) loaded (or to be loaded) on the processor.
- *System Configuration:* Configuration parameters on start-up.
- *Comment Text:* An arbitrary string that can be used to describe the LPT.

LP

The attributes are as follows:

- *Main Card:* The main processor card to which this LP is assigned.
- *Spare Card:* The backup processor card (if a spare processor card is available) to which this LP is assigned.
- *Logical Processor Type:* This is the LPT that specifies which software this LP will run.
- *Customer Identifier:* The Passport Customer Identifier of the LP.

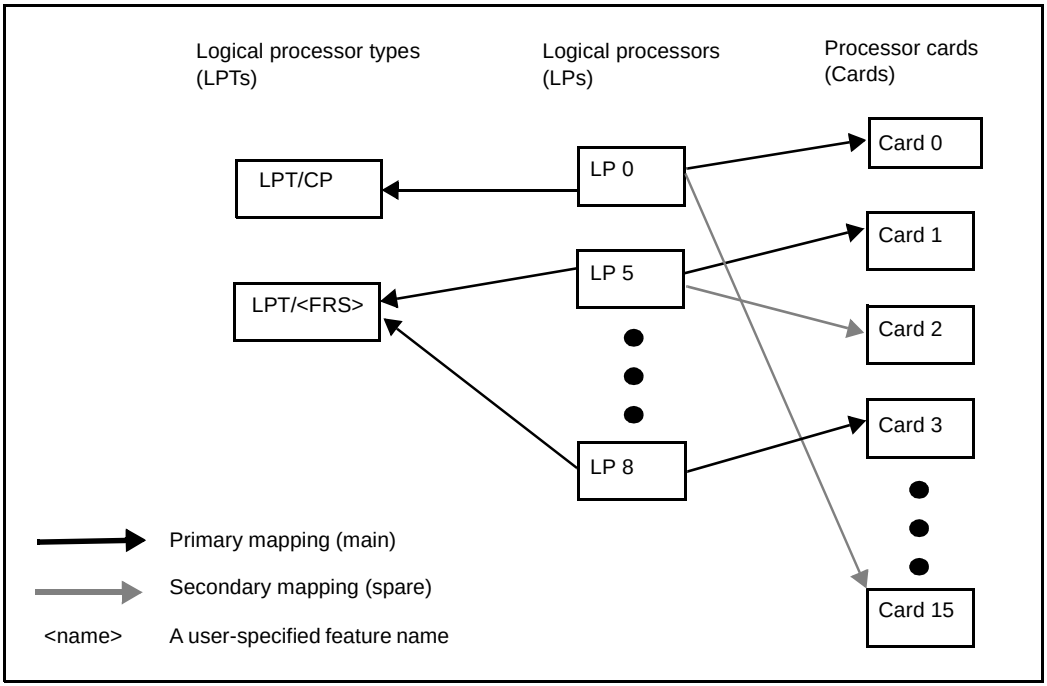
Card

There is only one provisionable attribute:

- CardType: Indicates the type of card expected to match the hardware.

The figure “Relationships among cards, LPs, and LPTs” (page 40) shows the relationships among processor cards, LPs, and LPTs.

Figure 3
Relationships among cards, LPs, and LPTs



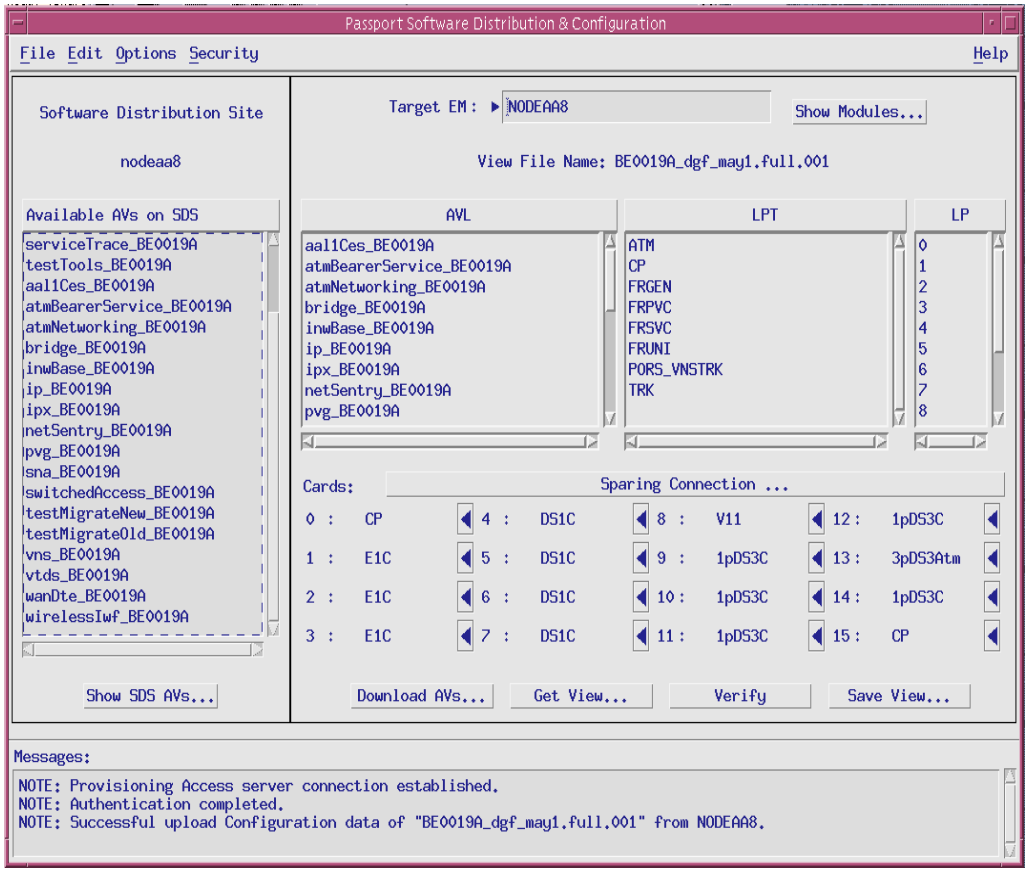
Software Download and Configuration main window

See the following sections for information on the parts of the Software Download and Configuration main window:

- “Menu bar” (page 41)
- “SDS data area” (page 43)
- “Target EM data area” (page 44)
- “Messages area” (page 47)

See the figure “Software Download and Configuration main window” (page 41).

Figure 4
Software Download and Configuration main window



Menu bar

The menu bar is located at the top of the Software Download and Configuration main window. See the following sections for information on the menu bar entries:

- “File menu” (page 42)
- “Edit menu” (page 42)

- "Options menu" (page 42)
- "Security menu" (page 43)

File menu

The *Exit* command closes all windows. You receive a warning if the configuration data is altered but not saved.

Edit menu

The *Edit* menu gives you access to the following dialogs:

- *Add LPT* Opens the Add LPT dialog. This command is enabled when a yoiu have established a SDS connection and the view is uploaded.
- *Add LP* Opens the Add LP dialog. This command is enabled when a you have established an SDS connection and the view is uploaded.

Options menu

The *Options* menu gives you access to the following dialogs:

- *Run Command File* displays the *Command File* dialog. Use this dialog to run an existing command file. This function is enabled if the authentication is completed.
- *Enable Download Address Selection* lets you choose a different defined address. By default, the LAN address of the SDS is used to download software. When the *download AVs* or *save view* function is invoked, an SDS Address Selection dialog is displayed to retrieve the SDS address. The defined address can be kept in a configuration file that contains many entries with the following format:

  ```
  <SDS LAN address> <Passport IP address> <IP/XVC
  address>
  ```

  The configuration file is named *fsdcfg.data* and stored under the */opt/MagellanNMS/data* directory.

- *Disable Download Address Selection* uses the LAN address of the SDS to download the software.

  You can toggle between the *Enable* and *Disable* options by clicking the current option.

- *Enable Force Download AVs* forces a download of the software even if it already exists on the Passport disk.
- *Disable Force Download AVs* performs a check to determine if the software to be downloaded already exists on the Passport disk. If it does exist, the download is not performed.

  You can toggle between the *Enable* and *Disable* options by clicking the current option.

Security menu

Authenticate displays the Authentication dialog. You use this dialog to enter the authentication information that gives you access to the target Passport.

SDS data area

The SDS data area contains the “Available AVs on SDS list” (page 43). The AV name is a concatenation of the application name and its version level (separated by an underscore character). For example, *trunks_AB04v*.

To retrieve this list, click the “Show SDS AVs button” (page 43).

Available AVs on SDS list

This is a list of available application versions (AVs) on the Software Distribution Site (SDS). It is a multi-select list, and each list item is the name of an AV. The AV name is a concatenation of the application name and its version level (separated by an underscore character).

List item functions:

- *Update AVL* lets you update the selected AVs.
- *Show Patch List* displays all of the available patches on the SDS for the selected AVs.

Show SDS AVs button

Click this button to retrieve a list of available AVs on the SDS disk.

A dialog is displayed, requesting the information necessary to log on to the SDS.

Target EM data area

This section contains details on the target EM (enterprise module). An EM is a Passport module.

See also...

- "Target EM name field" (page 44)
- "Show Modules button" (page 44)
- "AVL (application version list)" (page 44)
- "LPT (logical processor type) list" (page 45)
- "LP (logical processor) list" (page 45)
- "Sparing Connection button" (page 46)
- "Cards" (page 46)
- "Download AVs button" (page 46)
- "Get View button" (page 46)
- "Verify button" (page 47)
- "Save View button" (page 47)

Target EM name field

Enter the Passport name in this field, or invoke the *Show Modules...* function to get a list of the Passport names.

Show Modules button

Click this button to get a list of Passport modules accessible in the current Passport group. This button is enabled if authentication is completed.

See also...

- "Passport Module List dialog" (page 48).

AVL (application version list)

The AVL is a single-select list. It holds the versions of each application that can run on the Passport module. Each list item contains the name of an application version (AV), which is a concatenation of the application name and its version level (separated by an underscore character).

List item functions:

- *Show Compatible AVs* displays a list of all AVs that are compatible with the selected AV in the AVL. The AVs in this dialog can be selected and added to the AVL.
- *Show Patch List* displays a dialog that lists the following patches: all of the available patches on the SDS for the selected AV, and all of the provisioned patches in the view file that you loaded. From this dialog you can display another dialog that lists any prerequisite patches for the patches you are going to provision. These dialogs let you provision the prerequisite and selected patches in the view file.
- *Delete* deletes the selected AV from the AVL.

LPT (logical processor type) list

The LPT list is a single-select list, where each list item holds the name of a logical processor type (LPT) that specifies the characteristic of the software that needs to be loaded on a processor card.

> ***Note:*** Only one LPT is associated with the CP, and the LPT name *CP* is reserved for this LPT.

List item functions:

- *Add LPT* adds a new LPT.
- *Delete* deletes the selected LPT.
- *Edit* modifies the selected LPT.
- *View* lets you view the selected LPT but not edit it.

LP (logical processor) list

The LP list is a single-select list where each list item holds a logical processor number.

List item functions:

- *Add LP* adds a new LP.
- *Delete* deletes the selected LP.

- *Edit* enables you to modify the selected LP.
- *View* lets you view the selected LP but not edit it.

Sparing Connection button

Click this button to display a dialog that allows you to set one-for-n sparing connections. This button is not available for Passport releases prior to 5.0.

See also...

- "Sparing Connections dialog" (page 51)

Cards

You can use this area to display and modify the cards of an uploaded Passport view. The CP slots in this area are set according to the type of Passport you are configuring, for instance, first slot and last slot for the Passport 7000 series and slots 0 and 1 for the Passport 15000.

This area is enabled when the configuration data is uploaded. Use the associated data selector to select the CardType.

Download AVs button

Click this button to download selected AVs from the SDS to the target Passport module. This button is enabled when the *Available AVs on SDS* list and *Target EM* name field are both not empty. You need to select at least one AV from the *Available AVs on SDS* list. Optionally, you can specify an SDS IP address that can be used for software downloading by selecting the *Enable Download Address Selection* entry from the Options menu.

Get View button

Click this button to load a specific provisioning data file that contains the software configuration data into the editing view from the target Passport module. The software configuration data consists of the software/application version list (AVL), the logical processor type (LPT), the logical processor (LP), and the cards.

A dialog is displayed to obtain parameters used for loading the view.

See also ...

- "Get View Parameters dialog" (page 52)

Verify button

Click this button to perform semantic checks for the configuration data. This button is enabled if the configuration data is uploaded.

Save View button

Click this button to save the modified software configuration data back to the target Passport module.

A dialog is displayed to obtain parameters used for saving the software configuration data.

See also...

- “Save View Parameters dialog” (page 53)

Messages area

Messages generated by Software Download and Configuration in the course of its operations are displayed in this area. The text field is scrollable so that you can read previous messages.

Software Download and Configuration dialogs

See the following sections for information on Software Download and Configuration dialogs:

- “Passport Module List dialog” (page 48)
- “Patch List dialog from the Available AVs on SDS” (page 48)
- “Patch List dialog from the AVL” (page 48)
- “Prerequisite Patch List dialog” (page 49)
- “Logical Processor Type dialog” (page 49)
- “Logical Processor dialog” (page 50)
- “Sparing Connections dialog” (page 51)
- “Get View Parameters dialog” (page 52)
- “Save View Parameters dialog” (page 53)
- “SDS Address Selection dialog” (page 54)
- “SDS Authentication dialog” (page 54)

- "Processor Targets dialog" (page 55)
- "Command File dialog" (page 55)

Passport Module List dialog

The Passport Module List dialog is displayed when you click the *Show Modules* button. It is used to display a list of Passport modules accessible from the current Passport group. It consists of:

- *Filter* data entry field that allows you to condense the list of Passport modules.
- List of accessible Passport modules.
- *Target EM* field that displays the Passport module you select from the list.

The buttons are:

- *OK* places the name of the Target EM in the Target EM name field on the main window.
- *Cancel* closes the dialog.

Patch List dialog from the Available AVs on SDS

This dialog lists all the available patches on the SDS for all of the AVs you selected on the Available AVs on SDS list. This dialog is for display purposes only.

Patch List dialog from the AVL

From this dialog you can provision selected patches. The column *Patches from SDS* lists all the available patches on the SDS for the AV you selected on the AVL (application version list).

The column *Provision Patch List* lists by default all the patches that are provisioned in the view file you uploaded. The patches listed under *Provision Patch List* are the patches that you can provision. You can provision a patch more than once.

Press the mouse menu button under *Patches from SDS* to display the option *Add to Provision Patch List*. This option copies the selected patch to the *Provision Patch List* column, where you can provision it.

Press the mouse menu button under *Provision Patch List* to display the options *Show Prerequiste patches* and *Delete*. *Show Prerequisite patches* displays the Prerequite Patch List dialog, which lists the patches you need to provision before you can provision the selected patch in the *Provision Patch List*. *Delete* deletes the selected patch from the *Provision Patch List*.

The buttons are:

- *Accept Provision List* provisions the patches in the *Provision Patch List.* The patches are activated when the view file is activated.
- *Cancel* closes the dialog without provisioning the patches.

Prerequisite Patch List dialog

This dialog lists all the patches you need to provision before provisioning the patches you selected in the Patch List dialog from the AVL.

The buttons are:

- *Provision All* provisions all the prerequisite patches. The patches are activated when the view file is activated.
- *Cancel* closes the dialog without provisioning the patches.

Logical Processor Type dialog

The Logical Processor Type dialog is used to create a new logical processor type (LPT) or modify an existing one, and consists of:

LPT Name:	The LPT name. Only one LPT is associated with the CP, and the LPT name *CP* is reserved for this LPT.
System Configuration:	The Passport system requires some configuration parameters on start-up. The combinations of possible settings are predefined and each possible setting has a name associated with it. Select the System Configuration combination by using the data selector.

Comment Text:	An arbitrary string that can be used to enter a comment on the LPT.
LPT Features list:	Consists of a list of features that you need to load on the processor.
Available Features list:	Consists of a list of available features you can be select and add to the LPT Features list.
Referenced LPs:	A read-only list that shows which logical processors (LP) are currently referencing this LPT.
OK button:	You can use this button to add the LPT in the LPT list and close the dialog if all of the mandatory fields are not empty.
Show Features button:	Displays the available features in the Available Features list.
Cancel button:	You can use this button to discard the changes and close the dialog.
Verify button:	Performs the LPT semantic checks. Errors, warnings, and informational messages are displayed in the *Messages* area.

Logical Processor dialog

The Logical Processor dialog is used to create a new logical processor (LP) or modify an existing one, and consists of:

LP Number:	Use the data selector to select the LP number.
Customer Identifier:	The LP's Passport Customer Identifier, which is compatible with DPN, DPN-100 NetMan, and Basic CIDs.

Main Card: The preferred processor card onto which you need to assign this LP.

Spare Card: The spare processor card onto which you need to assign this LP.
LP/0 needs to reference only the first card or last card for Passport 7000 series, and only cards 0 or 1 for the Passport 15000. Both need to have CardType CP.
Main and Spare card numbers need to be different.
Main and Spare CardTypes must match.

Referenced LPT: The LPT name that determines which software this LP runs. You can use the data selector to select the LPT name.
LP/0 needs to reference LPT/CP.

Cancel button: You can use this action button to discard the changes and close the dialog.

OK button: You can use this action button to add the LP in the LP list and close the dialog.

Verify button: Performs the LP semantic checks. Errors, warnings, and informational messages are displayed in the Messages area.

Sparing Connections dialog

The Sparing Connections dialog allows you to set sparing connections using one-for-n sparing. One-for-n sparing enables you to protect multiple main function processors (FPs) with a single spare FP. For more information on this feature, see 241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide*.

The dialog allows you to assign one spare for up to four main cards. There is an entry for each of the 16 card slots you may have in a Passport shelf. You can set sparing connections on any slots except those reserved for control processors (CPs). You cannot perform one-for-n sparing on CPs.

Pressing the menu button, while the arrow is on the arrow symbol to the right of a slot, displays a list of options that allows you to designate the card as a spare or one of the four main cards. The option *notApplicable* means you cannot use one-for-n sparing for this card.

The buttons are:

- *OK* keeps your changes and closes the dialog.
- *Verify* runs semantic checks. Errors, warnings, and informational messages are displayed in the Messages area.
- *Cancel* discards your changes and closes the dialog.

Get View Parameters dialog

These parameters are used in loading the software configuration data into the editing view, which contains the software/application version list (AVL), the logical processor type (LPT), the logical processor (LP), and the cards.

The mode indicates the search mode that the tool uses to find the name of the provisioning data file. You can select one of the following modes:

User Specified: Enables you to specify if a particular provisioning data file is to be loaded. You need to specify the file name in the data entry field.

Keyed: Enables you to specify that a key is used to search for the provisioning data file to be uploaded. You need to specify a key in the data entry field; it can be made up of letters, digits, and underscores. The key cannot begin with an underscore and cannot exceed six characters.

Dated: Enables you to specify that a date key is used to search for the provisioning data file to be loaded. You need to specify a valid date in the format *yymmdd* in the data entry field. See “Date Convention” (page 28) for more information on the date format.

Committed: Loads the committed provisioning data file on the Passport. No data entry field is associated with this mode.

Current: Loads the current view on the Passport. No data entry field is associated with this mode.

Edit: Loads the edit view on the Passport. No data entry field is associated with this mode.

The buttons are:

- *OK* loads the specified provisioning data file from the Passport module.
- *Cancel* closes the dialog.

Save View Parameters dialog

Enter the save mode in this area. The parameters are used when saving the provisioning data file.

Save view mode indicates the mode that the tool uses to name the newly modified provisioning data file. You may select one of the following:

User Specified: Enables you to specify the name that the provisioning data file is saved as. You need to specify the file name in the data entry field.

Keyed: Enables you to specify the key to be used to name the new provisioning data file to be saved. You need to specify a key in the data entry field; it can be made up of letters, digits, and underscores. The key cannot begin with an underscore, and cannot exceed six characters.

Dated: Enables you to specify that a date key is used to search for the provisioning data file to be saved. You need to specify a valid date in the format *yymmdd* in the data entry field. See “Date Convention” (page 28) for more information on the date format.

The options are:

- *Perform MDM-Semantic Checks* performs semantic checks before sending a request to save the provisioning data file.
- *Perform On-Switch Semantic Checks* requests the target Passport to perform the semantic checks before saving the provisioning data file.

The buttons are:

- *OK* saves the modified configuration data back to the target Passport module.
- *Cancel* closes the dialog.

SDS Address Selection dialog

The Internet protocol (IP) address of the SDS can be configured with a different value than the LAN address of the SDS. The address defined in this dialog is used by the target Passport to get the software from the SDS. If the downloading of software is successfully completed, and if this defined address is different from the LAN address of the SDS, then it is saved in the configuration file.

SDS Authentication dialog

The SDS Authentication dialog requests the information required to log on to the Software Distribution Site (SDS). It also retrieves the application versions (AVs) that will be displayed on the Available AVs on SDS list. It consists of:

- Host data entry field
- User ID data entry field
- Password data entry field
- Application version data entry field that allows wild cards

The buttons are:

- Skip MDM Validation button lets you bypass the Preside Multiservice Data Manager (MDM) validation of the Passport software. Enabling this button limits the provisioning capabilities of the tool so that all provisioning options, except provisioning a change in the AV application version, are disabled.

  When you enable Skip MDM Validation, the Verify button, the Cards area in the main window and all LPT and LP functions, except View, are disabled

- *OK* logs on and retrieves a list of available AVs.
- *Cancel* closes the dialog.
- *Help accesses the on-line help*

Processor Targets dialog

The Processor Targets dialog is displayed when you click the Download AVs button on the Software Download and Configuration main window. Use this dialog to select the type of CPU or CPUs (central processing unit), i960 or ppc, for the sofware you download. The OK button starts the software download process. The Cancel button cancels the software download process.

Command File dialog

The Command File dialog is used to specify and run a command file and it consists of:

IP Address:	This Software Distribution Site (SDS) information is used by the Passport to log on to the SDS.
User ID:	This SDS information is used by the Passport to log on to the SDS.
Password:	This SDS information is used by the Passport to log on to the SDS.

Command File Name:	Enter the name of the command file in this field (Include the path if the file is not in your home directory).
Log to file button:	Check this item to turn logging off. Logging is on by default.
Log File Name:	This field appears if the log option is turned on. Enter the name of the file to which log messages are written. Include the path if the file is to be stored in a directory other than your home directory.
Run Command File button:	Click this button to run the specified command file.
Cancel button:	Click this button to close the dialog. The command file is not executed.

Software Download and Configuration procedures

See the following sections for information on the Software Download and Configuration procedures:

Configuring the Software Distribution Site address

Note: The software for Passport 7000, Passport 15000, and Passport 20000 may be available from the same Software Distribution Site (one IP address) as long as different user IDs, with different SDS home directories are configured for each.

The LAN address of the Software Distribution Site (SDS) is used to retrieve the application control files. To download the software, Software Distribution requests the Passport download process to retrieve software from the SDS using the address provided by Software Distribution. Under normal configuration, the SDS LAN address is used by both Software Distribution and the Passport download process.

The SDS can also be configured to communicate with the Passport using an address that is different from its own LAN address, that is, the SDS has multiple virtual circuits (VCs). The Passport is unable to reach the SDS if the SDS LAN address, which is provided by Software Distribution by default, is used.

In this configuration, you need to provide the address of the SDS that is used to communicate with the Passport (referred hereafter as SDS-Passport address), not the SDS LAN address. This can be done by using the "Enable Download Address Selection" menu and an optional user-defined configuration file.

The SDS-Passport address can be predefined in an editable configuration file called */opt/MagellanNMS/data/fsdcfg.data*. Each line in the file specifies SDS addresses and associated Passport address.The file has the following format:

```
<SDS LAN address> <Passport address>
<SDS-Passport address>
```

where:

`<SDS LAN address>` is the SDS address.

`<Passport address>` is the Passport address.

`<SDS-Passport address>` is the address used by the SDS to communicate with the Passport.

You need to specify the address in IP format (for example, 123.1.1.1).

When the *Enable Download Address Selection* option is set on and the *Download AVs* or *Save View* options are selected, a dialog is displayed requesting the SDS-Passport address. By default, the SDS LAN address is shown as the SDS-Passport address if the SDS-Passport address is not defined in the configuration file. The SDS-Passport address display can be changed; the configuration file is updated with new address information after the operation is successfully performed.

When the *Enable Download Address Selection* option is not selected, and the *Download AVs* or *Save View* option is selected, the SDS LAN address is used.

See also...

- “SDS Address Selection dialog” (page 54)
- “SDS Authentication dialog” (page 54)

Configuring the Passport module

The following steps must be performed to configure a Passport module:

1 Specify a Passport Group.

See “Performing authentication” (page 59).

2 Specify a target Passport.

See “Specifying a target Passport” (page 59).

3 Retrieve a list of available AVs on the SDS.

See “Listing Application Versions on SDS” (page 60).

4 Upload a view.

See “Getting a view” (page 61).

5 Add required application versions (AV) into the AVL area.

See “Updating an application version list” (page 62).

6 Provision any required software patches.

See “Provisioning a software patch” (page 63).

7 Configure the LPTs, LPs, and cards.

See “Editing a logical processor type (LPT)” (page 65), “Editing a logical processor (LP)” (page 67), and “Editing a processor card” (page 70).

8 Save the modified view.

See “Saving the modified view” (page 71).

Performing authentication

When the Software Download and Configuration application is started, the Connection Manager (CM) is invoked. The Passport group containing the target Passport node needs to be identified and authenticated before the session can continue. See “Selecting a Passport group” (page 33) for more information.

Specifying a target Passport

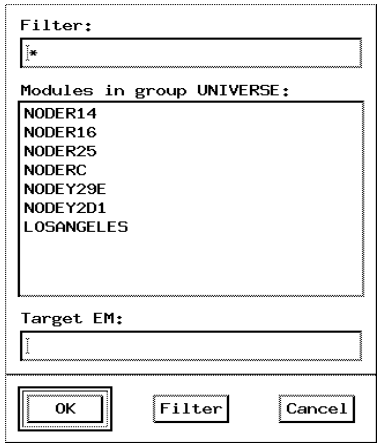
You need to specify a target Passport before you perform any configuration or download functions. There are two methods of specifying a target Passport.

1 Enter the Passport name in the Target EM area in the main window.

OR

Click *Show Modules* in the main window.

The Passport Module List dialog is displayed.



A list of modules associated with the Passport group specified in the authentication window is displayed.

2 To condense the list of module names, enter a filter in the *Filter* data entry field.

3 Click *Filter*.

A list of modules containing the data specified in the filter is displayed.

4 Select the module.

The selected module name is displayed in the Target EM data entry field.

5 Click *OK.*

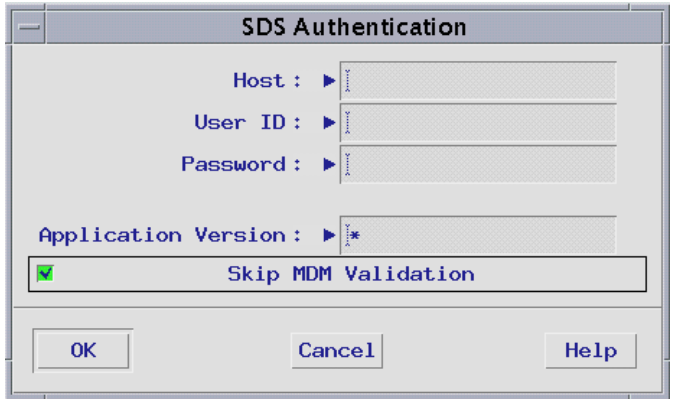
This dialog is closed and the selected module name is displayed in the Target EM area.

Listing Application Versions on SDS

To configure or download software, you need to retrieve a list of available AVs on the Software Distribution Site (SDS). After the main window is displayed and authentication is successfully completed, perform the following steps to retrieve a list of AVs available on the SDS.

1 Click Show SDS AVs on the main window.

The Authentication dialog is displayed, requesting the information necessary to log in to the Software Distribution Site (SDS).



2 Enter the Host, User ID, and Password of the SDS.

3 You can use the *Application Version* data entry field to specify search criteria for the AVs. This customizes the AVs listed in the *Available AVs on SDS* area in the main window.

4 Click OK.

An FTP connection to the SDS is established and the application version control files are retrieved. An FTP connection is established even if the SDS is on the same workstation. The application names and their version numbers are displayed in the Available AVs on SDS area in the main window.

Note: You can bypass the MDM Validation of the Passport software by enabling the Skip MDM Validation button. If you do this, your provisioning capability is limited to provisioning a change in the AV application version.

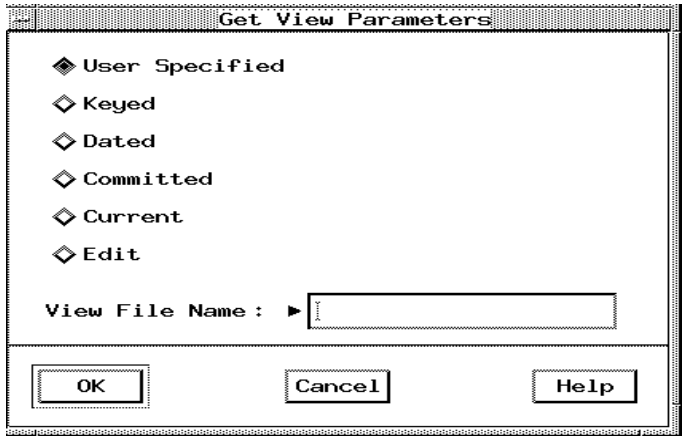
Getting a view

The Get View Parameters dialog is used to specify the search mode that the Software Distribution and Configuration application uses to find the name of the service data view.

1 Specify the Target EM on the main window using one of the two methods described in “Specifying a target Passport” (page 59).

2 Click Get View... .

The Get View Parameters dialog is displayed.



3 Specify upload view parameters by selecting the appropriate radio button and filling in the data entry field where applicable.

4 Click OK.

The tool establishes a provisioning session with the Passport and tries to retrieve the data for the AVLs, LPTs, LPs, and cards specified in the service data.

Note: You can configure AVLs, LPTs, LPs, and cards only when they are displayed in the *Available AVs on SDS* area.

The View File Name is displayed under the Passport Name.

Updating an application version list

After the *Available AVs on SDS* list is retrieved and a view is uploaded, perform the following steps to update an application version list (AVL).

1 Select the appropriate AVs from the Available AVs on SDS list.

2 Press the mouse menu button in the Available AVs on SDS area in the main window and choose Update AVL.

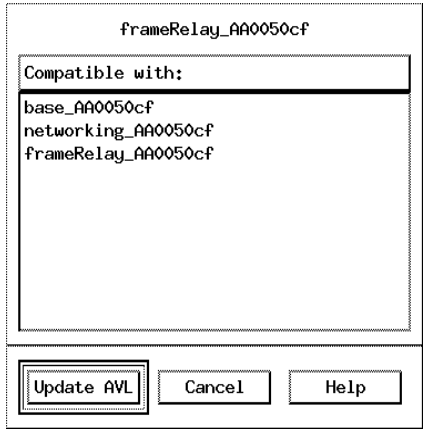
The selected AV name is displayed in the AVL area of the main window.

OR

3 Select an AV in the AVL area.

4 Press menu in the AVL area and choose Show Compatible AVs.

A dialog displays a list of all AVs compatible with the AV selected in the AVL.



5 Select one or more AVs from the list.

6 Click *Update AVL*.

The selected AV names are displayed in the AVL area of the main window.

Provisioning a software patch

1 Specify a target Passport. See “Specifying a target Passport” (page 59).

2 Retrieve a list of available AVs on the SDS. See “Listing Application Versions on SDS” (page 60).

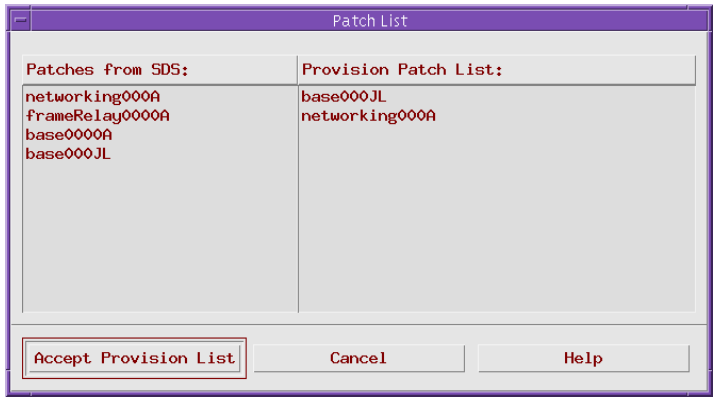
3 Retrieve the required view file. See “Getting a view” (page 61).

4 Make sure the appropriate AVs are listed in the AVL (application version list). See “Updating an application version list” (page 62) if you need to add any AVs to the AVL.

5 In the AVL, select the AV with the patch to be provisioned.

6 Press the mouse menu button in the AVL and select Show Patch List.

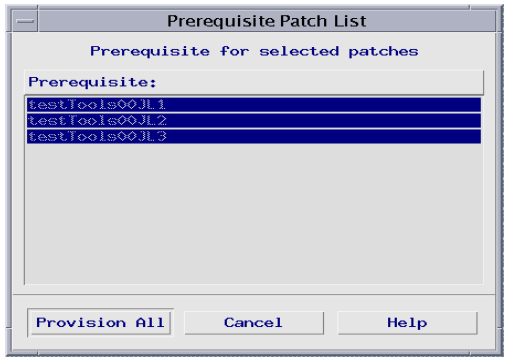
The Patch List dialog from the AVL opens.



7 For any patch listed under Patches from SDS that you want to provision, select it, press the mouse menu button, and select Add to Provision Patch List.

8 For any patch listed under Provision Patch List that you do not want to provision, select it, press the mouse menu button and select Delete.

9 To check if an entry in the Provision Patch List has any prerequisite patches, select it, press the mouse menu button, and select Show Prerequiste patches. The Prerequisite Patch List dialog opens.



10 If there are any entries listed in the Prerequisite Patch List dialog, click Provision All to provision them in the view file and close the dialog. The entries are added to the Provision Patch List in the Patch List dialog from the AVL.

11 Click Accept Provision List to provision the patches in the view file and close the dialog.

12 Repeat steps 5 to 11 for every AV that requires a patch. The patches are activated when the view file is activated.

Editing a logical processor type (LPT)

You can perform the following steps (create, modify, or delete) to a logical processor type (LPT).

Before you edit a logical processor type, ensure that you have done the following:

- connected to the Software Distribution site
- obtained a view from the Passport node that you are planning to upgrade
- selected the features (AV)s that you want to upgrade and updated them. See, “Updating an application version list” (page 62)

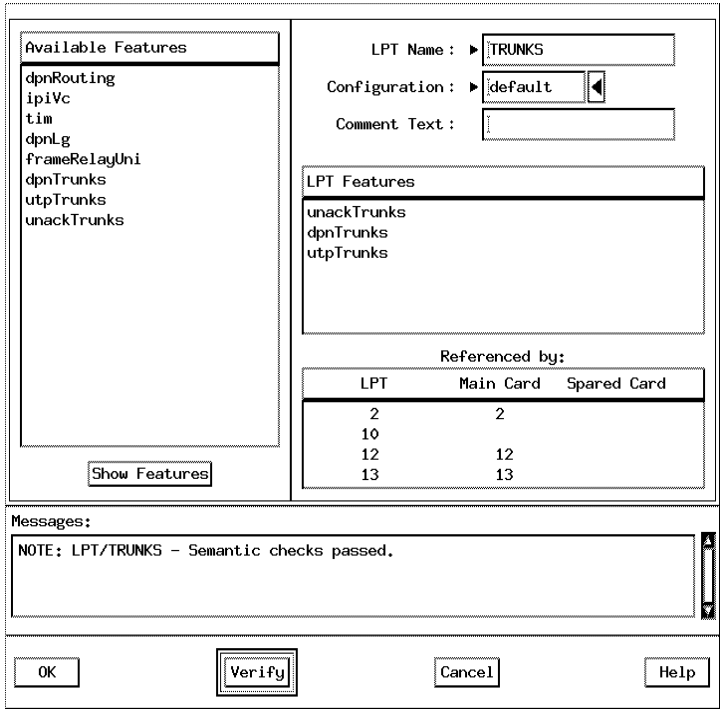
Creating a new LPT

1 Press *menu* in the *LPT* area header in the main window and choose Add LPT.

OR

From the *Edit* menu on the menu bar, choose *Add LPT...*

The Logical Processor Type dialog is displayed.



2 Specify the LPT Name, Configuration, and Comment Text.

To view the options available for System Configuration, press the data selector and choose one of the listed options.

3 To display the list of available features, click *Show Features.*

4 Select the features required, press *menu*, and choose *Add to LPT*.

The features are now listed in the LPT Features area.

5 Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area in the LPT dialog.

6 Select OK to close the dialog.

The new LPT is displayed in the LPT area of the main window.

Note: You can still add an LPT if the semantic checks fail. When you add an LPT, an "X" box is displayed beside the LPT in the *LPT* area to indicate that an error has occurred.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Modifying an existing LPT

1. Select the LPT that you want to modify.
2. Press menu in the *LPT* area and choose Edit.

   The Logical Processor Type dialog is displayed.

   Note: The Reference LP, Main Card, and Spare Card associated with the LPT are listed in the dialog in read-only format.
3. Modify the LPT Name, Configuration, Comment Text, or Features of the selected LPT.

   To view the options available for Configuration, press the associated data selector and choose one of the listed options.
4. Click Verify.

   All errors, warnings, and informational messages are displayed in the Messages area in the LPT dialog.
5. Click OK to save the changes and close the dialog.

   Note: An "X" box is displayed beside the LPT in the *LPT* area to indicate that an error has occurred.

   All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Deleting an LPT

1. Select the LPT that you want to delete.
2. Press menu in the LPT area and choose Delete.

   The selected LPT is removed from the LPT area.

Editing a logical processor (LP)

You can perform the following steps (create, modify, or delete) to a logical processor (LP). Before you edit a logical processor, ensure that you have done the following:

- connected to the Software Distribution site

- obtained a view from the Passport node that you are planning to upgrade
- selected the features (AV)s that you want to upgrade and updated them. See, “Updating an application version list” (page 62)

Creating a new LP

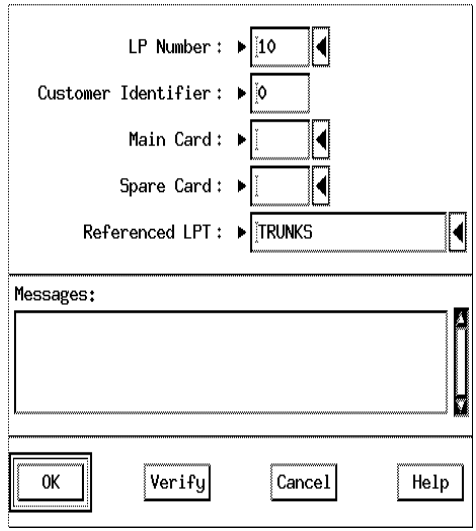
1 Before you create an LP, ensure that you have defined the processor card. See “Editing a processor card” (page 70).

2 Press menu in the *LP* area header in the main window and choose New LP.

OR

From the *Edit* menu on the menu bar, choose *Add LP.*

The Logical Processor dialog is displayed.



3 Specify the LP Number, Customer Identifier, Main Card, Spare Card, and Referenced LPT.

For a list of available options, press the data selector associated with each field and choose one of the listed options.

4 Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area on the LP dialog.

5 Select OK to save the changes and close the dialog.

The new LP is displayed in the LP area of the main window.

Note: An "X" box is displayed beside the LP in the *LP* area to indicate that an error has occurred.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Modifying an existing LP

1 Select the LP that you want to modify.

2 Press menu in the LP area and choose Edit.

The Logical Processor dialog is displayed.

3 Modify the LP Number, Customer Identifier, Main Card, Spare Card, or Referenced LPT Name.

To view the available options, press the data selector associated with each field and choose one of the listed options.

4 Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area in the LP dialog.

5 Click OK to save the changes and close the dialog.

Note: An "X" box is displayed beside the LP in the *LP* area to indicate that an error has occurred.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Deleting an LP

1 Select the LP that you want to delete.

2 Press menu in the LP area and choose Delete.

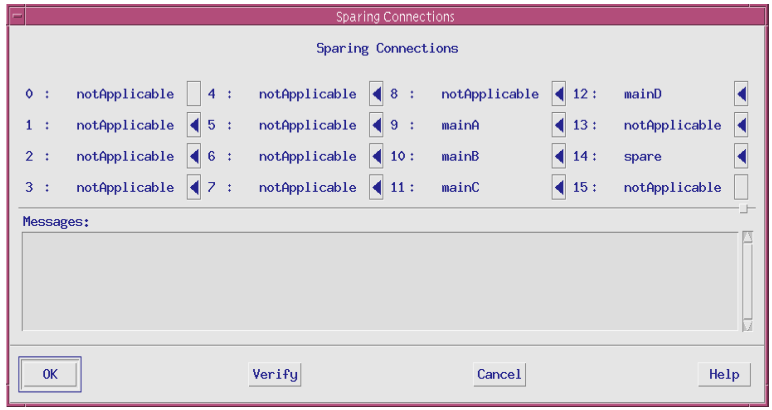
The LP is removed from the LP area.

Performing one-for-n sparing

You can perform one-for-n sparing on Passport releases beginning with 5.0. For more information, see 241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide*.

1 Click *Sparing Connection.*

The *Sparing Connections* dialog opens.



2 Designate the required card by pressing the menu button when the arrow is on the arrow symbol to the right of the card.

A list of options is displayed.

3 Set the card to be a spare or one of four main cards.

4 Click *Verify* to perform semantic checks.

All errors, warnings, and informational messages are displayed in the Messages area.

5 Click *OK* to save your changes and close the dialog.

Editing a processor card

You can perform the following steps to define a new processor card and to specify the type of service card, for example, V35.

Defining a new processor card

1 Set the CardType of the processor card by using the data selector associated with a card number.

2 Create a new LP to run the selected LPT software on the processor card.

3 Create a new LPT if a suitable LPT does not already exist.

4 Click Verify.

All errors, warnings, and informational messages are displayed in the Messages area in the main window.

Changing the software load of a processor card

You can use different methods to change the software load on a processor card as follows:

- Create a new LPT with the new software, and map the existing processor card and LP to this new LPT.
- Locate an LPT within the Passport node that contains the software you require, and map the existing processor card and LP to this LPT. See "About Passport software" (page 38) for the mapping between LPTs, LPs, and cards.
- Change the software associated with an LPT to include the new software, and map the existing processor card and LP to this LPT.

Saving the modified view

The Save View dialog allows you to specify the mode the tool uses to name the newly modified view. You can use two check boxes in this dialog to specify where the semantic checks are performed.

You can perform semantic checks from the graphical user interface for the AVL, LPT, LP, and cards. The semantic checks ensure that no inconsistencies exist with the components specified.

When you select *Perform MDM Semantic Checks,* only the components related to software (AVL, LPT, LP, and cards) are checked. When you select *Perform On-Switch Semantic Checks,* all components are checked to ensure the view can be activated. By default, the semantic checks are performed on both the Preside Multiservice Data Manager (MDM) workstation and the Passport when the view is saved.

1 Click Save View from the main window.

The Save View Parameters dialog is displayed.

2 Semantic checks are performed on the Preside Multiservice Data Manager (MDM) and on-switch by default. If you do not require semantic checks, deselect the check boxes.

The *Full check* and *Stop on error* boxes are enabled if the Passport module file supports the *Check changed* and *stopOnError* options.

To perform semantic checking on the changed components only, deselect the *Full Check* button.

To get all semantic errors, deselect the *Stop On Error* button.

3 Specify the save view parameters by selecting the *Option* mode you wish to save the view as. The save options are:

- *Ascii* to save the view in an ASCII format.
- *Portable* to save the complete view in a portable format.

Note: Saving the view in *Ascii* format may take a long time, and it also takes more time to load the ASCII file.

4 Fill in the *View File Name* field, if applicable.

If the *Enable Address Selection* option is selected from the *Options* menu, the SDS IP Address is displayed in this dialog.

5 Click OK.

When the save is complete, a message is displayed in the *Messages* area.

After you select OK, the tool performs the following tasks before the view is actually saved:

- Performs semantic checks for software configuration components (AVLs, LPTs, LPs, and cards) if the Perform MDM Semantic Checks option has been selected.
- Opens a new session to the target Passport.
- Retrieves a list of AVs available on the Passport disk.
- Triggers the target Passport download process to transfer the AVs specified in the AVL that do not exist on the Passport disk.
- Requests the target Passport to add data for new components or replace data for modified components.
- Requests the target Passport to perform semantic checks for the whole provisioning view if the Perform On-Switch Semantic Checks option is selected.
- Requests the target Passport to save the view.

Downloading software

Passport software is partitioned into applications. A particular version of an application is called an application version (AV). All Passport software is stored on the Software Distribution Site (SDS) in a hierarchical directory structure that has a directory for each AV. No automatic recovery mechanism is provided if the download fails; it needs to be restarted.

By default, the SDS LAN address is used to download software. To download to a different address, select the *Enable Download Address Selection* from the *Options* menu.

You can use the following procedure if you require the software on the Passport node but don't want to configure it, or if a view has been previously saved but the software is not yet downloaded to the node.

1. Enter the *Target EM* name in the main window.
2. Click *Show SDS AVs*.

   The Authentication dialog is displayed requesting the information necessary to log in to the Software Distribution Site (SDS).
3. Enter the Host, User ID, and Password of the SDS.
4. Click OK.

   An FTP connection to the SDS is established and the application version files are identified. The application names and their version numbers are displayed in the Available AVs on SDS area.
5. Select the appropriate AVs from the Available AVs on SDS area.
6. Click *Download AVs.*

The Processor Targets dialog opens.

7 Select the type or types of CPU for the software you will download.

Note: To cancel the download, click Cancel.

8 Click OK.

A list of available AVs on the Passport disk is retrieved. The tool then triggers the target Passport download process to transfer the AVs that are specified but do not already exist on the Passport disk.

All errors, warnings, and informational messages are displayed in the Messages area in the main window and indicate when the download process is complete.

Upgrading software from a GUI

You can use the graphical user interface (GUI) to replace a version of the application and download the new software. If the new version of an application does not introduce any new features, you can upgrade the software version directly using the command line. If you need to upgrade several modules, use the command file input. See “Using a command file” (page 75) for the correct file syntax.

You can also use the command line to upgrade the software version and download the required software directly. See “Using the command line interface” (page 77) for the correct command syntax.

1 Retrieve a list of available AVs on the SDS.

See “Listing Application Versions on SDS” (page 60).

2 Get the current or commited view.

See “Getting a view” (page 61).

3 Add the required AVs into the AVL area.

See “Updating an application version list” (page 62).

4 If the new software introduces new features, configure the LPTs, LP, and cards as required.

See “Creating a new LPT” (page 65), “Creating a new LP” (page 68), and “Defining a new processor card” (page 70).

5 Save the modified view.

See “Saving the modified view” (page 71).

Using log files

A log file contains processing and error messages that are produced by the command line process. Logging can be enabled by means of the graphical user interface, command line, or command file.

If the *-log* option is specified in the command file or on the command line, the output is directed to the log file and to *stdout/stderr*. The same messages are displayed in both. If the log file already exists, the new data is appended to the file. If the file does not exist, a new one is created.

If two or more applications are running concurrently, the log file may be locked by one of the applications. The other applications wait and retry the lock after five seconds. If the maximum number of lock retries exceeds 180, the application is aborted.

Using a command file

You can use a command file to specify the required parameters for a command. This file may be located on any mounted file system on the workstation, which allows the application and the file to reside on different machines. The command file uses keywords that match those supported on the command line interface (for example, target, av, loadview, and saveview); but the authentication information, command file, and logfile options cannot be specified in the command file. If parameters other than those mentioned are specified, they are ignored. Separators can be spaces or tabs; if the first

column of a new line is a #, the line is treated as a comment. The command file can also be invoked from the graphical user interface. See "Running a command file from the GUI" (page 76) for more information.

Example

The following is an example of a command file:

```
#Start of command file
-target moonbase1 NODER16 NODER17
-av trunk_AA000 base_AA000
```

The following is an example of a command line that uses the parameters specified in a command file. Note that the authentication information is provided on the command line and is not included in the command file.

```
fsdl -auth group1 user pass
-sds 47.236.0.24 ftpuser ftppasswd -f <cmdfile_name>
```

See also...

- "Command File dialog" (page 55)

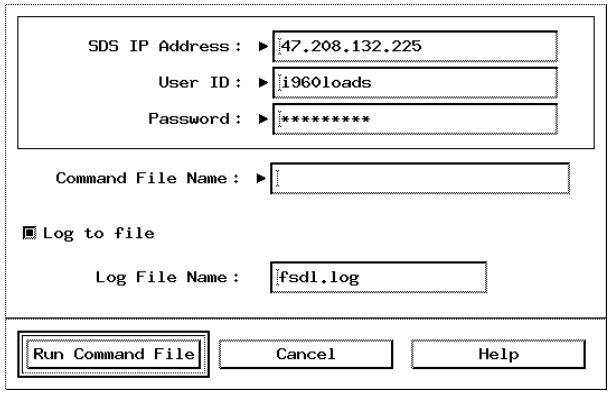
Running a command file from the GUI

1 Create a command file using a UNIX editor such as *vi*.

See the previous example for an example of a command file.

2 From the Options menu choose Run Command File.

The Command File dialog is displayed.



3 Enter the *SDS IP Address*, *User ID*, and *Password* of the SDS.

4 Enter the *Command File Name*.

5 Deselect *Log to File* if logging is not required.

6 Click Run Command File.

A command line process is invoked to execute the command file. All errors, warnings, and informational messages produced by this command are displayed in the Messages area of the main window.

Using the command line interface

The command line interface is useful for software upgrading if the new application version does not introduce new features. It also enables you to read the required parameters from a command file. If several modules are to be upgraded, use and execute the command file input in a batch mode.

The command line interface allows you to perform the following actions in batch mode:

- download AVs
- replace the AV name specified in the AVL
- access one or more modules to perform the above operations.

To display online help for this command, use the *-h* option on the command line.

Enter the following command syntax as one continuous command.

Command line with a command file

```
/opt/MagellanNMS/bin/fsdl -auth <passport_group_name>
  <capability_id> <passwd>
  -sds <sds_ipaddress>|<sds_name> <sds_userid>
  <sds_passwd> -f <command_file_name>
  [-loadview <loadmode> [<view_file_name>|<key>| <date>]]
  [-saveview <savemode> <view_file_name>|<key>]
  [-patchlist <patch1>...]
  [-opts [stopOnErr] [checkchanged] [portable | ascii]
  [-log [<log_file_name>]]
  [-dlforce]
```

Command line without a command file

```
/opt/MagellanNMS/bin/fsdl -auth <passport_group_name>
  <capability_id> <passwd>
  -sds <sds_ipaddress>|<sds_name> <sds_userid>
  <sds_passwd>
  -target <passport_name> ... -av <appl_version> ...
  [-loadview <loadmode> [<view_file_name>|<key>| <date>]]
  [-saveview <savemode> <view_file_name>|<key>]
  [-patchlist <patch1>...]
  [-prtarget <i960> <ppc>]
  [-opts [stopOnErr] [checkchanged] [portable | ascii]
  [-log [<log_file_name>]]
  [-dlforce]
```

Note: The following minimum character are required for their respective keywords:

COMMITTED COM
CURRENT CUR
USER_SPECIFIED U
KEYED K
DATED D
EDIT E

where:

`-auth <passport_group_name> <capability_id> <passwd>` are the parameters used to log on to a Passport group to which the target Passport belongs. The parameter are:

<passport_group_name> Mnemonic of the group to log on to.
<capability_id> Capability id to log on with.
<passwd> Password for the capability id.

`-av <appl_version>...` is the application version(s) to be downloaded from the SDS to the target Passport disk. Valid name has the format <*application*>_<*version*>.

`-dlforce` downloads the specified AVs without checking the existence of the AVs.

`-f <command_file_name>` is the command file used to identify the target name(s), application version, and view name to load or save. The following command line parameters are ignored if the -f option is specified: *-target*, *-av*, *-loadview*, *-saveview*, and *-patchlist*.

`-h` displays help on command syntax and use. This option is the first or only parameter you can specify on the command line.

`-loadview <loadmode> [<view_file_name>|<key>|<date>]`

<loadmode> indicates the mode to be used for uploading a view. Valid values are: USER_SPECIFIED(U)/KEYED(K)/DATED(D)/
CURRENT(CUR)/
COMMITTED(COM)/EDIT(E) where:

USER_SPECIFIED (U) treats the <view_file_name> as a completed view name.
KEYED (K) means that the <key> can be composed of letters, digits, and underscores. The key cannot begin with an underscore and cannot exceed six characters in length.
DATED (D) is a valid <date> in the format *yymmdd*. See “Date Convention” (page 28) for more information on the date format.
CURRENT(CUR), COMMITTED (COM)or EDIT(E) have no parameters.

`-log [<log_file_name>]` when specified in the command file or on the command line, directs the output to the log file and to *stdout/stderr*. The same messages are displayed in both. If the log file already exists, the new data is appended to the file; if the file does not exist, a new one is created. If no file name is specified, then *fsdl.log* is used by default.

If two or more applications are running concurrently, the log file can be locked by one of the applications. The other applications wait and retry the lock after five seconds. If the maximum number of lock retries exceeds 180, the application is aborted.

`-opts [stopOnErr] [checkchanged] [portable | ascii]` are options are associated with the saveview option:

stopOnEr aborts the check immediately upon finding the first error.
checkchanged performs the check only on modified components.
portable saves the modified view in a portable format.
ascii saves the modified view in an ASCII format.

`-patchlist <patch1>...` lets you specify the patch or patches to provision in the view file. The patches are activated when the view file is activated. Only use the patchlist parameter with the loadview and saveview parameters.

`[-prtarget <i960> <ppc>]` lets you download software for the two different CPUs (central processing units) that can be on the Passport. You can select one or both CPU types.

`-saveview <savemode> <view_file_name>|<key>` specifies the new view name to be downloaded. There are three modes that can be specified: USER_SPECIFIED (U), KEYED (K) or DATED (D). The CURRENT, EDIT and COMMITTED options are not valid for the savemode.

`-sds <sds_ipaddress>|<sds_name> <sds_userid> <sds_passwd>` are the parameters used to log on to the Software Distribution Site (SDS). The parameters are:

<sds_ipaddress> SDS IP address.
<sds_name> Site name.
<sds_userid> Userid to log on with.
<sds_password> Password for the userid.

`-target <passport_name>...` is the Target EM name. You can specify more than one at a time.

Example

The following example is used to download trunk_AA0040 and base_AA0040 from SDS (address = 47.209.133.219, userid = ftpuser, password = ftppasswd) to the TOR1 Passport node. It also updates the AVL specified in the committed view and saves the modified view under myview view. Processing or error messages are logged to a file called mylog.

```
/opt/MagellanNMS/bin/fsdl -auth group1 group1ID
group1passwd -sds 47.236.0.21 ftpuser ftppasswd
-target TOR1 -av trunk_AA0040 base_AA0040
-loadview COM -saveview U myview -log mylog
```

Chapter 4
Component Provisioning

This section describes the Component Provisioning tool and contains procedures for using it. In this chapter, you can find the following information:

The Component Provisioning Tool

Component Provisioning is used to define, edit, and display service data for Passport nodes. You can choose how you want component information displayed.

You can use one of two views when provisioning a Passport node:

- The *current view* contains provisioning data corresponding to the current operation of the node. The current view cannot be explicitly provisioned.
- You can provision the *edit view*. The edit view may be a copy of the current view, or it may be another view loaded on this disk. All provisioning commands are applied to this view (unless explicitly indicated otherwise). When activated, the edit view becomes the current view. Components that fail to activate successfully are indicated as such.

  If you lose the connection to a Passport node during a provisioning session, you can save the edit view in progress by using the Command Console. You can then upload the saved view in the edit view by using Component Provisioning. See 241-6001-804 *Preside MDM Workstation Utilities User Guide*, for more information on the Command Console.

See also...

- “Component Provisioning main window” (page 85)
- “Component level procedures” (page 95)
- “Component filter preferences” (page 100)
- “Filter Preferences dialog” (page 101)
- “Filtering Procedures” (page 107)
- “Editing and viewing service data” (page 114)
- “Data entry lists” (page 120)
- “Downloading service data” (page 126)
- “Templates” (page 128)
- “Custom Forms” (page 131)
- “Form Editor” (page 133)

- “User preferences” (page 141)
- “Working with context” (page 149)
- “Packet Control Facility (PCF) filter files” (page 150)
- “Passport propagate command” (page 153)
- “Passport global data manager tool” (page 156)

Opening the Component Provisioning tool

Note: The user needs to have access to FTP.

To provision service data on a Passport node, you need to successfully authenticate to a Passport group that contains the desired Passport node. If you want to provision service data on a Passport node that does not belong to the group, you need to authenticate again. See “Selecting a Passport group” (page 33) for more information.

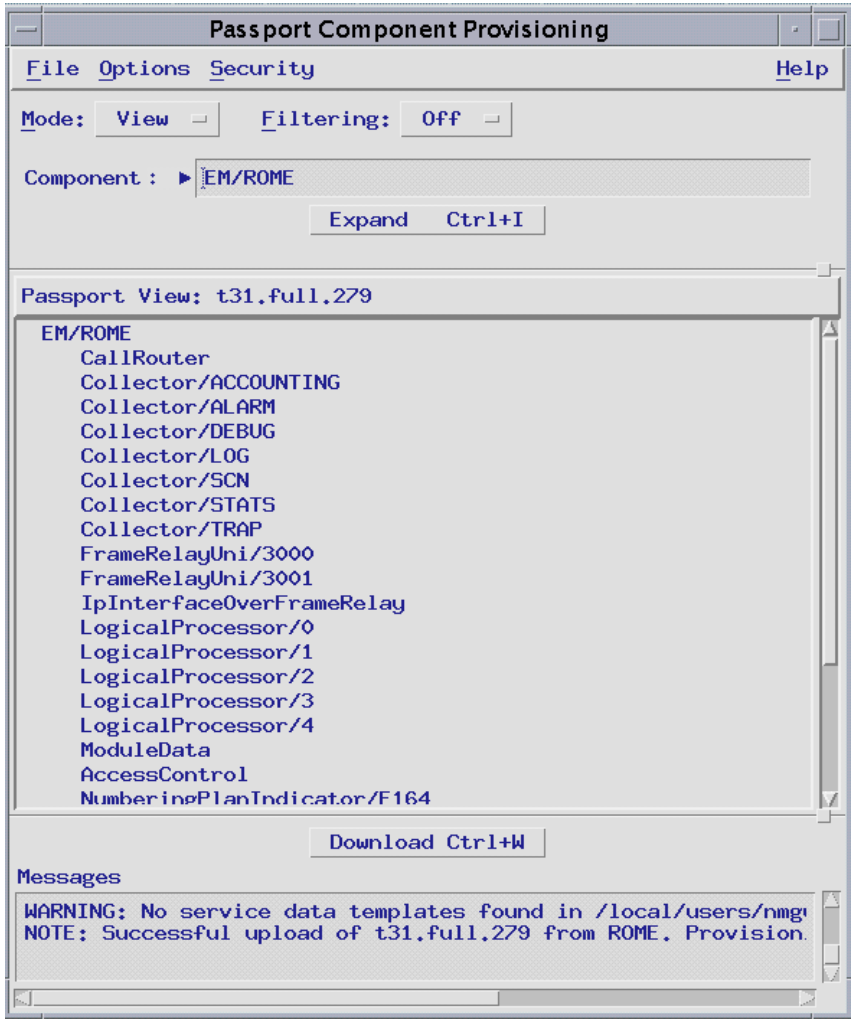
Component Provisioning main window

See the following sections for information on the parts of the Component Provisioning main window:

- “Menu bar” (page 87)
- “Component area” (page 88)
- “Subcomponents area” (page 91)
- “Messages area” (page 95)

For an illustration of the Component Provisioning window, see the figure “Component Provisioning main window” (page 86).

Figure 5
Component Provisioning main window



Menu bar

The menu bar is located at the top of the Component Provisioning main window. See the following sections for information on the menu bar entries:

- "File menu" (page 87)
- "Options menu" (page 87)
- "Security menu" (page 88)

File menu

The File menu commands are as follows:

- *Clear All Module Data*. discards all current working data for the current view. Any changes not downloaded are lost. However, if any changes are made, a confirmation dialog is displayed before the actual command is performed.
- *Stop Module Logging* stops the propagation logging of provisioning actions into a file. The logging is started if *Propagation Logging* is selected in the *Upload Preferences* dialog.
- *Download Module Data* downloads all service data to the location specified in the Download Preferences dialog. Module data is cleared from the tool after a successful download.
- *Exit* exits Component Provisioning.

Options menu

The Options menu commands are as follows:

- *Change Upload Preferences* displays a dialog that allows you to customize the user preferences for uploading service data views.

  Use the *Preload No* option when small service updates are made to a large service data view.

- *Change Download Preferences* displays a dialog that allows you to customize the user preferences for downloading service data views.
- Change Filter Preferences displays a dialog that lets you create filters to manage the number of displayed components.
- *Change Template Preferences* displays a dialog that allows you to customize the user preferences for loading and deleting templates.

- *Change Custom Form Preference* displays a dialog that allows you to customize the user preferences for custom form selection.
- *Save Preferences* saves the current user preferences to the file *ProvisioningUser.cfg* in the user's home directory.

Security menu

Authenticate displays the Authentication dialog. You use this dialog to enter the authentication information that gives you access to the Passport.

Component area

The Component area is located just below the menu bar. See the following sections for information on the parts of the Component area:

- "Mode option" (page 88)
- "Filtering option" (page 89)
- "Component data entry field" (page 89)
- "Expand button" (page 91)

Mode option

The *Mode* option allows you to change the mode of a provisioning session to one of the following:

- *Edit*

  The next component provisioning session or service data upload allows changes to the service data and downloading the modified view.

- *View*

  You are only able to view the service data, copy desired components, create templates, and generate service data reports. You cannot perform any service data modifications or downloads in this mode.

  Note: If you attempt to change the *Application mode* during a provisioning session, a dialog is displayed asking you to confirm the mode change. If you select *Continue*, the uploaded provisioning data is cleared regardless of any possible changes made to that view.

Filtering option

The Filtering option lets you enable or disable component filters by selecting one of the following:

- On

  The On option enables active component filters so that you can use them.

  Note: To be enabled a filter must be active. To determine if a filter is active, open the Filter Preferences dialog. Active filters appear in the Active Filters list. See “Activating and deactivating filters” (page 113) for the procedure to activate a filter.

- Off

  When Off is selected, component filters are disabled. The main window displays the entire hierarchy of subcomponents for the component that you specified in the Component field.

  Note: When you open the Component Provisioning tool, the default is Filtering: Off. To use the filters, you need to select the On option.

Component data entry field

This area is used to specify the component with which you wish to work. The components are identified by a component name followed by a '/', followed by a component value. You can specify several hierarchical components at one time. For example:

EM/abcd
identifies a module with a mnemonic of 'abcd'.

The *Component* data entry field supports the following commands:

- *Edit* creates an edit area for the currently selected component. More than one edit area can exist simultaneously.
- *View* creates an edit area for viewing service data. All editing commands that are common to the edit area are disabled when the view command is invoked.

- *Cut Component* removes the selected service data component and places it in a cut/copy area. This function only operates on components below the EM level.
- *Copy Component* copies this component and all levels of subcomponents below it into a copy area.
- *Paste Component* adds the last copied or cut components below the currently selected component, if appropriate. See also “Paste Component menu entry” (page 91).
- *Delete Component* deletes a component, such as a Logical Processor, from the service data when selected.
- *Add* adds a component to the service data instance hierarchy. You can add a component that is a subcomponent of the selected component.
- *Add without Forms* is similar to Add, however, no edit form is displayed and any default values for service data are used.
- *Create module* creates a new view of the specified module. Edit forms for all mandatory subcomponents are displayed.
- *Expand all* displays all levels of subcomponents below the selected component.
- *Put context* generates a component name and sets a Network Model context for another application based on the current component name. See also “Working with context” (page 149).
- *Get context* sets the current component name based on the current DPN Network Model context. See also “Working with context” (page 149).
- *Cut, Copy, Paste, Delete, Select All,* and *Deselect All* are standard commands that enable you to manipulate the contents of data entry fields.

Paste Component menu entry

The Paste Component cascading menu is used to paste the last cut or copied component below the current component in the service data hierarchy. You can paste the component as is (when doing a move) or with different keys (when copying an existing component).

- *Change keys* lets you select different key values. As the pasting operation proceeds, all components that have key values have a dialog displayed for them. The key values may be changed at that time. Examples of key values are the cug index for a closed user group (CUG) or the port number for a port (PO).
- *Use existing keys* uses existing key values. You are not prompted for key values. If duplications are encountered, the paste operation is aborted.

Expand button

The *Expand* button expands the component you enter and puts the subcomponents into the *Passport View* area of the *Subcomponents* area.

See also “Expanding from the Component area” (page 96).

Subcomponents area

The Subcomponents area is located just below the Component area. See the following sections for information on the parts of the Subcomponents area:

- “Component label” (page 91)
- “Passport View area” (page 91)

Component label

This line of text is used to specify the view for the Component area.

Passport View area

The *Passport View* area, located just below the Component label, consists of a multiple-line display. You can use this area to view and manipulate the subcomponents of the component listed in the *Component* area. This area graphically displays the structure of service data. It can be a valuable aid in locating unfamiliar service data.

Components with attribute/key values that must be available or unique throughout the entire network (i.e., network-wide data) have a small icon to their left.

Initially, the components displayed in the *Passport View* area all have the standard background color. When you check for semantic errors, the background color changes for each component with an ErrorState of “error” or “warning”. “Error” means that major errors are present and the service data cannot be activated. “Warning” means that a configuration problem exists.

You can use the following commands to manipulate the hierarchical display of service data components in the *Passport View* area:

- *Edit* creates an edit area for the currently selected component. More than one edit area can exist simultaneously.
- *View* creates an edit area for viewing service data. All editing commands that are common to the *Edit* area are disabled when the *View* command is invoked.
- *Cut Component* removes the selected service data component and places it in a cut/copy area. This function only operates on service data components below the EM level.
- *Copy Component* for the selected component, copies all levels of subcomponents and the service data for these subcomponents into a copy area.
- *Paste Component* adds the last copied or cut components below the currently selected component, if appropriate. See also “Pasting a component” (page 99).
- *Delete Component* deletes a component, such as a Logical Processor, from the service data when selected.
- *Add* .adds a component to the service data instance hierarchy. You can add a component that is a subcomponent of the selected component.
- *Add without forms* is similar to *Add*, however, no edit form is displayed and any default values for service data are used.
- *Expand* displays one level of subcomponent below the selected component.
- *Expand all* displays all levels of subcomponents existing below the selected component.

- *Compress* removes displayed subcomponents of the selected component from the Subcomponents area. Components are not deleted, but just hidden from view.
- *Put context* generates a component name and sets a DPN Network Model context for another application based on the current component name. See also “Working with context” (page 149).
- *Templates* provides a means to save and reuse portions of service data. The commands in the *Templates* cascade menu are as follows:

  See also “Templates” (page 128).

  — *Create* copies the service data into a user-specified file for use at a later time.

  — *Delete Component* erases the specified service data template file. The templates for deletion are displayed within the cascade menu.

  — *Use – with forms* sequentially displays all editing forms for all components contained in the template. The usable templates are displayed within the cascade menu.

  — *Use – without forms* adds the service data, but does not display forms. The usable templates are displayed within the cascade menu.
- *Custom Forms* allows you to create, change, and delete custom forms. The commands in the *Custom Forms* cascade menu are as follows:

  Note: A component’s custom form can be modified by only one user at a time. When one user makes modifications to a components’s custom form, the *Custom Forms* command for that component is disabled to other users.

  See also “Custom Forms” (page 131).

  — *Create* opens the Form Editor with the default form for the specified component. You can save the custom form as a workstation custom form that is accessible to all users of a workstation; or, you can save the custom form as a user custom form that is accessible to an individual user.

  — *Change* edits an existing workstation or user custom form for a specified component. There are two commands in the *Change*

cascade menu: *Workstation Custom Form* edits an existing workstation custom form; *User Custom Form* edits an existing user custom form.

— *Delete* deletes an existing workstation or user custom form for the specified component. There are two commands in the *Delete* cascade menu: *Workstation Custom Form* deletes an existing workstation custom form; *User Custom Form* deletes an existing user custom form.

- *Partial Semantic Check* performs a limited check for semantic errors under the selected component. Any semantic errors or warnings are displayed in the *Semantic Check Message* dialog. In addition to producing error and warning messages, the semantic check can change the background color. The background color of components with an ErrorState of “error” (or their closest displayed parent) changes to errorColor, which is set to the standard MDM color for errors. The background color of components with an ErrorState of “warning” (or their closest displayed parent) changes to warningColor, which is set to the standard MDM color for warnings.

  Note: *Partial Semantic Check* does not perform a full check. When the view is downloaded, the switch performs the full semantic check that is required before the view can be activated. *Partial Semantic Check* identifies most common errors at the component level and some errors at the node level.

- *Copy list* copies the text of the subcomponents list into a buffer. You can then paste the list into a file.

Download button

The *Download* button downloads all modified components to the specified Passport switch. This download button invokes the same download action as the command under the File menu.

Messages area

The Messages area, located at the bottom the window, displays informative messages on the current status of the application. It provides a pop-up menu with the following options:

- *Copy* copies selected text to a buffer.
- *Select all* selects all of the text in the message area.
- *Deselect* deselects the selected text in the message area.

Component level procedures

You can use the following procedures to view components:

- "Specifying a component" (page 96)
- "Expanding from the Component area" (page 96)
- "Expanding within the Passport View area" (page 97)
- "Compressing within the Passport View area" (page 97)

Components in the provisioning tool are distinct entities and can be added, deleted, cut, copied, and pasted. The difference between cutting and deleting: when a component is cut, the text is removed from its original location, but remains in the copy buffer so that it can be pasted later. When a component is deleted, it is not placed in a buffer and cannot be retrieved.

You can use the following procedures to manipulate components:

- "Adding a component" (page 97)
- "Deleting a component" (page 98)
- "Cutting a component" (page 98)
- "Copying a component" (page 98)
- "Pasting a component" (page 99)

For information on command accelerators you can use, see "Component Provisioning command accelerators" (page 100).

Specifying a component

The Component area of the Component Provisioning main window is used to specify an existing Passport component and, optionally, subcomponents.

1. Click *select* in the Component area.
2. Enter the component name.

   If you do not know what components you can specify, issue the *dir* command from the Command Console. For information on the Command Console, see the section, Command Console, in 241-6001-804 *Preside MDM Workstation Utilities User Guide*.

   When you specify a component, use the proper prefixes and syntax. EM/<module_name> identifies the enterprise module.
3. Press Return or click *Expand*.

   When you select Return or Expand, the system attempts to upload the service data. A dialog may be displayed requesting the View File Name for a particular view of the service data. If you do not know the available View File Names, issue the appropriate command from the Command Console. For information on operator commands, see 241-5701-050 *Passport 7400, 15000, 20000 Commands*. For information on the Command Console, see Command Console in 241-6001-804 *Preside MDM Workstation Utilities User Guide*.

   If Return is selected, the module is not displayed in expanded form in the Passport View area. If the upload fails, an error message is displayed in the Messages area.
4. Enter the View file name.
5. Click *OK.*

   The tool establishes a call to the selected Passport module and accesses the service data for the selected component.

Expanding from the Component area

After you enter a component name in the *Component* area, you can expand it in the *Passport View* area by using the Expand button or the *Expand all* menu option. When you use the Expand button, the selected component and its first level of subcomponents are displayed in the Passport View area. When you use *Expand all*, the same process occurs as with the *Expand* button, but all levels of the subcomponents are displayed in the *Passport View* area.

Note 1: With both *Expand* and *Expand all*, any display currently in the Passport View area is replaced.

Note 2: Do not use the *Expand all* option on larger modules because the memory and time required to complete this action may be excessive.

Expanding within the Passport View area

You can use the Expand and *Expand all* options to expand a component within the Passport View area.

On an *Expand* or *Expand all* operation, the component and its children have their background colors change to show which subcomponents have an ErrorState of “error” or “warning”.

1. Select the component within the Passport View area that you want to expand.
2. Press *menu* in the Passport View area, and choose Expand or *Expand all.*

Compressing within the Passport View area

You can use the Compress command from the Passport View area menu to hide displayed subcomponents of the selected component.

On a *Compress* operation, the closest parent of a subcomponent with an ErrorState of “error” or “warning” has its background color change to show the existence of a subcomponent error or warning.

1. Select the component within the Passport View area that you want to compress.
2. Press menu in the Passport View area and choose Compress.

   All subcomponents listed under the selected component are removed from the list.

Adding a component

A component can be added from the Component or Passport View areas.

1. Select the component to which you wish to add the subcomponents.
2. Press menu in the Component or Passport View area, and choose Add...

   The Add dialog is displayed containing the subcomponents that can be added. Some of the items may be grayed out, indicating that they are

already present. The mandatory components are automatically added to the selected component.

3 Select the appropriate button and click OK.

During the add operation, you may be presented with a series of key and edit dialogs. You need to supply the appropriate information for these dialogs to complete the add operation.

Deleting a component

A component can be deleted from the Component or Passport View areas.

1 Select the component you want to delete.

2 Press *menu* in the Component or Passport View area, and choose Delete Component.

The deleted component and all of its subcomponents are removed from the display.

Cutting a component

The Cut Component command is used to remove (in fact, delete service data) the selected component and its subcomponents. The component and subcomponents that are cut are placed in the paste buffer.

1 Enter the module and component name, and follow the steps in “Specifying a component” (page 96).

2 Select the component that you want to cut.

3 Press menu in the Component or Passport View area, and choose Cut Component.

The component and subcomponent that are cut are removed from the Passport View area if they are visible.

Copying a component

The Copy Component command is used to place the selected component and its subcomponents in the paste buffer.

1 Enter the module and component name, and follow the steps in “Specifying a component” (page 96).

2 Select the component that you want to copy.

3 Press menu in the Component or Passport View area, and choose Copy Component.

Note: No changes occur to the existing component.

Pasting a component

The Paste Component command is used to add the component in the paste buffer to the selected component. The Paste Component command has a cascade menu that provides the following options:

- Use Existing Keys prompts for any parameter. The component and its subcomponents as they exist in the paste area are added. This is normally used for moving a component from one location to another. For example, Logical Processor, FrameRelayUni, or UserId.
- Change Keys prompts for the keys of all components and subcomponents. This is normally used for creating new components identical to existing components but with different keys.

Only one paste buffer exists for each user. When a component is cut or copied, the entire paste buffer is over-written with the new component. The paste buffer is shared between Component Provisioning instances; therefore, the cut/copy/paste component operations are supported among Component Provisioning instances for the same user. The Paste Component operation, prior to pasting, checks if the component being pasted is valid in the hierarchy. If the component is not valid, the operation is terminated with an error message. For example, a card cannot be pasted under a FrameRelayUnit: nor can a FrameRelayUnit be pasted to a Logical Processor service.

The component from the paste buffer can be repeatedly pasted because the content of the paste buffer is not altered with the *Paste Component* operation. If errors are encountered during the paste operation, an error message is displayed and the paste operation has no effect.

1 Enter the module and the component name, and follow the steps in “Specifying a component” (page 96).

2 Select the component that you want to paste.

3 Press menu in the Component or Passport View area, and choose Existing Keys or Change Keys from the Paste Component cascade menu.

Use Existing Keys from the menu to paste the component with the same keys as in the paste area, or use Change Keys from the menu to paste a component with user selected keys. If you choose the *Change Keys* option, you are prompted for keys for all components in the paste area in a series of separate dialogs.

4 Enter the appropriate key and click OK.

The component and subcomponents pasted are displayed in the Passport View area.

Component Provisioning command accelerators

Accelerators are provided for most of the menu items in the pop-up menus. All accelerators begin with the control key followed by a single letter. For example, the accelerator Ctrl+W downloads the current module data and the accelerator Ctrl+E exits the tool.

For accelerators in the Component data entry field, Passport View list, and Changed Component list, you need to first select the appropriate area by pressing the first mouse button while the mouse pointer is in the area; alternatively use the tab key until the focus is in the desired area. The invoked action occurs on the area with the focus. For example, if the focus is in the Passport View list, the selected item in the list can be expanded using the accelerator Ctrl+I. If the focus is in the Component data entry field, the component entered in the field is expanded.

Component filter preferences

Component filters are created by selecting Change Filter Preferences from the Options menu in the main window. This opens the Filter Preferences dialog which lets you define the conditions for your filters. Component filters allow Passport Component Provisioning to support and manage a large number of components. By creating filters you can select the components that you want to work on, and therefore, limit the number of components that are displayed.

A filter consists of one or more conditions applied to one or more component classes. Each condition is defined according to the component name and its value (or range of values), to which a show or hide action is applied. Components are displayed through the Show option if they meet the defined criteria. The Hide option blocks the display of the components that match the defined criteria.

You must activate the filter, using the Filter Preferences dialog, before you can use it. Passport Component Provisioning supports multiple active filters.

> ***Note:*** When you open Passport Component Provisioning, the default filtering option is Off, disabling the active filters. To use filters you must select the On option. See “Filtering option” (page 89).

Once you have defined a filter, you can save it to a file so that you can use it again.

Filter Preferences dialog

Filters are created, saved, deleted and modified using the Filter Preferences dialog. The Filter Preferences dialog also lets you activate or deactivate a filter.

For information on accessing the Filter Preferences dialog, see the following section:

- “Opening the Filter Preferences dialog” (page 102)

For information on the parts of the Filter Preferences dialog, see the following sections:

- “Filter lists panel” (page 104)
- “Filter Definition panel” (page 105)
- “Control panel” (page 107)

For procedures to create, save, change and delete filters, see the following sections:

- “Creating filters” (page 108)
- “Saving filters” (page 109)
- “Changing filter conditions” (page 110)
- “Changing the order of filters in the Active Filters list” (page 112)
- “Deleting filters” (page 112)
- “Activating and deactivating filters” (page 113)

Opening the Filter Preferences dialog

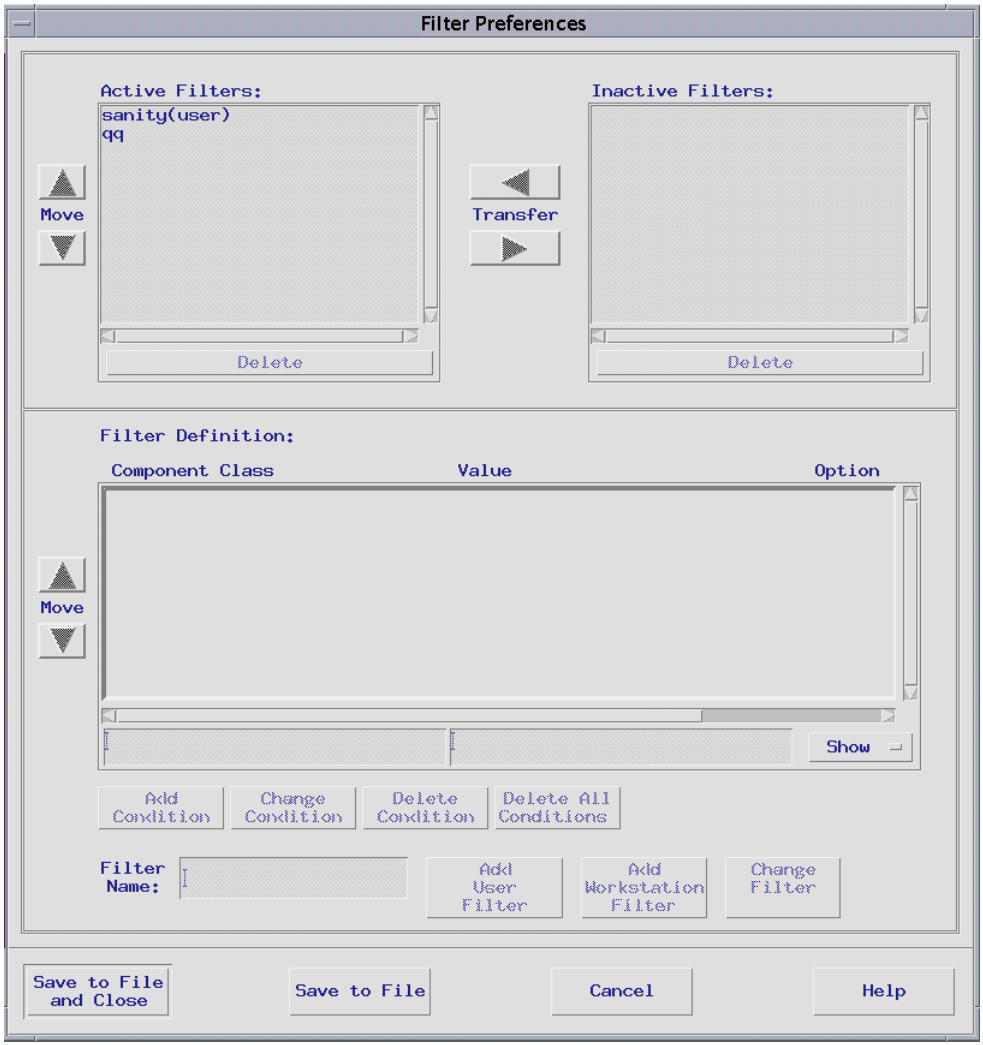
1. Open the component provisioning tool, perform the authentication procedures and select the Passport module that you want to work on.
2. In the Passport Component Provisioning window, press menu on Options.
3. Select Change Filter Preferences... from the menu.

   The Filter Preferences dialog opens.

See the following sections for information on the parts of the Filter Preferences dialog:

- “Filter lists panel” (page 104)
- “Filter Definition panel” (page 105)
- “Control panel” (page 107)

Figure 6
Filter Preferences dialog



Filter lists panel

The filter lists panel contains the following areas.

- Active Filters list. The Active Filters list displays a list of active filters. A scroll bar is available on the right side of the list to let you move the list up and down to bring different parts into view. Filters listed in the Active Filters list are enabled when you select Filtering: On in the main window.

  The filters in the Active Filters list when you exit a Passport component provisioning session are restored automatically when you start a new session. When you open the Filter Preferences dialog, the appear in the Active Filters list.

- Inactive Filters list. The Inactive Filters list displays a list of inactive filters. A scroll bar is available on the right side of the window to let you move the list up and down to bring different parts of the window into view. Filters in the Inactive Filters list are not enabled when you select Filtering: On.

  Note: You must transfer a filter from the Inactive Filters list to the Active Filters list when you want to use it. See "Activating and deactivating filters" (page 113).

- Delete buttons. A Delete button appears below both the Active Filters and Inactive Filters lists. Selecting a filter and clicking Delete will delete the filter from the list. See "Deleting filters" (page 112) for the procedure to delete filters from the Active filter or Inactive Filter lists.
- Transfer arrows. Transfer arrows let you move filters between the Inactive Filters list and the Active Filters list. See "Activating and deactivating filters" (page 113) for the procedure to transfer filters between lists.
- Move arrows. You can move the order of the filters in the Active Filters list by using the up and down Move arrows. See "Changing the order of filters in the Active Filters list" (page 112).

Filter Definition panel

You specify the criteria that components must match to be displayed, or hidden, in the Passport Component Provisioning window in the Filter Definition panel. The Filter Definition panel also contains the controls that let you modify the filter and its conditions. It has the following areas:

- Filter Name field. You enter a unique name for your filter in the Filter Name field.
- The Filter Definition window. The Filter definition window has three fields; Component Class, Value and Option. Data entry fields at the bottom of each field let you enter the criteria for the filter:
  - Component Class. The Component Class field identifies the class name of the components you want to include in your filter. You use the data entry field at the bottom of the list when you want to add a component class to the filter.
  - Value. The Value field displays the values corresponding to a specified component class. You enter the value, or range of values valid for the component class, in the data entry field found at the bottom of the list. The table "Value formats" (page 105) provides a summary of the acceptable formats for numerical component values.

Table 1
Value formats

Value	Format	Example
single numerical	#n	#7
multiple numerical	#n;#n	#7;#9
single numerical range	#n..m	#9..20
multiple numerical range	#n..n;#n..m[;#n..m]	#9..20;#11..30
mix of mutiplenumerical range	#n[..m][;#n[..m]]]*	#20..35;#4

Non-numerical values can be either a single value or an enumeration of non-numerical valid values for that particular component class. The general format is: string[;[string]].

Example

For the collector class, the value could be log;alarm;accounting

Note: If you do not specify a value in the Value field, the default value is "*". This means that all possible values for a component class will be included in the condition.

- Show|Hide option. You specify either Show or Hide as the operation to be performed on the condition.
- Command Buttons. The Filter Definition panel also has a set of command buttons that let you modify the contents of the Filter Definition window:
  - — Add Condition. Clicking Add Condition adds the condition that you have specified in the data entry fields to the filter. The condition appears in the Filter Definition window.
  - — Change Condition. Selecting a condition from the Filter Definition window, modifying the text in the data entry fields, and clicking Change Condition changes the selected condition. The change appears in the Filter Definition window.
  - — Delete Condition. Selecting a condition from the Filter Definition window and clicking Delete Condition deletes the selected condition from the filter. The condition is removed from the Filter Definition window.
  - — Delete All Conditions. Clicking Delete All Conditions deletes all the conditions for a selected filter. The conditions are removed from the Filter Definition window.
- Add User Filter. Clicking Add User Filter adds a filter to the Inactive Filters list. The word "user" appears in parenthesis following the filter name. The filter is accessible to one specific user.
- Add Workstation Filter. Clicking Add Workstation Filter adds a filter to the Inactive Filters list. The filter is accessible to all users of a workstation.
- Change Filter. Clicking Change Filter keeps the changes that you have made to the selected filter's conditions.

  Note: Making changes to a filter's conditions, then selecting another filter without clicking Change Filter causes the changes to be discarded.

Control panel

The control panel is located below the Filter Definition panel. It contains the buttons that let you save your filters, close your session without saving, and access the on-line Help:

- Save to File and Close. Clicking Save to File and Close saves a filter to file, and exits the Filter Preferences dialog. Filters in the Active Filters list are restored the next time you open the Filter Preferences dialog, and appear in the Active Filters list of the dialog. Inactive Filters will appear in the Inactive Filters list.
- Save to File. Clicking Save to File saves a filters to file. The Filter Preferences dialog remains open. The name of the saved filters appears in the Inactive Filters list of the Filter Preferences dialog.
- Cancel. Clicking Cancel closes the Filter Preferences dialog without saving the filters that you have created, deleted or altered during the session.
- Help. Clicking Help accesses the on-line help for the Filter Preferences dialog.

Filtering Procedures

You can create, modify and delete filter conditions using the Filter Preferences dialog. For additional information, see the following sections:

- “Creating filters” (page 108)
- “Saving filters” (page 109)
- “Changing filter conditions” (page 110)
- “Changing the order of filters in the Active Filters list” (page 112)
- “Deleting filters” (page 112)

After you have created a filter, you have to activate it before you can use it. For additional information, see the following section:

- “Activating and deactivating filters” (page 113)

Creating filters

Use the Filter Preferences dialog to create filters. You establish the conditions for a filter by defining the following:

- the class, or classes, of components that you want to work on
- the value or range of values for each class
- the operation to be performed. The options are either Show or Hide.

You can apply more than one condition to a component class and each filter can include one or more component classes.

> ***Note:*** When you define two or more conditions for a component class, the order of the condition is important. The order is sequentially applied to each component class until a match is made. The first matching condition for a class applies. Once a match is made, any subsequent reference to that class is ignored.

To create a filter use the Filter Preferences dialog and the following procedure:

1. Open the Filter Preferences dialog using the procedure described “Opening the Filter Preferences dialog” (page 102).
2. In the Filter Name field, enter a name for the filter that you are creating.

   The filter name can be any string of text.
3. Define a filter condition by completing the Component Class, Value and Option fields. The component class format is: string [string][*]. For example: fruni loadtestsystem pattern*. If you do not enter a value in the Value field, the default value (*) is entered in the field.
   a. In the Component Class data entry field, enter the component class name.
   b. In the Value data entry field, enter a valid value or value range for the component class. See “Value formats” (page 105) for examples of acceptable formats.
   c. From the Show|Hide option button, select the operation you want to perform on the condition.
4. Press Add Condition to enter this condition to your filter.

The information that you have entered for Component Class, Value and Option appears in the respective areas in the Filter Definition window.

5 Repeat steps 3 and 4 for each condition that you want to include in your filter.

6 When you have defined all the conditions for your filter, select one of the following to add the filter to the Inactive Filters list:

- Add User Filter
  The name of the filter appears in the Inactive Filters list with the word user appearing in parenthesis beside it. The Filter Name field and the Filter definition window are empty.
- Add Workstation Filter
  The filter name appears in the Inactive Filters list. The Filter Name field and the Filter definition window are empty.

When you click on the name of a filter in the Inactive Filters list, the name of the selected filter appears in the Filter Name field and its conditions appear in the Component Class, Value and Option areas of the Filter Definition panel.

7 Save your filter. See “Saving filters” (page 109).

Note: An inactive filter is not used when you select the Filtering: On option in the Passport Component Provisioning main window. You need to activate the filter before you can use it. See “Activating and deactivating filters” (page 113) for the procedure to activate a filter.

Saving filters

You have the following options for saving a filter:

- To save the filter to file and exit the Filter Preferences dialog, click Save to File and Close.

  If unable to save the filter, an error dialog appears with text describing the problem.

- To save the filter to file without exiting the Filter Preferences dialog, click Save to File. The Filter Preferences dialog remains open.

  If unable to save the filter, an error dialog appears with text describing the problem.

- To exit the Filter Preferences dialog without saving the filter, click Cancel.

Changing filter conditions

See the following sections for additional information on changing your filters:

- "Procedure to modify filter conditions" (page 110)
- "Procedure to delete filter conditions" (page 111)
- "Procedure to change the order of filter conditions" (page 111)

Procedure to modify filter conditions

In the Filter Preferences dialog, use the following procedure to modify filter conditions:

1. Open the Filter Preferences dialog using the procedure described "Opening the Filter Preferences dialog" (page 102).
2. From the Active Filter or Inactive Filter list, select the filter that you want to change.

   The filter name appears in the Filter Name field, the conditions for the filter appear in the Filter Definition window, and the Change Filter button is activated.
3. In the Filter Definition window, click on the condition that you want to change.

   The defined characteristics of the selected condition appear in the data entry fields.
4. Make the desired changes in the data entry fields for Component Class, and Value fields, and the Show|Hide option button.
5. Press Change Condition to enter the changes in the Filter Definition window.

   The changes that you have made to the condition(s) appear in the respective fields of the Filter Definition window.

6 Press Change Filter to change the filter.

The Filter Name field and the Filter Definition fields are empty. If you click on the name of the filter that you have just changed, the changes appear.

7 Save the changes. See “Saving filters” (page 109).

When you open the Filter Preferences dialog again and select the same filter, the changes appear.

Procedure to delete filter conditions

In the Filter Preferences dialog, use the following procedure to delete filter conditions:

1 Open the Filter Preferences dialog using thtest_plan.pse procedure described “Opening the Filter Preferences dialog” (page 102).

2 In the Active Filters or Inactive Filters list, select the name of the filter whose conditions you want to delete.

The filter name appears in the Filter Name field and the conditions for the filter appear in the Filter Definition window.

3 Select one of the following:

- To delete all the conditions for the selected filter click Delete All Conditions. All the conditions for the selected filter are removed from the Filter Definition window.
- To delete one condition, in the Filter Definition window, click on the condition that you want to delete and click Delete Condition. The selected condition is removed from the Filter Definition window.

4 Click Change Filter to make the changes to the filter.

If you select the same filter again, the changes appear.

5 Save the changes. See “Saving filters” (page 109).

Procedure to change the order of filter conditions

In the Filter Preferences dialog, use the Move arrows and the following procedure to change the order of filter conditions:

1 Open the Filter Preferences dialog. See “Opening the Filter Preferences dialog” (page 102).

2 Select a filter from the Active Filters or Inactive Filters list.

The conditions for the selected filter appear in the Filter Definition window.

3 In the Filter Definition window, click on the condition that you want to move.

4 Use the arrows at the left of the scroll window to move the filter condition in the direction that you want.

The selected filter condition moves to the next row in the direction that your have selected. Each click moves the condition another row.

5 Click Change Filter to make the changes in the filter.

6 Save the changes or cancel the session. See “Saving filters” (page 109).

Changing the order of filters in the Active Filters list

You can modify the order of the filters appearing in the Active Filters list, using the following procedure:

1 Open the Filter Preferences dialog. See “Opening the Filter Preferences dialog” (page 102).

2 Select the filter that you want to move.

3 Press the Move arrow at the left of the Active Filters window in the direction that you want to move the filter.

The selected filter moves to the next row, changing places with the filter on that row. Each click on the arrow moves the filter to the next row.

4 Save the changes or cancel the session. See “Saving filters” (page 109).

Deleting filters

You can use the Delete buttons at the bottom of the Active Filters and Inactive Filters lists in the Filter Preferences dialog to delete a filter. Use the following procedure to delete a filter:

1 Open the Filter Preferences dialog. See “Opening the Filter Preferences dialog” (page 102).

2 From the Active Filters or Inactive Filters list, select the filter that you want to delete, and proceed as follows:

- To delete a filter from the Active Filters list, click on the name of the filter you want to delete in the Active Filters list, and press the Delete button at the bottom of the Active Filters list.
- To delete a filter from the Inactive Filters list, click on the name of the filter you want to delete in the Inactive Filters list, and press the Delete button at the bottom of the Inactive Filters list.

The selected filter is deleted from the list.

3 Save the changes or cancel the session. See “Saving filters” (page 109).

Activating and deactivating filters

You need to activate a filter before you can use it. See “Activating a filter” (page 113).

You need to deactivate a filter that you do not want to use. See “Deactivating a filter” (page 114).

Activating a filter

To activate a filter it must appear in the Active Filters list in the Filter Preferences dialog. You can transfer a filter from the Inactive Filters list to the Active Filters list, using the Transfer arrow. More than one filter can be active at any one time.

The following procedure describes how to activate a filter:

1 Open the Filter Preferences dialog. See “Opening the Filter Preferences dialog” (page 102).

2 In the Inactive Filters list, click on the name of the filter that you want to activate.

3 Click the left pointing arrow.

The selected filter moves from the Inactive Filters to the Active Filters list.

4 Save the changes. See “Saving filters” (page 109).

When you select the Filtering: On option in the Passport Component Provisioning main window (see, “Filtering option” (page 89)), the filters that are transferred to the Active Filters list are enabled.

Filters that are in the Active Filters list when you exit a Passport component provisioning session are restored automatically when you start a new session. To deactivate the filter, you must transfer it from the Active Filters list to the Inactive Filters list in the Filter Preferences dialog. For the procedure to deactivate a filter, see “Deactivating a filter” (page 114).

Deactivating a filter

To deactivaFilter Preferences dialogte a filter, you must transfer the filter from the Active Filters list to the Inactive Filters list in the Filter Preferences dialog, using the Transfer arrow.

The following procedure describes how to deactivate a filter:

1. Open the Filter Preferences dialog.
2. In the Active Filters list, click on the name of the filter that you want to deactivate.
3. Click the right pointing arrow.

   The selected filter moves from the Active Filters to the Inactive Filters list.
4. Save the changes. See “Saving filters” (page 109).

   When you select Filtering: On in the Passport Component Provisioning main window (see “Filtering option” (page 89)), the filters that appear in the Inactive Filters list are not enabled.

Editing and viewing service data

The *Edit* command allows you to alter service data information. The edit vary, depending on the component being edited. If you want to view the service data and not make any changes, you can use the *View* command. The Edit and View commands are found in the Component and Subcomponents areas. You can open multiple windows when editing and viewing different components.

The Verify action buttons at the bottom of the Edit/View dialog are used to check the accuracy of the service data.

See also...

- “Edit/View dialog” (page 114)
- “Edit/View procedures” (page 118)
- “Data entry lists” (page 120)

Edit/View dialog

The Component Provisioning Edit/View dialog, or form, is used to edit, view, and verify service data for Passport components. If you need, you can concurrently display Edit/View dialogs for multiple components.

See “Edit area dialog” (page 116) for an illustration of the Edit/View dialog.

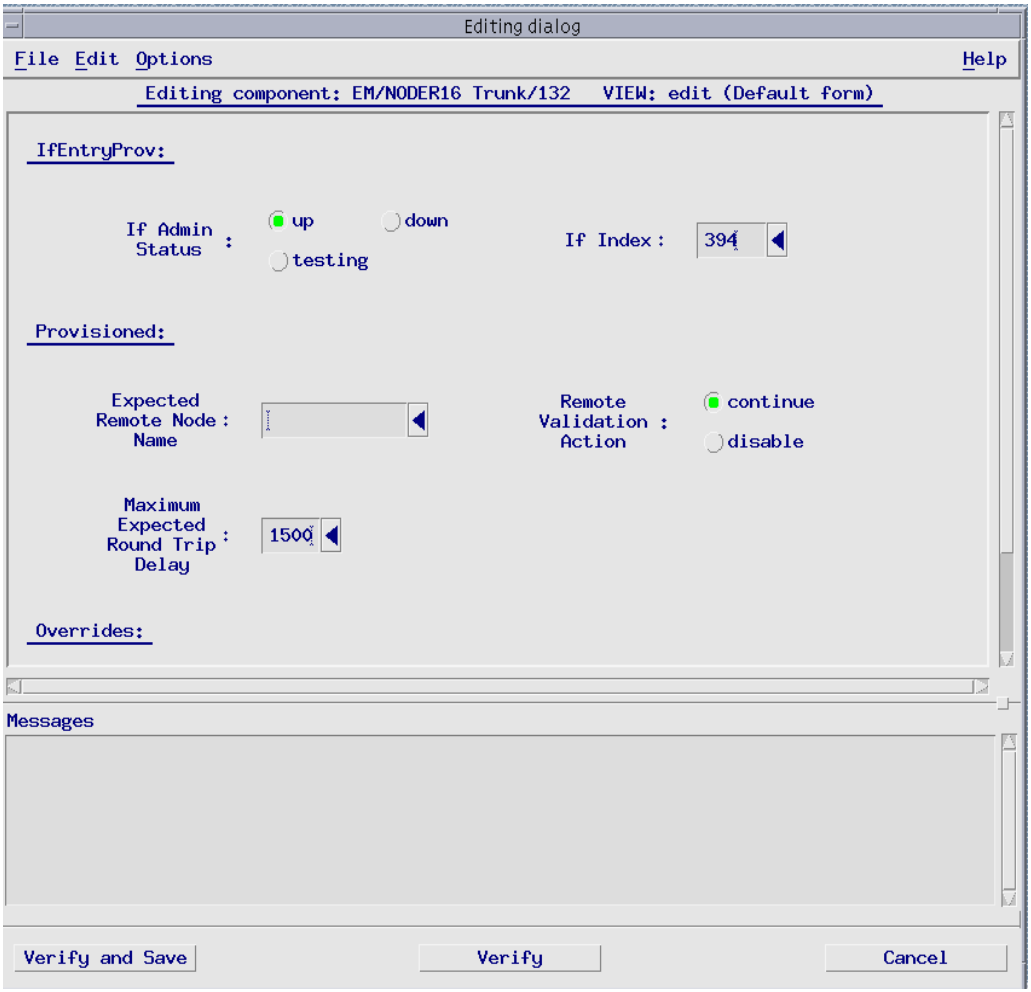
See “Edit/View procedures” (page 118) for information on how to view, edit, and verify service data.

The display of Edit/View dialogs can be customized. For information on customizing Edit/View forms used during component provisioning, see “Custom Forms” (page 131).

See the following sections for information on the parts of the Edit/View dialog:

- “Menu bar” (page 117)
- “Component title” (page 117)
- “Service data entry area” (page 117)
- “Messages area” (page 118)
- “Action buttons” (page 118)

Figure 7
Edit area dialog



Menu bar

The menu bar contains the options *File*, *Edit*, and *Options*. Most of the commands under these options are enabled only when you are working with custom forms. The two options that may be enabled in the Edit/View dialog are:

- *Show hidden*, under *Options*, which displays hidden fields in a lighter-than-normal color.
- *Revert to saved default values*, under *Edit*, which changes the values of all fields in the dialog, including hidden fields, back to the saved defaults. *Revert to saved default values* is enabled only when you are using a custom form in the Edit/View dialog.

For information on all the menu bar options, see"Form Editor window" (page 134).

Component title

The component title displays the full path name of the component that you are editing or viewing, and the VIEW bundle file name.

Service data entry area

The service data entry area, located just below the component title, is a collection of check buttons and data entry fields that allows you to input service data for a specified component.

All Edit/View windows provide a scrollable data area that contains service parameters, which are represented by one of the following items:

- *Data entry fields* are selected by placing the pointer on the field and pressing *select*. Next, enter the appropriate information. Alternatively, you can select an entry from the data selector menu. Do so by moving the pointer over the text data selector and pressing *menu*. Select an entry from the range of values.
- *Radio button boxes* enable you to turn options on or off. To turn an option on or off, place the pointer on the radio button that is directly to the right of the option you want and press *select*.
- *Check button boxes* are used when there are more than two selections available. Select as many options as you like by placing the pointer on the check button box and pressing *select*.

- *Data entry lists* are used to change groups of fields and fields with dependencies on each other. See “Data entry lists” (page 120).

Messages area

The messages area, located below the service data entry area, displays warning and error messages for the Edit/View dialog.

Action buttons

The action buttons, located at the bottom of the Edit/View dialog, are used to verify, save, or cancel the service data entries. The following action buttons are provided:

- *Verify and Save* verifies the data first then, if correct, saves the data and closes the Edit/View dialog.
- *Verify* checks the correctness of the entered data without saving them, and leaves the Edit dialog open.
- *Cancel* closes the Edit/View dialog without applying any changes to the service data. When you are in View mode, only the *Cancel* button is enabled.

Edit/View procedures

See the following sections for information on the procedures you can use the Edit/View dialog to perform:

- “Viewing service data” (page 118)
- “Editing service data” (page 119)
- “Verifying service data” (page 119)

Viewing service data

You can select the View command from the Component and Subcomponents areas. When you select *View*, the Edit area is displayed. This window is displayed in read-only mode and changes are not permitted.

1. Enter the module and component name, and follow the steps in “Specifying a component” (page 96).
2. Select the component you want to view.
3. Press menu and choose View...

The Edit/View area is displayed with the Verify and the Verify and Save buttons deactivated.

Editing service data

You can select the Edit command from the Component and Subcomponents, areas. When you select *Edit*, the Edit area is displayed, allowing you to both view and make changes to the service data.

1. Enter the module and component name, and follow the steps in “Specifying a component” (page 96).
2. Select the component that you want to edit.
3. Press menu and choose Edit... .

   Depending on the component, one of the many possible Edit areas is displayed.
4. Edit the information as required.

   This is done by entering data and by selecting radio buttons and check boxes.
5. Click Verify to ensure that the changes made to the service data are correct.

   In this case, the Edit window is not closed.
6. Click Verify and Save in the edit area when you complete the changes to the service data.

   The changes are verified and the Edit window is closed. The changes can now be downloaded to the network component.
7. To close the Edit/View dialog without saving the changes, click *Cancel*.

   The Edit/View dialog is closed with no changes made.

Verifying service data

You need to verify service data before you can download changes. For more information on downloading, see “Downloading service data” (page 126).

1. Enter the module and component name, and follow the steps in “Specifying a component” (page 96).
2. Select the component for which you want to verify the service data.
3. Press menu and choose Edit...

   The Edit area displays the service data for the selected component.

4 Click Verify or *Verify and Save* to return to the main window.

The sanity of the service data is verified. If the data is incorrect, an error is displayed in the Messages area of the Edit dialog. You need to correct all errors before saving the changes.

Data entry lists

Data entry lists within an edit form enable you to make changes to groups of repeating fields. These lists facility the handling of groups of fields and fields with dependencies on each other by grouping lists, data entry fields, and action buttons in one area.

Two types of data entry lists exist: an empty list where all columns are blank; and another list where the first or second column has a preset value. In a column with a preset value, whether you are adding new information or replacing existing information, you perform a *Replace*.

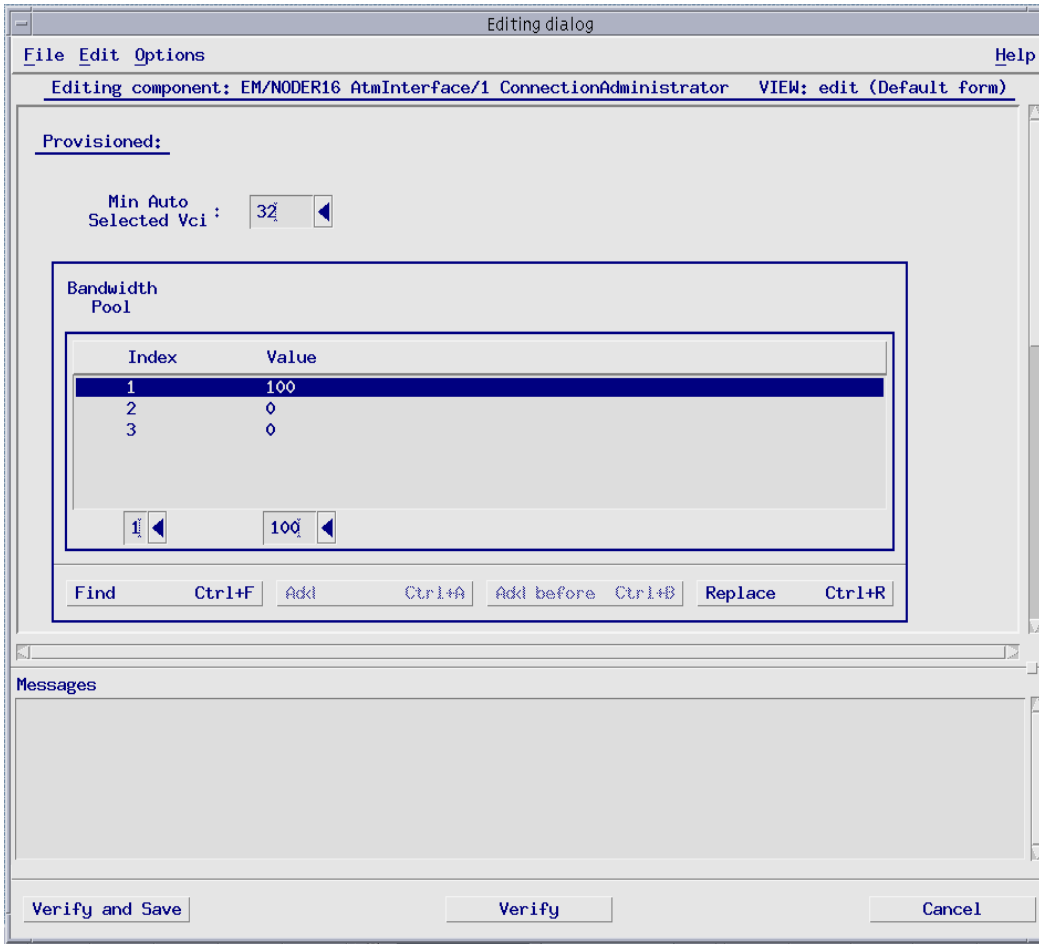
A list can have a different number of columns depending on the data type. When a data entry list has more than one column, the fields in each column are related; one field cannot be added without adding data to the other fields. Each group of fields in the list has its own column, title, and data entry field directly below the list column.

Within each data entry list is a Get list information command that displays information particular to the list. The *Get list information* dialog displays the following information:

- the number of items currently in the list
- the number of items currently selected in the list
- the maximum number of items allowed in the list
- if the list is a sorted list, the method of sorting
- whether the list is a fixed size list

For an illustration of the Data entry list, see the figure “Data entry list” (page 121).

Figure 8
Data entry list



The figure “Data entry list” (page 121) represents just one of many possible lists.

An error icon (X) is displayed beside a data entry field whenever an invalid value is entered. However, you can still close the edit form because the data entry fields are used only for entering service data; they are not the actual service data.

Note: If you select *Cancel*, you will lose any changes made to the currently displayed edit form.

The commands that you can issue on the data entry list are grouped in different areas as follows:

- All the commands that operate only on the list portion are located in the *list title menu.*
- All the commands that need a list item to be selected are located in the *list item menu*.
- All the commands that do not need a list item to be selected are represented as *buttons* at the bottom of the data entry list.

List Title menu commands

The List Title menu commands are as follows:

- *Get List Info* displays a dialog with the following list information:
  - — the number of items currently in the list
  - — the number of items currently selected in the list
  - — if the list is a sorted list, the method of sorting
  - — if the list is a fixed size list

You need to close the dialog before continuing with any editing or other work in Component Provisioning.

List Item menu commands

The List Item menu commands are as follows:

- *Add Before* adds a new list item before the currently selected item in the list. All the data entry fields need to be filled in with valid values. The list cannot be sorted or be of fixed size for the *Add Before* menu item to be enabled.
- *Copy to entry area* takes the selected menu item and places its values in the data entry fields below the list. It does not affect the current list item in any way. The data entry field values can then be modified and added or replaced back into the list.

- *Delete* deletes an item from the list. The list cannot be of fixed size for the *Delete* menu item to be enabled; all currently selected items in the list will be deleted. The only way to undo this action is to cancel the current edit form and re-edit the same component.

  Note: If you select *Cancel*, you will lose any changes made to the currently displayed edit form.

- *Replace* inserts a new list item in the position of the topmost currently selected item and deletes all currently selected items. All the data entry fields need to be filled in with valid values before the *Replace* menu item is enabled.
- *Select all* selects all list items.
- *Deselect all* deselects all currently selected list items.

List button commands

The List button commands are as follows:

- *Add* adds data from the data entry fields to the list as a new list item. See “List Add” (page 123) for details.
- *Find* allows you to search data entry fields based on specified search criteria. See “List Find” (page 123) for details.

List Add

All data entry fields need to be filled in with valid values before the *Add* button is enabled. Then, when you select the *Add* button, the data from the data entry fields is added to the list as a new list item.

If the list is a sorted list, the new list item is placed in the proper location according to the sort criteria; otherwise, the list item is displayed at the bottom of the list. After the list item is added, the data entry fields are erased.

List Find

The *Find* button is enabled as soon as any data entry field has a valid value. When you select the *Find* button, all data entry fields with valid values are used as search criteria. The first list item, from the search start point and matching the values, is selected and scrolled into view.

The search start point is determined as follows:

- If nothing is selected, the search start point is the first item in the list.
- Otherwise, the search start point is the first selected item in the list.

You can find all list items matching the current search criteria by pressing the *Find* button repeatedly.

View Windows

You can use *View* dialogs to look at service data; however, you cannot change the service data parameters. You can start View dialogs by selecting the *View* command from any of the menus in the main provisioning window.

The action buttons at the bottom of a View window are as follows:

- *Verify and Save* is disabled on a View window.
- *Verify* is disabled on a View window.
- *Cancel* exits the current View window.

Key Windows

You can use this dialog to enter a key value when adding or pasting new components. Examples of key values are the address for a DNA_CUG or the cug index for a closed user group (CUG).

The action buttons at the bottom of a key window are as follows:

- *Cancel* cancels the current operation without adding the component.
- *OK* verifies that the key value entered is valid and then proceeds with the operation. If an invalid key is entered, a dialog is displayed.

Add Windows

An *Add* window enables the creation of new subcomponents. You can select one of the components presented. Depending on the component selected, one or more windows are subsequently displayed. These include either Key windows or Edit windows, depending on the type of component that you are adding.

The action buttons at the bottom of an *Add* window are as follows:

- *Cancel* exits the current window without adding the component.
- *OK*, after a desired component is selected from the list, enables you to enter the necessary service parameters for the component into one or more forms.

Adding data

To add data to a data entry list, you need to enter the data in the data entry area. The *Add* command adds the data to the list in the correct position. If sorting is involved, the new list item is inserted into the list according to the specified sort. Otherwise, the new list item is placed at the bottom of the list. The following procedure applies only to lists that do not have preset values. If you add data to a data entry list that has a preset value in the first or second column, you need to perform a *Replace* and not an *Add*. See "Replacing data" (page 125) for more information.

1 Enter the new data in the data entry area.

The add operation is possible only when the data is valid, as indicated by the enabling or disabling of the *Add* button.

If no sorting is involved, the *Add before* button is enabled. Otherwise, the new entry is added to the list according to the specified sort.

2 Click *Add*.

The data is verified. If the data is not valid, an "X" is displayed beside it.

3 Click *Verify and Save* to close the dialog.

Replacing data

You can replace data in the list by entering new data in the data entry area as follows:

1 Select the line in which you want to replace the data.

The information in the list is copied into the data entry fields.

2 Enter the new data in the data entry area.

3 Click *Replace*.

The new data is displayed in the list.

4 Click *Verify and Save* to close the dialog.

Finding data

You can find existing data by typing the value in one or more of the fields in the data entry area. If no matches exist, no selecting occurs. Each find has to match the data in the data entry area exactly; no wildcard capabilities exist.

1. Enter the data that you want to find in the data entry field.
2. Click *Find*.

   The Find command starts searching from the currently selected item, or from the top of the list if no selected item exists. The items that are matched are scrolled into view in the list area and are automatically selected.

Deleting data

You cannot undo fields that were deleted except by cancelling from the edit form.

If the data entry list has a preset value in the first or second column, you cannot delete the information. Follow the steps in "Replacing data" (page 125); leave all data entry fields blank except the column that contains the preset value.

1. Select one or more items that you want to delete from the list.
2. Press menu and choose *Delete*.

   The data is removed from the list.

Downloading service data

After you edit a subcomponent using the Edit area. the module is not affected until the changes are downloaded.

Note 1: Downloading the changes to the individual subcomponent of a module is not permitted.

Note 2: If a download fails because the virtual circuit (VC) between the Preside Multiservice Data Manager (MDM) workstation and the module is broken, you are informed of the situation. You then have to attempt the download again after the problem with the module VC is fixed. In this situation, the system establishes the VC and downloads the updated service data.

See also...

- “Download Message dialog” (page 127)
- “Downloading procedure” (page 127)

Download Message dialog

This dialog displays messages generated during the downloading of service data. The messages can be errors, warnings, or informational messages. You need to correct errors before a download can succeed. If no errors exist, the service data is downloaded. Any warnings or informational messages are returned after the download is complete. Click the action button to dismiss the dialog.

The commands are as follows:

- *Select all* selects all the text in the message area.
- *Deselect* deselects the selected text in the message area.
- *Copy* copies selected text to a buffer.

Downloading procedure

To download changes to a specific Passport switch, follow this procedure:

1 From the *File* menu, choose *Download* or click *Download* in the main window.

The changes for the selected module are downloaded to the Passport node.

After you download the service data, you can issue a variety of commands (activate, commit, copy, etc.), depending on what you want to do with the data. None of these commands are issued in the Component Provisioning tool. For information on the available commands and how to issue them, see 241-5701-050 *Passport 7400, 15000, 20000 Commands*.

Templates

Templates are created from existing service data. A template contains a snapshot of service data that is saved in a file with a user-specified name. When templates are used, a copy of the data is added to the current service data. The data in a template can be as small as an individual channel or as large as all the service data for an entire shelf.

The Templates command found in the Passport View menu, provides a cascade menu that allows you to create, delete, and use service data templates. You can create templates by uploading a view file or adding service data, and selecting Create from the *Templates* cascade menu.

Template Creation dialog

The Template Creation dialog is displayed when you create a service data template. The template is created for the component on which the *Create* operation was invoked. By default, the template name is the name of that component. However, the name can be changed by entering a different name in the *Template* name data entry field.

You can create a maximum of 80 templates for any one component type, for example, Shelf, Card, Software, Collector, or Logical Processor. After you create a template, you can reference it from the component immediately above. For example, a template that you create for a Card is available from the templating menu on the Shelf component (which is the component immediately above the Card). Therefore, although you create a Card template from the Card templating menu, you use and delete it from the Shelf templating menu.

Press *OK* to create the service data template, store it on disk in the directory specified in the Template Preferences dialog, and make it available for use.

Press *Cancel* to terminate the *Create* operation and not create a template.

> ***Note:*** The template name cannot be blank, contain underscores (_), or contain forward slashes (/). The name has to be unique with respect to other service data template names.

Creating templates

1. Select the component in the Passport View area for which you want to create a template.
2. Press menu in the Passport View area and choose *Create* from the Templates cascade menu.

   The Service Data Template Creation dialog is displayed and prompts you for a unique location and name.
3. Enter the unique template name.

   If no name is specified, the system uses the component as the default, for example, Frame Relay.
4. Click OK.

   The name of the new template is displayed in the Messages area. To verify if this new template is created, press menu on the parent component. Choose Use-with forms from the Templates cascade menu. The new template is displayed.

Delete Template dialog

The Delete Template dialog is displayed when you select a template to be deleted. The name of the selected template is displayed.

Press *OK* to delete the template and to close the dialog.

Pressing *Cancel* does not delete the template. The dialog is closed and the operation is aborted.

> ***Note:*** This dialog is only displayed for a template deletion when the *Preferences - Templates - Confirm template deletion* preference is on.

Delete Cancel button

This button cancels the deletion of the service data template.

Delete OK button

This button deletes the specified service data template.

Deleting templates

Templates that were previously created and are no longer required can be removed.

1. Select the component in the Passport View area from which you want to delete a template.
2. Press menu in the Passport View area and choose *Delete Component* from the Templates cascade menu.
3. Click Delete.

   Note: You have the option of not having the confirmation dialog displayed when you use the Delete command. You can access this feature from the Options menu by selecting *Change Template Preferences,* clicking Confirm template deletion, and turning the checkbox off.

   The Delete service data template dialog is displayed and prompts you for a unique location and name.
4. Click OK.

Using templates

Using a template creates service data that is a duplicate of the data in the template.

1. Select the location of the new service data in the Passport View area.
2. If you want each editing dialog for the new service data displayed and available for editing, choose *Use-with forms* from the *Templates* cascade menu.
3. If you want to be prompted to enter the new value for any key fields, choose *Use-without forms* from the *Templates* cascade menu. A separate dialog is displayed for each key.

   Note: The *Use-with forms* option is functionally equivalent to choosing *Use - without forms* and, after the operation completes, individually editing each new component.

Template preferences

You can modify template preferences by using the Change Template Preferences option in the Options menu. You can perform the following options:

- set the directory in which the service data templates are accessed
- disable the Confirm template deletion dialog

Template Preferences dialog

This dialog specifies the following two preferences for service data templating:

- The *Template directory* field specifies from what directory templates are saved and accessed.
- The *Confirm template deletion* checkbox specifies if a confirmation dialog is desired when you delete a template.

Select *Apply* to set the preferences for the current provisioning session and reload templates from the *Template directory*. Error messages are written to the Messages area of the dialog. Press *Close* to close the dialog.

Template directory

The name of the directory from which service data templates are saved and accessed.

Template confirm deletion

If this box is checked, a confirmation dialog is displayed when the *Templates-Delete* option is used. Otherwise, the template is immediately deleted without any confirmation.

Template preferences Cancel button

This button ignores any changes made on this dialog and closes the dialog.

Template preferences OK button

The OK button sets the templating preferences and closes the dialog. These preferences are now in place for the duration of the provisioning session.

In addition, the templates are reloaded from the workstation 'Template directory'. A message indicating how many templates are loaded is displayed in the Provisioning User Interface message area after the preferences dialog is closed.

Custom Forms

Provisioning is made easier and more accurate by using custom forms. You can create a custom form for any subcomponent that can be edited or viewed. The custom form enables you to simplify the display of the Edit/View form

for a subcomponent. In addition, you can use the custom form to set default values for a subcomponent's fields. To create a custom form for a subcomponent, use the Form Editor. See "Form Editor" (page 133).

Once created, a custom form replaces the default form in all operations where Edit/View forms are used, including:

- editing
- viewing
- adding
- templating

Using the Form Editor, you can customize the Edit/View form in the following ways:

- hide the display of fields
- change the display order and grouping of fields
- assign your own default values to fields

Hiding the display of fields

You can hide from view the fields that you do not frequently access, greatly simplifying the custom form. The option *Show hidden* allows you to redisplay any hidden fields. For more information on how the Form Editor handles hidden fields, see "Options menu" (page 137)

Changing the display order and grouping of fields

You can rearrange fields within a custom form. Also, you can define new groups, reorder fields within their group, and move fields into other groups.

Assigning your own default values to fields

You can assign default values by setting the values of the fields. When you save a custom form, the field values are saved as default values. These default values are applied when a custom form is used for any subsequent adding operation.

Form Editor

You create a custom form for a subcomponent by using the Form Editor. When opened, the Form Editor displays an Editing Dialog. When you modify this Editing Dialog and save the changes, you create a custom form. You can save your custom form in one of two ways:

- as a workstation custom form that is accessible to all users of a workstation, or
- as a user custom form that is accessible to one specific user

For details on using the Form Editor, see “Starting the Form Editor” (page 133) and “Form Editor window” (page 134).

The following rules apply to any subsequent custom forms, templating, editing, viewing, and adding operations:

- A custom form takes precedence over a default form.
- A user custom form takes precedence over a workstation custom form.
- If a custom form is used within a templating operation, it gets any relevant service data values for that subcomponent from the template.

You can override this order by establishing custom form preferences. See “Custom form preferences” (page 140).

Starting the Form Editor

To create a custom form for a subcomponent, use the Form Editor.

1. From the Component Provisioning main window, specify the desired component and subcomponent.
2. With the mouse pointer in the subcomponent area, press *menu* to display the Subcomponent menu.
3. From the Subcomponent menu, select *Custom Forms*.

   A cascading menu is displayed.
4. From the cascading menu, select *Create*.

   The Form Editor opens an Editing dialog for the specified subcomponent. The fields displayed in this dialog vary according to the selected subcomponent.

5 Make appropriate changes to the Editing dialog.

6 To save your custom form, from the File menu select either *Save as workstation custom form* or *Save as user custom form*.

Form Editor window

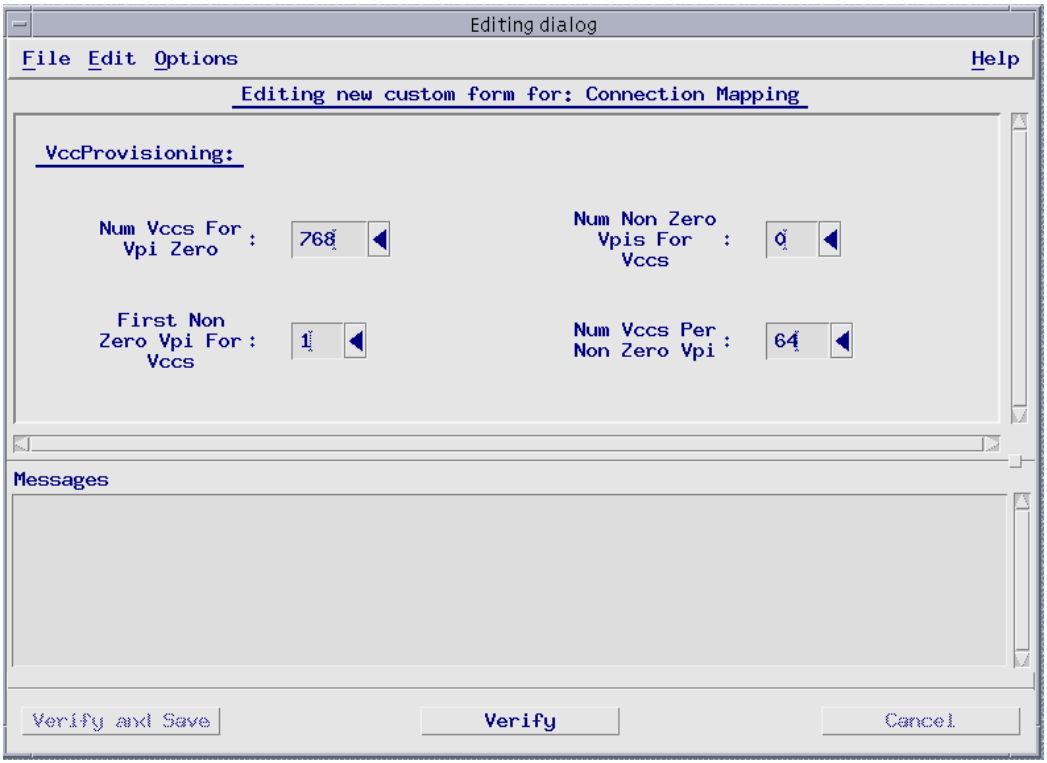
The Form Editor opens and displays an Editing dialog. The content of this dialog depends on the selected subcomponents.

See also...

- “File menu” (page 135)
- “Edit menu” (page 136)
- “Options menu” (page 137)

See the figure “The Editing dialog of the Form Editor” (page 135).

Figure 9
The Editing dialog of the Form Editor



File menu

The Form Editor File menu provides commands that allow you to save custom form definitions or close the Form Editor. The *File* menu contains the following commands:

- *Save as workstation custom form* saves the custom form and permits access to the form by any user of the workstation. When saved in this way, a workstation custom form is used in place of the component default form. Workstation custom forms are stored in the directory */opt/MagellanNMS/cfg/cfdf/FDF_<version>/*, where version is the service data level of the Passport.

- *Save as user custom form* saves the user custom form and only permits access to the form by a specific user. When saved in this way, a user custom form is used in place of a workstation custom form or the component default form. User custom forms are stored in the directory *$HOME/MagellanNMS/cfdf/FDF_<version>/*, where version is the service data level of the Passport.
- *Close* closes the Form Editor.

Edit menu

The Form Editor Edit menu provides commands to display, hide, and group fields. In addition, you can modify and rename groups of fields, as well as set fields to their default values.

Most of the Form Editor Edit menu items work on the selected fields and groups in the Edit/View form. The selection can be a single field or multiple fields. To select a single field, position the pointer over the field label or frame and click *select*. To add fields to a selection, position the pointer over another field label or frame and, while holding down the Shift key, click *select*. To toggle a field in or out of a selection, click *select* over the field label or frame while holding down the Control key.

Unlike the menu items that work on fields and groups, *Revert to saved default values* operates on the entire form.

The *Edit* menu contains the following:

- *Hide* hides the selected fields. The Form Editor uses one of two modes for hidden fields: *Hide hidden* or *Show hidden*. If the Form Editor is in *Hide hidden* mode, the selected fields are not displayed on the form. If the Form Editor is in *Show hidden* mode, the selected fields are displayed in a lighter-than-normal color. For information on how to change the mode, see “Options menu” (page 137).
- *Unhide* displays the selected field regardless of the hidden mode setting.
- *Group* groups selected fields. You can specify a group name for the new grouping.
- *Delete group* deletes the selected group. You can only delete an empty group. For information on how to empty a group, see “Moving fields within a custom form” (page 138).

- *Change group name* changes the name of the selected group.
- *Revert to saved default values* changes the values of all the fields in the form, including hidden fields, back to their last saved defaults.

Options menu

The Options menu lets you determine how the Form Editor handles hidden fields. The Options menu contains the following:

- *Show hidden* mode displays hidden fields in a lighter-than-normal color. Hidden fields are not disabled. You can interact with the hidden fields in the normal manner, for example, by changing values in hidden fields.
- *Hide hidden* mode removes the display of hidden fields so that they do not appear on the form.

Modifying an existing custom form

1. From the Component Provisioning main window, specify the desired component and subcomponent.
2. With the mouse pointer in the subcomponent area, press *menu* to display the Subcomponent menu.
3. From the Subcomponent menu, select *Custom Forms*.

   A cascading menu is displayed.
4. From the cascading menu, select *Change*.

   A second cascading menu is displayed.
5. From the second cascading menu, select either the *Workstation* or *User Custom Form.*

   The Form Editor opens an Editing dialog for the specified subcomponent, displaying the existing custom form.
6. Make your modifications.
7. To save your modifications, from the File menu, select the appropriate save command.

Deleting a custom form

1. From the Component Provisioning main window, specify the desired component and subcomponent.
2. With the mouse pointer in the subcomponent area, press *menu* to display the Subcomponent menu.

3. From the Subcomponent menu, select *Custom Forms*.

   A cascading menu is displayed.

4. From the cascading menu, select *Delete*.

   A second cascading menu is displayed.

5. From the second cascading menu, select either the *Workstation* or *User Custom Form.*

   A Question Dialog that asks for verification to delete the custom form is displayed.

6. To delete the custom form, click the *OK* button.

Moving fields within a custom form

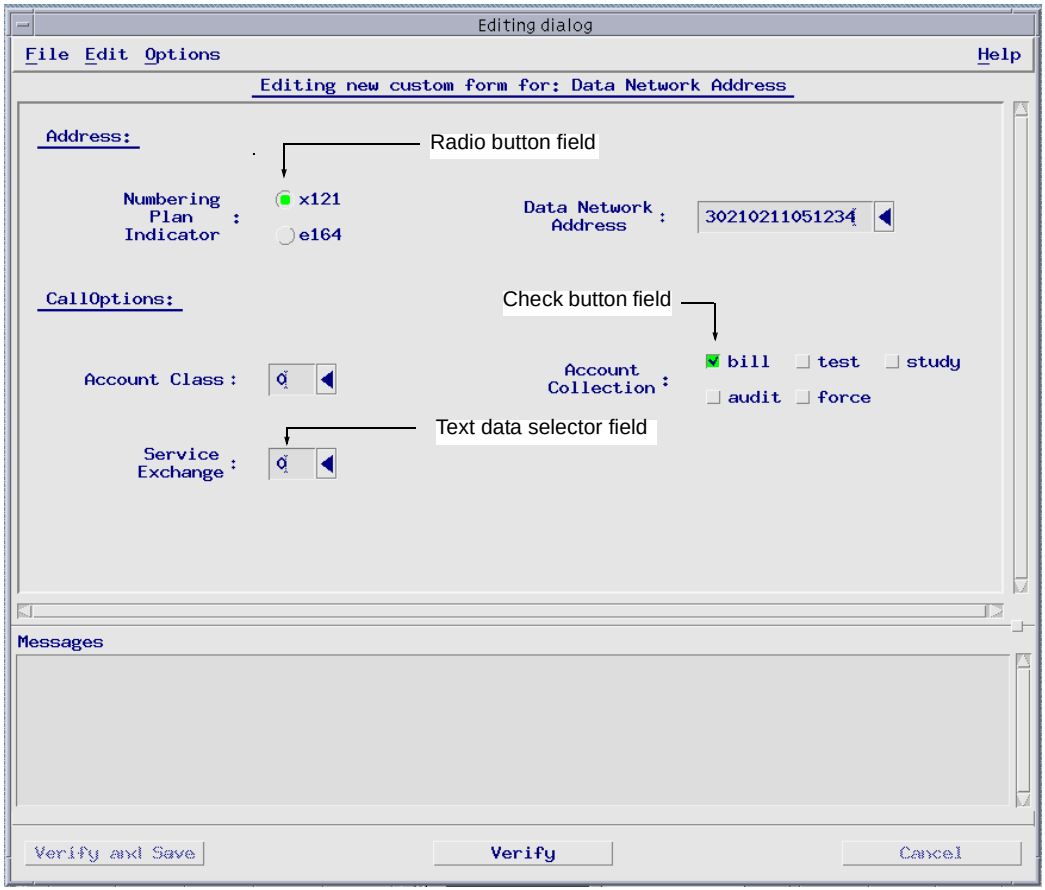
There are several types of fields within the Edit/View dialog. The figure "Form Editor Field Types" (page 139) illustrates text data selector fields, radio button fields, and check button fields. The Form Editor handles check button fields differently from other field types.

You can move fields and groups of fields within a custom form to rearrange the display of the form according to your needs. There is, however, one restriction: you can move a field or group only within a single form, not among different forms.

Before a group can be deleted, it needs to be empty. Move fields out of a group to create an empty group. When a group becomes empty, a frame is displayed below the group name, outlining the drop location. This allows you to move fields back into the group, if necessary, at a later time.

See the figure "Form Editor Field Types" (page 139).

Figure 10
Form Editor Field Types



Moving fields within a form

1 Move the pointer over the label or frame of the field to be moved.

2 Press and hold down both the Shift key and the middle mouse button.

3 While holding down the Shift key and the *modify* mouse button, drag the pointer between the two fields of the desired destination.

As you move the pointer across the form, the pointer changes to indicate either a valid or invalid drop location. A valid location is indicated by a page containing an arrow. An invalid location is indicated by a page containing a circle with a line through it.

4 At a valid destination, release the *modify* mouse button and then the Shift key.

Moving groups within a form

1 Move the pointer over the group name to be moved.

2 Press and hold down both the Shift key and the *modify* mouse button.

3 While holding down the Shift key and the *modify* mouse button, drag the pointer to a valid destination.

As you move the pointer across the form, the pointer changes to indicate either a valid or invalid drop location. A valid location is indicated by a page containing an arrow. An invalid location is indicated by a page containing a circle with a line through it.

4 At a valid destination, release the middle mouse button and then the Shift key.

Custom form preferences

Two types of custom forms are available: workstation custom forms and user custom forms. Workstation custom forms are accessible to all users of a workstation; user custom forms are accessible to one specific user. You can modify custom form preferences from the Options menu by selecting *Change Custom Form Preferences*. The resulting Custom Form Preferences dialog lists two options: workstation custom forms and user custom forms. Specify your preferences by selecting or de-selecting these options. Four choices are available:

- both options de-selected
  When both workstation custom forms and user custom forms are de-selected, only default forms are used for component provisioning.
- workstation custom forms selected
  Workstation custom forms are used in place of default forms.
- user custom forms selected
  User custom forms are used in place of default forms.
- both options selected
  Both types of custom forms are available, however, user custom forms take precedence over workstation custom forms.

To save your custom form preferences to a file, from the Options menu, select *Save Preferences*.

User preferences

You can load user preferences from the *ProvisioningUser.cfg* file in your home directory when a Component Provisioning session is started. The user profile saves your preferences from one provisioning session to the next. This file is optional. If it does not exist, the system defaults are used.

You can modify preferences and save them to disk by choosing Save Preferences from the *Options* menu. When preferences are saved, the previous version is renamed to *ProvisioningUser.cfg.old*.

> ***Note:*** Some options in the preference dialogs may be protected, which prevents you from modifying them. This situation occurs if your system administrator restricts the options available to you.

See also...

- "Upload preferences" (page 141)
- "Download preferences" (page 145)
- "General user preferences dialogs" (page 148)

Upload preferences

You can modify the upload preferences by choosing *Change Upload Preference*s from the *Options* menu. Views are uploaded when an EM (enterprise module), that is not currently updated is entered in the Component field. After you set your preferences, they are valid for the duration of the provisioning session.

When you connect to a Passport node that is downgraded to a lower software level, you can encounter problems in uploading the current view. This situation is due to the current view requiring a higher software level. In this case, you can upload the edit view instead of the current view.

See also...

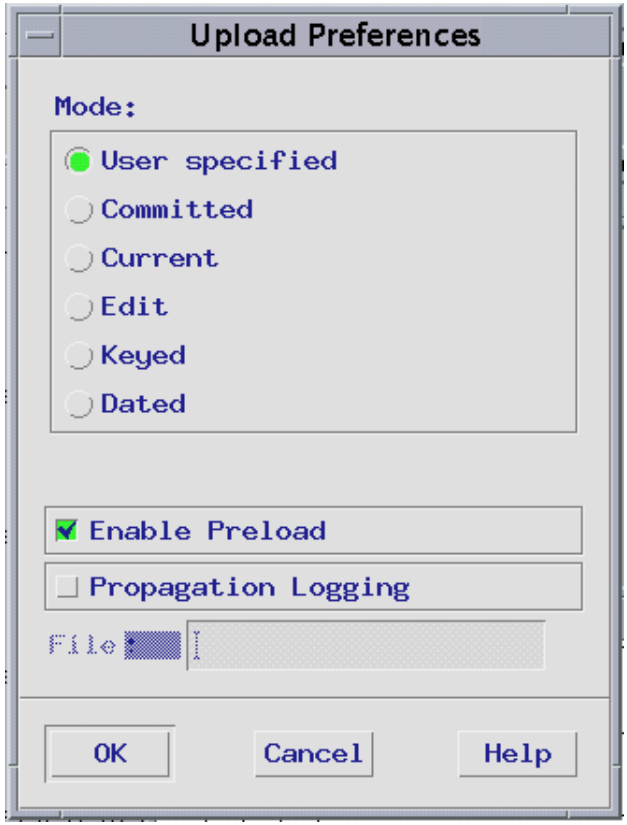
- "Upload Preferences dialog" (page 142)

Upload Preferences dialog

The Upload Preferences dialog lets you specify how you prefer the service data views to be uploaded by Component Provisioning. This dialog also lets you specify whether you wish to enable preloading of the service data view or enable propagation logging. After you set your preferences, they are valid for the duration of the provisioning session.

See the figure “Upload Preferences dialog” (page 142).

Figure 11
Upload Preferences dialog



After you set preferences in the dialog, click *OK* to confirm them and close the dialog; or click *Cancel* to close the dialog without saving any changes.

See the following sections for information on the preferences that you can set:

- "Mode panel" (page 143).
- "Enable Preload button" (page 144).
- "Propagation Logging button" (page 145).

Mode panel

You can use the *Mode* panel to specify the method for finding the service data view to be uploaded each time an upload occurs. An upload occurs when an EM (enterprise module) is entered in the Component field and the service data view is not currently uploaded for that EM. You can select one of the following:

- *User specified* uploads the service data view according to a user-specified view name.

  When you select *User Specified,* you are prompted for the view file name. A valid view file name has the format

  ```
  view_name[.type[.number]]
  ```

  where:

  `view_name` is an alphanumeric string with 1-31 characters.

  `type` can only be *full* or *part*

  `number` is a three-digit number.

  If the number is not specified, the latest version of the view file is uploaded.

  When you specify the view file name, you do not need to enter the extension. If more than one copy of the view file exists, the latest version is uploaded.

- *Committed* uploads the committed service data view on the selected EM.
- *Current* uploads the current service data view on the selected EM.
- *Edit* uploads the edit service data view on the selected EM.

  Preloading of the service data view is not performed when this button is selected.

- *Keyed* uploads the service data view according to a key.

  When you select *Keyed*, you are prompted for the key. A valid key has the format <*key*>*nnn*.

  The service data view with the highest index (*nnn*) is uploaded.

- *Dated* specifies uploading according to a date.

  When you select *Dated*, you are prompted for a date. You can enter a valid date or *today* in the *Date* field. Entering *today* substitutes the current date at upload time so that you always get the latest service data file.

  A dated view has the format <*yymmdd*>*nnn*, where *nnn* is an index. See "Date Convention" (page 28) for more information on the date format.

  Date mode is similar to keyed mode. However, when an exact match does not exist, the most recent service data view, relative to the date, is uploaded. That is, the dated service data view with the latest date earlier than the given date is uploaded.

Enable Preload button

Select *Enable Preload* to enable preloading of the Passport service data view whenever you start a provisioning session. By default, preloading is turned on.

If preloading is turned off, when you access a component, Passport Devices Configuration needs to send requests to upload the service data view from the Passport switch. Processing these requests can take considerable time if the view contains many components and you need to access a large number of them.

If preloading is turned on, the service data view is uploaded automatically when you start a session. Preloading provides little advantage if the view contains only a few components or if you need to access only a few components in a large view.

The preload option is ignored when you set the upload mode preference to *Edit*. This situation occurs because the Passport provisioning stack (fps) needs to retrieve data from the Passport editing view located on the Passport switch. See “Component level procedures” (page 95).

Propagation Logging button

Select the *Propagation Logging* button to create a log file of the changes made to Passport service data during a session. You can turn logging on only when an upload is done. You can turn logging off any time by using the Stop module logging option from the File menu.

Download preferences

You can modify the download preferences by choosing *Change Download Preferences* from the *Options* menu. Views are downloaded when you select Download from the *File* menu or the main window. After you set your preferences, they are valid for the duration of the provisioning session.

See also...

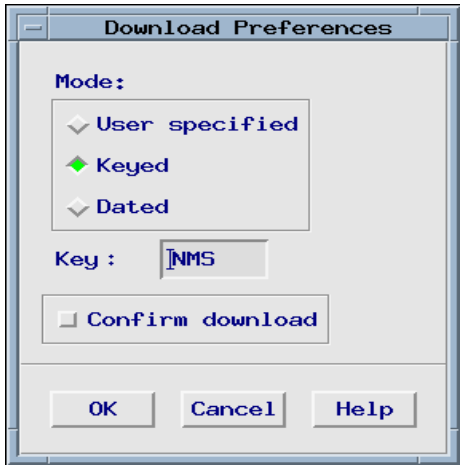
- “Download Preferences dialog” (page 145)

Download Preferences dialog

This dialog allows you to specify how you prefer service data views to be downloaded by Component Provisioning. Service data views are downloaded when you select the *Download* button. After you set your preferences, they are valid for the duration of the provisioning session.

See the figure “Download Preferences dialog” (page 146).

Figure 12
Download Preferences dialog



See the following sections for information on the preferences that you can set:

- “Mode panel” (page 146)
- “Download Key” (page 147)
- “Download Date” (page 147)
- “Confirm Downloads” (page 147)

Mode panel

Mode indicates the method used to name the new service data view that is created each time a download takes place. You can select one of the following:

- *User specified* enables you to specify the name of the service data view that you wish to download. You are prompted for the name of the service data view.
- *Keyed* enables you to specify a key in the *Key* field, which is used to search for service data views. The service data view that matches the pattern and that has the highest index is found, and the next view in the sequence is created. Keys can be 1 to 6 alphanumeric characters long. A fully numeric download key cannot be less than 3 digits. For example, the key 999 is not valid while 99A and 0999 are valid.

Note: The *Key* field is not visible until you select *Keyed* mode.

- *Dated* enables you to specify a date, or *today* for the current date, in the *Date* field, which is used to search for view files. Using the search string <*yymmdd*>*nnn*, the service data view with the highest index (*nnn*) is found, and the next view in the sequence is created. See "Date Convention" (page 28) for more information on the date format.

  Note: The *Date* field is not visible until you select *Dated* mode.

Download Key

The value supplied for this field is used to search for the service data view with the format <*key*>*nnn*. If a download Key consists of only numeric digits, its length needs to be greater than 3 digits. The service data view with the highest index is found, and the next view in the sequence is created. The Key field is used only when the Download Mode is *Keyed*. This field is not visible until you select *Keyed* mode.

Download Date

You can enter a valid date or *today* in the *Date* field. Entering *today* substitutes the current date at download time so that you always download a new file with the key set to the current date.

The value supplied for this field is used to search for the service data view with the format <*yymmdd*>*nnn*. The service data view with the highest index is found, and the next view in the sequence is created. See "Date Convention" (page 28) for more information on the date format. The Date field is used only when the Download Mode is *Dated*. This field is not visible until you select *Dated* mode.

Confirm Downloads

Confirm Downloads indicates whether or not the Download Confirmation dialog is presented for each download. However, if the download parameters create any warnings, the Download Confirmation dialog is presented.

- *OK* sets the indicated preferences and closes the dialog. These preferences are now in place for the duration of the provisioning session.
- *Cancel* ignores any changes made on the dialog and closes the dialog.

The *Mode* area lets you indicate the method used to name the new service data view that is created each time a download takes place.

Key and *Date* fields are visible only when you select the *Keyed* and *Dated* radio buttons. If you select the *User specified* option, you are prompted for a view name. A valid view name is an alphanumeric string with 1 - 31 characters.

Two semantic error checking options are *Full Check* and *Stop On Error.*

- To perform the checking on the changed components only, deselect the *Full Check* button.
- To get all semantic errors, deselect the *Stop On Error* button.

  Note: If the Passport module does not support these options, a *full check* is performed by default and all errors are reported.

Options for saving are as follows:

- *Ascii* saves the view in an ASCII format.
- *Portable* saves the complete view in a portable format.

  Note: Saving the view in ASCII format can take a long time, and it also takes more time to load the ASCII file.

Confirm Downloads displays a dialog when a download is performed. This dialog displays any errors or warnings.

General user preferences dialogs

See the following sections for information on general user preferences dialogs:

- “User-Specified dialog” (page 149)
- “Question dialog” (page 149)
- “Error dialog” (page 149)

User-Specified dialog

The User-Specified dialog is presented when uploading or downloading a service data view. After you specify the name of the view, this information is used to search for or create a service data view. It provides the following commands:

- *OK* proceeds with the operation.
- *Cancel* cancels the operation.

Question dialog

The Question dialog presents you with a question. The question can contain several lines of text that you can scroll. You can copy and paste the text to another window. The *Yes* button answers the question in the affirmative and action is taken in the context of the question. The *No* button answers in the negative.

Error dialog

The Error dialog presents you with error messages. A message can contain several lines of text that you can scroll. You can copy and paste the text to another window. The *OK* key acknowledges the error and closes the dialog window.

Working with context

Context enables different applications to communicate a selected part of service data. For example, if a given application is working on a specific card, it can broadcast the information for that card using the Put context command. Other applications can then retrieve the information by using the Get context command.

See also...

- “Putting context” (page 149)
- “Getting context” (page 150)

Putting context

The Put context command is used to place a component name in the context buffer for another application. The Put context command is available in the Component and Subcomponents area menus. If you select a component from

one of these area menus, use the Put context command from the area in which the component is selected. For more information on Context, see 241-6001-011 *Preside MDM Fault Management User Guide*.

1. Select the component that you want to context.
2. Press menu on that component and choose Put context.

   The component name is placed in the context buffer, where it can be retrieved by another application.

Getting context

The Get context command from the Component area menu is used to retrieve a component from the context buffer. You can use this command after you place a component in the context buffer. For example, when using the Surveillance tools you might detect a problem with one of the components. If you suspect that the problem is a service data problem, you can place the component in the context buffer by using the Put context command in the Surveillance tool. You can then open Component Provisioning and retrieve that component by using the Get context command.

1. Place the cursor in the component area.
2. Press menu and choose Get context.

   The component is added to the Component area.

Packet Control Facility (PCF) filter files

The Packet Control Facility (PCF) is a utility for gathering statistics and controlling packets passing through a routing facility on a Passport switch. PCF filter files can be used to apply rules to packets passing through a router. See the figure “PCF filter file edit dialog” (page 151).

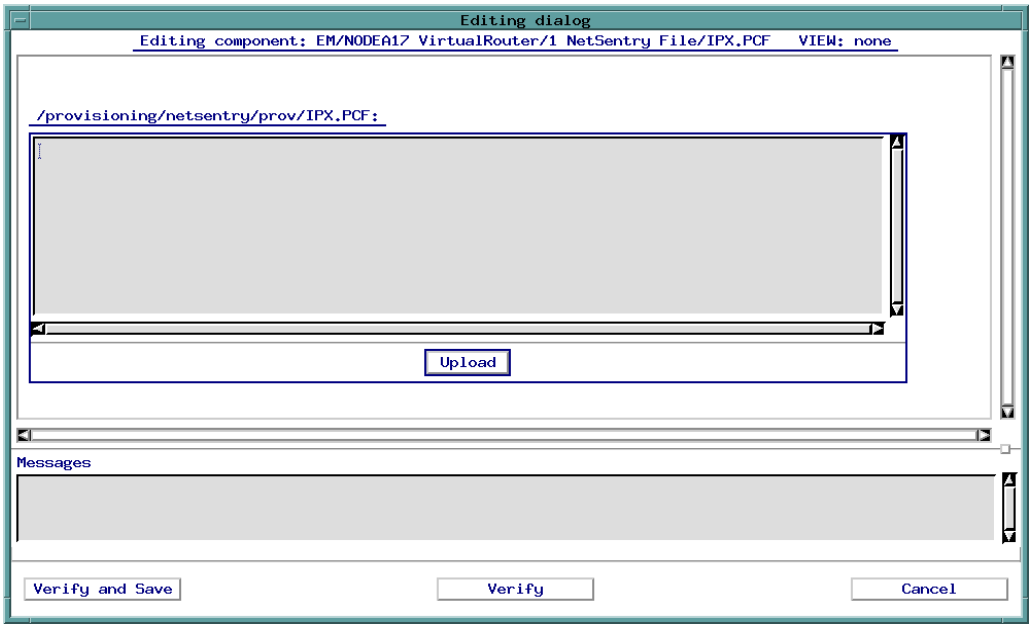
A PCF component exists for each filter file. You can add, modify, or delete PCF components using Component Provisioning. The PCF filter files are transferred from the Passport switch to the Preside Multiservice Data Manager (MDM) workstation using FTP. After the filter file is modified, it is transferred back to the Passport switch using FTP and deleted from the Preside Multiservice Data Manager (MDM) workstation. The IP address of the Passport switches has to be directly accessible from the MDM workstation through the Host Group Directory Server (HGDS).

PCF filter files are used for the NetSentry facility, starting at Passport Release 2.0. For more information, see 241-5701-350 *Passport 7400, 8700 Security and Access Control Guide*.

See also...

- “Add PCF filter file” (page 151)
- “Edit PCF filter file” (page 152)
- “Delete PCF filter file” (page 152)
- “Discard PCF filter file” (page 153)

Figure 13
PCF filter file edit dialog



Add PCF filter file

A PCF component has to exist before you can add a filter file. See “Adding a component” (page 97) for more information.

1. Select the PCF component to which you want to add the PCF filter file.
2. Press *menu* and choose *Edit*.

   A PCF edit window is displayed.
3. Add the filter file information.
4. Click *Verify and Save*.

   All errors and information messages are displayed in the Messages area.

   The new filter file information is downloaded to the Passport switch and deleted from the MDM workstation.

Edit PCF filter file

A PCF filter file is edited from a PCF component. The PCF component is uploaded from the Passport switch and downloaded after the changes are made.

1. From the Passport View area, select the PCF component that you want to edit.
2. Press *menu* and choose *Edit*.

   The PCF Filter edit dialog is displayed.
3. Click *Upload*.

   The PCF filter file information is uploaded from the Passport switch to the Preside Multiservice Data Manager (MDM) workstation.
4. Make the necessary changes to the filter file.
5. Click *Verify and Save* to save the filter file changes.

   All errors and information messages are displayed in the Messages area.

   The changes are downloaded to the Passport switch and deleted from the MDM workstation.

Delete PCF filter file

When you delete a PCF filter file from a PCF component, only the component is deleted from the component hierarchy. The PCF filter file remains on the Passport switch.

1. From the Passport View area, select the PCF component that you want to delete.

2 Press *menu* and choose *Delete Component*.

The component is removed from the dialog box.

Discard PCF filter file

The Discard command is enabled only when you add or modify a new component. When you copy a PCF filter file from the Passport to the Preside Multiservice Data Manager (MDM) disk for editing, a backup version of this file is kept with the filename extension *.old*. When you use the Discard command, the file with the *.old* file extension is saved back to the Passport switch and deleted from the MDM workstation.

1 From the Passport View area, select the PCF component that you want to discard.

2 Press *menu* and choose *Discard*.

The component is removed from the list.

Note: Cut, Copy, and Paste operations work the same way for PCF components. The associated PCF files are uploaded, copied, and downloaded back to the switch as necessary. However, the PCF files are not deleted from the switch.

Passport propagate command

The Passport propagate (ppropagate) command is a UNIX command line application. This application is used for making identical service data changes for several views in the same Passport module.

Using the ppropagate command is a two-step process: first, you need to create the propagation log file from a Component Provisioning session; second, the ppropagate command is used from the UNIX command line.

The propagation log file created in the Component Provisioning session needs to contain only one upload and download session. If the log file contains more than one, the ppropagate command issues a message and fails.

When you use the ppropagate command, you are prompted for a Passport group password. In this case, the destination and capability id are obtained from the propagation log file. The *ppropagate* command sends all its responses to stdout and issues error messages for the following:

- incorrect invocation of the command
- missing or illegal responses to prompts
- failure to provide a valid Passport group password
- provision of an unsuitable propagation log file

When the ppropagate command has completed, you can exit or provide an upload and download mode to propagate more changes. If you continue from this point, the log file with the same Passport access information is reused.

The ppropagate command syntax is as follows:

```
/opt/MagellanNMS/bin/ppropagate [-v] [-h]
```

Creating a propagation log file

1. In the Preside MDM window, select Configuration -> Passport Devices -> Component Provisioning.

   The Passport Component Provisioning window opens.

2. From the Options menu, choose Change Upload Preferences.
3. Select Propagation Logging.
4. Supply a filename for the propagation log file.

   If no filename is specified, the system creates a default log file with the name <module name>.prop.

5. Upload the service data view.
6. Perform the service data changes.
7. Download the changed service data as a new view.

   The resulting propagation log file is ready to use with the propagate command.

Using the propagate command

1. Open a UNIX xterm.

2 Invoke the propagate command by entering

/opt/MagellanNMS/bin/ppropagate

3 Enter the propagation log file name.

4 Enter the Passport group password.

5 Specify the upload mode and source upload key.

6 Specify the download mode and target download key.

The propagation log file is applied against the requested view. Any error messages and notes resulting from the propagate are displayed on the screen.

7 Respond to the prompt that is displayed after downloading: exit; or provide an upload and download mode (or accept the default) and repeat step 5.

Example

The following is an example of a successful user-specified upload and keyed download.

```
/opt/MagellanNMS/bin/ppropagate
Enter passport propagation log file = MYNODE.PROP
Passport Group Mnemonic:  MYGROUP
Passport node:  MYNODE
Capability id:  USERID
Enter capability password = <xxxxx>

Enter upload mode [(x) to exit]
[(u)ser (k)eyed (d)ated co(m)mitted (c)urrent (e)dit
{default: u}] = <cr>
Enter source upload view {default: OLD} = <cr>

Enter download mode [(x) to exit]
[(u)ser (k)eyed (d)ated [default: k}] = <cr>
Enter target download key {default: NEW} = <cr>

NOTE: View "OLD.full.263" uploaded
NOTE: View "NEW06.full.278" downloaded

Enter upload mode [(x) to exit]
[(u)ser (k)eyed (d)ated co(m)mitted (c)urrent (e)dit
{default: u}] = x
```

Passport global data manager tool

The Passport global data manager (*p*gdm) tool is a UNIX command line application. This application is used for propagating global service data from one Passport module to other selected Passports, and for replacing attribute values globally.

Using the pgdm command is a two-step process: first you need to create two input files, the module name file and the component file; second, the pgdm command is used from the UNIX command line.

See “Global Data Manager” (page 211) for complete instructions.

Chapter 5
Network Activation

This section describes the Network Activation tool and contains procedures for using it. Additional background information is included to help you understand how the tool is used.

You can find the following information on procedures:

The information below describes the Network Activation tool:

- “The Network Activation tool” (page 178)
- “Network Activation dialogs” (page 193)
- “Network Activation main window” (page 184)

Starting the Network Activation tool

Start the Network Activation Tool to load a Network Activation File (NAF) or create new Network Activation records, and then execute the NAF.

Procedure steps

1 In the Preside MDM window, select **Configuration -> Passport Devices -> Administration -> Network Activation tool**.

The *Network Activation* window opens.

Executing a Network Activation File from the GUI

Executing a Network Activation File (NAF) from the GUI involves the following steps:

- loading a NAF, if you wish to execute records from an existing NAF
- making any required modifications to the NA records
- rearranging records so that they appear in the record list in the desired execution order
- selecting the records to execute in the record list
- authenticating with the Passport group that is the target for the View
- clicking on *Execute* to open the *Execute* dialog
- setting up parameters for the execution in the *Execute* dialog
- clicking OK in the execution dialog to execute the records

Blue, yellow, or red records are not executed. If both critical and non-critical records are selected, the critical records are always executed sequentially before non-critical records. If the activation of a critical View fails, the tool will not process the next record.

If records apply to Passports in more than one group, you need to authenticate with each group to execute all records. To minimize authentication, use the up and down arrows to group records according to the Passport group before you execute them.

To execute a NAF using the graphical user interface of the NAT, do the following:

1 If you wish to execute an existing NAF, load the NAF into the records list as described in “Loading a Network Activation File” (page 163).

Note: You do not need to load a NAF to execute NA records. You can create new records in the record list and execute them, and if desired, save them to a NAF later.

2 If desired:

- Add any new records as described in “Adding new Network Activation records” (page 165).

- Modify existing records as described in “Modifying several records using the Passport Preference dialog” (page 167).
- Delete undesired records as described in “Clearing all records from the record list” (page 171).

3 Re-arrange the execution records into the desired execution order.

To move a record, click on the record to select it, then click the up arrow or the down arrow to move the record up or down in the list.

If records apply to Passports that belong to more than one Passport group, we recommend you group records according to the Passport group.

Note 1: You can select and move more than one record at a time.

Note 2: All critical records are executed first, one at a time, followed by the non-critical records.

4 Create or modify pre- or post-activation scripts as described in “Creating or modifying the script lists” (page 168).

5 In the NAF window, select the records to be executed by clicking on them.

Only select records that belong to Passports in the same Passport group.

The records become highlighted to indicate that they are selected.

6 Select **Passport Group Authenticate** from the **Security** menu.

The **Passport Group Authentication** Dialog opens.“Authentication dialog” (page 31).

7 Enter or select the Passport group name, and enter a valid userid and password for the group.

8 Click **OK** to authenticate.

Authentication takes place. If authentication is successful, the dialog closes.

9 In the NAF window, click **Execute.**

The **Execution** dialog opens.

10 In the **Execution** dialog, specify:

- the working directory, if desired
- the number of processes to a number other than 1, if required
- the name of a log file to be used for execution information

For more information, see “Execution dialog” (page 205).

11 Click **Execute** to begin executing the selected records.

Execution begins and colors of fields and records change as execution progresses. Information about the execution is written into the log file you specified in the Execution dialog.

While execution is underway, the **Execute** button is replaced by a **Stop** button that can be used to halt execution. Halting execution turns the record in which execution is halted to yellow and launches the Processing dialog.

As each process is performed, the corresponding field in the record turns from blue to green.

If the action completes successfully, the field turns from green to blue and the next field turns green. When all actions on a record are completed successfully, the entire record turns blue. If an action fails, the entire record turns red or yellow according to the severity of the error.

12 If there are records to execute for Passports in another Passport group, go back to step 5 to select these records, re-authenticate, and execute them.

13 If you wish to execute the records again, select the records to be executed, choose **Reset** from the record list pop-up menu, and start back at step 9 to re-execute the records.

Loading a Network Activation File

Load an existing Network Activation File (NAF) into the Network Activation (NA) record list to prepare the NAF for execution.

Procedure steps

1. Choose **Load** from the **File** menu in the **Network Activation** main window.

   The **Load NAF dialog** opens. See also: “Load NAF dialog” (page 194).

   If there are any records displayed in the record list, a confirmation dialog opens and prompts you for permission to clear entries in the record list before loading the NAF.

2. Specify the NAF to load in one of the two following ways:

   - Enter the full path of the file in the **Network Activation File** field.
   - In the **Filter** field, enter the full path of the directory to be used as the starting point for finding the NAF to load. In the **Directories** panel, click on the name of the appropriate subdirectory. In the **Files** panel, click on the name of the NAF to load. The name of the file you have selected appears in the **Network Activation File** field.

3. Click **Load**.

   The **Load NAF dialog** closes and the records from the NAF are loaded into the record list.

Modifying Passport Preferences

Use this procedure to change or set Passport Preferences, which are the default values that are used for a new Passport record.

Procedure steps

1. Choose **Passport Preferences** from the **Options** menu in the **Network Activation** main window.

   The **Passport Preference** dialog opens. See “Passport Preference dialog” (page 201).

2. Change the appropriate preferences for the target View and the actions to be performed. One of the four actions must be selected for the record to be valid.

   - If **Run pre-activation scripts** is selected, you can add one or more pre-activation scripts to this record. See “Creating or modifying the script lists” (page 168).
   - If **Run post-activation scripts** is selected, you can add one or more post-activation scripts to this record. “Creating or modifying the script lists” (page 168).

3. Click OK to close the **Passport Preferences** dialog.

4. If you want to save these preferences for future use, choose **Save Preferences** from the **Options** menu.

Adding new Network Activation records

Add any new Network Activation (NA) records to the record list so they can be processed (activated and committed) for the desired modules in a network.

Procedure steps

1. If the record list is empty the **Network Activation** main window, go to step 4.
2. Click on a record.

   The entire record becomes highlighted to indicate that it is selected. Any new record is added immediately below the record that is selected (highlighted). If you want to re-order the records, see “Up and down arrow buttons” (page 190).
3. Select **Add Passport Record...** from the **Edit** menu or from the record list pop-up menu.

   The Passport Edit dialog opens. See also “Passport Edit dialog” (page 197).
4. Enter the module name and target View, and specify the actions to be performed.

   - If **Run pre-activation scripts** is selected, you can add one or more pre-activation scripts to this record. See “Creating or modifying the script lists” (page 168)
   - If **Run post-activation scripts** is selected, you can add one or more post-activation scripts to this record. See “Creating or modifying the script lists” (page 168).
5. Click **OK** to add the new record to the record list.

   The new record appears after the currently selected record in the NAT window.
6. Repeat this procedure, once for each new record to be added to the record list.

You are now ready to save the records to a NAF or to execute the NA records in the record list.

Modifying a single Network Activation record

You can modify a single Network Activation (NA) record using the Edit Passport dialog if you want to specify different data or actions for the record.

Procedure steps

1. Double-click on the record to be modified in the **Network Activation** main window; or, select the record and choose **Edit** from record list pop-up menu.

   The **Passport Edit dialog** opens if the record is a Passport NA record.

2. Modify the data in the record.

   For more information, see “Passport Edit dialog” (page 197).

3. Modify the target view and specify the actions. One of the four actions must be selected for the record to be valid.

   - If **Run pre-activation scripts** is selected, you can add one or more pre-activation scripts to this record. See “Creating or modifying the script lists” (page 168)
   - If **Run post-activation scripts** is selected, you can add one or more post-activation scripts to this record. “Creating or modifying the script lists” (page 168).

4. Click **OK** to apply the changes.

You are now ready to save the changes to a NAF or to execute the NA records in the record list.

Modifying several records using the Passport Preference dialog

You can modify several records at once using the Passport Preference dialog. If you choose to modify several records by means of the Passport Preference dialog, you can change all the information, except the module name. If you wish to change the module name, you need to edit each record individually.

Procedure steps

1. Modify the Passport Preferences (see "Modifying Passport Preferences" on page 164).
2. In the NA record list, click on each of the records to which the preferences are to be applied.

   Each record becomes highlighted to indicate that it is selected.
3. From the record list pop-up menu, choose **Use Preferences**.

   All the selected records now have the same data values as defined in the Passport Preference dialog.

You are now ready to save the changes to a NAF or to execute the NA records in the record list.

Creating or modifying the script lists

You can create or modify the script lists for a Passport record or for the Passport Preferences using the NAT Edit Script dialog. See the following procedures:

- "Adding scripts to the script list" (page 168)
- "Deleting scripts from the script list" (page 169)
- "Replacing scripts in the script list" (page 169)
- "Changing the order of scripts in the script list" (page 170)

Adding scripts to the script list

Add pre- or post activation scripts to a Passport record or the Passport Preferences to run more activation scripts.

Procedure steps

1. From the **Passport Preferences** or **Passport Edit** dialog, select the **Edit** button beside the action **Run pre-activation scripts** or **Run post-activation scripts** to add or modify the script list.

   The **NAT Edit Script** dialog opens. See "NAT Edit Script dialog" (page 202).

2. Select the **Browse** button and use the file dialog to select a script or enter the script in the Name data entry field.

3. Enter any command line options required for the script in the **Options** data entry field.

4. Select **Add** to add the script and options to the list of scripts in the top text area.

   The new script appears at the end of the list.

5. Repeat the steps once for each new script to be added to the script list.

   Note: If you want to replace the script lists contained in every record in the NA Record list with the current script list defined in the top text area, select **Apply to current Passport records**. This is available only from the **Passport Preferences** dialog.

6. Click **OK** to add the script list and close the **NAT Edit Script** dialog.

Deleting scripts from the script list

You can delete scripts from the pre-activation script list or post-activation script list if the scripts are no longer required.

Procedure steps

1. From the **Passport Preferences** or **Passport Edit** dialog, select the **Edit** button beside the action **Run pre-activation scripts** or **Run post-activation scripts** to modify the script list.

   The **NAT Edit Script** dialog opens.

2. Select the script to be deleted in the script list.

   The entry is highlighted when selected.

3. Select the **Delete** button.

   Note: If you want to replace the script lists contained in every record in the NA Record list with the current script list defined in the top text area, select **Apply to current Passport records**. This is available only from the **Passport Preferences** dialog.

4. Click **OK** to delete the script list and close the **NAT Edit Script** dialog.

Replacing scripts in the script list

You can replace scripts in the pre-activation script list or post-activation script list with new scripts.

Procedure steps

1. From the **Passport Preferences** or **Passport Edit** dialog, select the **Edit** button beside the action **Run pre-activation scripts** or **Run post-activation scripts** to modify the script list.

   The **NAT Edit Script** dialog opens.

2. Select the script to be replaced in the script list.

   The entry is highlighted when selected.

3. Modify the **Name** data field or **Options** data field as required.

4. Select the **Replace** button.

   Note: If you want to replace the script lists contained in every record in the NA Record list with the current script list defined in the top text area, select **Apply to current Passport records**. This is available only from the **Passport Preferences** dialog.

5. Click **OK** to replace the script list and close the **NAT Edit Script** dialog.

Changing the order of scripts in the script list

You can change the order of scripts in the pre- or post-activation script list if you wish to run them in a different order.

Procedure steps

1. From the **Passport Preferences** or **Passport Edit** dialog, select the **Edit** button beside the action **Run pre-activation scripts** or **Run post-activation scripts** to modify the script list.

   The **NAT Edit Script** dialog opens.

2. Select the script to be moved in the script list.

   The entry is highlighted when selected.

3. Select the Up arrow or Down arrow to move the script up or down in the list.

   Note: If you want to replace the script lists contained in every record in the NA Record list with the current script list defined in the top text area, select **Apply to current Passport records**. This is available only from the **Passport Preferences** dialog.

4. Click **OK** to change the order of the script list and close the **NAT Edit Script** dialog.

Clearing all records from the record list

Clear all records from the record list in the Network Activation main window if you are finished with them.

Procedure steps

1 From the **Edit** menu, select **Clear**.

A dialog opens prompting you to confirm that you wish to remove all of the records from the record list.

2 Click **OK**.

The confirmation dialog closes and all records are cleared from the record list.

Deleting individual records from the record list

Delete individual records from the record list in the Network Activation main window if there are no longer needed.

Procedure steps

1 In the record list, click on each record that you wish to delete.

Each record becomes highlighted to indicate that it is selected.

2 From the record list pop-up menu, select **Delete**.

A dialog opens prompting you to confirm that you wish to remove the selected records from the record list.

3 Click **OK**.

The confirmation dialog closes and the selected records are deleted from the record list.

You are now ready to save the changes to a NAF or to execute the NA records in the record list.

Saving to a Network Activation File

Use the following procedures to save records in the record list to a Network Activation File (NAF). Two commands are available for saving new or modified records from the record list to a NAF: **Save** and **Save As...** The command to use depends on whether you loaded a NAF and whether you want to save the record list to an existing NAF or to a new NAF.

Saving records to a NAF that is loaded into the record list

Procedure steps

1 Select **Save** from the **File** Menu.

Note: The **Save** command is disabled if you haven't loaded a NAF or if no changes have been made to the record list.

The changes are saved to the NAF you loaded.

Saving records to a NAF when you haven' t loaded one, or to a NAF other than the one you loaded

Procedure steps

1 Select **Save As** from the **File** menu.

The **Save NAF dialog** opens. See also: "Save NAF dialog" (page 196).

2 Specify the NAF file name in one of the two following ways:

- Enter the full path of the file in the **Network Activation File** field.
- In the **Filter** field, enter the full path of the directory to be used as the starting point for saving the NAF. In the **Directories** panel, click on the name of the appropriate subdirectory. In the **Files** panel, click on the name of the NAF to save the file as. The name of the file you have selected appears in the **Network Activation File** field.

3 Click **OK**.

The dialog closes and the contents of the record list are saved to the specified NAF.

Executing a Network Activation File using the command line

To execute a Network Activation File (NAF) from the command line, do the following:

1. Create the NAF. You can do this with the GUI of the NAT or with an editor such as *vi*. To reduce the possibility of error, we recommend that you use the GUI instead of an editor for performing this task.

   For information about the structure of a NAF, see "Network Activation File" (page 179).

2. Execute the NAF from a Unix window, by running the *natcmd* command to process the NAF.

   See "NAT command line interface" (page 174) for the syntax of the *natcmd* utility.

   Note 1: The command line tool exits when a script returns an error (that is, returns 1). The command line tool continues when a script return success (that is, returns 0), or a warning (that is, returns > 1).

   Note 2: Scripts cannot invoke a GUI when using the command line.

NAT command line interface

The NAT provides the user a command line to process the NAF. It can be invoked from a UNIX window. The syntax of the command is as follows:

```
/opt/MagellanNMS/bin/natcmd -f <NAF_filename> \
  [-auth <passport_group_name> <userid> <password>] \
  [-logfile [<log_filename>]] \
  [-np <number_of_processes>] \
  [-wd <working_dir>] \
  [-quiet]
  [-h]
```

where:

`-f` is the keyword to specify a Network Activation File (NAF). This keyword needs to be followed by the *<NAF_filename>* parameter.

`<NAF_filename>` is the full path name of the NAF file that contains the records to be executed.

`-auth` is the keyword to specify Passport group authentication. This keyword needs to be specified if the NAF contains Passport NA records. When specified, this keyword needs to be followed by the <*group_name*>, <*userid*>, and <*password*> parameters.

`<group_name> <userid> <password>` is the name of the Passport group, the userid, and the password to log on to switches in the Passport group.

`-logfile` is the keyword to specify that log information is to be written to a log file. If this keyword is specified without the <*log_filename*> option, log information is written to the file
$HOME/nat<pid>.<yy><mm><dd>_<hh><mm><ss>.log
For example: */u/thawkes/nat106.970311_110201.log.*
See "Date Convention" (page 28) for more information on the date format.

`<log_filename>` specifies the full pathname of the log file.

`-np` is the keyword to indicate the number of processes to run. When specified, this keyword needs to be accompanied by the <*number_of_processes*> parameter.

`<number_of_processes>` specifies the number of records that can be executed simultaneously. The default is 1. The number to specify depends on the amount of memory available on the workstation. The higher the number, the more memory is used.

`-wd` is the keyword to specify the working directory for storing the default log file and other intermediate working files. When specified, this keyword needs to be accompanied by the <*working_dir*> parameter.

`working_dir` specifies the full path name of the working directory for storing the default log file and other intermediate working files.

`-quiet` specifies that records in the NAF are to be executed without producing messages or storing execution log information in a log file.

`[-h]` provides help information for the *natcmd.*

Using a Cron job

Because the NAT command line starts up all the session servers (*cmcfun* and *CM*), you can invoke the NAT command line by using the Unix *cron* facility.

To set up a cron:

- You need to set a value for the *EDITOR* environment variable. If none is set, we suggest setting it to *vi* by entering the command *setenv EDITOR vi*.
- If file */etc/cron.d/cron.allow* exists, the root user account needs to be listed in it.
- The root user account cannot be listed in file */etc/cron.d/cron.deny*.

To set up a cron, do the following:

1 Open the *crontab* file for editing, with the default editor set with environment variable *EDITOR*:

```
crontab -e
```

The current crontab file opens for editing.

2 Add an entry in the following form to the file:

```
<minute> <hour> <day> <month> \
/opt/MagellanNMS/bin/natcmd <parameters>
```

where:

`<minute>` is a value from 0 to 59.

`<hour>` is a value from 0 to 23.

`<day>` is a value from 1 to 31.

`<month>` is a value from 1 to 12.

`<parameters>` are parameters of the natcmd as described in "NAT command line interface" (page 174).

3 Save the crontab file and exit from it. If your editor is vi, press *Esc* and enter the following command to do this:

```
:wq!
```

The file is now saved and is ready to be executed automatically.

Example

The following entry in the crontab file executes a NAF called *mynaf* in the root (/) directory, at 0200 hours (2 AM), March 11, 1997. Because the NAF only contains Passport NA records applicable to a Passport group called *west*, the command includes the Passport group name, userid, and password needed to log on to Passport switches in the group. The command also outputs the logs in file */tmp/mylogfile*.

```
00 2 11 3 /opt/MagellanNMS/bin/natcmd -f /mynaf -auth
west
   myid xys2 -logfile /tmp/mylogfile
```

The Network Activation tool

The Network Activation Tool (NAT) simplifies and automates the activation process for multiple modules in a network. You can use the NAT to activate a View and commit a View. You can perform the activation and commit operations interactively or in batch mode. You can also use the NAT to automatically run pre- or post-activation scripts. See “Pre- and Post-activation scripts” (page 181).

There are two interfaces for the NAT:

- a graphical user interface

  See “Network Activation main window” (page 184).

- a command line interface

  See “NAT command line interface” (page 174).

The module type, module name or View name, and actions for network activation are stored in a Network Activation File (NAF). The graphical user interface lets you create or modify the NAF. To reduce the possibility of error, we strongly recommend that you use the graphical user interface for creating or modifying a NAF instead of using an editor like *vi*.

For a description of the fields in a NAF, see “Network Activation File” (page 179).

Network Activation File

The Network Activation file (NAF) is used as the input file for both the command line and the GUI. We recommend that you use the GUI to create or edit the NAF, in order to ensure its syntactic and logical correctness (although it can be edited using any text editor).

Each NA record in the NAF is defined in a single line. Each record specifies the module type, module name, the target View, a set of actions, and associated parameters. The syntax of a record in a NAF is as follows:

```
-[em] <module_name>
      -sdfile <mode> <name>
      [-critical]
      [-activate]
      [-commit]
      [-noPause|-pause]
      [-timeout <minutes>]
      [-verify_date]
      [-pre] [-pre_scr <script_list>]
      [-post] [-post_scr <script_list>]
      [# comments]
```

Note: Although we have presented the fields on different lines in this document, all of the fields in a NAF record are part of the same line.

where:

`-em` indicates an NA record for a Passport module.

`<module_name>` is the name of the Passport module.

`-sdfile` is the keyword for specifying the View name. When specified, this keyword needs to be followed by the *<mode> and <name>* parameters.

`<mode>` is one of *keyed*, *dated*, or *user-specified*.

`<name>` is the name of a valid key, a valid date in the format *yymmdd*, or a View name.

`-critical` indicates that the View is critical.

`-activate` indicates that the View is to be activated.

`-commit` indicates that the View is to be committed.

`-pause` indicates that automatic pause is to be used. When this option is specified, a Pause option is passed to the activate command line and a pause is forced before the software migration .

`-noPause` indicates that automatic pause will be disabled. When this option is specified, a no Pause option is passed to the activate command line and the software migration activation does not pause before migration switchover.

`-timeout` indicates the activation timeout period. When specified, this keyword needs to be followed by the <*minutes*> parameter. When not specified, the timeout period defaults to 50 minutes.

`-verify_date` specifies that date verification is to be performed. When this option is specified, the date of the View is verified before activation to ensure that the date is later than that of the current View. The current View also needs to be assigned the *Dated* mode of activation.

`-pre` is the keyword for specifying to run the pre-activation script. When this option is specified, this keyword is usually followed by the <*-pre_scr*> parameter.

`-pre_scr <script_list>` is a list of "\;" terminated commands representing the pre-activation scripts to be invoked and their command line arguments.

`-post` is the keyword for specifying to run the post-activation script. When this option is specified, this keyword is usually followed by the <*-post_scr*> parameter.

`-post_scr <script_list>` is a list of "\;" terminated commands representing the post-activation scripts to be invoked and their command line arguments.

`<#comments>` are comments applicable to the record. Anything after a pound (#) sign is treated as a comment.

Sample of a Network Activation File

The following is a sample NAF:

```
-em ROME -sdfile keyed West1 -critical -activate -
commit -timeout 50 -pause -pre -pre_scr /opt/
MagellanNMS/cfg/macros/user/scr1 opt1 opt2 opt3 \; /
opt/MagellanNMS/cfg/macros/user/scr2 opt1 opt2 \; -
post -post_scr /opt/MagellanNMS/cfg/macros/user/scr3
\; /opt/MagellanNMS/cfg/macros/user/scr4 opt1 \;
```

Pre- and Post-activation scripts

Pre-activation scripts verify and modify the Passport configuration before activation is performed and prevent activation if an error code is returned. Post activation scripts, executed after the activation, allow the activation to be verified, and return error conditions, if necessary.

Multiple scripts can be configured, and scripts are executed one at a time. Scripts are logged in a temporary file during the execution of scripts, but then are merged into the NAT log file once the execution is completed.

If a fatal error occurs in one of the pre-activation scripts, the process is stopped and the record turns red, indicating a major error. If a warning occurs, the process continues and the next (if any) scripts are run.

If a fatal error occurs in a post-activation scripts, any remaining post-activation scripts are not run, and the records turn yellow, indicating a minor error. If a warning occurs, the process continues and the next record (if any) is run. The record turns blue even if there are warnings, since the process did not fail. The log file indicates if a script has completed with warnings.

If a specified script cannot be run due to permissions or does not exist, the process stops and the record turns red, indicating a major error. See “Color indicators” (page 189).

Pre- and post-activation script rules

Pre- and post-activation scripts must follow certain rules:

- the exit code must be 0 to be considered successful by the NAT

- the exit code must be 1 to be considered fatal by the NAT
- an exit code of anything other than 0 or 1 is a warning
- logging must be performed on stdout for information or stderr for errors so the NAT can capture it
- node names and view names must be retrieved through an environment variable if not specified on the command line ($DNAME: module name (format: EM ROME) and $NAT_VIEWNAME: view-type viewname (where view-type can be KEYED, DATED, or USER_SPECIFIED)). The node name and view name are set from the data available in the NA record.
- NAT also provides access to the session “display” ($NAT_SESSION_DISPLAY) and the real display ($NAT_UI_DISPLAY).
- the scripts can invoke GUIs, but only when NAT is run in graphical mode.

The pre-activation scripts are run PRIOR to activation while post-activation scripts are run after the activation and commit, if a commit is specified. If a commit has not been specified, the commit should be invoked within one of the post-activation scripts.

For each activation record, scripts are run one at a time before or after activation. If a post-activation scripts fails, another script is not run for that record and a warning is issued. If a post-activation scripts ends with a warning, then the next remaining post-activation script is run for that record, and a warning is indicated in the log file for that record.

If you are using your own scripts, it is recommended that they be stored in: /opt/MagellanNMS/cfg/macros/user directory. This directory is added to the PATH prior to script execution.

For customized module access, the GROUP connection management can be overridden with a customized script. The customized authentication script must be /opt/MagellanNMS/cfg/macros/user/NAT_authenticate. If the script is found, it is executed and returns a 0 on success. The script establishes the GROUP connection so NAT does not attempt to connect again. If the

customized script fails, the user is prompted for authentication information as before. The Group authenticate selection is still available from the Security menu, if the script exists.

NAT logs summary

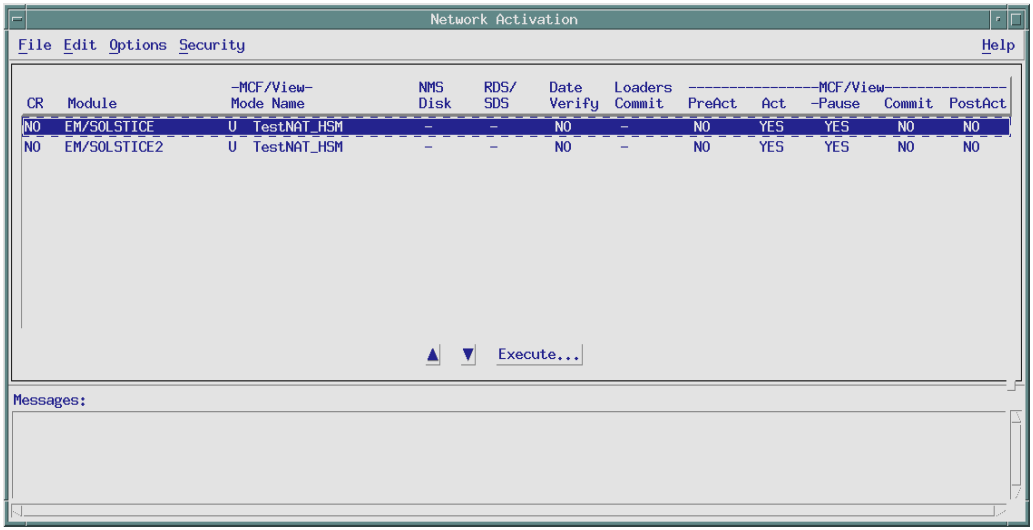
The following logs are issued when scripts are run:

- *Executing <script name>*. Issued when a script is launched.
- *<script name> has completed successfully.* Successful execution.
- *<script name> has completed but errors were found.* Execution failed.
- *<script name> has completed successfully with warnings*. Successful execution with warning(s).
- *<script name> could not be found.* Execution failed.

Network Activation main window

The Network Activation window contains a menu bar, a working area, and a *Messages* area. See the figure “Network Activation main window” (page 184).

Figure 14
Network Activation main window



The working area displays a list of Network Activation (NA) records and contains three buttons for rearranging the order of records in the list and for executing them. The *Messages* area is used to display status or error information.

See the following sections for information on the parts of the Network Activation main window:

- “Menu bar” (page 185)
- “Working area” (page 187)
- “Messages area” (page 192)

Menu bar

The menu bar is located at the top of the Network Activation main window. See the following sections for information on the menu bar entries:

- "File menu" (page 185)
- "Edit menu" (page 185)
- "Options menu" (page 186)
- "Security menu" (page 186)
- "Help menu" (page 186)

File menu

The *File* menu commands are as follows:

- *Load* loads records from a network activation file (NAF) into the record list. This command opens the Load NAF dialog in which you specify the NAF to load. If the record list has any records displayed in it, a confirmation dialog opens and prompts for permission to clear the list before loading the NAF.
- *Save* saves new or modified records to a NAF. If there are no additions or changes in the record list to be saved, or if you have not loaded a NAF, this command is disabled (grayed out).
- *Save As* saves records to a specified NAF. This command opens the Save NAF dialog for specifying the full path name of the NAF. If there are no entries in the record list, this command is disabled.
- *Exit* closes all windows and closes the tool.

Edit menu

The *Edit* menu commands are as follows:

- *Add DPN Record* is not applicable to a Passport module.
- *Add Passport Record* adds a Passport record to the record list. This command opens the Passport Edit dialog for entering the data. The new record is added after the record that is being pointed at (the record surrounded by the box with a dashed line).

- *Clear* removes all records from the record list. If the list has been modified but not saved, a confirmation dialog opens to obtain confirmation of the clear.

Options menu

The *Options* menu commands are as follows:

- *DPN Preferences* opens the DPN Preference dialog. This dialog is not applicable to a Passport module.
- *Passport Preferences* opens the Passport Preference dialog. This dialog is used for entering the preferred values for a new Passport record.
- *Save Preferences* saves, for future sessions, any changes you made in the Passport Preference or DPN Preference dialogs.

Security menu

The *Security* menu commands are as follows:

- *Group Authenticate* opens the Passport Group Authentication dialog to perform authentication for accessing a group of Passport modules. Although you can authenticate with more than one group, only the last group you authenticated with is active.
- *NCS Authenticate* opens the DPN Authentication dialog. This dialog is not applicable to a Passport module.

Help menu

The *Help* menu commands are as follows:

- *On Context* lets a user obtain help information for an item in the NAT main window. Choosing this command changes the cursor to a question mark. Moving the question mark to an item in the window and clicking the *select* button provides help information about the item selected.
- *On Help* displays help text about how to use the help facility.
- *On Window* displays help text about the application main window and its general contents.

- *On Keys* displays help text about the function keys, mnemonics, and keyboard accelerators. The accelerators are as follows:

  Ctrl + *L* = Load

  Ctrl + *S* = Save

  Ctrl + *A*= Save As

  Ctrl + *E* = Exit

  Ctrl + *G* = Group Authenticate

Working area

The working area of the NAT contains a Network Activation (NA) record list that uses color indicators to indicate the status of network activation. The record list also supports a pop-up menu and contains three action buttons. For descriptions of these items, see:

- “NA record list” (page 187)
- “Color indicators” (page 189)
- “Pop-up menu” (page 190)
- “Up and down arrow buttons” (page 190)
- “Execute button” (page 191)

NA record list

The NA record list displays Network Activation (NA) records. The content of the records and their order in the list can be modified using commands and action buttons. See also:

- “Pop-up menu” (page 190)
- “Up and down arrow buttons” (page 190)
- “Execute button” (page 191)

You can select a set of records in the NA record list for execution. While execution is in progress, fields in the records change color to indicate the execution status. See also: “Color indicators” (page 189).

The NA record list contains the following fields:

- *CR* indicates (*YES*|*NO*) whether the View is critical.

  Critical records are executed first, one at a time, in the order in which they appear in the list. Then the non-critical records are executed. If a critical record cannot be executed, the tool stops and does not execute the next record.

- *Module* displays the module name in the format *EM/<Passport name>*. Module names that begin with *PM* are not applicable to Passport.
- *MCF/View Mode* indicates the method used for accessing the View. The mode is one of:

  K access with a key

  D access by date

  U access according to a user-specified information

- *MCF/View Name* indicates the name of the key, the date, or the View used for activation or committing.
- *NMS Disk* is not applicable to a Passport module and is always set to "-".
- *RDS/SDS* is not applicable to a Passport module and is always set to "-".
- *Date Verify* indicates whether date verification is to be performed on a View that is to be activated by date. When *Date Verify* is set to *YES*, the date of the View is checked against the date of the current View. If the View has a dated key that predates the current View, activation fails and the record turns red.
- *Loaders Commit* is not applicable to a Passport module and is always set to '-'.
- *MCF/View PreAct* indicates whether pre-activation scripts are to be run.
- *MCF/View Act* indicates whether the View is to be activated.

- *MCF/View -Pause* indicates whether the automatic pause is to be used. When *-Pause* has the value "-", it means that no option is passed to the activate command line. When *-Pause* is set to *YES*, a *-Pause* option is passed to the activate command line. When *-Pause* is set to *NO*, a *-noPause* is passed to the activate command line.
- *MCF/View Commit* indicates whether the View is to be committed.
- *MCF/View PostAct* indicates whether post-activation scripts are to be run.

The NA record list is a multi-select list, which means you can select more than one record at a time.

The NA record list also supports double-clicking. Double-clicking on a record that has not been executed selects the record and opens a dialog for viewing or editing the record. Double-clicking on a record that has been executed selects the record and opens a dialog that displays log information about execution of the record.

Color indicators

Different colors are used to indicate the status of the NA records. The colors and their meanings are as follows:

- No color means the record is ready for execution.
- *Blue* means the record has been executed successfully.
- *Green* means execution is in progress. When a specific action is being performed, the corresponding field turns from blue to green. If the action completes successfully, the field turns from green to blue and the next field turns green. When all actions on a record are completed successfully, the entire record turns *blue*. If an action fails, the entire record turns *red* or *yellow*, according to the severity of the error.
- *Yellow* means that a minor error was found during execution or that execution was interrupted by the user.
- *Red* means a major error was found during execution. This record can only be re-executed if the user resets the state manually.

After execution is complete, a user can reset the color of the records back to no color in preparation for re-execution by means of the *Reset* command. This command is available in the record list pop-up menu.

Pop-up menu

The record list is equipped with a pop-up menu that contains the following commands:

- *Edit* opens the *Passport Edit* dialog for viewing or editing a record that is selected in the record list. The module *name* cannot be changed during the edit.
- *Use Preferences* applies values that were pre-defined in the *Passport Preference* dialog to records that are selected in the record list.
- *Add DPN Record* is not applicable to a Passport module.
- *Add Passport Record* opens the *Passport Edit* dialog for entering a new Passport record. The new record is added after the highlighted record.
- *Delete* deletes records that are selected from the NA record list. A confirmation dialog opens and prompts for permission to perform the deletion.
- *Show Status* opens a dialog that shows execution information for a record that is selected in the NA record list. This command is only enabled if the record has been executed.
- *Reset* changes the state of selected records bask to their initial state then deselects the records. This allows the records to be re-selected and re-executed, regardless of their previous state.
- *Select All* selects all records in the NA record list.
- *Deselect All* deselects all selected records.

Up and down arrow buttons

The up arrow button moves records that are selected in the NA records list upwards towards the top of the list. The down arrow button moves them downwards. You can select more than one record at a time to move up or down.

The up and down arrows are especially useful for rearranging records to change their execution order, or for reducing the number of times you need to authenticate to execute all of the records in the record list.

Critical records in the record list are always executed first, one at a time, in the order in which they appear in the list, followed by the non-critical records. You can rearrange the critical records with the arrows to specify the order in which the critical records, followed by the non-critical records, are executed.

With the Network Activation Tool, you can only execute records for Passports in one Passport group at a time. On occasion, records may apply to modules that belong to different Passport groups. To execute all of the records, you have to authenticate with the Passport groups as needed. You can use the arrows to group all the records for one Passport group together, minimizing the number of times you need to authenticate.

The up and down arrows are disabled unless at least one record is selected in the list.

Execute button

The *Execute* button executes the records that are selected in the NA record list.

When you click *Execute*, a confirmation dialog opens and displays the list of modules on which the actions are to be performed, prompting for confirmation. For more information, see “Confirmation dialog” (page 208).

Clicking *OK* in the confirmation dialog opens an *Execution* dialog for specifying the parameters for the execution. Once you have set up the execution parameters in the *Execution* dialog, clicking on the *Execute* button starts execution of the records. For more information, see “Execution dialog” (page 205).

When execution of a record begins, the entire record turns blue. Then, as each step in the execution takes place, the field associated with the step turns from blue to green. If the step is successful, the field turns from green to blue, and the next field turns green. If all steps in are executed successfully for a record, the entire record turns blue. If a step fails, the entire record turns red or yellow, according to the severity of the failure.

While execution is underway, the *Execute* button is replaced by a *Stop* button that can be used to halt execution. Halting execution turns the record in which execution was halted to yellow and launches the Processing dialog (see “Processing dialog” (page 207).

Records in the record list are executed as follows:

- Red, yellow, or blue color records are not executed.
- Critical records are executed first, one at a time, in the order in which they appear in the record list.
- Non-critical records are executed after critical records, also in the order in which they appear in the list.
- If execution of a critical View fails, the tool stops and does not execute the next record.
- Records are only executed for the Passport group whose authentication is currently active. That is, the group that has most recently been authenticated by selecting *Group Authenticate... f*rom the *Security* menu.

Messages area

The *Messages* area displays execution status information and error messages.

Network Activation dialogs

See the following sections for information on Network Activation dialogs:

- “Load NAF dialog” (page 194)
- “Save NAF dialog” (page 196)
- “Passport Edit dialog” (page 197)
- “Passport Preference dialog” (page 201)
- “NAT Edit Script dialog” (page 202)
- Group Authentication dialog, see “Authentication dialog” (page 31).
- “Execution dialog” (page 205)
- “Processing dialog” (page 207)
- “Confirmation dialog” (page 208)
- “Log information dialog” (page 209)
- “Error dialog” (page 209)
- “Warning dialog” (page 209)
- “Pause dialog” (page 210)

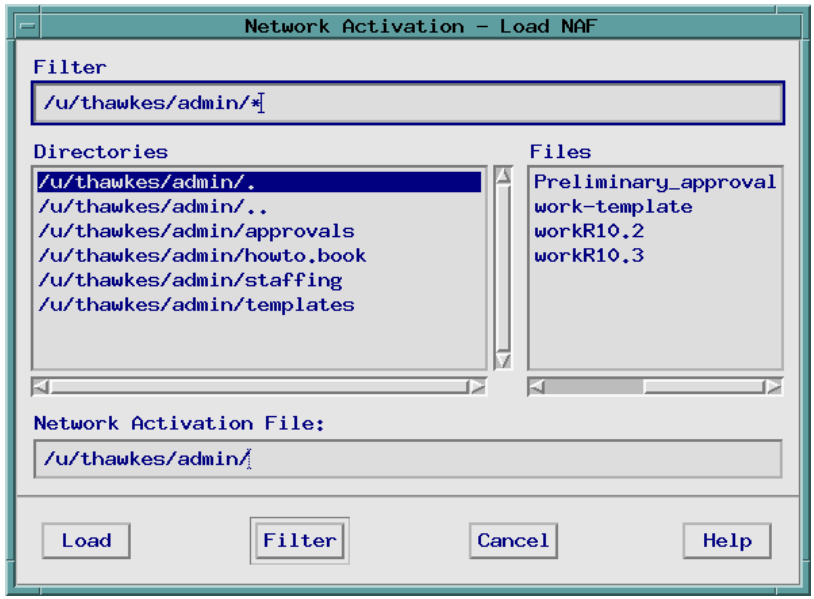
The following dialogs can be accessed from Network Activation, but are not applicable to Passport:

- DPN Edit dialog
- DPN Preference dialog
- NCS Authentication dialog

Load NAF dialog

The *Load NAF* dialog lets you specify the name of a NAF file that contains records to be loaded into the NA record list. See the figure “Load NAF dialog” (page 194).

Figure 15
Load NAF dialog



The dialog contains the following items:

- a *Filter* field for specifying the path to the directory that is to be used as a starting point for finding the NAF to load

  The subdirectories of the directory specified in this field are displayed in the *Directories* panel of the dialog when you enter a carriage return in this field, or when you click the *Filter* button.

- a *Directories* panel for displaying the available subdirectories of the directory specified in the *Filter* field
- a *Files* panel for displaying the available files of the directory selected in the *Directories* panel

- a *Network Activation File* field for specifying the full path name of the NAF to be loaded

  You can specify the name of a NAF to be loaded in one of two ways: by entering its full path name in this field; or, by entering information in the *Filter* field, selecting a directory in the *Directories* panel, and selecting a file in the *Files* panel.

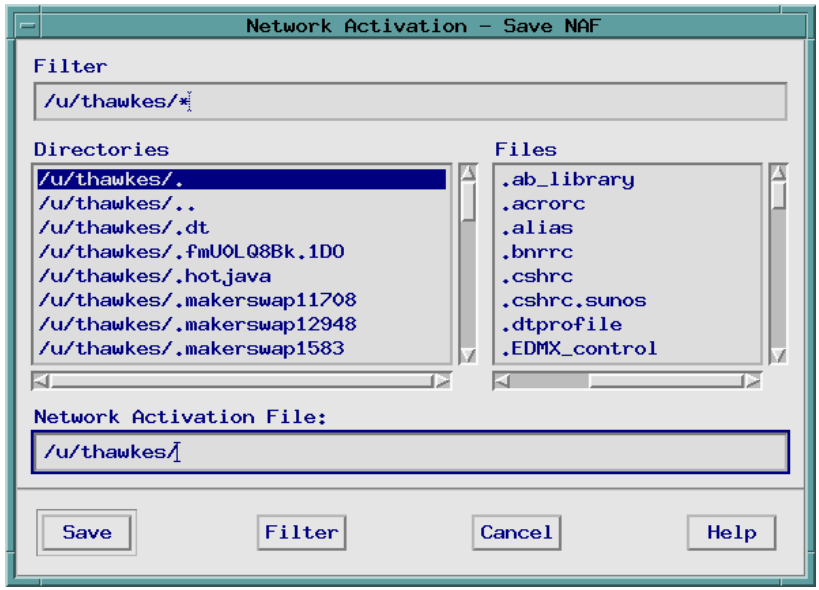
- a *Load* button for loading the NAF specified in the *Network Activation File* field into the NA record list
- a *Filter* button for updating the *Directories* panel, the *Files* panel, and the *Network Activation File* field according to the pathname entered in the *Filter* field
- a *Cancel* button for aborting the load and closing the dialog
- *a Help* button for displaying help information about the dialog

Save NAF dialog

The *Save NAF* dialog lets you specify the full path name of a NAF in which to save new or modified records from the NA record list. See the figure “Save NAF dialog” (page 196).

Fields, panels, and buttons in the dialog are similar to those in the Load NAF dialog. See also: “Load NAF dialog” (page 194).

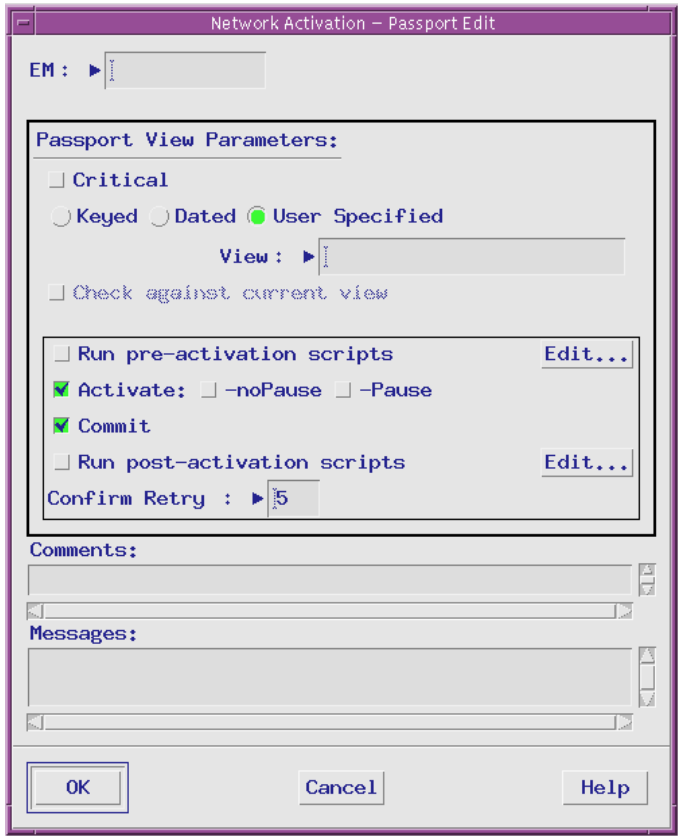
Figure 16
Save NAF dialog



Passport Edit dialog

The *Passport Edit* dialog lets you specify the information and actions for a new Passport record that is to be added to the NA record list, or to modify an existing Passport record that is selected in the NA record list. Information in the dialog applies to one View. See the figure “Passport Edit dialog” (page 197).

Figure 17
The Passport Edit dialog



Double-clicking on an existing Passport record opens the *Passport Edit* dialog that contains the data from the record. From this dialog, you can change any parameters and actions, except the module name displayed in the *EM* field.

If you select *Add Passport Record* from the *File* menu or from the NA record list pop-up menu, the *Passport Edit* dialog opens with the data defined in the *Passport Preference* dialog and the *EM* field empty. If no preferences have been set, the following defaults are used:

EM data entry field	Empty
Critical	NO
Keyed	NO
Dated	NO
User Specified	YES
Data entry field	Empty
Check against current view	NO
Run pre-activation scripts	NO
Activate	NO
-noPause	NO
-pause	NO
Commit	NO
Run post-activation scripts	NO
Confirm Retry	5
Comments	Empty

The Passport Edit dialog contains the following items:

- an *EM* data entry field for specifying the Passport module name

  If you are editing an existing record, the *EM* field displays the Passport module name associated with the record you are editing. You cannot modify this name while editing an existing record.

- a *Passport View Parameters* panel for specifying parameters associated with the target Passport View, which consists of:

  — A *Critical* check button to indicate whether the action to be executed is critical or non-critical

  — a set of radio buttons labelled *Keyed*, *Dated*, and *User specified*, and a data entry field, which together specify the View access mode.
  If you select *Keyed*, the label of the data entry field changes to *Key* and you need to enter the name of a valid key for the Passport view.
  If you select *Dated* the label changes to *Date* and you need to enter date for the Passport view in the format *yymmdd*. If *Dated* is selected as a preference in the *Passport preference* dialog, the current date appears in the field. However, if *Date* is not selected as a preference and you click *Dated*, the *Date* field appears but is blank. To put the current date into the *Date* field, click the *Dated* radio button again.
  See “Date Convention” (page 28) for more information on the date format.
  If you select *User specified*, the label changes to *View* and you need to enter a valid View name.

  — a check button labelled *Check against current view* for specifying whether the date is to be verified against the date of the current View before activating or committing.
  If you select this button, the date of the View is verified against the date of the active View.
  If the date specified is earlier than that of the active View, execution of the record fails.
  This check button is only enabled when the *Dated* mode is selected.

- a check button labelled *Run pre-activation* scripts for specifying if pre-activation scripts will be run.

- an *Edit* button that opens the *Edit Pre-activation scripts* dialog for creating or editing the pre-activation scripts.

- a check button labelled *Activate* for specifying if the activate action is to be performed
- a check button next to the *Activate* button, labelled *-noPaus*e. Checking the *-noPause* option disables the automatic pause that typically occurs before a migration switchover during a hitless software migration.
- a check button next to the *noPause* button, labelled *-Pause*. Checking the *-Pause* option enables the automatic pause that typically occurs before a migration switchover during a hitless software migration.
- a set of check button labelled *Commit* for specifying if the commit action is to be performed
- a check button labelled *Run post-activation* scripts for specifying if post-activation scripts will be run.
- an *Edit* button that opens the *Edit Post-activation scripts* dialog for creating or editing the post-activation scripts.
- a data entry field labelled *Confirm Retry* for specifying the retry times for confirmation
- a text area labelled *Comments* for adding user comments
- a text area labelled *Messages* for displaying messages about attempts to add or modify information in the dialog
- an *OK* button that is used to add or replace the record in the list and close the dialog

  If you fail to enter information in a required field, an error icon (*X*) appears beside the corresponding field in the dialog and a message indicating the nature of the error appears in the *Messages* panel. You need to enter the correct information in the field before the dialog will close and the record can be added or saved.

- a *Cancel* button that closes the dialog without saving any additions or changes
- *a Help* button that displays help information about the dialog

Passport Preference dialog

The *Passport preference* dialog lets you specify:

- the default data to be used for adding a new Passport NA record to the record list
- the values to apply to records that are selected in the record list when you choose the *Use Preferences* command from the record list pop-up menu

The *Passport preference* dialog is identical to the *Passport Edit* dialog, except that:

- The *EM* field and the *Comments* and *Messages* text fields are absent.
- The *OK* button sets the preferences values for the current session and closes the dialog.

See also: “Passport Edit dialog” (page 197).

NAT Edit Script dialog

The NAT Edit Script dialog lets you enter script names with command-line arguments in a specified order in which the scripts will be executed. This dialog is invoked from the Passport Record dialog or the Passport Preferences Dialog.

For a new record, the NAT Edit Script dialog opens with the data defined in the Passport Preference dialog. If preferences have not been set, defaults are used.

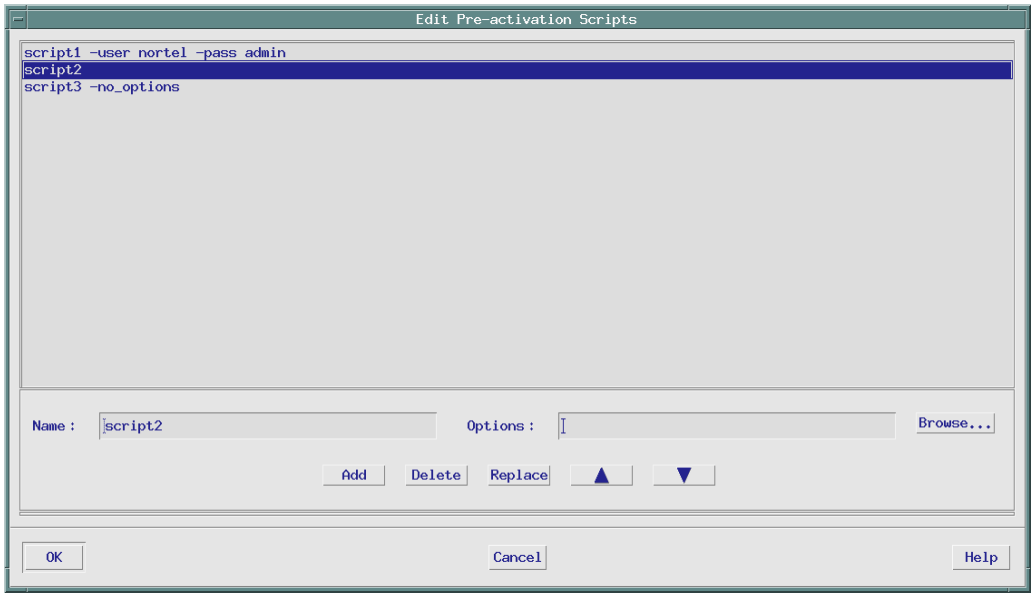
If the NAT Edit Script dialog is opened from the Passport Preferences dialog, then there is an additional button called Apply to current Passport records. When this button is selected, the script list contained in every record in the NA record list is replaced with the current script list defined in the top text area.

The NAT Edit Script dialog contains the following items:

- a text area listing the command line for each script selected to be run
- a Name data entry field for specifying the complete path name of the script (the default is empty)
- an Options data entry field for specifying the command line option for the script (default is empty)
- a Browse button that opens a File dialog for searching and selecting a script. You can use the Browse button to select the script name instead of typing it in the Name Data Entry field
- An Add button that is enabled when the Name field is not empty. The Add button causes the script name and options in the Option field to be added to the list of scripts.
- A Delete button that is enabled when a script is selected in the list of scripts at the top text area. The Delete button causes the script to be deleted from the list of scripts.
- A Replace button that is enabled when a script is selected in the list of scripts at the top text area and the Name field is not empty. The Replace button causes the selected script to be replaced by the script and options in the Name and Options data fields.

- An Up arrow button that moves a script that is selected in the script list up towards the top of the list. The Up arrow button is disabled unless a script is selected that is not at the top of the list.
- An Down arrow button that moves a script that is selected in the script list downwards to the bottom of the list. The Down arrow button is disabled unless a script is selected that is not at the bottom of the list.
- An Apply to current Passport records button (only available when opened from the Passport Preferences dialog) that is used to replace the script list contained in every NA record with the current script list defined in the top text area of the dialog.
- An OK button that is used to update the script list in the record and close the dialog.
- A Cancel button that closes the dialog without making any additions or changes.
- A Help button that displays help information about the dialog.

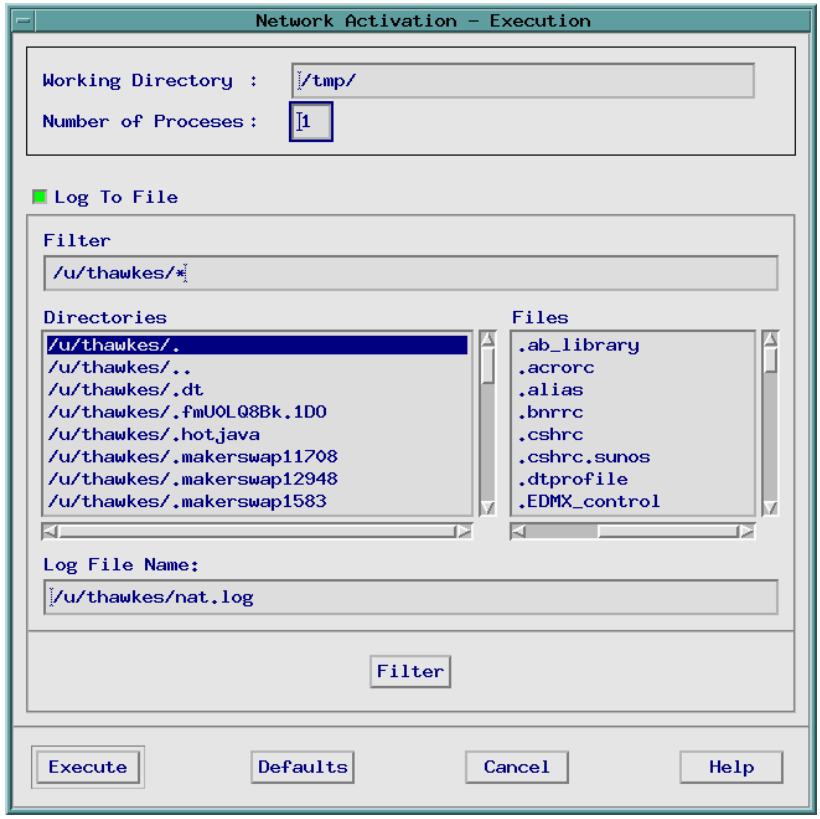
Figure 18
NAT Edit Script dialog



Execution dialog

The *Execution* dialog lets you specify parameters such as the working directory and the number of processes for executing NA records. See the figure “Execution dialog” (page 205).

Figure 19
Execution dialog



The *Execution* dialog contains the following items:

- a *Working Directory* field for specifying the directory for storing working files that are created while the tool is running.

- a *Number of Processes* field for specifying the number of non-critical records in the list on which execution can be performed simultaneously. The default is 1.

  The number to specify depends on the amount of memory available on the workstation. The higher the number, the more memory is used.

  This parameter only applies to non-critical records. For critical records, only one record is executed at a time, regardless of the number you specify for this parameter.

- a *Log to File* check button for specifying whether information about the execution is to be captured in a log file

  If this button is not selected the panels, fields, and buttons in the log file specification area are disabled (grayed out). The default is no log file.

- a *Log File* specification area that is used to specify the full path name of a log file for log messages that are produced during the execution.

  The log file specification area consists of the following items:

  — a *Filter* field for specifying the path to the directory that is the starting point for choosing the directory in which to store the log file The subdirectories of the directory specified in this field are displayed in the *Directories* panel when you enter a carriage return in this field or when you click the *Filter* button.

  — a *Directories* panel for displaying the available subdirectories of the directory specified in the *Filter* field

  — a *Files* panel for displaying the available files of the directory selected in the *Directories* panel

  — a *Log File Name* field for specifying the full path name of the log file to be stored
  You can specify the name of a log file in two ways: by entering its full path name in this field; or, by entering information in the *Filter* field, selecting a directory in the *Directories* panel, and selecting a file in the *Files* panel. The default is *nat.log* in the user's home directory.

  - a *Filter* button for updating the *Directories* panel, the *Files* panel, and the *Log File* field according to the pathname entered in the *Filter* field

- an *Execute* button for executing the action based on the information
- a *Defaults* button that resets all items in the dialog back to their default values
- a *Cancel* button that closes the dialog without performing the execution or saving the execution parameters
- a *Help* button that displays help information about the dialog

Processing dialog

The Processing dialog opens if you click on the *Stop* button in the Network Activation Tool window while execution is underway. This dialog displays the message *Stopping all execution processes, please wait* to indicate that no further user action is permitted until all execution software processes are terminated, at which time the dialog closes.

Confirmation dialog

The confirmation dialog prompts you for confirmation before the software takes the next step:

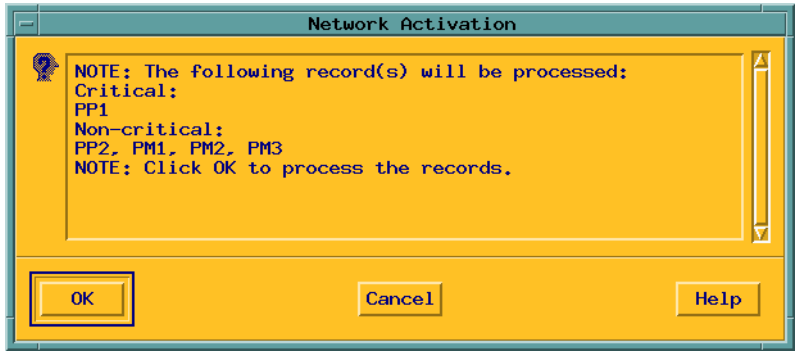
- When you click *Execute* in the NAT window, the dialog displays information about the records to be processed and asks you for permission to continue.
- When you select *Delete* from the record list pop-up menu, the dialog prompts for confirmation to remove the selected record.
- When you select *Exit* without saving new Passport records to a NAF, the dialog asks if you really want to exit without saving.

Buttons in the dialog are as follows:

- *OK* continues the execution.
- *Cancel* closes the dialog without performing the execution.
- *Help* displays information about the dialog.

See the figure “Sample confirmation dialog for confirming execution” (page 208).

Figure 20
Sample confirmation dialog for confirming execution

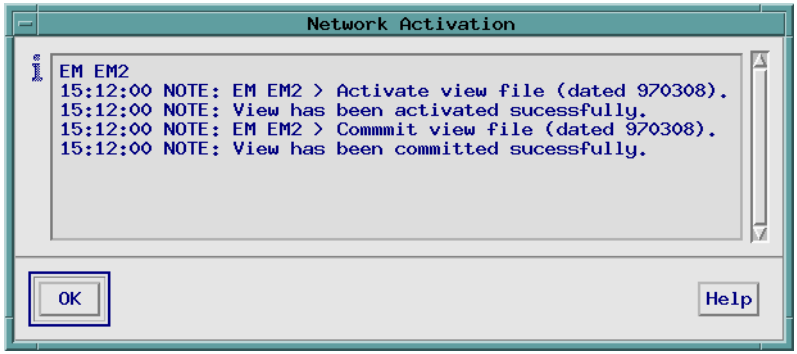


Log information dialog

The log information dialog displays status information for a record that has been executed. To display the information, double-click on an executed record in the record list; or, select the log in the record list and choose *Show Status* from the record list pop-up menu.

For an illustration of the Log information dialog, see the window "Sample log information dialog" (page 209).

Figure 21
Sample log information dialog



Error dialog

The Network Activation error dialog displays a message to indicate why an action cannot be performed. Once you have read the message, click *OK* to close the dialog. Then, correct the source of the error and try the action again.

Warning dialog

The Network Activation warning dialog displays a message to indicate the consequences of the action you are about to take. This dialog also prompts you for confirmation of the action.

Buttons in the dialog are as follows:

- *OK* closes the dialog continues the action.
- *Cancel* closes the dialog without performing the action.
- *Help* displays information about the dialog.

Pause dialog

The Pause dialog displays a message to indicate why the software migration has been paused. This dialog also prompts you to confirm one of the following actions:

- *Continue* continues the software migration.
- *Stop* stops the software migration.

Chapter 6
Global Data Manager

This section describes the Global Data Manager command line tool and the procedures for using it. In this section, you can find the following information:

The Global Data Manager tool for Passport Devices (pgdm)

You can use the Global Data Manager tool to propagate global data components from a Passport switch to other selected Passports. Pgdm also replaces the attribute values for those components during propagation. In addition, pgdm can be used to replace the attribute values for selected Passports in the network.

By allowing data to be copied and propogated, pgdm enables you to provision global data and to replace attribute values globally. Pgdm performs these operations more quickly than Component Provisioning. Pgdm also reduces the risk of errors due to mistakes in keying in service data.

Starting the Global Data Manager tool

Pgdm is started from a UNIX window. You can also invoke the *pgdm* command line directly through a *cron* job.

See also...

- "The Global Data Manager command line" (page 218)
- "Cron job" (page 219)

Pgdm input files and operations

When you use pgdm, the first thing you should do is create the two main input files, the component file and the module name file. The module name file contains the source and target Passports, and associated provisioning view to be loaded and saved. The component file specifies the data components to be propagated (such as Userid, Voice Networking Call Server [Vncs], and Voice Profiles [Vp]) and the attributes to be replaced. Based on information provided in both input files, pgdm determines the operation that needs to be performed.

See the table "Pgdm input files and operations" (page 212).

Table 2
Pgdm input files and operations

Module name file	Component file	Operation
Source and target(s)	Components only	Propagate the specified components from the source to the targets
(Sheet 1 of 2)		

Table 2 (continued)
Pgdm input files and operations

Module name file	Component file	Operation
Source and target(s)	Components and attributes	Propagate the specified components from the source to the targets. During propagation, the attribute values are replaced by the new values specified in the component file.
Target(s) only	Components and attributes	Replace the attribute values for specified components. Save the modified view on the same Passport. As result, the attribute values of specified component are the same for all selected targets.
(Sheet 2 of 2)		

Also, an optional pre-propagate input file contains the on-switch add/set/delete commands that are sent down to the target Passport before the propagation.

Module name file

The module name file specifies the source Passport where the data components are retrieved and the target Passports for propagating. You can use any type of NMS-supported upload (User specified, Commited, Current, Keyed, Dated) or download (User specified, Keyed, Dated) to determine the provisioning filename. The module name file consists of at least one target record. You do not need to specify the source record; otherwise, specify only one source record at a time.

A record can span more than one line; a \ character is used as a line continuation indicator. You can also use comment lines (lines beginning with '#') in the module name file.

Source Passport

The source Passport record is specified using the following format:

```
-source <passport_name> -uploadmode [Current | Committed\
  | Keyed <key> | Dated <date_key> | User_specified\
  <view_filename>]
```

where:

`-source` uses <passport_name> to specify the name of the Passport where the global data is obtained.

`-uploadmode` specifies, by the keyword that follows, how to construct the name of the provisioning view to be loaded.

> ***Note:*** If the source Passport is not specified, pgdm uploads the provisioning view from the target, applies the changes specified in the component file, and downloads the modified view back to the same target.

Target Passport

The target Passport records are specified using the following format:

```
-target <passport_1>...<passport_n> -uploadmode [Current\
  | Committed | Keyed <key> | Dated <date_key> \
  | User_specified <view_filename>] -downloadmode \
  [Keyed <key>| Dated <date_key> | User_specified \
  <view_filename>]
```

where:

`-target` uses the variables <passport_1>...<passport_n> to specify the names of Passports to which the global data are populated.

`-uploadmode` specifies, by the keyword that follows, how to construct the name of the provisioning view to be loaded.

`-downloadmode` specifies, by the keyword that follows, how to construct the name of the new provisioning view to be saved.

Example

The following is an example of a module name file that can be used to propagate the global components from a source Passport to other selected Passports.

```
# Upload the Committed view from noder10.
-source noder10 -uploadmode Committed
# Propagate the specified components to noder16,
# noder17, noder18, node19, node20, and node21 using
# the "myviewfile".
# The modified view is then saved using the NMS key.
-target noder16 noder17 noder18 node19 node20 node21 \
-uploadmode user_specified myviewfile -downloadmode
 Key NMS
# Also, propagate the specified components to noder10,
# noder11 using the NMS key.
-target noder10 noder11 -uploadmode Key NMS
-downloadmode Key NMS
```

Component file

The component file specifies the components and their new attribute values. In general, a component and the attributes to be replaced can be specified using the following format:

```
<comp_1>{/<key>}... <comp_n>{/<key>} @<attr_1>
  <value>,...,<attr_n> <value>
```

where:

`<comp_n>` is the name of the component, for example, Vncs or Vp.

`<key>` is the component instance value. A wildcard (*) can be use to specify all instances.

`<attr_n>` is the name of the attribute to be replaced.

`<value>` is the new attribute value of a specified attribute.

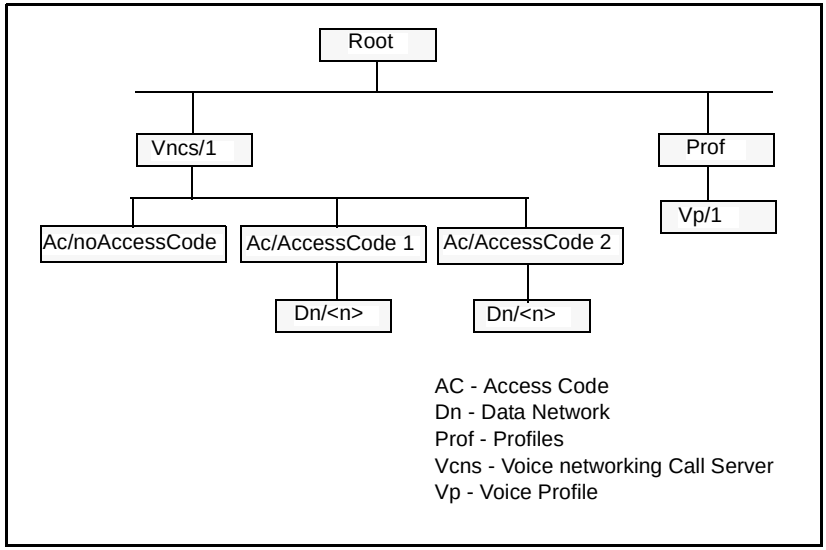
The component file rules are as follows:

- If pgdm is used to replace attribute values globally (that is, no source is specified in the module name file), you need to specify the attribute name and its new value.
- If pgdm is used to propagate a global data component, you can omit the attribute part.
- If the ancestors of Comp_n do not exist on the target Passport, an error message is generated during loading of the partial file by the target Passport.
- You need to enter the component and associated attribute values on one line.

Example

The figure "Vncs hierarchy" (page 216) shows the hierarchy of the VoiceNetworkingCallServer (Vncs) and VoiceProfile (Vp) components.

Figure 22
Vncs hierarchy



To propagate all Vncs components, type the following line in the component input file:

```
Vncs/*
```

To propagate Vp/1, type the following line in the component input file:

```
Prof Vp/1
```

To propagate all Vp components, you can specify the following line in the component input file:

```
Prof Vp/*
```

Example

The component file contains the following three lines:

```
FrNni/* Dna @outDefaultPathReliability
high,numberingPlanIndicator x121

FrNni/10 Dna @numberingPlanIndicator e164

Trk/* UnAcked @maximumErroredInterval 0
```

In this example the outDefaultPathReliability attribute value is set to high and the numberingPlanIndicator is set to x121 for all FrNni components. The exception is FrNni/10 where the numberingPlanIndicator is set to e164. Also, the maximumErroredInterval attribute of all Unacked Trk is set to 0.

Example

The component file contains the following line:

```
Ac Userid/newUser
```

In this example, the newUser data is retrieved from a source Passport. This data is then added to all target Passport provisioning views specified in the module name file.

Pre-propagate command file (optional)

The global data propagation can require some changes to the components before loading the new partial file on the Passport. The changes can be adding components, deleting components, or setting components to a particular value. The on-switch provisioning add/set/delete commands can be specified in an input file. In the input file, one command is entered on one line. The pgdm tool then sends all the commands to the target Passport before loading the new partial file.

Example
```
delete Vncs/1
```

The Global Data Manager command line

Pgdm is invoked from a UNIX window. (See “Accessing UNIX” (page 30) for more information.) Pgdm uses the NMS provisioning view naming convention (that is, UserSpecified, Key, Dated, Current, Committed, and so on). This convention is used to determine the provisioning view to be uploaded and saved.

The format of the *pgdm* command and the description of its parameters and options are as follows:

```
pgdm -auth <group_name> <user_id> <password> \
  [-modf <module_fn>] \
  [-compf <component_fn>] \
  [-pcmdf <pre-propagate_fn>] \
  [-logfile [log_fn] \
  [-wd <working_dir>] \
  [-quiet] \
  [-np <number of processes>]
```

where:

`-auth` is the authentication flag. The following parameters are used to log in to the source and target Passports:

<passport_group_name> Mnemonic of the group to log on to.
<userId> Passport user id to log on with.
<password> Password for the userId.

`-modf` is the module name file flag. The following variable is the name of the module name file:

< module_filename> The name of the file that specifies the Passports and associated view filename for uploading and downloading. The filename is case sensitive.

`-compf` is the component file flag. The following variable is the name of the component file:

<component_filename> The name of the file that specifies the components to be propagated. The filename is case-sensitive.

`-pcmdf` is the pre-propagate command file flag. The following variable is the name of the pre-propagate command filename:

<pre_propagate_filename> The name of the file that contains the on-switch commands to be applied to the target Passport before loading the new partial file.

`-logfile` indicates that a log file other than the default is to be used. The following parameter is optional:

<log_fn> The name of the log file to use if other than the default.

> ***Note:*** A log file is always generated. The default is '$HOME/pgdm<pid>.<yymmdd>_<hhmmss>.log', where:
> <pid> is the process id.
> <yymmdd> is the date.
> <hhmmss> is the time.

`-wd` is a flag that shows that a specified directory is used to store the default log file and other intermediate files.

<working_dir> The working directory name.

`-quiet` indicates no log file messages are generated. Error messages are output to *stderr*.

`-np` is a flag used to indicate the number of target Passports to be processed in parallel. By default, the target Passports are processed sequentially. The following parameter is used for processing Passports in parallel:

<number of processes> Number of target Passports to be processed in parallel.

Cron job

Since pgdm starts up all the session servers (cmcfun and CM), you can invoke the *pgdm* command line directly by using the UNIX cron facility.

See 241-6001-304 *Preside MDM Configuration Management for DPN Administrator Guide*, for more information on running a *cron* job.

Global Data Manager procedures

See the following sections for information on procedures you can perform using pgdm:

- "Propagating components" (page 220)
- "Removing components during propagation" (page 223)
- "Globally replacing attribute values" (page 223)

Propagating components

Pgdm is used to propagate global data components or to replace the attribute values for those components during propagation. The procedure involves the following four steps, which are illustrated by specific examples.

1. Create the components on a Passport. See, "Component Provisioning" (page 83) or on-switch provisioning capability.
2. Create a module name file (see "Module name file" (page 213)). This file contains one source Passport record and a number of target Passport records and is set up in the following format.

   ```
   -source <passport_name> -uploadmode [Current |
     Committed\ | Keyed <key> | Dated <date_key> |
     User_specified <view_filename>]

   -target <passport_1>...<passport_n>
     -uploadmode [Current | Committed | Keyed <key> |
     Dated <date_key> | User_specified <view_filename>]
     -downloadmode [Keyed <key> | Dated <date_key> |
     User_specified <view_filename>]
   ```

3. Create a component file (see "Component file" (page 215)). This file contains the components that you wish to propagate. You can specify the component's attribute values if they need to be changed. The file has the following format:

   ```
   <comp_1>{/<key>}... <comp_n>{/<key>} @<attr_1>
     <value>,...,<attr_n> <value>
   ```

4. Invoke *pgdm* (see "The Global Data Manager command line" (page 218)) by using the following format:

```
pgdm -auth <group_name> <user_id> <password> \
  [-modf <module_fn>] \
  [-compf <component_fn>] \
  [-pcmdf <pre-propagate_fn>] \
  [-logfile [log_fn] \
  [-wd <working_dir>] \
  [-quiet] \
  [-np <number of processes>]
```

Example 1: Adding a new user for Passports in the network

Add a new user as follows:

1. Add a new user, GUEST, into a Passport view using the Downloadprovisioning tool. This Passport is referred to as the source where the new user data is obtained.
2. Create a module file. In this file, specify the source switch (NODE1) and the targets. Use the uploadmode *DATED* for both uploading and downloading.

   ```
   -source NODE1 -uploadmode DATED 960520
   ```

   ```
   -target NODE2 NODE3 -uploadmode DATED 960520 -
     downloadmode DATED 960521
   ```

3. Create a component file that contains the following line:

   ```
   Ac Userid/GUEST
   ```

   Where GUEST is the <newUser> created in step 1.

4. Type the following command to capture the output messages into the logfile *mylog*:

   ```
   pgdm -auth PPgroup myId myPasswd -modf modules -compf
     comps -logfile mylog
   ```

5. The log output is as follows:

```
08:53:48 NOTE:  The Passport GDM is starting for myId (Date: 1996-06-03).
08:53:48 NOTE:  Command line: pgdm -auth PP_GROUP myId XXXX -modf modules
-compf comps -logfile mylog
08:54:02 NOTE:  The PGDM Uploading is starting. Date: 1996-06-03.
08:54:21 NOTE:  Upload provisioning file 96052001.full.100 on EM NODE1.
08:54:25 NOTE:  The following component(s) will be propagated:
                Ac Userid/GUEST
08:54:25 NOTE:  The PGDM Uploading has completed successfully.
```

```
******** NODER2 - Processing/Error messages ********
08:54:28 NOTE:  The PGDM Propagation is starting for NODER2. Date: 1996-
06-03.
08:54:30 NOTE:  Preparing for provisioning.
08:54:52 NOTE:  Loading file 96052001.full.470 in the edit view on EM
NODE2.
08:55:06 NOTE:  Checking the configuration.
08:56:10 NOTE:  Saving the configuration.
08:56:33 NOTE:  Changes saved in file 96052100.full.473 on EM NODE2.
08:56:42 NOTE:  The PGDM Propagation has completed successfully.

******** NODE3 - Processing/Error messages ********
08:56:44 NOTE:  The PGDM Propagation is starting for NODE3. Date: 1996-
06-03.
08:56:46 ERROR: EM NODE3 is not accessible under group PP_GROUP
08:56:46 NOTE:  The PGDM Propagation has completed but errors were found.

******** LOG SUMMARY ********
   NODE2                        - Completed successfully.
   NODE3                        - Error found.
   08:57:45 NOTE:  Passport GDM has completed but errors
   were found.
================================================================================
```

Example 2: Propagating components

Propagate all Vncs components (see “Vncs hierarchy” (page 216) for the Vncs hierarchy) specified in the Committed view from Passport NODER10 to NODER20 and NODER21. Use the Keyed NMS provisioning view. The *pgdm* command is as follows:

```
pgdm -auth <Group name> <UserId> <password> \
   -modf modules -compf vncs -logfile vncs_log
```

where:

`modules` is the name of the module name file. The file contains the following lines:

```
-source NODER10 -uploadmode COM
-target NODER20 NODER21 -uploadmode K NMS \
-downloadmode K NMS
```

`vncs` is the name of the component file. The file contains the following line:

```
Vncs/*
```

Processing and error messages are captured in the *vncs_log* log file.

Removing components during propagation

The components on a target Passport can be deleted during global data propagation. The on-switch provisioning delete commands are specified in the pre-propagate command file.

1. Follow steps 1 to 3 of "Propagating components" (page 220).
2. Create a pre-propagate command file (see "Pre-propagate command file (optional)" (page 217)).
3. Invoke pgdm with the *-pcmdf* option (see "The Global Data Manager command line" (page 218)).

For example, Passport NODER20 and NODE21 both have Vncs/11 and Vncs/12, but the source Passport (NODE10) does not have these components. You can remove the Vncs/11 and Vncs/12 from the target's provisioning view by using the command file and the *-pcmdf* option. This command file contains the following lines:

```
del Vncs/11

del Vncs/12
```

Globally replacing attribute values

You can use pgdm to replace the attribute values for selected Passports in the network.

1. Create a module name file. This file contains only target Passport records (see "Module name file" (page 213)).
2. Create a component file. This file contains the components and attribute values that you need to replace (see "Component file" (page 215)).
3. Invoke pgdm (see "The Global Data Manager command line" (page 218)).

Chapter 7
Using HP OpenView NNM desktop

This section describes how to access Configuration tools from the HP OpenView NNM desktop application. In this section, you can find the following information:

About HP OpenView NNM desktop

HP OpenView NNM desktop is an optional feature of Preside Multiservice Data Manager (MDM) that runs on an HP OpenView platform. With this feature you can launch, from the HP OpenView NNM desktop, tools from the Configuration for Passport Devices toolset. Or, you can use the surveillance and configuration tools in the HP OpenView NNM desktop toolset.

Passport configuration tools available from HP OpenView NNM desktop

See the following sections for information on the configuration tools that you can launch from HP OpenView NNM desktop:

- Nodal Provisioning. See 241-6001-610 *Preside MDM Nodal Provisioning User Guide*.
- Software Distribution and Configuration. See “Software Download and Configuration” (page 37).
- Service Integrity Simplification. See 241-6001-022 *Preside MDM Network Reporting System User Guide*.
- “Network Activation” (page 157).
- Passport/SNMP Devices Backup And Restore. See 241-6001-807 *Preside MDM Passport/SNMP Devices Backup and Restore User Guide*.

Accessing HP OpenView NNM desktop from MDM

Access HP OpenView NNM desktop from the Preside MDM Fault menu.

Accessing Configuration tools from HP OpenView NNM desktop

See the following procedures for information on how to start HP OpenView NNM desktop and access the Configuration tools:

- “Starting HP OpenView NNM desktop” (page 226)
- “Starting tools from the Configuration menu” (page 228)
- “Starting tools from the pop-up menu” (page 228)

Starting HP OpenView NNM desktop

1. In a UNIX window start HP OpenView:

   /opt/OV/bin/ovw &

   The About HP OpenView window opens. Click Close to close the window or wait for it to close on its own.

   The Root map opens, displaying the Nortel Networks symbol and the IP Internet symbol. These symbols indicate the state of their respective

networks through color. The standard HP OpenView color scheme is used, as shown in the HP OpenView Display Legend.

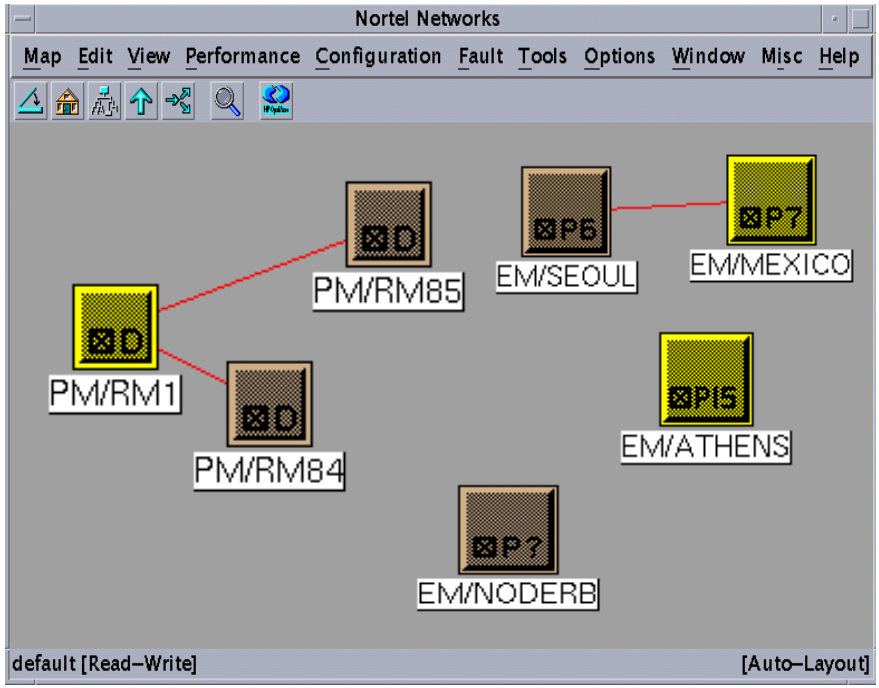
The Event Categories window opens. It may display a status message at the bottom, stating the percentage of the trapd.log file that has been loaded.

2 To view your network on the Root map, double-click the Nortel Networks symbol.

The Nortel Networks submap opens and displays the devices in your network. The color of the icon indicates the states of the network devices. For Passport nodes, the icons let you distinguish between Passport nodes belonging to the 6000, 7000 and 15000 series.

- Icons depicting Passport legacy and 6000 nodes contains P6 or 6.
- Icons depicting Passport 7000 nodes contains P7 or 7.
- Icons depicting Passport 15000 nodes contains P15 or 15.
- Icons depicting unknown Passport nodes contain P? or ?. Although the devices are in the database, it has not yet been configured to identify these devices. To change these icons to identify the Passport type, use the Make Configuration Data File (MCDF) utility. See 241-6001-015 *Preside MDM Network Model Administrator Guide* for additional information on the MCDF utility.

DPN devices are identified by a D or O.



3 Access the Configuration for Passport tools. There are two methods: see “Starting tools from the Configuration menu” (page 228) or “Starting tools from the pop-up menu” (page 228).

Starting tools from the Configuration menu

1 At the OVW submap, select a Passport device by clicking the left mouse button.

2 Select Passport from the Configuration menu.

3 Select the tool that you want to open.

Starting tools from the pop-up menu

1 At the OVW submap, select a Passport node by clicking the left mouse button.

2 Press the mouse menu button to display the node pop-up menu, and select Passport Configuration.

3 Select the tool that you want to open.

How HP OpenView NNM desktop displays Passport device names

Passport device names are displayed on the Nortel Networks submap as EM/<device_name>. For example, EM/EMDEV1

Note: The device name that appears on the *Nortel Networks submap* is the name with which the device is configured. Lowercase letters in a configured name appear as uppercase letters in the submap display.

Exiting HP OpenView NNM desktop

1 From the Root map or any submap, select Map -> Exit.

An OpenView Windows warning dialog opens.

2 To continue the exit process, click OK.

The dialog closes along with the Event Categories window and any open submaps.

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Preside Multiservice Data Manager

Configuration Management for Passport

User Guide

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