NTSE66FB   **323-4001-053**

SONET Transmission Products

S/DMS Network Manager
Connectivity

NORTEL
NORTHERN TELECOM

Record of NTP Update package(s)

Network Manager Rel 6 Issue 01, April 1997

The NTP Update Network Manager Rel 6 Issue 01 is issued for the following reason:

- OC-3 Express support

Record of changed pages

The following pages of document Rel 6 Standard have been revised for:

NTP Update Network Manager Rel 6 Issue 01

NTP number	Pages modified	Pages added	Pages reissued (no changes)
323-4001-102	1-1, 1-5, 1-33, 1-49, 1-51	1-37.1, 1-37.2	1-2, 1-6, 1-34, 1-37, 1-38 1-50, 1-52
323-4001-053	Replace entire book		
323-4001-055	2-19		2-20
323-4001-059	1-7 2-1, 2-5		1-8 2-2, 2-6

SONET Transmission Products
S/DMS Network Manager
Connectivity

Document number: 323-4001-053
Document release: Rel 6 Standard
Date: November 1996

Publication history

November 1996

Standard for S/DMS Network Manager Release 6. Release 6 includes connection management enhancements (support for Virtual Tributary Bandwidth Manager (VTBM) and linear systems), revised network display for groups, and network element support for Tellab Titan 5500 Digital Cross-Connect System (DCS), DV45 Video Codec, and OC-192 network elements.

January 1996

Standard for S/DMS Network Manager Release 5. Release 5 adds STS connection management (provisioning) and service assurance functions to S/DMS Network Manager. Release 5 also introduces extensive changes to the user interface in the area of menu structure, node information, and display selection capabilities.

April 1995

Standard for S/DMS Network Manager Release 4. Release 4 includes updates for performance monitoring consolidation, remote inventory query and display, shelf-level graphics, provisionable span information, and support for additional users on certain S/DMS Network Manager hardware platforms.

September 1994

Standard for S/DMS Network Manager Release 3. Release 3 includes updates for centralized software management, enhanced alarm collection control, asynchronous alarm display, alarm filtering, alarm banner, TA-1230 ring configuration and traffic display, access to graphical OPC user interface, external device access, and enhancements to the S/DMS Network Manager software installation and upgrade process. This is also the first issue of the S/DMS Network Manager User Guide produced in full color.

January 1994

Standard for S/DMS Network Manager Release 2. Release 2 includes updates for user-defined network element groupings, transparent network element login access, detailed alarm information display, user-selectable link types, unrestricted network element node placement, and interwindow linking of network element nodes.

April 1993

Standard for S/DMS Network Manager Release 1. This user guide introduces the S/DMS Network Manager and describes the S/DMS Network Manager Release 1 network configuration and alarm monitoring capabilities.

Contents

About this guide

This book provides information on connectivity within the S/DMS Network Manager Release 6 software.

Who should read this book

This book is intended for people who must log in and out of S/DMS Network Manager, controllers (OPC and TL1 MOA), network element user interfaces, and external devices.

S/DMS Network Manager documentation packaging

The documentation for S/DMS Network Manager is composed of one volume. The volume contains nine individual books:

- *Introduction* (323-4001-102) introduces the features and user interface of S/DMS Network Manager.

- *Installation and Administration* (323-4001-202) provides installation and administration information for S/DMS Network Manager. Also, this book provides information on configuring and bootstraping an operations controller (OPC), setting up serial ports for external device access, and customizing the S/DMS Network Manager user environment.

- *Connectivity* (323-4001-053) provides information on logging in and out of S/DMS Network Manager, controllers (OPC and TL1 MOA), network element user interfaces, and external devices.

- *Configuration* (323-4001-054) describes the Graphical Network Editor (GNE) tool of S/DMS Network Manager. The GNE is used to configure a network.

- *Fault Management* (323-4001-055) describes the Graphical Network Browser (GNB) tool of S/DMS Network Manager. The GNB is used for network surveillance.

- *Performance Management* (323-4001-056) describes centralized performance monitoring for the network elements monitored by S/DMS Network Manager.

- *Connection Management* (323-4001-057) describes viewing, provisioning, and editing connections on ring and linear systems.

- *Inventory Management* (323-4001-058) describes taking an inventory of remote network elements monitored by S/DMS Network Manager.
- *Software Management* (323-4001-059) describes controller and network element centralized software management.

Systems supported in this book

This book describes the operation of S/DMS Network Manager with S/DMS TransportNode, S/DMS AccessNode, Cornerstone Voice, SONET Radio 4/40, and TL1 MOA systems. The basic operation of S/DMS Network Manager is the same for each system. However, the availability of some features depends on the system S/DMS Network Manager is monitoring, and the software release installed on the system. For more information on software release compatibility, see *S/DMS Network Manager Introduction*, 323-4001-102.

How commands, parameters, and responses are represented

Commands, parameters, and responses in this book are shown as follows.

System prompts and responses

System prompts and responses are printed as follows:

```
system-prompts and RESPONSES looks like this
```

Command strings

Command strings typed at the keyboard are printed in bold type, followed by a Return or Enter symbol (↵), as follows:

this is what you type ↵

Type the command string exactly as shown, including spaces, and end by pressing the Return key.

Variable parameters are enclosed in angle brackets, as follows:

Install the software in directory <directory name>

An explanation of the variable follows the command string, as follows:

where

<directory name>   is the name of the directory used to...

On-screen buttons and menu commands

Buttons and menu command items are printed in bold type as follows:

select the **Controller Status** command

Hardkeys

Hardkey (keyboard keys) names are printed in plain type as follows:

press Return

Results of an action and comments

Results of an action and comments are printed in italic type, as follows:

The Controller Status dialog appears.

Screen illustrations

The screen illustrations in this book are black and white approximations of the images displayed by S/DMS Network Manager.

References in this book

S/DMS Network Manager can monitor various types of Northern Telecom SONET transmission systems, each of which has its own version of Northern Telecom Publication (NTP). Throughout this book, references to NTPs include an "nnnn" notation in place of the NTP version number. Substitute the appropriate NTP version number for the "nnnn" according to the type of system that S/DMS Network Manager is monitoring, as shown in the following table.

System type	NTP version number
OC-3 Express	1051
OC-3/OC-12	1111
OC-48	1201
OC-192	1301
S/DMS AccessNode	3001

For example, if this book refers you to *User Interfaces Description*, 323-nnnn-301, and S/DMS Network Manager is monitoring a Northern Telecom OC-48 system, use NTP 323-1201-301 to obtain the appropriate information.

The following NTPs and other documentation are referred to, but not included as an integral part of the *S/DMS Network Manager User Guide*.

- *System Description*, 323-nnnn-100
- *Signal Flow and Protection Switching Descriptions*, 323-nnnn-103
- *Performance Monitoring Description*, 323-nnnn-105
- *User Interfaces Description*, 323-nnnn-301
- *System Administration Procedures*, 323-nnnn-302

- *Software Administration Procedures*, 323-nnnn-303
- *Protection Switching Procedures*, 323-nnnn-311
- *Performance Monitoring Procedures*, 323-nnnn-520
- *Alarm and Trouble Clearing*, 323-nnnn-543
- *S/DMS Network Manager, Release 6.00 Planning Guide*, PG 96-04
- *MOA, Release 2.00 Planning Guide, PG 95-11*
- *TL1 Reference Guide, 323-nnn-190*
- *DV45 TL1 MOA User Guide, 323-4041-050*
- *Tellabs Titan TL1 MOA User Guide*, *323-4042-050*
- *OC-3 Express TL1 MOA User Guide*, *323-4043-050*
- *HP Visual User Environment User's Guide*, Hewlett Packard Part No B1171-90042
- *HP Remote Access User's Guide*, Hewlett Packard Part No B1862-90011
- *HP-UX Installing Peripherals*, Hewlett Packard Part No B1864-90011
- *HP-UX System Administration Tasks manual*
- *Bellcore SONET BLSR Equipment Criteria* TA-NWT-001230 (issue 2)

Technical support and information

Additional technical support and information can be obtained by contacting the nearest service center. The service centers for the United States and Canada are listed in the following sections.

United States regional service centers

In the United States, contact the nearest regional service center for technical support and information.

For 24 hour emergency technical support
For assistance restoring service on equipment which has been carrying traffic and is out-of-service, call the following toll-free number:

<div align="center">

800-275-3827 (800-ASK-ETAS)

</div>

For technical support from 8 a.m. to 10 p.m.
Call the following toll-free number:

<div align="center">

800-275-8726 (800-ASK-TRAN)

</div>

Southern Region Northern Telecom Inc. 5555 Winward Parkway, Suite B, Alpharetta, Georgia 30201-3895 (404) 661-4000	**Northeast Region** Northern Telecom Inc. 200 Summit Lake Drive Valhalla, New York 10595 (914) 773-2559
Central Region Northern Telecom Inc. 475 Martingale Road Schaumburg, Illinois 60173 (708) 706-8000 or 8389	**Western Region** Northern Telecom Inc. 5575 DTC Parkway, Suite 150 Englewood, Colorado 80111 (303) 850-5600
Pacific Region (North) Northern Telecom Inc. 2305 Camino Ramon San Ramon, California 94583 (510) 867-2000	**Southwest Region** Northern Telecom Inc. 2221 Lakeside Blvd., FL 9 Richardson, Texas 75082-4399 (214) 684-4195 or 1000
Pacific Region (South) Northern Telecom Inc. 300 North Lake Avenue Pasadena, California 91101 (818) 584-2000	**Eastern Region** Northern Telecom Inc. 2010 Corporate Ridge McLean, Virginia 22102 (703) 712-8487

Canada technical assistance service centers

In Canada, contact the nearest technical assistance service center for technical support and information.

For 24-hour emergency technical support For assistance with problems that can lead to payload-affecting failures or issues that prevent payload protection switching, call the following numbers: **(800) 361-2465 or (514) 956-3500**
For 24-hour emergency recovery For assistance restoring service on equipment which has been carrying payload and is out of service, call ETAS at the following number: **613-226-5456**
For non emergency support from 8:00 a.m. to 4:00 p.m. Call the regional Field Service Engineering (FSE) group in your Technical Assistance Service Center.

FSE West **(Alberta)** Northern Telecom Canada Limited 10235, 101 Street Edmonton, Alberta T5J 3G1 (403) 441-3193	**FSE West** **(British Columbia, Yukon, and Northwest Territories)** Northern Telecom Canada Limited #410, 13251 Delf Place Richmond, British Columbia V6V 2A2 (604) 279-2258
FSE West **(Manitoba, North-Western Ontario)** Northern Telecom Canada Limited 180, 117 King Edward Street E. Winnipeg, Manitoba R3H 0Y3 (204) 788-7531	**FSE West** **(Saskatchewan)** Northern Telecom Canada Limited PO Box 770 Regina, Saskatchewan S4P 3A8 (1867 Hamilton Street, 8th floor) (306) 791-7100 or (306) 791-7110
Ontario Northern Telecom Canada Limited PO Box 3000 Brampton, Ontario L6V 2M6 (905) 452-2104	**Quebec** Northern Telecom Canada Limited PO Box 2110 St. Laurent, Quebec H4L 4Y7 (514) 744-8750
FSE East (Newfoundland) Northern Telecom Canada Limited 63 Thorburn Rd. St. John's, Newfoundland A1B 3M2 (709) 722-2500 or 1-800-661-4827	**FSE East (New Brunswick)** Northern Telecom Canada Limited 1 Brunswick Square, 4th Floor Saint John, New Brunswick E2L 4K2 (506) 632-8271 or (506) 632-8203
FSE East **(Nova Scotia, Prince Edward Island)** Northern Telecom Canada Limited 1701 Hollis St., Suite 900 Halifax, Nova Scotia B3J 3M8 (902) 421-2301	

Logging in to user interfaces

This chapter describes logging in to network elements, controllers, and external devices associated with S/DMS Network Manager. Controllers supported include Northern Telecom operations controllers (OPC) and Transaction Language 1 (TL1) Managed Object Agents (MOA). Both the GNE and GNB can be used to perform these actions.

Once logged in to a controller or network element, you can use the tools available on that platform to investigate an alarm or perform other operations, administration, maintenance, and provisioning (OAM&P) functions.

If an external device is connected to the S/DMS Network Manager, you can also access the user interface of that device.

Network element login

GNB allows you to log in to network elements monitored by S/DMS Network Manager. You can log in to a network element through manual login dialogs, or through an automated process if the controller recognizes your S/DMS Network Manager userID. (You can log in directly to the network elements without logging into the controller first.) The automated login process is also known as a transparent login.

> *Note 1:* Transparent login access to network elements is only available if your controller is running a version of software that supports network element login. (See "Software release compatibility" in *S/DMS Network Manager Introduction*, 323-4001-102.) If the controller is not running a version of software that supports this feature, the network element login commands are disabled (grayed out).

> *Note 2:* The automated login process is not supported for OC-3 Express and Tellabs Titan 55000 Digital Cross-Connect System (DCS) network elements.

Initiate the manual login process by selecting the Login to <ne> command from the Login menu. Initiate the automated login process by selecting the Auto-Login to <ne> command from the Login menu or by double-clicking on the network element.

When you manually log in to an OC-48, OC-3/12, or OC-192 network element, you can select the controller you want to use before logging in to the network element. The Network Element Login dialog lists the primary and backup controllers, and shows the state (Active or Inactive) of each controller. (See the following illustration.)

NM-10539.1
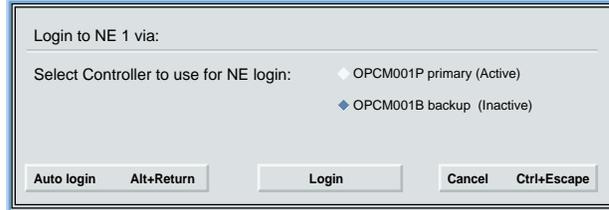
When you manually log in to an OC-3 Express or Tellabs Titan 5500 DCS network element, you must use the TL1 MOA controller. The Network Element Login dialog lists the TL1 MOA controller, and shows the state (Active or Inactive) of the controller.

A network element user interface is displayed after successfully logging in to a network element. The user interface enables you to execute commands on the network element. The Maintenance and Administration Position Command Interpreter (MAPCI) user interface supports OC-48, OC-3/OC-12, and OC-192 network elements. The TL1 user interface supports OC-3 Express and Tellab Titan 5500 DCS network elements. For a description of the MAPCI user interface, see *User Interfaces Description*, 323-nnnn-301. For a description of the MAPCI user interface, see *TL1 Reference Guide*, 323-nnnn-190.

Controller Login

GNB allows you to log in to the controllers monitored by S/DMS Network Manager. Controllers supported by S/DMS Network Manager are Northern Telecom OPCs and TL1 MOAs.

You can log in to a controller through manual login dialogs, or through an automated process if the controller recognizes your S/DMS Network Manager userID. The automated login process is also known as a transparent login.

You can initiate the manual login process by selecting the Login to <controller> command. This command is available in the Login menu, or by selecting a controller in the Controller List dialog and displaying the object menu.

You can initiate the automatic login process by selecting the Auto-Login to <controller> command. This command is available in the Login menu, or through the network element object menu. When you select the Auto login button, your S/DMS Network Manager userID is automatically used to log in to the controller. However, auto login works only if the following conditions are meet:

- S/DMS Network Manager alarm collection process is running
- selected controller is active
- controller accepts the userID you used to log in to S/DMS Network Manager.

You must manually log in to the controller if your S/DMS Network Manager userID and password are not acceptable to the controller. After selecting the Login button in the Controller Login dialog, a new window appears. This window enables you to enter a userID and password acceptable to the controller.

The login session is terminated if you fail to enter your userID and password within a predefined amount of time, or you attempt three consecutively invalid login attempts.

The Controller Login dialog appears when you perform a manual login, or when you perform an automatic login and the controller does not recognize your S/DMS Network Manager userID. The Controller Login dialog shows controller names, function, and current activity (Active or Inactive). (See the following illustration.)

NM-10494.1

Controller login

Select Controller to login to: ◆ **OPCM001P primary (Active)**

⬦ **OPCM001B backup (Inactive)**

⌐ **Login to Character Session**

| **Auto login** | **Alt+Return** | Login | Alt+L | **Cancel** | **Ctrl+Escape** |
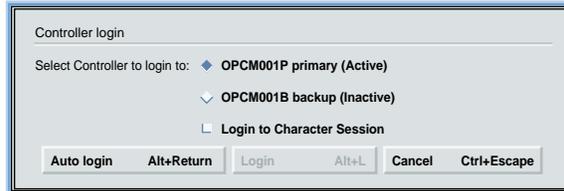
Northern Telecom OPCs

For Northern Telecom OPCs, the span of network elements can use a primary and backup controller. The Controller Login dialog allows you to select and log in to the primary or backup controller. If only one of these controllers is monitored by S/DMS Network Manager, only that controller appears in the Controller Login dialog.

Once you successfully log in to the controller, you are presented with a controller User Session Manager. The format of the User Session Manager depends on the user interface selected for the controller you are logging in to.

Northern Telecom OPCs support an X Window user interface and a character mode terminal (CMT) user interface. Both user interfaces provide the same functions. However, the X Window user interface requires a high-bandwidth connection such as a Ethernet TCP/IP LAN, between the controller and S/DMS Network Manager. If a controller uses the X Window user interface, a maximum of four X Window user sessions can be active on an S/DMS Network Manager at any one time.

When a controller is added to the network configuration, one of these user interface formats is defined as the default for the controller. The default user interface automatically appears when you select the Auto-login to <controller> command.

If the X Window user interface is the default for a controller, a Login to Character Session button appears in the Controller login dialog. This button allows you to override the default X Window user interface and display the CMT user interface.

The Login button is disabled if X Window is the default user interface on the controller you are trying to log in to. You cannot display an X Window user interface if the controller does not accept your S/DMS Network Manager userID. If the Login button is disabled, select the Display Character Session button before attempting to log in to the controller.

If the CMT user interface is the default, the Login to Character Session button does not appear. You cannot override a default CMT user interface.

For more information on logging in to a Northern Telecom OPC, see Procedure 2-2, "Logging in to a Northern Telecom OPC".
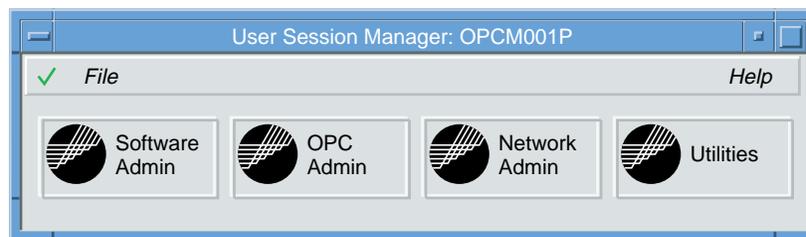
Choosing a controller user interface

Some controllers can present their user interface in two different formats: a character mode terminal (CMT) format, and an X Window format.

> *Note:* The CMT format is not available for TL1 MOA controllers.

The difference between the two user interface formats is the way the information is presented on the screen, and how you navigate around the screen. Both formats allow you to perform the same functions on the controller.

The X Window format provides a graphical controller user interface that allows you to use the mouse to navigate and to select items. The following illustration shows the User Session Manager that appears when a user logs in to a controller with an X Window user interface.

NM-10265.1

The CMT format provides a text-based controller user interface. Only the keyboard is used to navigate and select items. The following illustration shows the User Session Manager that appears when a user logs in to a controller with the CMT user interface.

NM-10356.1

```
┌────────────────────────────────────────────────────────────┐
│ ▬              OPCM001P                              ▫  □    │
├────────────────────────────────────────────────────────────┤
│ >. User Session Manger : admin                             │
│                                                            │
│     Available tools              Open tools               │
│                                                            │
│     Toolset/Tools             ID   State    Tool          │
│    ■Software Admin            2    >. OK    OPC Status : Primary/Active │
│        Reboot/Load Manager                                 │
│        Backup/Restore Mngr                                 │
│        Event Browser                                       │
│        SW Delivery Mngr                                    │
│    ■OPC Admin                                              │
│        Group and User Setup                                │
│        Remote OPC SW Inst.                                 │
│        OPC Save and Restore                                │
│        OPC Shutdown                                        │
│        OPC Date                                            │
│        Unix Shell                                          │
│    ■Network Admin                                          │
│        Network Telemetry                                   │
│    ■Utilities                                              │
│                                                            │
│                        [ Logout ]                          │
│   C 0   M 0   m 1   w 2  FailProt 0   Lckt 0   ActProt 0   PrfAlrt 0      16:33 │
└────────────────────────────────────────────────────────────┘
```
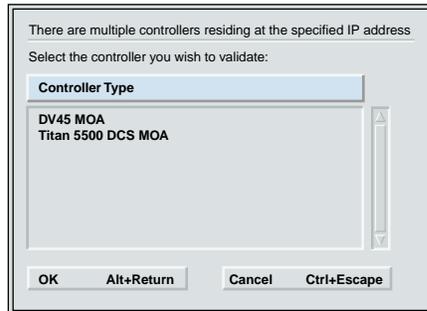
For a complete description of the CMT and X Window controller user interfaces, and to learn about the controller tools, see *User Interfaces Description*, 323-nnnn-301.

TL1 MOA

For TL1 MOA controllers, the controller name is displayed in the Controller Login dialog. If you are logging in to the TL1 MOA controller of an OC-3 Express network element, you are also given the option of logging into the subnetwork controller device. The subnetwork controller device is also known as the Network Processor Card (NPC).

You can manually or automatically log in to a controller using the Controller Login dialog. You cannot automatically log in to an OC-3 Express NPC.

If two or more TL1 MOA controllers reside at the same Internet Protocol (IP) address, you must select the controller you want to log in to using the Controller Selection dialog. (See the following illustration.)

NM-10634.1

```
┌──────────────────────────────────────────────────┐
│ There are multiple controllers residing at the specified IP address │
│                                                  │
│ Select the controller you wish to validate:      │
│ ┌──────────────────────────────────────────────┐ │
│ │ Controller Type                              │ │
│ ├──────────────────────────────────────────────┤ │
│ │ DV45 MOA                                  ▲ │ │
│ │ Titan 5500 DCS MOA                        ▒ │ │
│ │                                           ▒ │ │
│ │                                           ▒ │ │
│ │                                           ▒ │ │
│ │                                           ▼ │ │
│ └──────────────────────────────────────────────┘ │
│                                                  │
│ ┌─────┐  ┌──────────┐   ┌───────┐  ┌───────────┐ │
│ │ OK  │  │Alt+Return│   │Cancel │  │Ctrl+Escape│ │
│ └─────┘  └──────────┘   └───────┘  └───────────┘ │
└──────────────────────────────────────────────────┘
```

The TL1 MOA user interface supports TL1 MOA controllers. (See the following illustration.) An X Window format is used for the TL1 MOA user interface.You must manually start the user interface after logging in to a controller. For more information on the TL1 MOA user interface, see *OC-3 Express TL1 MOA User Guide*, 323-4043-050, *DV45 TL1 MOA User Guide*, 323-4041-050, and *Tellabs Titan TL1 MOA User Guide*, 323-4042-050.

NM-10648.1
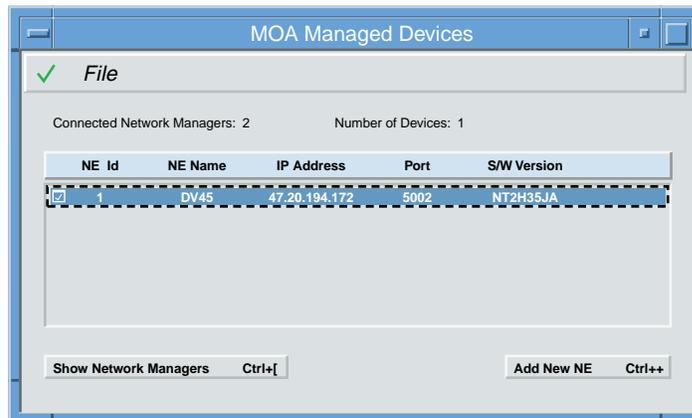
OC-3 Express supports a TL1 user interface for subnetwork controller devices. For more information on the TL1 user interface, see *TL1 Reference Guide*, 323-nnnn-190.

For more information on logging in to a TL1 MOA controller, see Procedure 2-3, "Logging in to a remote TL1 MOA controller".

CMT navigation

With the S/DMS Network Manager CMT user interface, navigation and item selection is performed using the keyboard. For keyboard operations using the Control key, hold the Control key down while you press the other key (for example, Ctrl_T, where the _ denotes the hold and press action).

The following table summarizes screen navigation and item selection in the S/DMS Network Manager CMT user interface.

Operation	Keyboard operation
Moving from object to object (e.g., from a button to a list) - next object - previous object Moving within an object (e.g., from list item to list item, or menu item to menu item)	Tab Ctrl_B arrow keys
Selecting a button or list item	Ctrl_A
Open a menu - button or field menu - list item menu (after selecting item) - window menu - global menu (all menus in one)	Ctrl_L Ctrl_L Ctrl_L W Ctrl_G
Choose a menu item	Space bar
Close (cancel) a menu	Ctrl_^ or Esc Esc
Refresh the screen	Esc .

Note: Character keys are not case sensitive.

External device access

If an external device is connected to your S/DMS Network Manager, for example, telephone switching equipment such as a Northern Telecom Digital Multiplex System (DMS), you can use the GNE or GNB to start a VT100 terminal-emulation session on that device. (See the following illustration.)

NM-10362.1

Connect to External Device

This dialog allows you to make a connection to an external device

◆ **Serial** ▶ I ▭ (device)

◇ **Remote** [   ] (name/IP Address)

OK   Alt+Return   Cancel   Ctrl+Escape
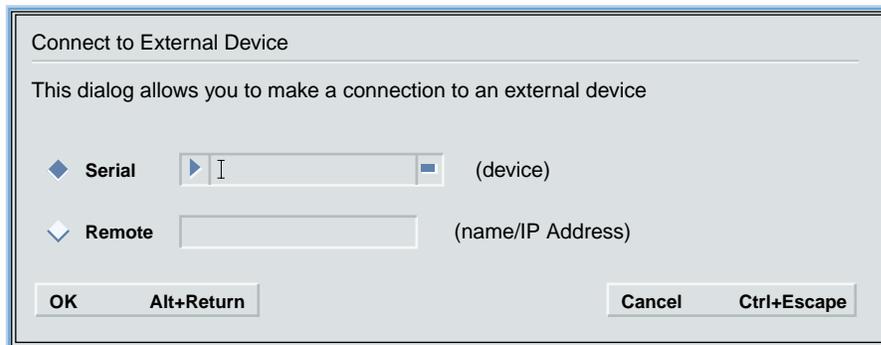
Initiate the session through a direct serial connection between S/DMS Network Manager and an external device, or through a remote TCP/IP connection from S/DMS Network Manager to the external device.

This dialog contains two radio buttons that allow you to select the type of connection, and two fields you can use to specify the S/DMS Network Manager port, or the IP address used to connect to the external device.

Accessing the network

This chapter describes how to log in and out of:

- the Graphical Network Editor (GNE) and Graphical Network Browser (GNB) tools of S/DMS Network Manager
- Northern Telecom operations controllers (OPC)
- TL1 MOA controllers
- network element user interfaces
- network elements
- external devices

Requirements

To perform the procedures in this chapter, you must do the following:

- read the conventions described in "About this guide" on page vii
- ensure you have a userID and password that allow you access to S/DMS Network Manager

Chapter task list

The following table lists the tasks contained in this chapter.

Task	Page
Logging in and opening an S/DMS Network Manager tool	2-3
Logging in to a Northern Telecom OPC	2-7
Logging in to a remote TL1 MOA controller	2-11
Logging out of an X Window user session	2-15
Logging out of a CMT user session	2-16
Logging in to a network element user interface	2-18
Logging out of a network element user interface	2-21

Procedure 2-1
Logging in and opening an S/DMS Network Manager tool

Use this procedure to log in to S/DMS Network Manager, and to open an S/DMS Network Manager tool. You can open a tool by selecting an S/DMS Network Manager tool icon from the HP VUE toolbox, or by typing a command string at a terminal window prompt.

Before opening a tool, select a view for the network. Use either the View Choice dialog if you are using the HP VUE toolbox, or enter the desired view as part of the command string.

Before starting this procedure, read "Requirements" on page 2-1.

Action

Step	Action
1	Log in to your workstation or X terminal.
	To learn how to log in, see the HP Visual User Environment User's Guide.
	After you successfully log in, an HP VUE workspace manager appears at the bottom of the screen.
	Note: To learn about the work space manager, see the HP VUE documentation.
2	Open a tool by selecting an S/DMS Network Manager tool icon from the HP VUE toolbox, or by typing a command at a terminal window command line prompt.

If you want to	**Then**
use the HP VUE toolbox	step 3
use the command line	step 8

Step	Action
3	Click on the toolbox button in the workspace manager.
	A toolbox menu appears.
4	Doubleclick on the personal toolbox entry in the toolbox menu.
	A personal toolbox window, containing a NM-Portfolio icon, appears.

—continued—

Procedure 2-1 (continued)
Logging in and opening an S/DMS Network Manager tool

Step	Action
5	Doubleclick on the NM-Portfolio icon in the personal toolbox window.
	An S/DMS Network Manager toolbox window appears. This window contains tool icons labeled GNE for the Graphical Network Configuration Editor, and GNB for the Graphical Network Browser.
	Note: If desired, you can drag the GNE and GNB icons out of the Northern Telecom toolbox and place them in the workspace.
6	Doubleclick on the icon that represents the S/DMS Network Manager tool that you want to open.
	Note: Only users with admin or layout class can open GNE.
	The View Choice dialog appears.
7	Select the view in the View Choice dialog and select the **Use View** button.

If you are opening	**Then**
GNE	step 14
GNB	step 15

Note: You can also rename, copy, or delete an existing view using the GNE View Choice dialog. For more information on these features, see "Selecting a view to display a network" in *S/DMS Network Manager Configuration*, 323-4001-054.

Step	Action
8	Click on the terminal icon in the HP VUE workspace manager.
	A terminal window appears.
9	Verify that the terminal window is active by clicking in the window title bar.
	A command line prompt appears in the terminal window.
	By typing the appropriate command at the command line prompt, you open an S/DMS Network Manager tool and select the desired view, all in one step.
	The command line also enables you to specify a name for the GNB and GNE windows. The name appears in the title bar at the top of the window.

If you want to use the command line to	**Then**
open GNE and select a view	step 10
open GNB and select a view	step 11
open GNE and specify a window name	step 12
open GNB and specify a window name	step 13

—continued—

Procedure 2-1 (continued)
Logging in and opening an S/DMS Network Manager tool

Step	Action
10	On the command line, enter

> `gnconfig -view <name> & ↵`
>
>> where
>>
>> \<name\>   is the name of the view
>
> *The GNE network window is displayed using the specified view.*
>
> **Note:** If the name of the selected view contains embedded blanks, double quotes must enclose the name entered on the command line.
>
> Go to step 14.

| **11** | On the command line enter: |

> `gnbrowse -view <name> & ↵`
>
>> where
>>
>> \<name\>   is the name of the view
>
> *The GNB network window is displayed using the specified view.*
>
> **Note:** If the name of the selected view contains embedded blanks, double quotes must enclose the name entered on the command line.
>
> Go to step 15.

| **12** | On the command line enter: |

> `gnconfig -tag <name> ↵`
>
>> where
>>
>> \<name\>   is the name you want to assign to the GNE window
>
> Go to step 14.

<center>**—continued—**</center>

Procedure 2-1 (continued)
Logging in and opening an S/DMS Network Manager tool

Step	Action
13	On the command line enter:

`gnbrowse -tag <name> ↵`

where

<name>   is the name you want to assign to the
GNB window

Go to step 15.

14 The GNE network window appears with the new window name.

Note: If you rename the window, the new name replaces GNE in the title of the window.

Go to step 16.

15 The GNB network window appears with the new window name.

Note: If you rename the window, the new name replaces GNB in the title of the window.

16 You have now completed this procedure. Return to the main procedure that sent you to this procedure and continue as directed.

—**end**—

Procedure 2-2
Logging in to a Northern Telecom OPC

Use this procedure to log in to a Northern Telecom operations controller (OPC) and begin a session. You can then investigate the cause of an alarm by using the controller tools.

> *Note:* This procedure does not support OC-3 Express TL1 MOA controllers. For information on logging in to TL1 MOA controllers, see Procedure 2-3 "Logging in to a remote TL1 MOA controller".

A separate window is used for each controller session. This window remains on the workspace until you log out of the controller, even if you end the GNE session.

There are two types of controller login: auto-login and normal login. Auto-login provides transparent access to the controller, but only if the controller recognizes your userID. When you use normal login, you must enter your userID and password before you can access the controller user interface.

On some controllers, two types of user interface are available: an X Window user interface and a character mode terminal (CMT) user interface. A default user interface is defined when the span is added to the network configuration.

When you auto-login to a controller, the default user interface is automatically displayed. If you use normal login, and the X Window user interface is defined as the default, you can override the default and instead display a CMT user interface.

Additional Requirements

In addition to the requirements described on page 2-1, the following condition must be satisfied to complete this procedure:

• see *User Interfaces Description*, 323-nnnn-301, for a description of the OPC X Window and CMT user interfaces

Action

Step	Action

1   GNE provides two ways to log in to a controller.

If you want to	Then
auto-login to the primary controller	step 2
manually login to the primary or backup controller	step 4

2   Select the network element whose primary controller you want to log in to.

—**continued**—

Procedure 2-2 (continued)
Logging in to a Northern Telecom OPC

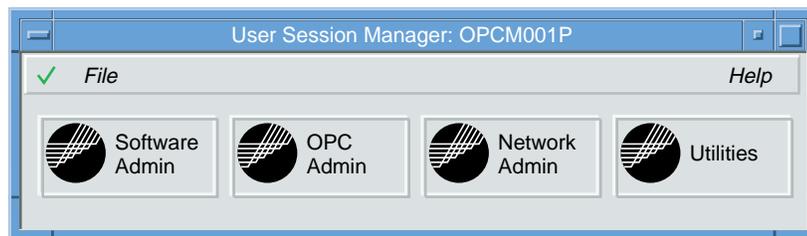| Step	Action
3	Display the network element object menu and select the **Auto-login to <controller>** command.
	Note: The Auto-login to <controller> command can also be selected in the Login menu and the Alarm Details dialog.
	Go to step 12.
4	Select the network element whose primary or backup controller you want to log in to.
	Note: You can also use the Controller List dialog to log in to the primary or backup controller. Select the desired controller in the Controller List dialog, display the list item menu, and select the **Login to <controller>** command.
5	Display the Login menu and select the **Login to <controller>** command.
	The Controller Login dialog appears. This dialog lists the primary and backup controllers, and shows the state (Active or Inactive) of each controller.
	Note: If S/DMS Network Manager collects alarms from only one controller in a span, then only that controller appears in the Controller Login dialog.
6	Select the controller to log in to by clicking the button beside the controller name.
7	If a **Login to Character Session** check button appears below the controller name, the controller can display either an X Window or CMT user interface. This button enables you to select the type of controller user interface displayed when you log in to the controller.

If the Login to Character Session button	**Then**
does not appear in the Controller Login dialog	step 11
appears in the Controller Login dialog	step 8

Step	Action
8	The Login to Character Session button indicates that the X Window user interface is selected as the default user interface for the controller. You can override the default selection and instead display a CMT user interface when you log in to the controller.

If you want to display the controller	**Then**
CMT user interface	step 9
X Window user interface	step 10

Step	Action
	Note: To view or change the default user interface selection for a controller, see "Viewing and editing the details of a controller" in *S/DMS Network Manager Configuration*, 323-4001-054.
9	Ensure that a check mark appears in the Login to Character Session button. The check mark appears or disappears each time you select the button.
	Go to step 12.

—**continued**—

Procedure 2-2 (continued)
Logging in to a Northern Telecom OPC

Step	Action
10	Ensure that a check mark does not appear in the Login to Character Session button. The check mark appears or disappears each time you select the button.
11	Select the method you want to use to log in to the controller.

    a. To log in without reentering your userID, select the **Auto login** button.

    b. To log in using another userID and password, select the **Login** button.

    Note: The Login button is disabled if X Window is the default user interface for the controller you are logging in to.

    A new window appears.

12	This step depends on the information that appears in the new window.

If	Then
a login prompt appears	step 13
a password prompt appears	step 14
a controller User Session Manager appears	step 15

13	Enter your userID at the login prompt.

    A password prompt appears.

14	Enter your password at the password prompt.

    If you answered the prompts correctly, a User Session Manager appears.

15	The User Session Manager can appear in an X Window or CMT format.

If	Then
an X Window User Session Manager appears	step 16
a CMT Controller User Session Manager appears	step 18

    Note: For a description of the X Window and CMT user interfaces and the controller tools, see *User Interfaces Description*, 323-nnnn-301.

16	The X Window version of the User Session Manager appears in a separate window.

NM-10265.1

—continued—

Procedure 2-2 (continued)
Logging in to a Northern Telecom OPC

Step	Action
17	To log out of the controller, see "Logging out of an X Window user session" on page 2-15.
18	The CMT version of the Controller User Session Manager appears in a separate window.

NM-10356.1
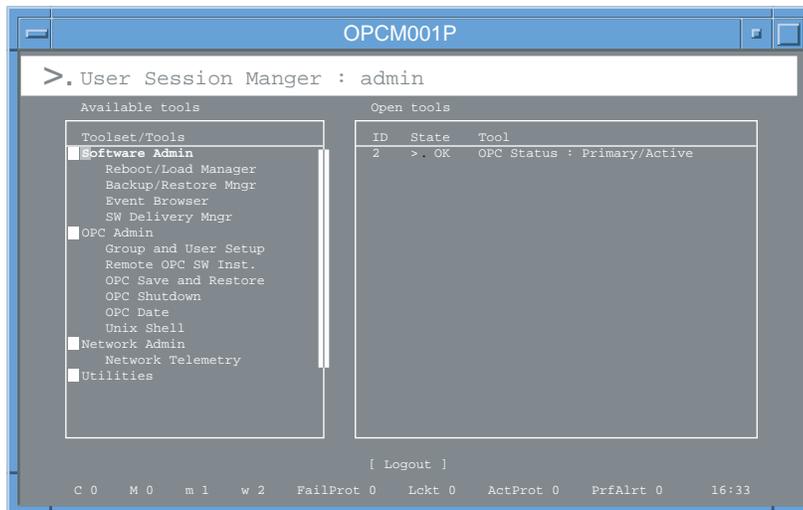
Step	Action
19	To log out of the controller, see "Logging out of an X Window user session" on page 2-15.

—**end**—

Procedure 0-0
Logging in to a remote TL1 MOA controller

Use this procedure to log in to a TL1 MOA controller from S/DMS Network Manager. Controllers supported by this procedure are the TL1 MOA controllers of OC-3 Express, Tellab Titan 5500 Digital Cross-Connect System (DCS), and DV45 Video Codec network elements.

You are also given the option of logging in to the subnetwork controller device for OC-3 Express network elements. The subnetwork controller device is also known as the Network Processor Card (NPC). The TL1 user interface supports the NPC.

The TL1 MOA controller can reside on a remote workstation, or on the same workstation as the S/DMS Network Manager. Even if the controller and the S/DMS Network Manager reside on the same workstation, the controller is considered a separate device that can be logged in to remotely. This procedure describes co-resident and remote workstation login scenarios.

A separate window is used for each controller login session. The session window remains on the workspace until you log out of the controller, even if you end the GNE or GNB session.

Once you have logged in to the TL1 MOA controller, you must manually start the TL1 MOA user interface. An X Window user interface is used for TL1 MOA.

Additional Requirements

In addition to the requirements noted on page 2-1, the following conditions must be satisfied to complete this procedure:

- see *User Interfaces Description*, 323-nnnn-301, for a description of the OPC X Window

Procedure 2-3 (continued)
Logging in to a remote TL1 MOA controller

Action

Step	Action
1	Display the Controllers menu and select the **Show List of Controllers** command.
	The Controller List dialog appears.
2	Display the list item menu for the controller you want to log in to and select the **Login to <controller>** command.
	The Controller Login dialog appears.
	Note: You can also select the **Login to <controller>** command from the network element object menu, or the Login menu in the window containing the network element.
	The Controller Login dialog displays the TL1 MOA controller. The state (Active or Inactive) of the controller is also displayed in the dialog. If you are logging in to an OC-3 Express controller, you are also given the option of logging into the subnetwork controller device. The subnetwork controller device is also known as the Network Processor Card (NPC).
3	Select the controller or NPC you want to log in to.
4	Select the method you want to use to log in to the controller or NPC.
	a. To log in without reentering your userID, select the **Auto login** button.
	Note: You cannot automatically log in to the NPC for OC-3 Express.
	b. To log in using another userID and password, select the **Login** button.
5	

If	Then
the Controller Selection dialog appears	step 6
a login prompt appears	step 7
a password prompt appears	step 8
a TL1 MOA X window session appears	step 11
an xterm window appears with the option of selecting an NPC	step 12

6	Specify the TL1 MOA controller type you want to log in to and select the **OK** button.
	Go to step 5.
7	Enter your userID at the login prompt and press Return.
	A password prompt appears.

—**continued**—

Procedure 2-3 (continued)
Logging in to a remote TL1 MOA controller

Step	Action
8	Enter your password and press Return.
	If your userID and password are recognized by the controller, a terminal type prompt appears. The terminal type prompt provides a default value.
9	Press Return to accept the default terminal type, or enter a different terminal type and then press Return.
	A UNIX prompt appears.
10	Set the display environment variables by entering the following:

setenv DISPLAY <display IP address>:0.0 ↵

 where:

 <display IP address>   is the IP address of the device
 (workstation or terminal) you are
 using

The UNIX prompt re-appears if the command was successful.

Start the TL1 MOA X Window user interface for the controller type you are monitoring by entering the appropriate command.

For DV45 controllers, enter:

/usr/bin/moa/dv45moa/dv45moa_ui ↵

For Tellab Titan 5500 DCS controllers, enter:

/usr/bin/moa/titanmoa/titanmoa_ui ↵

For OC-3 Express controllers, enter:

/usr/bin/moa/oc3moa/oc3moa_ui ↵

The X Window version of the TL1 MOA user interface appears in a new window.

NM-10648.1
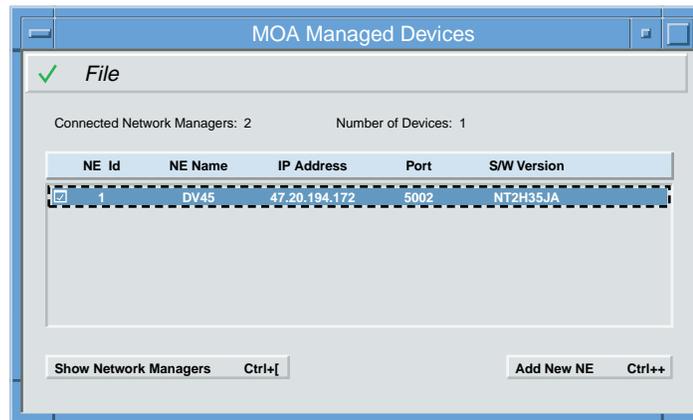
—continued—

Procedure 2-3 (continued)
Logging in to a remote TL1 MOA controller

Step	Action
11	Select the **Exit** command from the File menu when you have finished with the TL1 MOA X Window user interface.
	The TL1 MOA X Window user interface window is removed from the display.
	Go to step 5.
12	To select the NPC you want to log in to, enter
	1 ↵
	You are prompted for the NPC ID.
13	Enter the NPC ID corresponding to the IP address you want to log in to.
14	Press the **Return** key.
	A TL1 prompt appears. For a description of the TL1 user interface, see the TL1 Reference Guide, 323-nnnn-190.

—**end**—

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Procedure 2-4
Logging out of an X Window user session

Use this procedure to log out of an X Window OPC user session. This procedure can only be used if you are logged in to an OPC that supports a graphical user interface.

Additional Requirements

In addition to the requirements described on page 2-1, the following condition must be satisfied to complete this procedure:

- display a graphical OPC X Window user session window. For a description of the OPC X Window user interface, see *User Interfaces Description*, 323-nnnn-301.

Action

Step	Action
1	Move to the window containing the X Window user session from which you want to log out.
2	Display the User Session Manager window File menu and select the **Exit** command.
	A Logout dialog appears, prompting you to confirm your logout request.
	This dialog identifies the OPC you are attempting to log out of. You must respond to this dialog before you can perform any other actions on the OPC.
3	Select the **Logout** button.
	The OPC User Session Manager disappears, and a Connection Closed message is displayed.
4	Press the Return key.
	The user session window is removed from the display.

<div align="center">**—end—**</div>

Procedure 2-5
Logging out of a CMT user session

Use this procedure to log out of a CMT OPC user session. This procedure can only be used if you are logged in to an OPC that supports CMT user interface.

Additional Requirements

In addition to the requirements described on page 2-1, the following condition must be satisfied to complete this procedure:
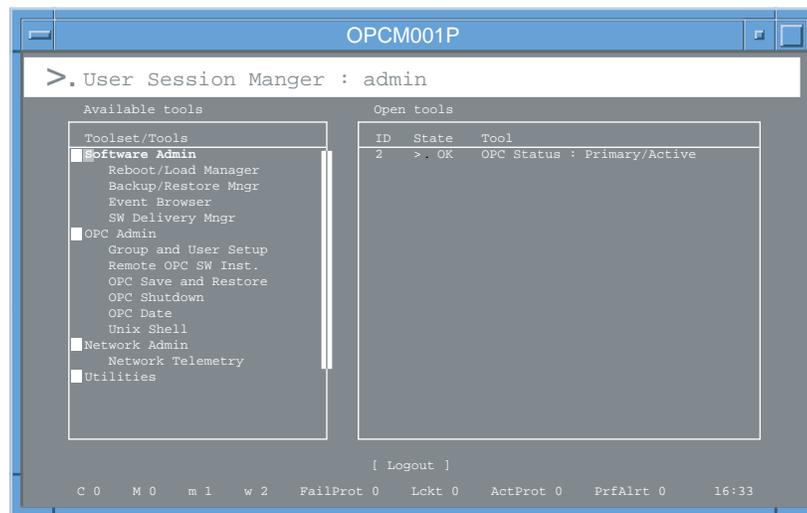
• display a CMT user session window. For a description of the CMT user interface, see *User Interfaces Description*, 323-nnnn-301.

Action

Step	Action
1	Move to the window containing the CMT user session from which you want to log out.
2	If the User Session Manager is not displayed in the window, pres Ctrl_T 0 (simultaneously press the keyboard control (CTRL) and T keys, release, and then press the zero key).

The OPC User Session Manager appears.

NM-10356.1

```
┌────────────────────────────────────────────────────────┐
│  ▭                      OPCM001P                    ▫  □ │
├────────────────────────────────────────────────────────┤
│  >. User Session Manger : admin                         │
│                                                         │
│      Available tools              Open tools            │
│                                                         │
│    Toolset/Tools            ID    State    Tool         │
│   ■Software Admin            2    >. OK    OPC Status : Primary/Active │
│       Reboot/Load Manager                               │
│       Backup/Restore Mngr                               │
│       Event Browser                                     │
│       SW Delivery Mngr                                  │
│   ■OPC Admin                                            │
│       Group and User Setup                              │
│       Remote OPC SW Inst.                               │
│       OPC Save and Restore                              │
│       OPC Shutdown                                      │
│       OPC Date                                          │
│       Unix Shell                                        │
│   ■Network Admin                                        │
│       Network Telemetry                                 │
│   ■Utilities                                            │
│                                                         │
│                          [ Logout ]                     │
│  C 0   M 0   m 1   w 2   FailProt 0   Lckt 0   ActProt 0   PrfAlrt 0   16:33 │
└────────────────────────────────────────────────────────┘
```

—continued—

Procedure 2-5 (continued)
Logging out of a CMT user session

Step	Action

3 Tab to the **Logout** button in the User Session Manager and select it by pressing Ctrl_A (or Keypad 0).

A confirmation dialog appears, prompting you to confirm your request.

NM-10366.1

```
┌──────────────────────────────────────────────────────────┐
│ ▭                      OPCM001P                       ▫ ▢ │
├──────────────────────────────────────────────────────────┤
│                                                          │
│                                                          │
│       ┌──────────────────────────────────────┐           │
│       │                                      │           │
│       │ Warning  Press the Logout Button to close        │
│       │          all windows, or the Cancel Button       │
│       │          to dismiss this dialog and resume       │
│       │          with the current session.               │
│       │                                      │           │
│       │ [ Logout  ♦Return ]        [ Cancel  ♦Del]       │
│       └──────────────────────────────────────┘           │
│                                                          │
│                                                          │
│   C 0    M 0    m 1   w 2   FailProt 0   Lckt 0   ActProt 0   PrfAlrt 0    16:33 │
└──────────────────────────────────────────────────────────┘
```

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4 Tab to the **Logout** button in the confirmation dialog and select it by pressing Ctrl_A (or Keypad 0).

The OPC User Session Manager disappears, and a Connection Closed message is displayed.

5 Press the Return key.

The user session window is removed from the display.

—**end**—

Procedure 2-6
Logging in to a network element user interface

Use this procedure to log in to the following network elements:

- Norther Telecom OC-48, OC-3/OC-12, OC-3 Express, and OC-192
- Tellab Titan 5500 Digital Cross-Connect System (DCS)

Note: You cannot log in to DV45 network elements.

You can execute commands on the network element using the supported user interface. The Maintenance and Administration Position Command Interpreter (MAPCI) user interface supports OC-48, OC-3/OC-12, and OC-192 network elements. The Transaction Language (TL1) user interface supports OC-3 Express and Tellab Titan 5500 DCS network elements. For a description of the MAPCI user interface, see *User Interfaces Description*, 323-nnnn-301. For a description of the TL1 user interface, see *TL1 Reference Guide*, 323-nnnn-190.

Note: If the controller of the network element does not run a compatible version of software, the network element login commands are disabled (grayed out). You cannot log in directly to the network element until the controller software is upgraded. For more information on software release compatibility, see "Software release compatibility" in *S/DMS Network Manager Introduction*, 323-4001-102.

Action

Step	Action
1	If you are logging in to an OC-48, OC-3/OC-12, or OC-192 network element, you can select the primary or backup controller. You can also log in directly to the network element.
	OC-3 Express and Tellabs Titan 5500 DCS network elements use TL1 MOA to log in to the network element. You cannot automatically log in to OC-3 Express and Tellabs Titan 5500 DCS network elements.

If you want to	**Then**
automatically log in to a network element	step 2
manually log in to a network element	step 3

Step	Action
2	Double-click on the network element you want to automatically log in to.
	A new window appears.
	Go to step 7.
3	Select the network element you want to log in to.

—continued—

Procedure 2-6 (continued)
Logging in to a network element user interface

Step	Action
4	Display the Login menu and select the **Login to <ne>** command. *The Network Element Login dialog appears. The options available in the dialog vary with the type of network element you are logging into. If you are logging in to an OC-48, OC-3/OC-12, or OC-192 network element, the dialog displays the primary and backup controllers. If you are logging in to an OC-3 Express or Tellabs Titan 5500 DCS network element, the dialog displays the TL1 MOA controller. The Network Element Login dialog also displays the state (Active or Inactive) of the controllers.*
5	Specify the controller you want to use to log in to the network element by selecting the button beside the name.
6	Select the method you want to use to log in to the network element. **a.** To log in without reentering your userID, select the **Auto login** button. ***Note:*** You cannot automatically log in to OC-3 Express or Tellab Titan 5500 DCS network elements. **b.** To log in using another userID and password, select the **Login** button.
7	

If	Then
a userID prompt appears	step 8
a password prompt appears	step 9
a network element user interface appears	step 10

Step	Action
8	Enter your userID at the prompt. *A password prompt appears.*
9	Enter your password at the prompt. *The user interface appears for the selected network element.*

—**continued**—

Procedure 2-6 (continued)
Logging in to a network element user interface

Step	Action
10	You can execute commands on the network element using the supported user interface. The MAPCI user interface supports OC-48, OC-3/OC-12, and OC-192 network elements. The TL1 user interface supports OC-3 Express and Tellab Titan 5500 DCS network elements.
	For a description of the MAPCI user interface, see *User Interfaces Description*, 323-nnnn-301. For a description of the TL1 user interface, see *TL1 Reference Guide*, 323-nnnn-190.
11	To log out of the MAPCI user interface, see Procedure 2-7, "Logging out of a network element user interface". To log out of the TL1 user interface, close the xterm window.

—**end**—

Procedure 2-7
Logging out of a network element user interface

Use this procedure to log out of a network element MAPCI.

Additional Requirements

In addition to the requirements described on page 2-1, the following condition must be satisfied to complete this procedure:

- display a network element MAPCI window. For a description of the network element user interface, see *User Interfaces Description*, 323-nnnn-301.

Action

Step	Action

1 Move to the window containing the network element MAPCI.

The network element MAPCI appears.

NM-10251.1
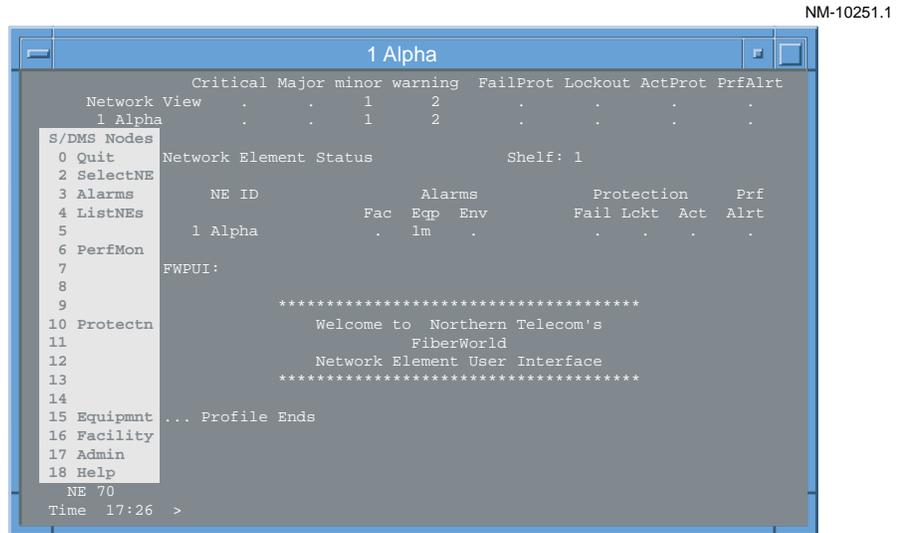
2 From any screen in the network element user interface, enter

quit all ↵

The current screen clears and the command interface (CI) prompt appears.

3 To log out from the network element, enter:

logout ↵

A Connection Closed message is displayed.

4 Press the Return key.

The user session window is removed from the display.

—**end**—

Procedure 2-8
Connecting to an external device

Use this procedure to connect to the external device and begin a VT100 terminal session on that device.

This procedure describes how to establish a connection between your S/DMS Network Manager and an external device. The external device may be any piece of equipment that is capable of supporting a VT100 terminal-emulation session.

For example, if a connection is set up between your S/DMS Network Manager and telephone switching equipment, such as a Northern Telecom DMS (Digital Multiplex System), you can use this procedure to log in to the DMS Maintenance Access Position (MAP) from S/DMS Network Manager.

External devices can be connected to S/DMS Network Manager through the Transmission Control Protocol/Internet Protocol (TCP/IP) network, or through a serial connection. For instructions on how to set up the S/DMS Network Manager serial ports to provide access to an external device, see "Setting up serial ports on EDA" in *S/DMS Network Manager Installation and Administration*, 323-4001-202.

Additional Requirements

In addition to the requirements described on page 2-1, the following condition must be satisfied to complete this procedure:

- ensure an external device is connected to your S/DMS Network Manager
- obtain the IP address of the external device or determine the serial port used to connect S/DMS Network Manager to the external device

Action

Step	Action
1	Display the network window Login menu and select the **Connect to External Device** command.

—continued—

Procedure 2-8 (continued)
Connecting to an external device

Step	Action

The Connect to External Device dialog appears.

NM-10362.1

Connect to External Device

This dialog allows you to make a connection to an external device

◆ Serial ▶ I ▬ (device)

◇ Remote (name/IP Address)

OK   Alt+Return   Cancel   Ctrl+Escape
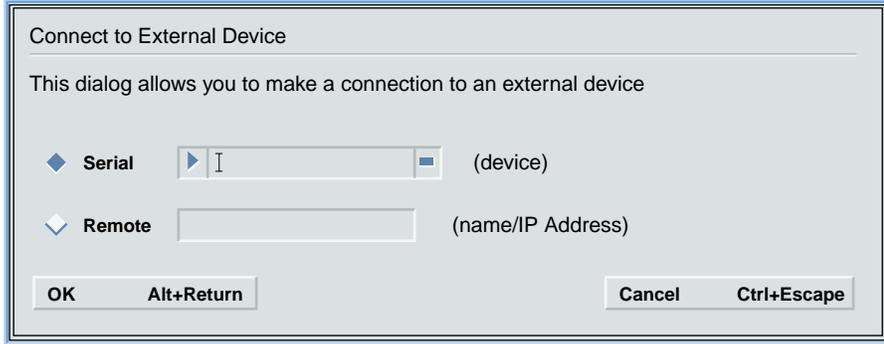
2   The external device can be connected to S/DMS Network Manager through a serial connection, or through the TCP/IP network.

If you want to connect to an external device on the	**Then**
serial port	step 3
TCP/IP network	step 6

Note: If no external device is connected to a port, the buttons for that port in the Connect to External device dialog are disabled (grayed out).

3   Select the **Serial** button and move to the adjacent Device field.

4   Click the **Menu** button on the data selector at the right of the Serial field, and select the appropriate serial device from the resulting menu.

The data selector shows which devices are defined on S/DMS Network Manager for serial port connections to an external device.

Note: You can type the name of the S/DMS Network Manager device in the Serial field.

5   Select the **OK** button.

A VT100 terminal-emulation window appears on the S/DMS Network Manager display.

The name of the S/DMS Network Manager serial port you used to connect to the external device is displayed in the title bar of the window.

Go to step 9.

6   Select the **Remote** button and move to the adjacent IP Address field.

—continued—

Procedure 2-8 (continued)
Connecting to an external device

Step	Action
7	Enter the unique IP Address of the external device to which you want to connect.
	The IP address consists of four numbers, each separated by a period. For example, an IP address is n.n.n.n, where n represents a number greater than or equal to 0, and less than or equal to 255.
8	Select the **OK** button.
	A VT100 terminal-emulation window appears on the S/DMS Network Manager display.
	The IP Address of the external device to which you are connected is displayed in the title bar of the window.
9	Log in to the external device.
	Before you can log in to the external device, you must obtain a login prompt from the device. To obtain a login prompt, move the mouse to the VT-100 terminal emulation window. Press and hold the keyboard CTRL key and the left mouse button at the same time. Select the **Send INT signal** command from the Main Options menu.
	The login prompt appears.
	If the login prompt does not appear, you must press a certain sequence of keys on the S/DMS Network Manager keyboard while the VT100 terminal emulation window is active. The key sequence depends on the device to which you connect, and whether you connect through the S/DMS Network Manager serial port or TCP/IP network.
	Refer to the documentation of the external device to determine how to obtain a login prompt when connecting through a serial port or TCP/IP network.
10	When you finish, log out of the external device using the procedures for that device.
11	Select the **Cancel** button to close the Connect to External device dialog.

—end—

Procedure 2-9
Exiting GNE

Use this procedure to exit GNE and terminate the tool. When you exit GNE, any open subnetwork windows automatically close.

If you make changes to the network configuration, and you try to exit GNE, S/DMS Network Manager displays a dialog prompting you to either save or discard these changes, before allowing you to exit GNE.

Before starting this procedure, read "Requirements" on page 2-1.

Action

Step	Action
1	Close all subnetwork windows by displaying the subnetwork File menu and select the **Close** command in each subnetwork window.
2	Display the network window File menu and select the **Exit** command.
3	If you make changes to the network configuration during the current session, a dialog appears. This dialog prompts you to save or discard the changes.

If	Then
a confirmation dialog appears	step 4
the GNE windows disappear	step 7

Step	Action
4	To cancel the Exit operation and return to the GNE, select the **Cancel** button in the confirmation dialog. *The confirmation dialog is removed. None of your changes are saved.* You can now resume using GNE.
5	To save changes made during the current session, select the **Save and Exit** button in the confirmation dialog. *The S/DMS Network Manager configuration database immediately updates and the new configuration appears on all GNB screens. Until you make further changes, and save them, this configuration is used as the default for GNE and GNB.* *The GNE network window disappears.* Go to step 7.
6	To exit without saving the changes made during the current session, select the **Exit, don't save** button in the confirmation dialog. *The GNE network window disappears.*
7	You have successfully exited the GNE.

—end—

Procedure 2-10
Exiting GNB

Use this procedure to exit GNB and terminate the tool. When you exit GNB, any open subnetwork windows automatically close.

Before starting this procedure, read "Requirements" on page 2-1.

Action

Step	Action
1	Close all subnetwork windows by displaying the subnetwork window File menu and selecting the **Close** command in each subnetwork window.
2	Display the network window File menu and select the **Exit** command.
	The GNB network window, and any open subnetwork windows, disappear.

—end—

List of terms

ABM

Access Bandwidth Manager

ADM

add-drop multiplexer

alarm

a condition, such as a fault, that sends a signal to an indicator

AN

S/DMS AccessNode

ASCII

American Standard Code for Information Interchange

balloon

a balloon-shaped object that appears on a node to indicate alarm counts

BLSR

bidirectional line switched ring

CCITT

Consultative Committee on International Telegraphy and Telephony

CLFI

Common Language Facility Identifier

CMT

character-mode terminal

CNet

control network

CPC

corporate product code

CPG

circuit pack group

CSM

centralized software management

DARPA

Defense Advanced Research Projects Agency

DDS

digital data storage (tape)

DMS

Digital Multiplex System

DMS MAP

Digital Multiplex System Maintenance Access Position

DV45

Digital Video Codec

EDA

external device access

ftp

file transfer protocol

GNB

Graphical Network Browser

GNE

Graphical Network Editor

group

a logical collection of network elements

GUI

Graphical User Interface

highlighting

the graphical application of color to a node to indicate a certain alarm severity

HP

Hewlett-Packard

HP VUE

Hewlett-Packard Visual User Environment

indicator

an audible or visible alert to an alarm or status condition

ISO

International Standards Organization

LAN

local area network

log in

the action of opening a user interface element

log out

the action of closing a user interface element

LTE

line terminating equipment

MAPCI

Maintenance and Administration Position Command Interpreter

menu

a list of action options

menu bar

the portion of the graphical user interface that contains the status indicator, and the window menus

MOA

Managed Object Agent

network element (NE)

a collection of equipment at one location that functions and is administered as a single entity

node

graphic object representing groups or single network elements

NTP

Northern Telecom Publication

NUM

Network Upgrade Manager, an OPC tool

OAM&P

operations, administration, maintenance, and provisioning

OC-3

optical signal carrier level 3 (at 155.520 Mb/s)

OC-12

optical signal carrier level 12 (at 622.080 Mb/s)

OC-48

optical signal carrier 48 (at 2488 Mb/s)

OC-192

optical signal carrier 192 (at 9953.280 Mb/s)

OPC

operations controller

OSI

Open Systems Interconnect

PEC

product engineering code

PM

performance monitoring

SAM

System Administration Manager

S/DMS

Synchronous/Digital Multiplexing System

SOC

span of control

SONET

Synchronous Optical Network is a standard for optical transport that defines optical carrier levels and their electrical equivalent for synchronous transport signals. The SONET standard allows for a multivendor environment, positioning the network to transport new services, synchronous networking, and enhanced operations, administration, maintenance and provisioning (OAM&P).

span

all network elements under the control of a single operations controller (OPC)

STS-1

Synchronous Transport Signal (at 51.84 Mb/s)

subnetwork
a graphical collection of objects organized into groups to represent the network elements monitored by Network Manager.

system
network elements associated with the same payload

TA-1230 ring
Bellcore standard for SONET BLSR Equipment Criteria, TA-NWT-001230 (issue 2)

TCP/IP
Transmission Control Protocol/Internet Protocol

UDLC
Universal Digital Loop Carrier

UI
user interface

USM
User Session Manager

VTBM
Virtual Tributary Bandwidth Management

window
a rectangular area of a display screen used to contain a particular application

WAN
wide area network

X.25
CCITT protocol used for wide-area packet switching. OSI Data communication standard

Index

S

Support, Technical
 Canada xii
 United States xi

T

Technical Assistance Service Centers
      (Canada) xii
Technical support xi
 Canada xii
 United States xi

U

User interface
 character mode terminal (CMT) 2-11
 X window 2-11

SONET Transmission Products

S/DMS Network Manager
Connectivity

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