Lucent Technologies
Bell Labs Innovations

Navis™ Optical Network Management System (NMS)

Release 6.1 (Pearl)

Getting Started Guide

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Lucent Technologies at: 800-645-6759 (continental U.S.) or 317-322-6847 (outside of the U.S.).

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Contents

About this information product

Purpose

This preface provides an overview of this information product, which is the *Navis™ Optical NMS Release 6.1 Getting Started Guide*.

The purpose of this guide is to introduce the *Navis™* Optical Network Management System (NMS) Release 6.1 software and to teach users how to use its Graphical User Interface (GUI).

Reason for reissue

Issue 1 of this Getting Started Guide is a revised document that supports Navis™ Optical NMS, Release 6.1.

Safety labels

This information product does not use safety labels.

Intended audience

This information product is written primarily for network planners, engineers, and sales teams. It may be used by anyone who will be using the Navis™ Optical NMS software.

How to use this information product

This information product contains:

- ***Task*** information (that is, step-by-step instructions)
- ***Conceptual*** information, which is specific data related to the tasks

Both types of information are presented within the chapters of this Getting Started Guide.

Chapter descriptions

The following table describes the information contained in each chapter of this Getting Started Guide.

Section	Title	Description
Preface		Explains this document's purpose, its intended audience, and how to use the document
Chapter 1	Chapter 1, "The Network Map"	Describes the Network Map
Chapter 2	Chapter 2, "The Network Controller Map"	Describes the Network Controller Map
Chapter 3	Chapter 3, "Tasks"	Explains the tasks that can be performed from the Network Map and the Network Controller Map
Index	Index	Enables the user to quickly find information on specific topics.

Conventions used

This Getting Started Guide uses the following typographical conventions to distinguish between computer input and output.

- When describing the Navis™ Optical NMS software, fields in windows and field entries are identified with **this font**.
- Text and numbers a user inputs to the computer are identified with `boldface type`.
- Text and numbers the computer outputs to a user are identified with `monospace type`.

Related documentation

This Getting Started Guide is part of a set of documents that supports Navis™ Optical NMS.

List of documents

The document set that supports Navis™ Optical NMS comprises:

1. *Navis™ Optical NMS Getting Started Guide,* (365-309-276R6.1)provides information useful to first-time users of the Navis™ Optical NMS software. It describes how to start and stop Navis™ Optical NMS, how to use the software, and how to interpret the graphical user interface.
   This document includes tasks and conceptual information.
2. *Navis™ Optical NMS Applications and Planning Guide*, (365-309-277R6.1) describes the Navis™ Optical NMS features and applications, provides a product description and the hardware platforms for the product, and describes system planning and engineering, ordering, and product support. This document contains conceptual information only.
3. *Navis™ Optical NMS Provisioning Guide,* (365-309-278R6.1) instructs users how to use Navis™ Optical NMS to provision and manage a network. This document contains tasks and conceptual information.
4. *Navis™ Optical NMS Maintenance Guide,* (365-309-279R6.1) instructs users on how to maintain Navis™ Optical NMS and the network.
   This document includes tasks and conceptual information.
5. *Navis™ Optical NMS Administration Guide,* (365-309-280R6.1) instructs users on how to administer Navis™ Optical NMS and the network.
   This document includes tasks and conceptual information.

Glossary

The *Navis™ Optical NMS Administration Guide* contains a glossary that will be helpful to users of Navis™ Optical NMS.

On-line documentation

On-line documentation for Navis™ Optical NMS is provided in two formats:

1. An on-line version, in HTML format, of this document set is provided as part of the Navis™ Optical NMS software.
2. An on-line version, in HTML format, of this document set is available on CD-ROM.

Navis™ Optical NMS User Documentation CD-ROM, (365-309-281R6.1) - includes the full set of documents listed above.

Screen Help

The Navis™ Optical NMS software includes screen help for each window. Screen help describes the purpose of the window and its features, including fields and buttons.

How to comment

To comment on this information product online, go to *http://www.lucent-info.com/comments* or email your comments to ctiphotline@lucent.com (mailto:ctiphotline@lucent.com).

Customer satisfaction is extremely important to Lucent Technologies. All users are encouraged to provide feedback on the Navis™ Optical NMS information products.

How to order

To order Navis™ Optical NMS information products, contact Lucent Technologies at:

- From the United States, call 888-LUCENT8, prompt 1.
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1 The Network Map

Overview

Purpose

This chapter describes the features of the Navis™ Optical NMS Network Map.

Contents

What is Navis™ Optical NMS?

Introduction

This section provides an overview of the Navis™ Optical NMS product.

Product description

Navis™ Optical NMS is a software application that enables a user to perform the following network management activities:

- Provisioning of connections such as optical links, optical channels, digital links, and circuits
- Fault management
- Performance management

User interface

Users interact with Navis™ Optical NMS through a Graphical User Interface (GUI). The GUI is presented as a Network Map. The Network Map depicts the network that will be managed by Navis™ Optical NMS.

For more information

For more comprehensive information about the features and functionality of Navis™ Optical NMS, refer to the other documents in the Navis™ Optical NMS documentation set.

The preface of this guide provides a complete listing of the Navis™ Optical NMS documents.

□

Network Map initial appearance

Introduction

This section describes the appearance of the Network Map when Navis™ Optical NMS is first brought up after installation.

Description

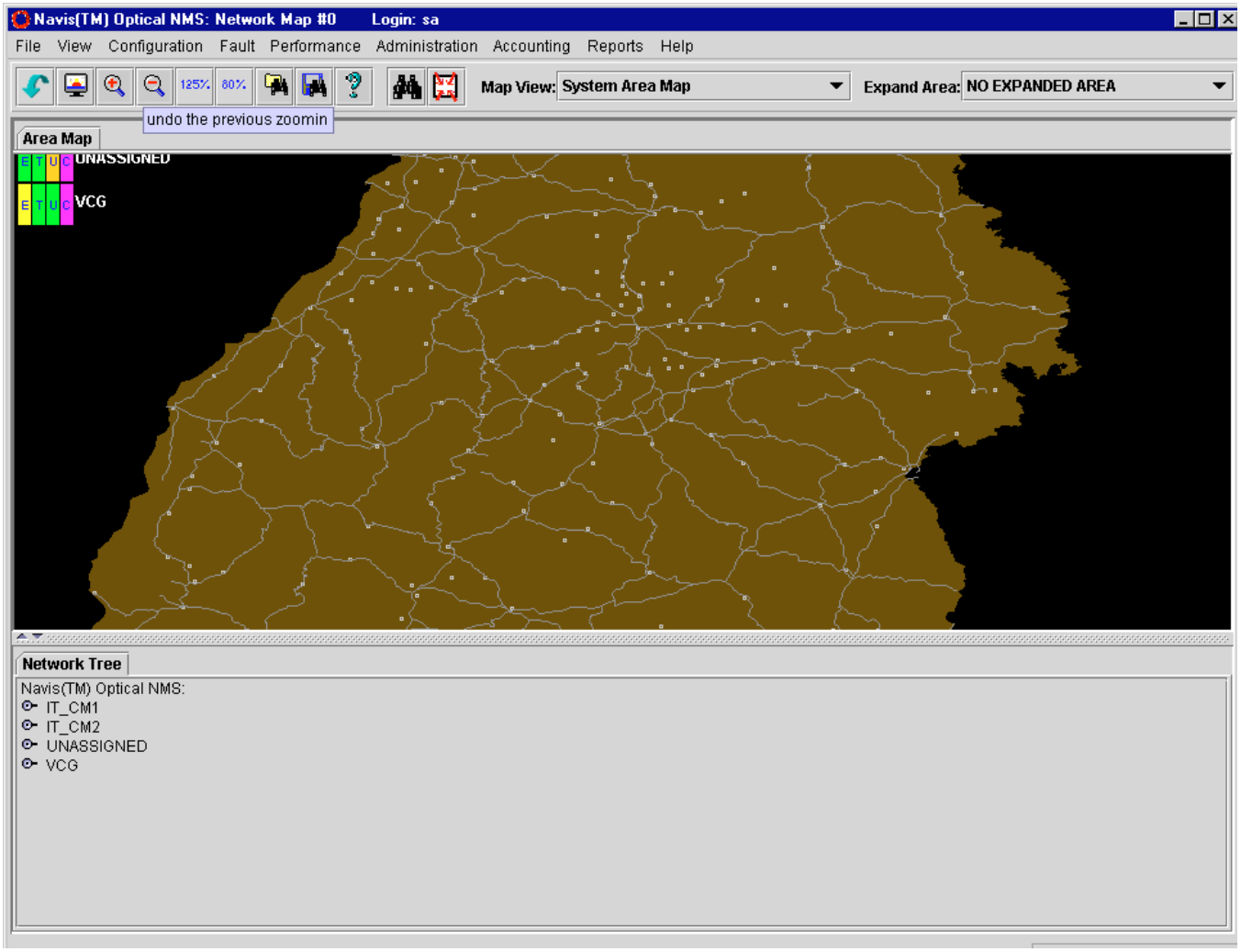
After Navis™ Optical NMS is installed and a user logs into the application, the Network Map displays the Area Map and the Tree Panel.

If areas have not been created yet, only one area, UNASSIGNED, displays on the Network Map. In this case, the system automatically expands this area on the Expansion Panel to show all the network elements in the network.

Note that the Network Map's view (what the user sees on the map itself) can be pre-determined by either the administrator or the user. Thus, during subsequent log in sessions, the user may see the Network Map pre-populated by several areas. Also, if the user is assigned the correct privileges, the user can subsequently group network elements into areas to make it easier to display and manage a large network.

Note: Users employing the ICA Citrix client support to run Navis™ Optical NMS may toggle between the Navis™ Optical NMS windows and the ICA Citrix windows through short-cut keys. Users may refer to the ICA Citrix documentation for complete information about the ICA Citrix client.

Diagram The following figure is an example of the Navis™ Optical NMS Network Map.

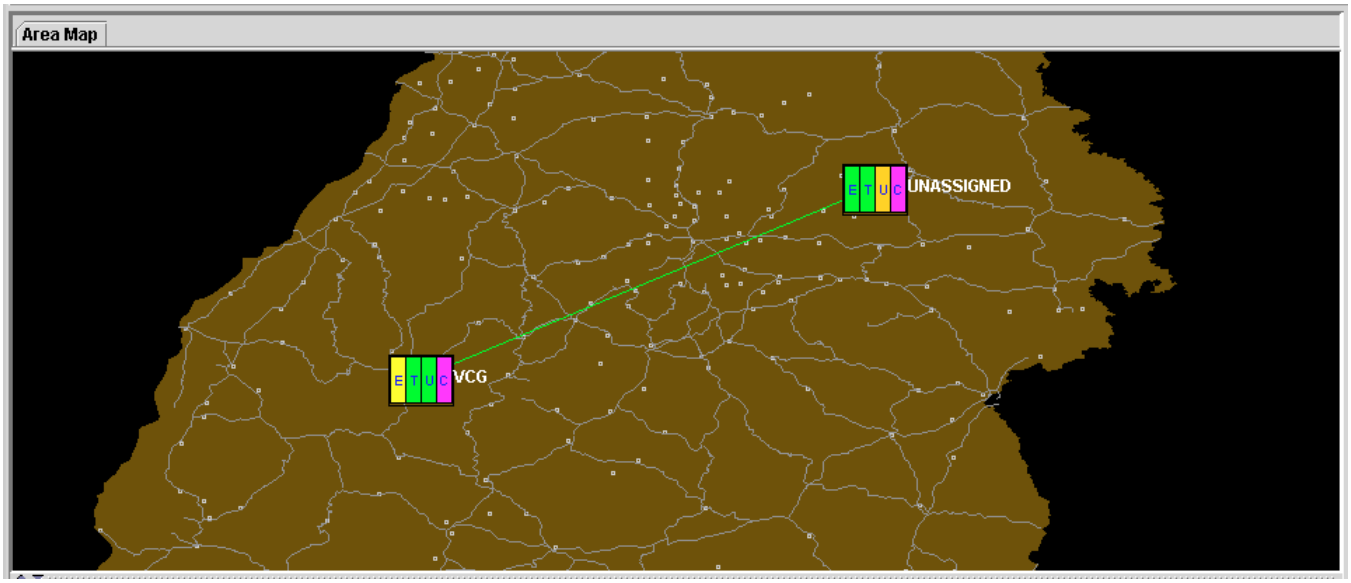


Two parts In its initial appearance, the Network Map displays two parts:

- Area Map
- Network Tree

Area map

The area map shows all the currently created areas. By default, the map will always show at least one area (UNASSIGNED). In the following example, there are three areas displayed by the system.



Network Tree

The Network Tree provides a hierarchical textual view of the Network Map's areas and network elements. Notice that the areas and networks listed in the Network Tree correspond to those shown on the Area Map.

How to perform tasks

See Chapter 3, "Tasks", for instructions on how to perform tasks that are performed on the Network Map.

□

Network Map standard appearance

Introduction

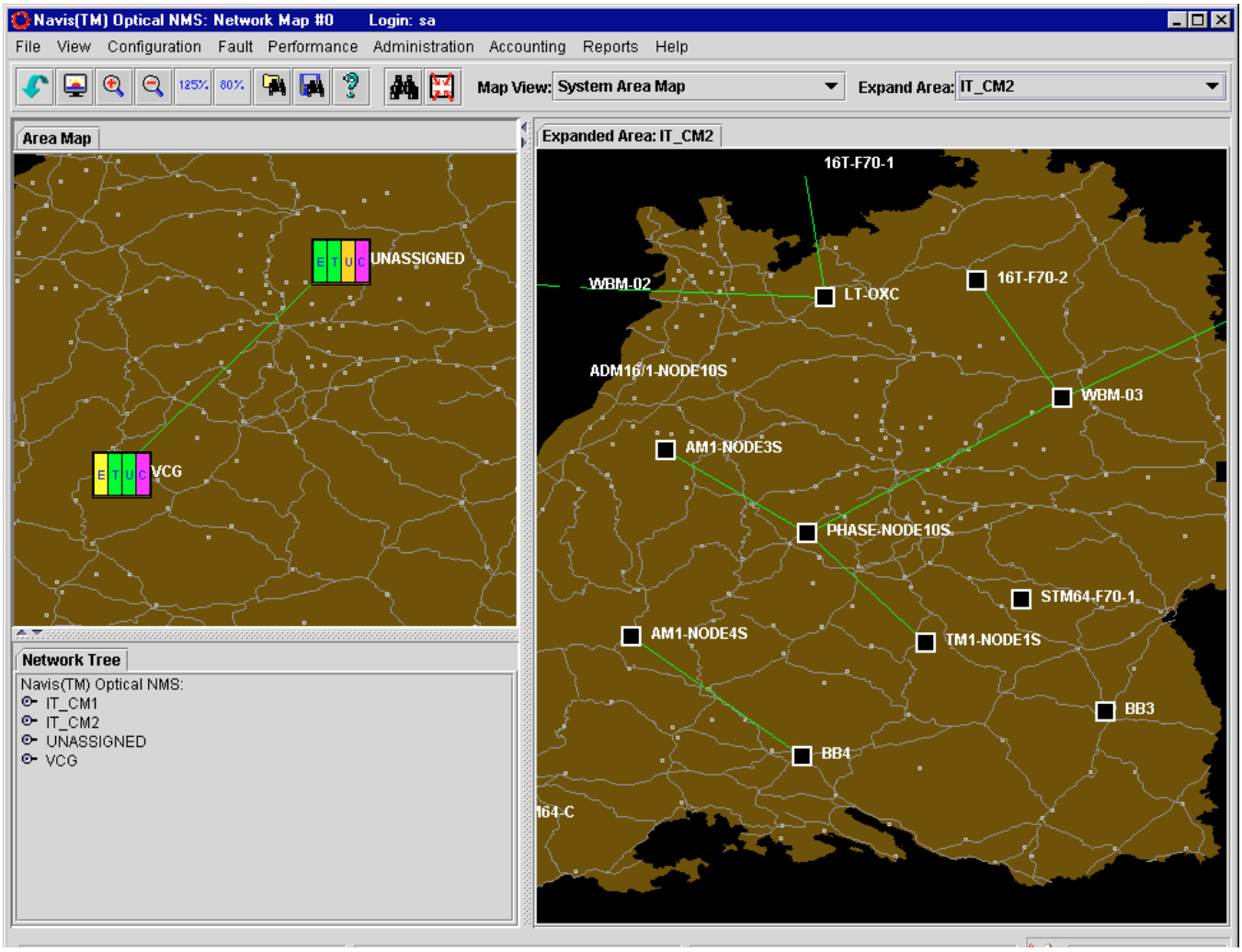
This section describes the Navis™ Optical NMS Network Map. The Network Map allows administrators and users to view and manage different aspects of a network.

Functionality

The Network Map:

- Displays areas, nodes, bridges, digital links, paths, and facilities
- Provides access to forms, lists, and menus
- Allows users to provision areas, nodes, digital links, paths, facilities, circuits, user-defined area maps, and user-defined submaps
- Performs subnet management, allowing the Navis™ Optical NMS to manage rings created with Synchronous Digital Hierarchy (SDH) multiplexers
- Allows the system administrator to perform their functions
- Provides the dynamic fault status of nodes, links, and trails in the network
- Allows users to perform performance monitoring
- Allows users to cut-through to the Element Management System (EMS) to manage network element-specific data

Diagram The following figure shows the Network Map.



Three sections

The Network Map contains three sections that represent different aspects of a network:

- ***Area Map***: depicts existing areas on the network. Note that if the network only contains the UNASSIGNED area, only the Expanded Area and the Tree Panel are displayed in the Network Map window. In the previous figure, three areas (TEST1, TEST2, and UNASSIGNED) exist.
- ***Expanded Area Panel***: depicts the aggregates and network elements that comprise a single area. In the previous figure, area UNASSIGNED is shown expanded.
- ***Network Tree Panel***: provides a hierarchical textual view of the Network Map's areas, aggregates, and network elements.

□

Parts of the Network Map

Overview

This section describes the following parts of the Network Map:

- menu bar
- toolbar
- status line

Menu bar

The Network Map has a menu bar that contains nine menus that allow users to perform a variety of tasks, including area administration, provisioning of digital links and circuits, fault management, and performance monitoring.

Figure

The following figure shows the Network Map's menu bar.

Menus

The menus are:

- **File**: which contains selections to display the Network Controller Map, make new node/label positions permanent, and refresh/close the Network Map.
- **View**: which contains selections to specify the view characteristics of any variation of the data displayed on the Network Map.
- **Configuration**: which provides selections that allow users to provision, configure, and display information about the network.
- **Fault**: which provides selections to that allow users to perform fault monitoring and fault management.
- **Performance**: which provides menu items related to performance monitoring, data collection, and reporting.
- **Administration**: which provides administration-related functions, such as creating users, creating user profiles, and administering areas and aggregates. It also manages the user defined views.
- **Accounting**: Not used in this release.

- **Reports**: which provides selections to print predefined summary reports.
- **Help**: which provides access to screen help, on-line documentation, date format, and version information.

Important! Not all menus are accessible to all users. Access to certain menus is controlled by the user profile assigned to your user ID by the system administrator.

Toolbar

The toolbar, located directly underneath the menu bar, consists of a series of icons that provide text editing shortcuts and access to common forms. Detailed information on the toolbar is provided in the screen help for the Network Map.

Important! Users can toggle between displaying and hiding the Network Map toolbar by selecting **View > Toolbar**.

Buttons

The following button icons appear in the Network Map toolbar:

	**Query Again**: any changes to the data are updated on the Network Map by the server.
	**Redraw the Map**: refreshes the Network Map if the display has become corrupted. This button, however, does not update certain portions of the Network Map, particularly the tree panel because it does not access the server.
	**Select a region for zooming**: magnifies a user-specified portion of the Network Map using the cursor.
	**Undo the previous zooming**: reverts the user-specified zooming action of the Network Map.
	**Zoom in at 125%**: enlarges a specified map's view in 125% increments when the user clicks the left mouse button in the map view.
	**Zoom out at 80%**: shrinks a specified map's view in 80% increments when the user clicks the left mouse button in the map view.
	**Load a predefined View (from system)**: loads the saved login view.

	**Save the Current View (to disk)**: allows the user to save the login view onto the database of the server or to the hard disk of the computer or terminal. This option is also available through the **Administration > Preferences** selection.
	**Help**: accesses Screen Help files for the Network Map window. To access all on-line documentation, use **Help > Help Contents**.
	**Find Node**: displays the Find Node Query box, to display Node to Area association.
	**All Nodes into Current View**: displays all the areas within the Area Map window and all the expanded nodes within the Expansion Panel window.
	Map View (pull down list): automatically displays system area maps and user-defined sub maps.
	Expand Area (pull down list): automatically expands the area specified by this field.

Status line

Located at the very bottom of the Network Map, the status line indicates certain logistics pertaining to the current system session.

The following figure shows an example of the Network Map status line.

Features

The Status Line contains the following features:

- **Status**: Displays the system's response message regarding the user's last request.
- **Displayed Channel Types**: An unlabelled field that displays the rate(s) of the signals carried by the lines displayed on the Area maps. For example, if VC4 was selected as the channel type, the links displayed would be: 64S, 16S, 4S, 1S, PCTDL, or 5GBIT.

- **Metronome icon**: specifies that the Network Map is updated automatically.
- **Date and Time**: Dynamically displays the time the information on this screen was last updated.

□

Area icons

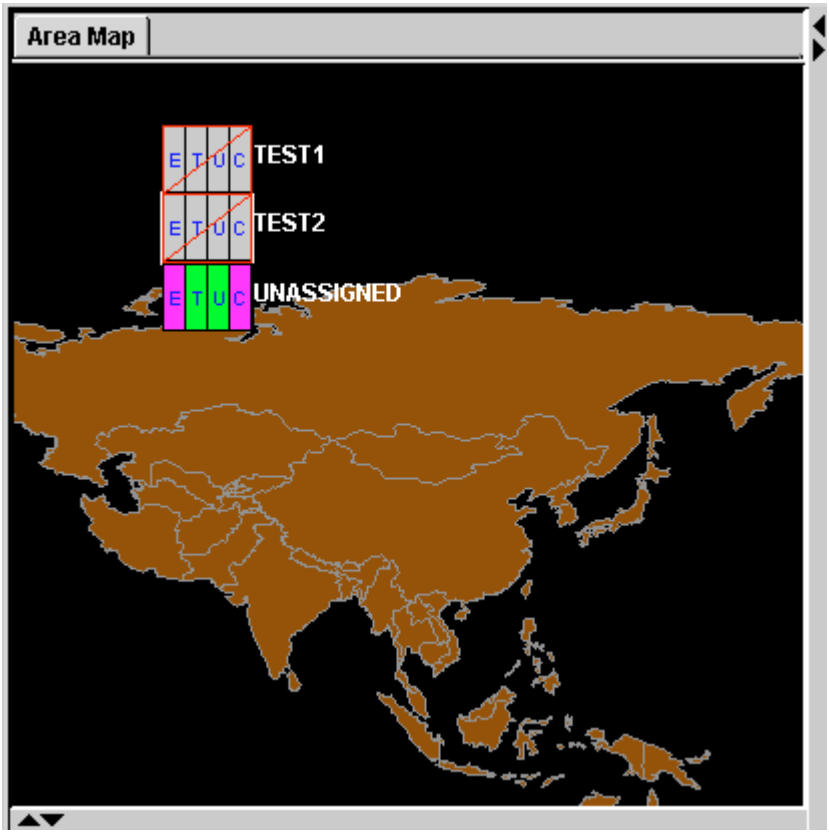
Introduction

Areas are groupings of network elements and aggregates. This section describes the area icon that appears on the Network Map. Area icons appear on the Area Map. When an area is expanded, its member network elements and aggregates can be viewed in the Expanded Area Panel.

Description

The area icon is a square divided into four sections.

The figure below shows three area icons on the Area Map.



Four sections of the area icon

Note that an area has four letters shown on it which specify alarm conditions. These letters will individually change color when such a

condition occurs. See "Network element icon colors" (1-17) for a complete description of the alarm colors. The letters are:

- **E** (equipment alarm): specifies the status of equipment alarms present on any of the nodes in that area.
- **T** (transmission alarm): specifies the status of transmission alarms present on any of the links in that area.
- **U** (uncorrelated cross-connect): specifies the status of uncorrelated cross-connects present on any of the nodes in that area.
- **C** (communication alarm): indicates the status of communication of the nodes within the area to their EMSs.

□

Network element icons

Introduction

This section describes the network element icons that appear on the Network Map. Network element icons appear in the Expanded Area Panel.

Description

A network element includes a symbol and a network element name. Different icons represent different network elements. A legend showing all the network element icons can be accessed from the Network Map by executing **View > Legend View**.

The following figure shows network element icons on the Expanded Area Panel.

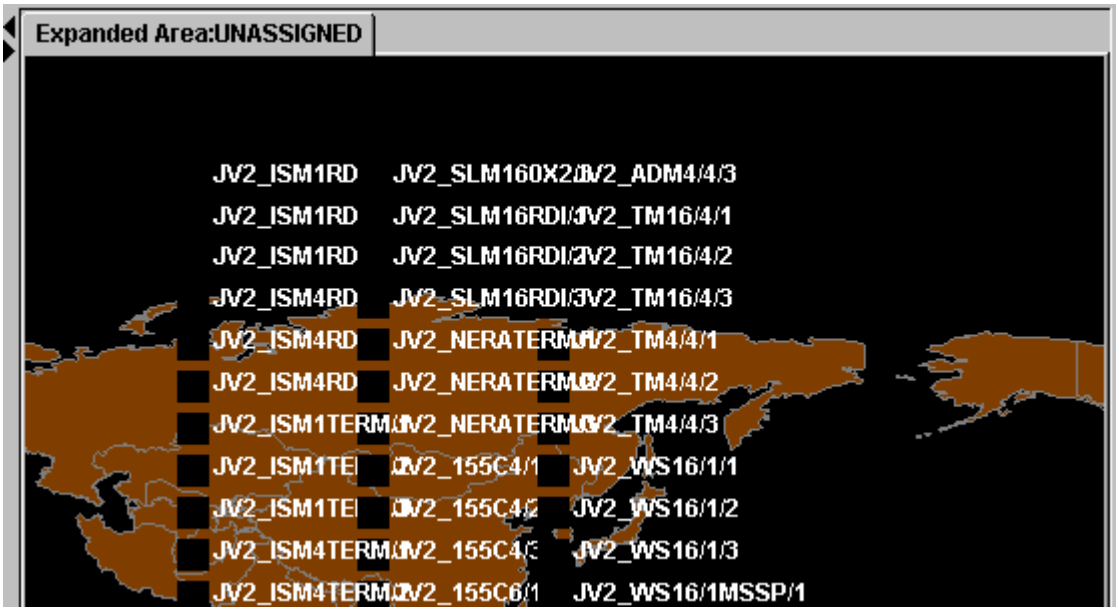
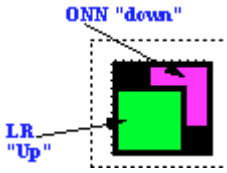


Table of network element icons

The following table describes the different network element icons used on the Network Map.

■	*WaveStar*® DACS (all models); *LambdaRouter*™ 128 All Optical Switch (AOS); LambdaRouter 256 AOS; PHASE LXC 4/1 and 16/1; WaveStar BandWidth Manager; WaveStar TDM 2.5/10G, *LambdaUnite*™ MultiService Switch (MSS).

	ISM-1 terminal; ISM-4 terminal; SLM-4 terminal; SLM-16 terminal; PHASE TM 4/4; PHASE TM 16/4; WaveStar TM 1; WaveStar AM 1 PLUS_T; DWDMs; WaveStar OLS 80G single-ended terminal.
	ISM-1 ADM; ISM-4 ADM; ADM 155E; ADM 4/1 STM-1; ADM 4/1 STM-4; WaveStar ADM 16/1; WaveStar ADM 16/1 Compact; WaveStar AM 1 STM-1; WaveStar AM 1 PLUS_STM-1; LCT; WaveStar AM 1 PLUS_STM-4
	SLM 16 ADM, PHASE ADM 4/4; PHASE ADM 16/4.
	NERA Radio.
	LambdaRouter ONN.
	REGEN (all regenerators, repeaters and optical amplifiers); WaveStar OLS 400G Repeater; WaveStar OLS 400GL Repeater; WaveStar OLS 1.6T Repeater; WaveStar OLS 1.6TL Repeater
	Physical Link Details: AAA= ODF, LGX, DDF, DSX, or NIE.
	WaveStar OLS 80G DF dual facing terminal; WaveStar OLS 400G; WaveStar OLS 400GL; WaveStar OLS 400G R5; WaveStar OLS 1.6TL; WaveStar OLS 1.6T.
	Black box.
	Grey box.

	Aggregate.
	Customer equipment.
	Out-of-Domain object.

Network element icon colors

When a user first adds a node to Navis™ Optical NMS, the system always displays the network element as green, regardless of whether equipment or environment alarms exist. It is important that a manual database synchronization is performed after adding a network element, in order to display the new network element's true state.

Note that because network elements are added to the Network Map through their EMS, a database synchronization should first be performed for the EMS, and then for the individual network elements.

The color of a network element icon will dynamically alter to indicate if it has an equipment or communication alarm condition. The color is based upon the worst case existing on the network element.

- **Green**: The communication link between the EMS Controller and the network element is UP. Equipment alarms do not exist.
- **Gray**: The network element has been deleted, but digital links and circuits are still present. The network element cannot be used for further provisioning.
- **Magenta**: The communication link between the Navis™ Optical NMS controller and network element is down.
- **Red**: One or more service affecting equipment alarm condition(s) are on the network element.
- **Yellow**: One or more non-service affecting equipment or environment alarms are on the network element. Service affecting equipment alarms do not exist on the network element.

Positioning of network element icons

When the Network Map is first opened, in the Expanded Area Panel, all of the network element icons are stacked up on the left-hand side in columns. The system presents the Network Map with the network element icons stacked up in this "staging area."

Only a system administrator can permanently move a network element icon. The network element icons remain in position in the staging area until a system administrator moves them to a new permanent location on the Network Map.

If a network element icon is permanently moved by a system administrator, the remaining items stacked in the staging area shift up to close up the space left by the moved network element icon. This behavior ensures that network element icons are displayed neatly without overlapping.

The previous figure shows some network element icons stacked up in the staging area, and some that have been permanently moved into the center of the map.

□

Link icons

Introduction

This section describes the link icons that appear on the Network Map.

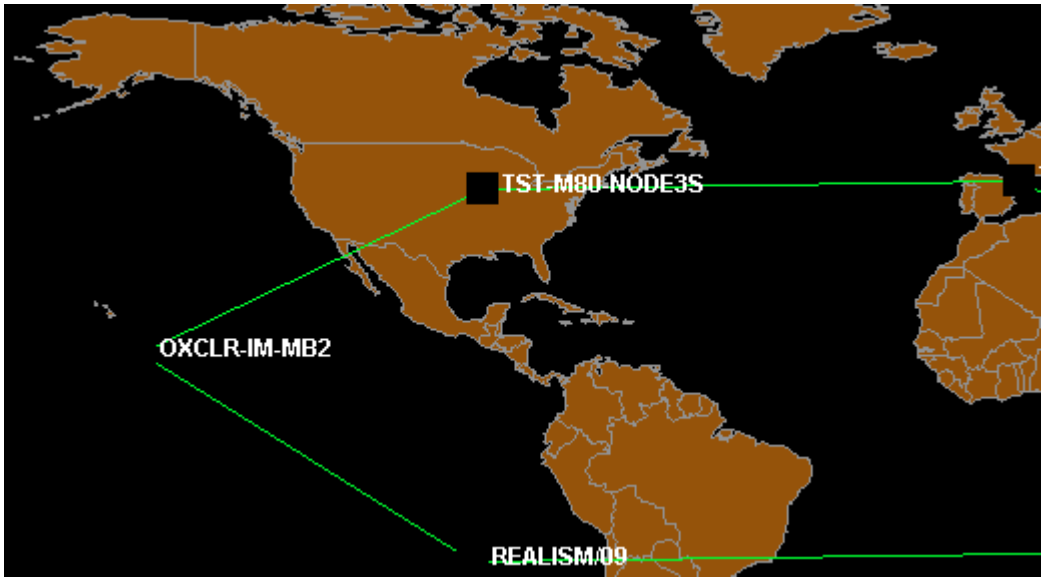
Description

Depicted as lines on the Network Map, link icons represent fiber or electrical connections between two points.

SDH digital links are synonymous with multiplexer sections. They connect two SDH network elements, black boxes or equipment.

PDH digital links are asynchronous connections between two PDH ports of the network elements assignable to the PDH circuits.

The following figure shows link icons on the Network Map.



Link icon colors

Link icons display alarm conditions dynamically by changing color. The color of a link icon represents the alarm status of a link.

The link icon colors have the following meanings:

- **Green**: Clear signal, no alarms.
- **Yellow**: Non-service signal affecting.
- **Red**: Service signal affecting.

□

2 The Network Controller Map

Overview

Purpose

This chapter describes the Navis™ Optical NMS Network Controller Map.

Contents

About the Network Controller Map

Introduction

This section describes the purpose of the Network Controller Map.

Functionality

The Network Controller Map provides information concerning Element Management System (EMS) status.

The Network Controller Map:

- Displays the Element Management Systems
- Provides information concerning EMS status
- Provides access to menus and forms from menu bar menus and the Node menus

Accessing the Network Controller Map

The Network Controller Map is accessed from the Network Map by executing **File > Open Network Controller Map**.

How to perform tasks

See Chapter 3, “Tasks”, for instructions on how to perform tasks that are performed on the Network Controller Map.

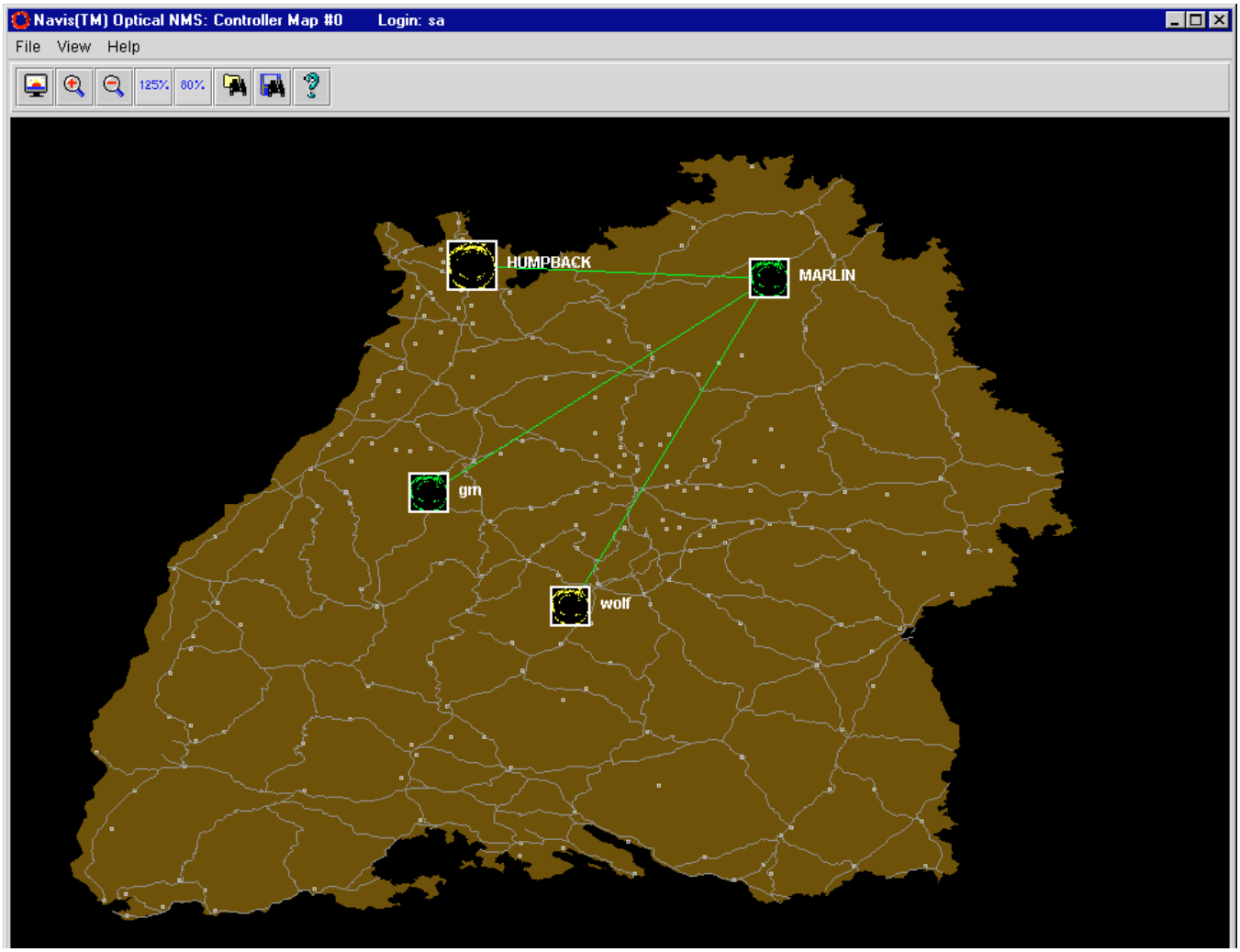
□

Parts of the Network Controller Map

Introduction This section describes the following parts of the Network Controller Map:

- menu bar
- toolbar

Diagram The following figure shows the Network Controller Map.



Menu bar The Network Controller map has a menu bar that has three menu that allow user to perform a variety of functions related to EMS management.

Toolbar The toolbar provides user access to commonly used functions. It is the same toolbar that displays on the Network Map. See "Toolbar" (1-10) for a description of the icons in the toolbar.

□

Icons used on the Network Controller Map

Purpose

This section describes the EMS controller icons used on the Network Controller Map.

EMS Controller icons

The EMS controller icons represent EMSs in the network that are being managed by Navis™ Optical NMS.

The following figure shows an EMS Controller icon for a Lucent EMS.

EMS Controller icon colors

The color of an EMS controller icon will dynamically alter to indicate the status of the EMS. The color is shown in the border of the icon.

If the EMS Controller icon is red or yellow, there is an alarm condition on one of the network elements managed by the EMS. In this case, return to the Network Map and access the Alarm List to begin troubleshooting the alarm.

□

3 Tasks

Overview

Purpose

This chapter describes the tasks that can be performed from the Network Map.

Contents

Network Map Tasks

Overview

Purpose

This chapter describes tasks related to the Navis™ Optical NMS Network Map.

Contents

Display the Expanded Area Panel

Purpose

An area can be selected and expanded so that its network elements can be viewed. This section describes how to expand an area and display the Expanded Area Panel on the Network Map.

Why your display may look different

If areas have not been created yet, only one area, UNASSIGNED, initially displays on the Network Map. In this case, the system automatically expands this area to show all the network elements in the network, and the Expanded Area Panel is already displayed.

If a user has defined a view from their last session, Navis™ Optical NMS starts up using the user's predefined view.

Task

Complete the following task to expand an area and display the Expanded Area Panel on the Network Map.

1 On the Network Map, right-click in the center of an area icon.

Result:

The Node menu for the area displays.

2 Select **Expand**.

Result:

The Expanded Area Panel appears on the Network Map and displays the network elements in the selected area. See the next section, "Network Map standard appearance" (1-6), for a

diagram of the Network Map with the Expanded Area Panel displayed.

END OF STEPS

Resize the sections of the Network Map

Purpose This section describes how to resize the sections of the Network Map.

Task Complete the following task to resize the sections of the Network Map.

1 On the Network Map, place the mouse pointer directly upon one of the arrow icons on the window panes.

Result:

The mouse pointer changes to a resize arrow (with dual arrow heads).

2 While pressing and holding the left mouse button, drag the arrow icon.

Important! Users can totally collapse or expand a map view by clicking directly on the arrow icons.

Result:

The section of the Network Map resizes to the desired dimensions.

END OF STEPS

□

Moving around within a Network Map section

Purpose Users can move around within a Network Map section in order to locate and view hidden network icons. The act of moving around within a map is also referred to as ***panning***.

Task Complete the following task to move around within a Network Map section.

1 On the Network Map, place the mouse pointer within either the Area Map or Expanded Area Panel.

2 Press and hold the right mouse button.

Result:

The mouse pointer changes to a resize arrow (with quadruple arrow heads).

3 Drag the mouse in the desired direction.

Result:

The map view will move with the mouse's movements.

4 Drag the view up, down, right, or left until the desired view of the map is achieved.

Result:

The desired map view displays within the Area map or Expanded Area Panel.

END OF STEPS

□

Using the zoom in feature

Purpose

Users may increase the size of a section of the Network Map with the Network Map's 125% zoom tool. The 125% zoom tool increases the size of a map's entire viewable area. If the user repeatedly clicks on the mouse (after the 125% zoom button is pressed), there is a zoom in for each subsequent click.

About the Magnification tool

The Network Map offers two different zoom tools for magnification:

- the 125% zoom tool
- the ***magnification*** tool

This section describes the zoom tool. The magnification tool is described later in this chapter.

Task

Complete the following task to zoom in on the Network Map with the 125% zoom tool.

1 On the Network Map, press the 125% zoom tool with the left mouse button. The 125% zoom tool is shown in the following figure:

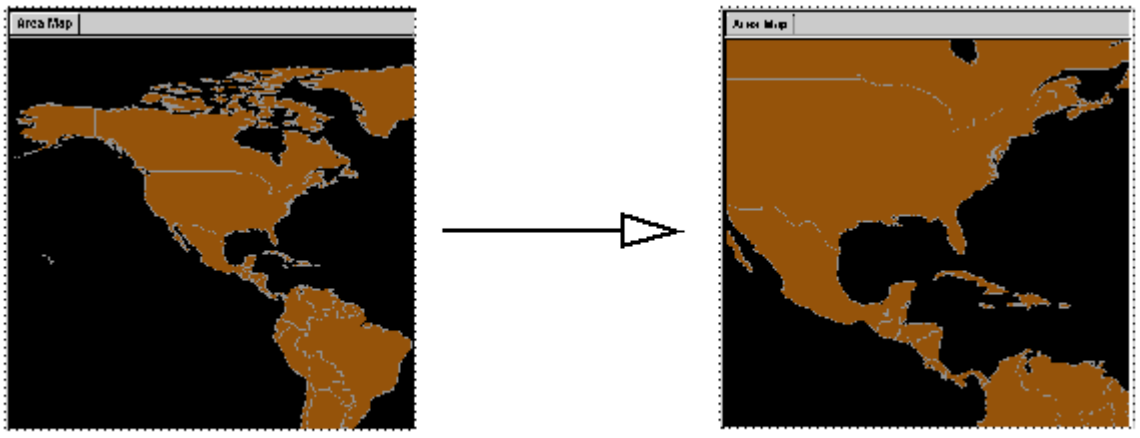
Result:

The cursor changes to a pointed index finger, and the 125% zoom tool button becomes indented.

2 Place the mouse pointer on the desired map and press the left mouse button once.

Result:

The system zooms in the entire map area by 125%.



3 To stop zooming, return to the 125% zoom tool and click the left mouse button.

Result:

The cursor's shape changes back to an arrow for normal operation, and the 125% zoom button becomes unindented.

END OF STEPS

□

Using the zoom out feature

Purpose Users may decrease the size of a section of the Network Map with the Network Map's 80% zoom tool. The 80% zoom tool decreases the size of a map's entire viewable area. If the user repeatedly clicks on the mouse (after the 80% zoom button is pressed), there is a zoom out for each subsequent click.

Task Complete the following task to zoom out on the Network Map with the 80% zoom tool.

1 On the Network Map, press the 80% zoom tool with the left mouse button. The 80% zoom tool is shown in the following figure:

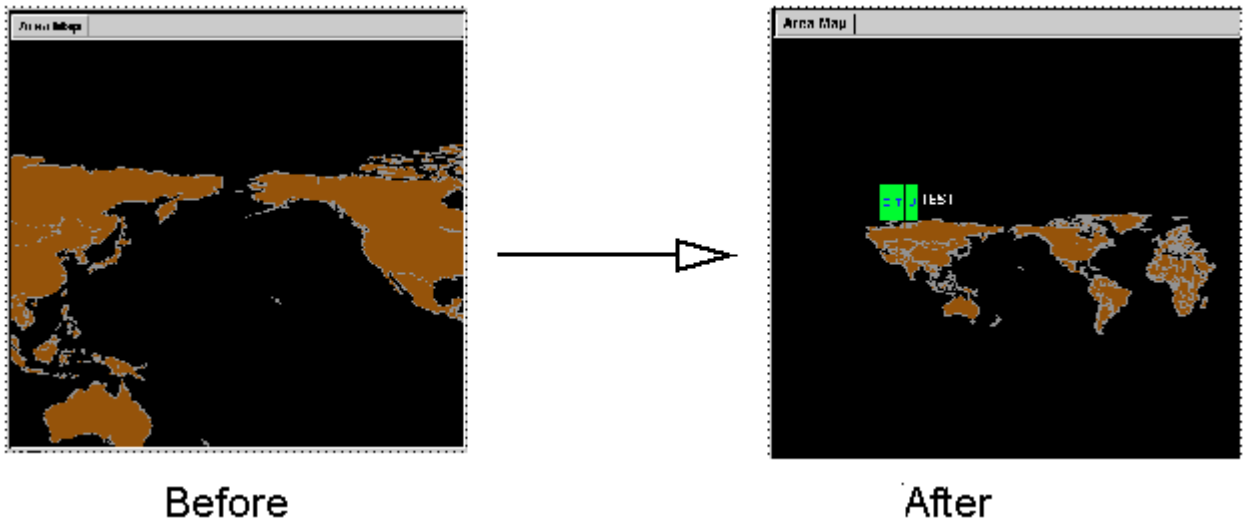
Result:

The cursor changes to a pointed index finger, and the 80% zoom button becomes indented.

2 Place the mouse pointer on the desired map, and press the left mouse button once.

Result:

The system zooms out the entire map view by 80%.



3 To stop zooming, return to the 80% zoom tool and click the left mouse button.

Result:

The cursor's shape changes back to an arrow for normal operation, and the 80% zoom button becomes unindented.

END OF STEPS

Magnify the map view

Purpose Users may magnify a portion of the Network Map with the Network Map's magnification feature.

Task Complete the following task to magnify an area on the Network Map.

1 On the Network Map, press the magnification tool with the left mouse button. The magnification tool is shown in the following figure:

Result:

When you place the mouse pointer on a map, the pointer displays as a cross.

2 After selecting an area on the map to magnify, press and hold the left mouse button at the top left corner of the desired area and enclose the area with the lightly flashing open box from the cursor-cross.

3 Release the mouse button.

Result:

The map dynamically alters to reflect the magnification.

END OF STEPS

To undo the magnification

To undo the magnification, press the undo previous zoom tool. The undo previous zoom tool is shown in the following figure:

A user must press the decrease magnification icon immediately after magnifying the window, otherwise the undo magnify will not work.

□

Expand an area in the Network Tree Panel

Purpose Users may quickly view the network elements associated with a particular area by expanding an area in the Network Tree Panel.

Task Complete the following task to expand an area in the Network Tree Panel.

1 On the Network Tree Panel, place the mouse pointer on the symbol to the left of the area you wish to expand.

2 Click the mouse button.

Result:

The symbol turns, and the Network Tree Panel displays all the network elements and aggregates that are currently associated with the area. Use the scroll bar to scroll through the complete listing of network elements.

END OF STEPS

Note

To collapse an area, so that the network elements associated with it are hidden, click the symbol to the left of the area. The symbol turns, and the area collapses.

□

Display a Node menu

Purpose The icons displayed on the Navis™ Optical NMS Network Map, which represent areas and network elements, have Node menus associated with them.

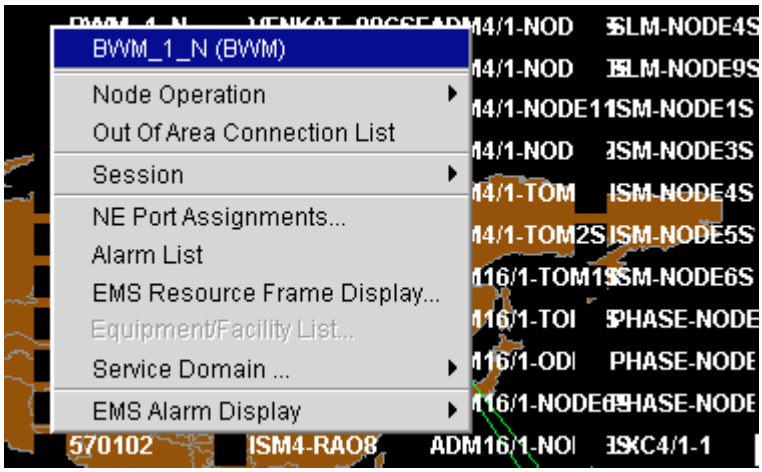
Task Use the following task to display the Node menu for an area or network element.

1 On the Network Map, place your mouse pointer directly in the center of the icon for an area or network element.

2 Right-click and hold the mouse button.

Result:

A Node menu displays. The name of the node is displayed at the top of the Node menu, and the menu displays menu items specific to the associated area or network element.



END OF STEPS

Specify icon label locations

Purpose Users may specify the location of an icon label in relation to the icon itself. By default, labels are placed to the right of an icon. This task applies to area icons and network element icons.

Task Complete the following task to specify an icon label location.

1 On the Network Map, locate an icon whose label you wish to move.

2 While placing the mouse pointer directly on the icon's center, press and hold the right mouse button.

Result:

A Node menu for the area or network element displays.

3 Select **Move Label > Left** (for left) or **Bottom** (for bottom), **Top** (for top), etc.

Result:

The icon label moves to reflect the positioning choice.

4 To make the new position permanent, select **File > Save Node and Label Positions**.

Result:

The new position becomes part of the current user-defined map. Note that only system administrators can make the new position permanent.

END OF STEPS

□

Move an icon

Purpose Use the following procedure to move an icon's position on the Network Map.

Before you begin Before you move an icon's position, note the following:

- The placement of a moved icon is temporary, that is, it lasts for the duration of the user's session only. To permanently move an icon to a new position on the Network Map, you must have the appropriate privileges.

Task Complete the following task to permanently move an icon to a new position on the Network Map.

1 On the Network Map, select the icon to be repositioned.

2 Drag and drop the network element to a new location.

Result:

The icon and its connecting links are repositioned.

Note: This task only provides a temporary repositioning of a network element. In order to make the positioning permanent, a user must have administrator privileges. Refer to the *Navis™ Optical NMS Administration Guide* for details.

END OF STEPS

□

Select/unselect multiple icons

Purpose Navis™ Optical NMS allows users to select multiple icons for repositioning or provisioning. Once selected, selected icons can be unselected.

Important! This task does not apply to area icons.

Task To select multiple icons and then unselect them all at once, perform the following steps.

1 From the Network Map, use the mouse to select an icon (for example, a network element).

Result:

The icon is highlighted.

2 While pressing and holding the **Shift** key, select multiple map icons in addition to the icon selected in Step 1.

Result:

The selected icons are highlighted.

3 While holding the **Shift** key, maneuver the multiple icons to a desired location.

Important! If at any time you wish to unselect the map icons, select **File > Unselect Objects**. This causes all currently selected objects, except areas, to become unselected. You may also unselect the selected icons by separately clicking on each icon.

4 Release the **Shift** key and mouse control.

Result:

The map icons reside in their new locations on the Network Map.

END OF STEPS

□

View aggregates

Purpose Use this task to view aggregates and their members. Note that Navis™ Optical NMS allows two methods for viewing aggregates. One method is from the Network Map's View menu. The second method is by right-clicking on a node. The difference between the two methods is the first method affects only one aggregate family while the second method affects all the aggregates on the Network Map Expansion Panel.

Task: From the Node menu Complete the following task to view one aggregate family on the Network Map's Expanded Area map.

1 From the Network Map's Expanded Area map, right-click a network element.

Result:

A Node menu is displayed.

2 Select **Node Operations > Collapse One Level** (to view the next level of the aggregate family) ***or*** **Collapse Top Level** (to view the top level of the aggregate family).

Result:

The members of the aggregate family are displayed according to your selection.

END OF STEPS

Task: From the View menu

Complete the following task to view all aggregates on the Network Map's Expanded Area map.

1 From the Network Map, select **View > Aggregate View**.

Result:

Four selections display.

2 Select one of the available options.

Result:

The selected aggregate view displays. For example, you may expand or collapse the aggregate view by one level or to the node level (similar to the method described above in the task). Note that, in contrast with the previous task, this method affects all aggregates on the Network Map Expanded Area map.

END OF STEPS

□

View nodes by type

Purpose In the event there are numerous nodes on the Network Map, you may use the following task to specify your node view by type.

Task Complete the following task to view specific nodes by type on the Network Map.

1 From the Network Map, select **View > Node View > Node Types**.

Result:

The Node Types Selection dialog box displays.

2 Specify a node by either selecting a node type from the selection list or entering a node type within the **Filter** field.

Result:

The node specification is made.

3 Press **OK**.

Result:

The Network Map's Expanded Area map dynamically alters to reflect the node specification so that only those nodes appear within the panel.

END OF STEPS

□

View nodes by name

Purpose In the event there are numerous nodes on the Network Map, you may use the following task to specify your node view by name.

Task Complete the following task to view specific nodes by name on the Network Map.

1 From the Network Map, select **View > Node View > Node Names**.

Result:

The Node Names Selection dialog box displays.

2 Specify a node by either selecting a node name (or multiple node names) from the selection list or entering a node name within the **Filter** field.

Result:

The node specification is made.

3 Press **OK**.

Result:

The Network Map's Expanded Area map dynamically alters to reflect the node specification so that only those nodes appear within the panel.

END OF STEPS

□

Find a specific node

Purpose Use this task to locate a specific node on the Network Map.

Task Complete the following task to find a specific node on the Network Map.

1 From the Network Map, select **View > Node View > Find Node**.

Result:

The **Find Node Query Box** form displays.

2 In the **Node ID** field, enter a valid node name. Enter ***** to get a complete listing of all existing nodes.

3 Press **OK**.

Result:

The **Find Node** form lists the node(s) according to the information made in Step 2.

END OF STEPS

□

View links by type

Purpose In the event there are numerous links on the Network Map, you may use the following task to specify your link view by type.

Task Complete the following task to view specific links on the Network Map.

1 From the Network Map, select **View > Link View**.

Result:

A menu displays.

2 From this menu, select one of the following: **Channel Types** (to specify a particular channel), **SDH DL** (to specify an SDH digital link), **PDH DL** (to specify a PDH digital link), **Optical Layers** (to specify an optical layer), **Other Links** (to specify a link type not covered by the previous selections), or **Services** (to specify a service).

Result:

A menu displays and lists the specific choices according to the selection made. For **Channel Types**, all channel types a user can search for will display.

3 Select a link type to view.

Result:

The Network Map's Expanded Area map dynamically alters so that only the specified links appear.

END OF STEPS

□

Update the Network Map

Purpose Whenever a user alters the Network Map, for example, (repositioning nodes or labels; modifying the association of nodes within an area or aggregate, or creating user-defined Area Maps and sub-maps, etc.), it is necessary to update the view of the Network Map.

Task Perform the following procedure whenever you need to view the most recent instance of the Network Map, which reflects any alterations that have been made.

1 From the Network Map, select **File > Query Again**.

Result:

The updated view is displayed.

END OF STEPS

□

Create a user-defined area map

Purpose Navis™ Optical NMS allows users to save a user-specific view of the Network Map that displays only the areas in which the user is interested. This saved view is called a user-defined area map. The following task explains how to create a user-defined area map.

Task Use the following procedure to create a user-defined area map.

1 On the Network Map, select **Administration > User Defined Area Map > Add**.

Result:

A query window displays for you to specify a name for the user-defined area map and member areas that will be part of the user-defined area map.

2 Specify a name for the user-defined area map.

3 Using the window's arrow icons, select areas from the **Non-Members List** and place them (by clicking on the left arrow) in the **Members** list.

Result:

The **Members** list becomes populated with names of areas.

4 Click **OK**.

Result:

The User Defined Area Map is saved.

END OF STEPS

□

Reset the map view

Purpose In the event you make a mistake with specifying a map view based upon a particular node or link, you may use the following task to reset the Network Map Expanded Area map and display a completely refreshed view of the expanded area. This task also clears route or connection displays resulting from the **Display Route on Map** selection.

Task Complete the following task to reset the Network Map view.

1 From the Network Map, select **View > Network View Reset**.

Result:

The Network Map's Expanded Area map dynamically displays a refreshed view of all nodes and links within the expanded area.

END OF STEPS

□

Display Route on Network Map

Purpose Use this task to display a connection or route on the Network Map's Expanded Area map. This selection can be made from the Circuit/Trail List, Client Trail List, and Assigned Ports List forms.

Task Complete the following task to display a connection on a Network Map.

1 From the **Configuration** menu on the network map, select **Connection > Display** then choose **Circuit/Trail List** or **Client Trail List**, or **Assigned Ports List**.

Result:

A dialog box displays corresponding to your selection.

2 Enter specific query information in the dialog box, then select **OK**.

Result:

The Circuit/Trail List form, Client Trail List form, or Assigned Ports List form displays.

3 Select a row in the form, then select **Actions > Display Route on Map**.

Result:

The Network Map's Expanded Area map displays the connection or route corresponding to the selected port or trail list.

4 To refresh the display, use the "Reset the map view" (3-29).

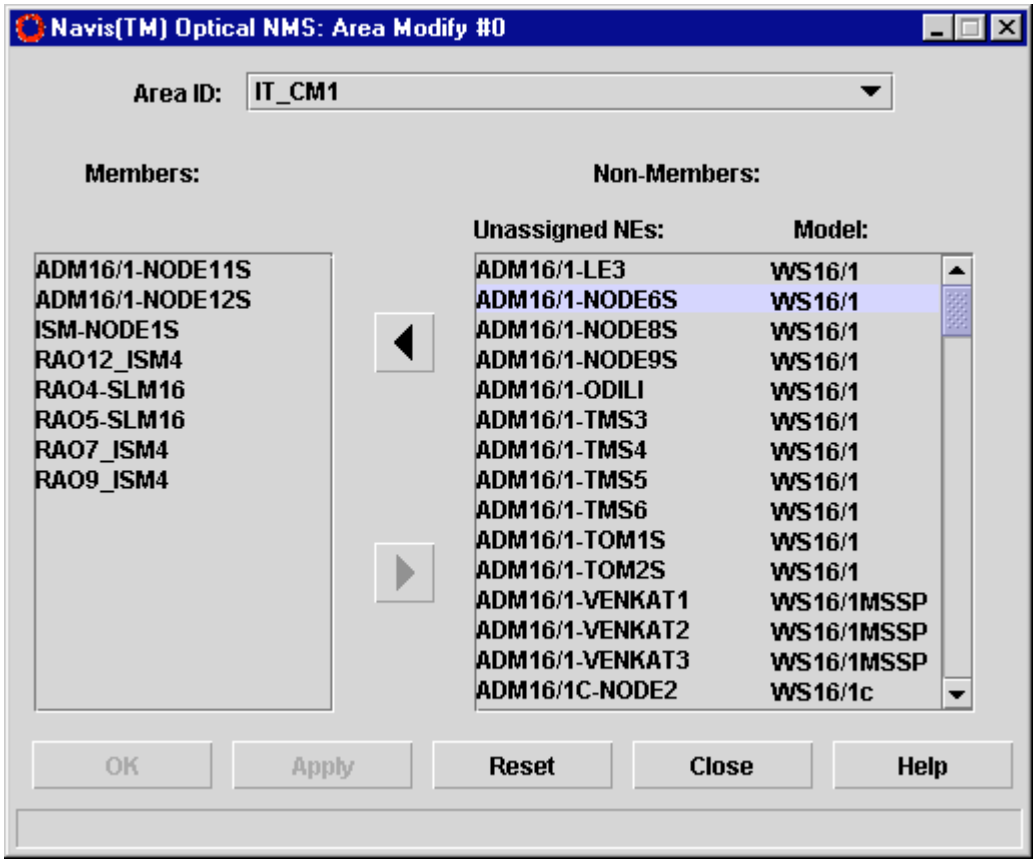
END OF STEPS

□

Specify members and non-members

Purpose Use this task to specify members and non-members in forms that use **Members**/**Non-Members** fields to define groupings such as aggregates, areas, etc.

Example An example of a form that contains **Members**/**Non-Members** fields is the Area Modify form, which is shown in the following figure.



Task

Important! This task assumes that you are working from a window with member/non-member fields.

Use this task to specify a member or a non-member when using a form that requires a member/non-member designation.

1 In the **Non-Members** column, select an item to be specified as a member by clicking on it.

Result:

The item becomes highlighted, and the left arrow button becomes enabled.

2 Press the left arrow button.

Result:

The system moves the selected item from the **Non-Members** list to the **Members** list, and the **Apply** button is enabled. Click **Apply** to store this change in the Navis™ Optical NMS database and keep the window open for further modification. Or, click the **OK** button to store this change in the Navis™ Optical NMS database and close the window.

3 To make the member item a non-member, in the **Members** column, select the item and press the right arrow button.

Result:

The system moves the selected item from the **Members** list to the **Non-Members** list, and the **Apply** button is enabled. Click **Apply** to store this change in the Navis™ Optical NMS database and keep the window open for further modification. Or, click the **OK** button to store this change in the Navis™ Optical NMS database and close the window.

END OF STEPS

□

Network Controller Map tasks

Overview

Purpose

This section describes tasks that are performed from the Network Controller Map.

Contents

Open the Network Controller Map

Purpose The Network Controller Map displays the EMS controllers that are under Navis™ Optical NMS management.

Task Complete the following task to display the Network Controller Map.

1 From the Network Map, select **File > Open Network Controller Map**.

Result:

The Network Controller Map displays.

END OF STEPS

□

Reposition an EMS icon

Purpose Use the following procedure to reposition an EMS icon on the Network Controller Map.

Before you begin Before you reposition an icon, note the following items:

- This task only provides a temporary repositioning of an icon. In order to make the positioning permanent, a user must have system administrator privileges. See the *Navis™ Optical NMS Administration Guide* for details.

Task Complete the following task to reposition an EMS icon on the Network Controller Map.

1 On the Network Controller Map, select the icon of the EMS you want to reposition.

Result:

A white square displays around the icon.

2 Drag and drop the icon to a new location.

Result:

The icon and its connecting links are repositioned.

END OF STEPS

□

View network elements controlled by a particular EMS

Purpose Use the following procedure to view the network elements controlled by a particular EMS.

Task Complete the following task to view the network elements controlled by a particular element management system.

1 On the Network Controller Map, right-click the icon for which you want to view the network elements.

Result:

A Node menu displays.

2 From the menu, select **Node Operation > Controlled NEs**.

Result:

The **Controlled Network Element List** form displays and lists all the original and currently assigned network elements.

3 Press **Close**.

Result:

The form closes.

END OF STEPS

□

Start or stop communication between Navis™ Optical NMS and an EMS

Purpose Use the following procedure to start or stop communication between Navis™ Optical NMS and an EMS.

Before you begin Before you start or stop communication between Navis™ Optical NMS and an EMS, consider the following items:

- When communication has started, the EMS icon is green.
- When communication has been stopped, the EMS icon is magenta.

Task Complete the following task to start or stop communication between Navis™ Optical NMS and an EMS.

1 On the Network Controller Map, right-click on the EMS icon with which you wish to start or stop communication.

Result:

A Node menu displays.

2 Select **Session > (Start or Stop) Communication**. Note that "Start" or "Stop" will depend if communication currently exists. If communication currently exists, users will have the option to "Stop" communication.

Result:

A confirmation window displays.

3 Press **OK**.

Result:

The window closes, and the management system icon changes color depending on whether communication was started or stopped.

END OF STEPS

□

Perform a database synchronization between Navis™ Optical NMS and an EMS

Purpose Use the following procedure to perform a database synchronization between Navis™ Optical NMS and an EMS.

Task Complete the following task to perform a database synchronization between Navis™ Optical NMS and an EMS.

1 On the Network Controller Map, right-click on the EMS icon with which you wish to synchronize.

Result:

A Node menu displays.

2 From the menu, select **Session > Start EMS Synchronization**.

Result:

The **Database Download/Synchronization** form displays.

3 Press **Apply**.

Result:

A confirmation message displays.

4 Press **Yes**.

Result:

The database synchronization is started. A window with a revolving globe displays. When the synchronization is done, the globe disappears and a message is displayed on both windows as to the success or failure of the synchronization.

END OF STEPS

□

Cut-through to an EMS from Navis™ Optical NMS

Purpose Use the following procedure to cut-through to an EMS from Navis™ Optical NMS.

Task Complete the following task to cut-through to an EMS from Navis™ Optical NMS.

1 On the Network Controller Map, right-click on the EMS icon to which you wish to cut through.

Result:

A menu displays.

2 From the menu, select **Session > Login to EMS**.

Result:

The EMS display appears if the cut through is successful, otherwise a message displays if the cut through is unsuccessful.

END OF STEPS

□

Software feature tasks

Overview

Purpose

This section describes tasks used to access features of the Navis™ Optical NMS software.

Contents

Access the on-line documentation

Purpose Navis™ Optical NMS includes a library of on-line user documents.

The documentation library contains the following documents in HTML and PDF format:

- *Navis™ Optical NMS Getting Started Guide*
- *Navis™ Optical NMS Applications and Planning Guide*
- *Navis™ Optical NMS Provisioning Guide*
- *Navis™ Optical NMS Maintenance Guide*
- *Navis™ Optical NMS Administration Guide*

HTML format is most appropriate for viewing a document on-line, and PDF format is most appropriate for printing out a paper copy of a document.

Task

1 From the Network Map, select **Help > Help Contents**.

Result:

The computer's web browser automatically launches and the online documentation library displays.

2 From the on-line library, select the link for the desired document in the desired format (HTML or PDF).

Result:

The appropriate document automatically displays within your web browser.

END OF STEPS

□

Access the screen help

Purpose Navis™ Optical NMS contains screen help for each of the Navis™ Optical NMS forms. The screen help is accessed from the form and displays in the computer's web browser.

Task

1 To access help for the Network Map form:

- From the Network Map, select **Help > This Window**.

  Result:

  A browser window opens and displays screen help for that form.

2 To access help for any form:

- Click the **Help** button at the bottom of the form.

  Result:

  A browser window opens and displays screen help for that form.

END OF STEPS

□

View the software version

Purpose Use the following procedure to view the version of the currently running Navis™ Optical NMS software. This is useful in cases where patches were loaded, and the user wishes to see if the patches have taken effect in the software.

Task Perform the following task to view the version of the currently running Navis™ Optical NMS software.

1 From the Network Map, select **Help > Version**.

Result:

A pop-up window displays the software version number of the currently running Navis™ Optical NMS software on the host computer.

END OF STEPS

□

View the date format

Purpose Use the following procedure to view the date format currently being used by Navis™ Optical NMS.

Task Perform the following steps to verify the date format currently being used by Navis™ Optical NMS.

1 From the Network Map, select **Help > Date Format**.

Result:

A pop-up window displays the current date format being used by Navis™ Optical NMS.

END OF STEPS

□

View the Network Map legend

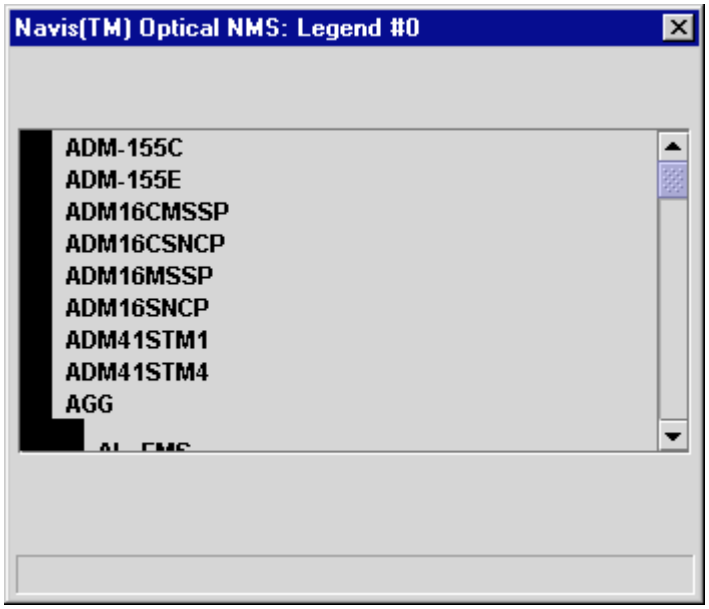
Purpose When first using Navis™ Optical NMS, it is recommended that you view the Network Map legend, which shows which network elements are represented by which icons.

Task Perform the following task to view the Network Map Legend.

1 From the Network Map, select **View > Legend View**.

Result:

A window displays and lists all the icons and the network elements to which they are associated. Use the scrollbar to view the complete listing.



END OF STEPS

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