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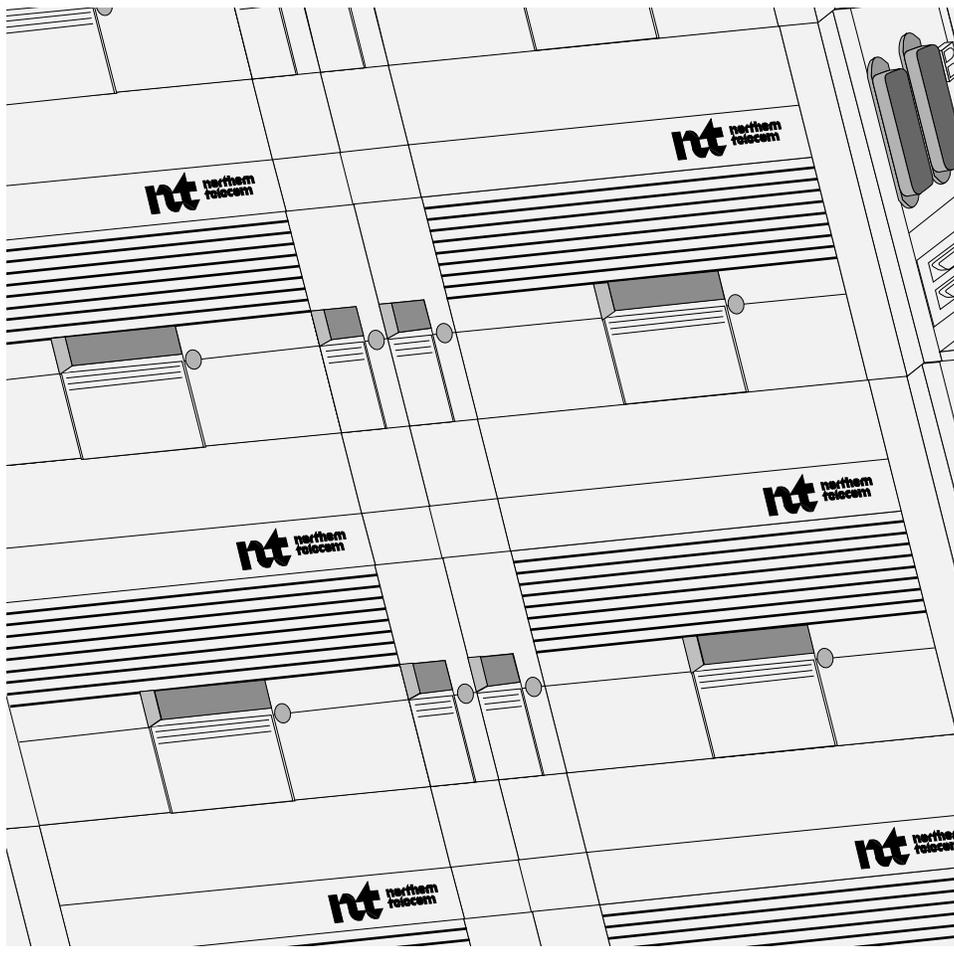
323-3001-510

SONET Products

AccessNode

Network Surveillance Procedures

Issue 1.0 February 1999



NORTEL
NETWORKS™

SONET Products

AccessNode

Network Surveillance Procedures

Document number: 323-3001-510

Document release: Issue 1.0

Date: February 1999

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Printed in Canada

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Publication history

February 1999

Standard AN16 release of the document, Issue 1.0. Changes include the following:

- updated Chapter 3, Chapter 4, and Chapter 6 for OPC alarms feature
- updated Chapter 5 for Event Browser tool

June 1998

AN15 Standard 01.01 release of the document.

September 1997

AN14 Standard 01.01 release of the document.

April 1997

AN12.21 Standard 01.01 release of the document. Added note to Chapter 1.

July 1996

AN12 standard 01.01 release of the document.

November 1995

AN11 standard 02.01 release of the document.

April 1995

AN10 standard release of the document.

March 1995

AN08 formal addendum.

December 1994

AN08 standard release of the document.

November 1994

AN07 reissue of standard release.

April 1994

AN07 standard release of the document.

May 1993

FWP06 standard release of the document.

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About this document

This document describes how the various tools in the Network Surveillance toolset track the status of network activity for all the network elements in the span of the OPC.

Document scope

The purpose of this document is to provide the procedures required to display active alarms in the network and provision alarm points for:

- DS1 and OC-12 facility
- DS1 and OC-12 equipment
- shelf common equipment

Note 1: This book does not cover network surveillance for Data Direct lines. For Data Direct network surveillance, see *Data Direct User Guide*.

Note 2: This book does not cover network surveillance for AccessNode Express (ANX) systems. For ANX system network surveillance, see *AccessNode Express Commissioning and OAM&P*, 323-3051-220, in the *AccessNode Express* volume.

Note 3: Procedures for AccessNode troubleshooting performance alerts are documented in *Alarm and Trouble Clearing Procedures*, 323-3001-543, in this volume. For ANX troubleshooting performance alerts, see *AccessNode Express Alarm and Trouble Clearing Procedures*, 323-3051-543, in the *AccessNode Express* volume.

Note 4: For alarm point provisioning defaults, see *Provisioning and Operations Procedures*, 323-3001-310, in *Operations, Administration and Provisioning*, Volume 4B.

Note 5: For information about ANX events, see *AccessNode Express Alarm and Trouble Clearing Procedures*, 323-3051-543, in the *AccessNode Express* volume.

NEUI screen layout and conventions reference

If you are not familiar with the network element user interface screen layout, commands and menu hierarchies, see *Network Element User Interface Description*, 323-3001-300, in *Operations, Administration and Provisioning*, Volume 4A. The OPC procedures in this document (although CMT-based) can

be performed from a graphical terminal; however, you must substitute the CMT keystrokes that are provided in the procedures with the graphical equivalent. See *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A.

Audience

This document is intended for groups setting up the AccessNode Network Element user interface, such as:

- network administrators
- field maintenance and maintenance engineers
- system lineup and test (SLAT) engineers/technicians

How to use this document

Use Table 1-2 in Chapter 1 to look up the topics that relate to your job.

References in this document

Commissioning and Testing, Volume 3

Operations, Administration, and Provisioning, Volume 4A

- *Network Element User Interface Description*, 323-3001-300
- *OPC User Interface Description*, 323-3001-301
- *System Administration Procedures*, 323-3001-302

Operations, Administration, and Provisioning, Volume 4B

- *Provisioning and Operation Procedures*, 323-3001-310

Maintenance, Volume 5A

- *Alarm and Trouble Clearing Procedures*, 323-3001-543

Maintenance, Volume 5B

- *Log Report Manual*, 323-3001-840

AccessNode Express Volume

- *AccessNode Express Commissioning and OAM&P*, 323-3051-220
- *AccessNode Express Alarm and Trouble Clearing Procedures*, 323-3051-543

Separately Bound Documents

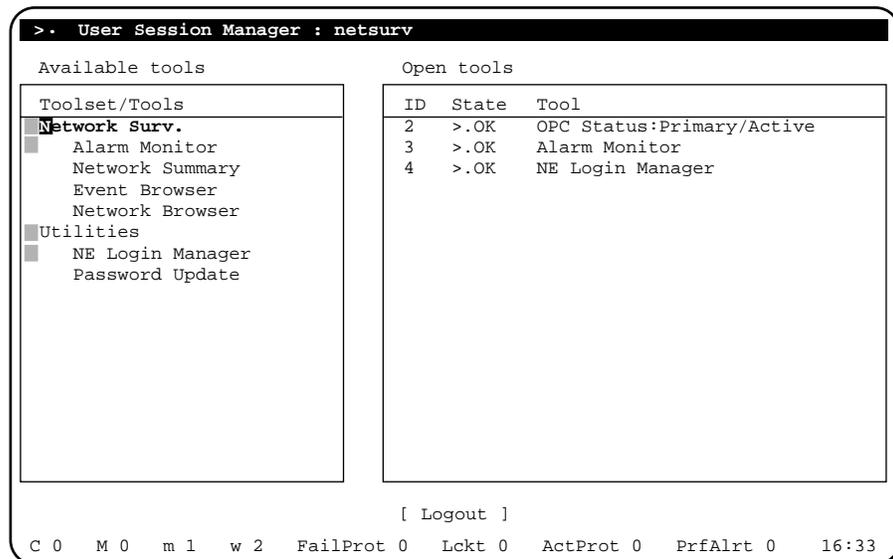
- *Data Direct User Guide*

Overview of network surveillance

This chapter has general information required before starting network surveillance.

Your surveillance environment

Keeping track of the status of the network involves the use of OPC tools grouped under Network Surveillance and Utilities tools, as shown below.



- Alarm Monitor is used to view the alarm counts for all network elements in the OPC scope.
- Network Summary is used to watch for changes in alarms.
- Event Browser is used to search the record of OPC and NE log reports, and network element alarms and alerts.
- Network Browser is used to view network status information that includes alarm, protection, and performance data about all the network elements.
- OPC Status informs you whether the OPC you are logged into is the primary or backup, and what its current status is.
- NE Login Manager is used to login to a network element remotely from the OPC.

Monitoring alarm status

The most detailed alarm status information is provided by the Alarm Monitor tool. However, a summary of the number of critical, major, minor, and warning alarms, as well as the protection-switching and performance alerts, is shown to you at all times. The summary is displayed at the bottom of the main window of all open tools, and at the bottom of the user session manager, as shown below.

C 0 M 0 m 0 w 2 FailProt 1 Lckt 1 ActProt 1 PrfAlrt 0 16:55

List of symbols

This summary is called the status line. Table 1-1 lists symbols that appear on the status line.

Table 1-1
Status line symbols

| | |
|----------|--|
| C | identifies the total number of Critical alarms. Critical alarms are the most severe type of alarm. Critical alarms are usually service affecting and must be fixed immediately. |
| M | identifies the total number of Major alarms. Major alarms are less severe than critical alarms but could be service affecting. Major alarms indicate problems that require an immediate response. |
| m | identifies the total number of minor alarms. Minor alarms are non- service affecting and indicate protected circuit pack failures, common equipment failures, or performance monitoring threshold crossings. |
| w | identifies the total number of warnings. Warnings correspond to conditions that are not as severe as a minor alarm but should be investigated. |
| FailProt | identifies the total number of protection switches that have failed. A protection switch may fail because the protection channel is locked out, or because the protection channel is in use. |
| Lckt | identifies the total number of lockouts that have been performed. Lockouts are performed on individual channels in a network element. When a channel is locked out, it is excluded from protection switching. Traffic cannot be switched to or from a locked out channel in the event of a failure. |
| ActProt | identifies the total number of active protection switches. A protection switch is active when the traffic on a working channel is successfully moved, either manually or automatically, to a protection channel due to a failure of the working channel. |
| PrfAlrt | identifies the total number of performance alerts that have been raised. A performance alert occurs when the error rate on a signal carried by a network element reaches or exceeds a user defined performance threshold. |

When a new alarm arrives, the appropriate summary count on the status line is highlighted in reverse video. To remove the highlighting on the status line, the Network Summary tool, and the Alarm Monitor tool, press Ctrl_X F. In the event that there has been a loss of communication with one of the network elements, or some other problem that may make the alarm counts inaccurate, a question mark (?) appears at the extreme left of the alarm status line.

Note: Due to space limitations, the OPC displays “999” in the status line when an alarm or protection count larger than 999 occurs. If you would like to see the exact count, you can look in the Alarm Monitor.

Document contents

Use the Table 1-2 to guide you through the chapters in this book. Look at the topics listed on the left side and refer to the corresponding page number.

Table 1-2
Network surveillance contents

| Topics | See |
|--|----------|
| Overview of network surveillance | page 1-1 |
| Displaying OPC status | page 2-1 |
| Monitoring network status | page 3-1 |
| Monitoring network alarm status | page 4-1 |
| Viewing logs, alarms, and alerts | page 5-1 |
| Monitoring alarms | page 6-1 |
| Logging in to a network element from the OPC | page 7-1 |
| Alarm display procedures | page 8-1 |

Note 1: This book does not cover network surveillance for Data Direct lines. For Data Direct network surveillance, see *Data Direct User Guide* in the AccessNode documentation suite (separately-bound).

Note 2: This book does not cover network surveillance for AccessNode Express (ANX) systems. For ANX system network surveillance, see *AccessNode Express Commissioning and OAM&P*, 323-3051-220, and *AccessNode Express Alarm and Trouble Clearing Procedures*, 323-3051-543, in the *AccessNode Express* volume.

Note 3: Procedures for AccessNode troubleshooting performance alerts are documented in *Alarm and Trouble Clearing Procedures*, 323-3001-543, in this volume.

Displaying OPC status

The OPC Status tool provides OPC system identification and status information. The tool remains open at all times in all sessions and cannot be closed. It therefore always appears in the Open tools list of the session manager and never in the Available tools list. The OPC Status information is dynamically updated in the OPC Status tool window as changes occur.

For further information on the OPC Status tool, see the description in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A.

Chapter contents

The table below lists the procedures in this chapter.

| Topic | See |
|--------------------------------------|----------|
| Procedure 2-1, Displaying OPC status | page 2-2 |

If you cannot successfully complete this procedure, contact your next level of support.

Procedure 2-1 Displaying OPC status

Use the following procedure to view OPC Status. Knowing what OPC you are logged into is important when you are performing data backups or restores, or when installing software or commissioning network elements. The OPC Status screen tells you whether the OPC is the primary or backup, where it is physically located, and what software release it is running.

Requirements

To do this procedure, you must do the following:

- log in to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301*, in *Operations, Administration, and Provisioning, Volume 4A*

Action

| Step | Action |
|------|---|
| 1 | Press Ctrl_T 0 to return to the User Session Manager. If the User Session Manager is already displayed, this command is ignored. <i>The User Session Manager appears. The OPC Status tool is at the top of the Open tools list.</i> |
| 2 | Tab to the Open tools list. |
| 3 | Move to the OPC Status entry in the list, then Ctrl_A (Keypad 0). <i>The OPC Status window appears.</i> After viewing the contents of the OPC Status window, press Ctrl_T 0 to return to the User Session Manager. <i>The User Session Manager appears. The OPC Status tool remains at the top of the Open tools list.</i> |

—end—

Monitoring network status

Use the Network Browser tool to view network status information that includes alarm, protection, and performance data about all the network elements. You can also use it to display a summary of protection switching data, or get detailed information about a network element. The main window contains one component, the Network Element list, which displays a one-line summary of all alarms, protection data, and performance alerts for each network element in the OPC span of control. An additional line displays a summary of OPC alarms.

For further information on the Network Browser tool and on OPC alarms, see the description in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A.

Chapter task list

This chapter includes the following tasks.

| Procedure | Task | See |
|-----------|---|----------|
| 3-1 | Surveying the network | page 3-2 |
| 3-2 | Displaying detailed information about a shelf | page 3-4 |
| 3-3 | Displaying the network protection summary | page 3-5 |
| 3-4 | Sorting the network element list | page 3-7 |

If you cannot successfully complete these procedures, contact your next level of support.

Procedure 3-1

Surveying the network

Use this procedure to survey the status of the network. The Network Element list displays a one-line summary of all alarm, protection, and performance alerts for each network element in the OPC span of control.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you to access the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301, in Operations, Administration and Provisioning, Volume 4A*

Action

| Step | Action |
|------|--------|
|------|--------|

- 1 Log in to the OPC and open the Network Browser tool.
The Network Browser main window appears.
- 2 Survey the status of all items in the Network Element list. The list includes all network elements in the OPC span of control, as well as OPC alarms. Symbols in the columns are as follows:

| | |
|---|---|
| ? | alarm counts may not be accurate |
| C | critical alarm |
| M | major alarm |
| m | minor alarm |
| w | warning |
| + | the alarm count has changed since the tool was started, or there are alarms of lower severity |
| . | zero alarms or alerts |

You can sort the list by either alarm severity or network element ID. See Procedure 3-4, "Sorting the network element list" on page 3-7.

—continued—

Procedure 3-1 (continued)
Surveying the network

| Step | Action |
|-------------|---------------|
|-------------|---------------|

- | | |
|----------|---|
| 3 | To close the tool, press Esc), or do the following: <ol style="list-style-type: none">Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i>Select Exit by pressing Space (Keypad 0). <i>The tool disappears.</i> |
|----------|---|

—end—

Procedure 3-2

Displaying detailed information about a shelf

Use this procedure display the type of service provided by the shelf, the shelf serial number, as well as booting and backup parameters for the shelf.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you to access the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A

Action

| Step | Action |
|------|--|
| 1 | Log in to the OPC and open the Network Browser tool. <i>The Network Browser main window appears.</i> You can sort the list by either alarm severity or network element ID. See Procedure 3-4, "Sorting the network element list" on page 3-7. |
| 2 | Move to a network element that you want detailed information about, then press Ctrl_A (or Keypad 0). <i>The selected item appears in reverse video.</i> If you want detailed information about another network element, move to it and press Ctrl_Y (or Keypad .). <i>Selected items appear in reverse video.</i> |
| 3 | Display the list item menu, by pressing Ctrl_L (or Keypad Enter). <i>The list item menu appears.</i> |
| 4 | Move to the Shelf details command, then press Space (or Keypad 0). <i>The Shelf Details dialog for each selected item appears.</i> |
| 5 | Select the Done button to close the Shelf Details dialog by pressing Ctrl_A (or Keypad 0). <i>The dialog disappears.</i> |
| 6 | To close the tool, press Esc), or do the following: <ol style="list-style-type: none">a. Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i>b. Select Exit by pressing Space (Keypad 0). <i>The tool disappears.</i> |

—end—

Procedure 3-3

Displaying the network protection summary

Use this procedure to view protection summary data either for the whole network, or for selected network elements. To see more detailed information about the status of a protection group or to perform protection switching, you must log into the network element user interface. You need the network element number and service type to find the Detailed Protection screen you want.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you to access the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301, in Operations, Administration and Provisioning, Volume 4A*

Action

| Step | Action |
|------|--|
| 1 | Log in to the OPC and open the Network Browser tool. <i>The Network Browser main window appears.</i> You can sort the list by either alarm severity or network element ID. See Procedure 3-4, "Sorting the network element list" on page 3-7. |
| 2 | Move to a network element that you want detailed information about, then press Ctrl_A (or Keypad 0). <i>The selected item appears in reverse video.</i> If there are any other network elements you want detailed information move to them and press Ctrl_Y (or Keypad .). <i>Selected items appear in reverse video.</i> |
| 3 | Display the list item menu, by pressing Ctrl_L (or Keypad Enter). <i>The list item menu appears.</i> |
| 4 | Move to the Protection Summary command, then press Space (or Keypad 0). <i>The Protection Summary dialog appears.</i> |

—continued—

3-6 Monitoring network status

Procedure 3-3 (continued)

Displaying the network protection summary

| Step | Action |
|-------------|--|
| 5 | Select the Done button to close the Protection Summary dialog by pressing Ctrl_A (or Keypad 0). <i>The dialog disappears.</i> |
| 6 | To close the tool, press Esc), or do the following: <ol style="list-style-type: none">Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i>Select Exit by pressing Space (Keypad 0). <i>The tool disappears.</i> |

—end—

Procedure 3-4

Sorting the network element list

Use this procedure to list network elements according to the severity of their alarms or by their ID numbers.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you to access the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A

Action

| Step | Action | | | | | | |
|--|--|---|-------------|--|-------------------|-----------------------------|--------------------|
| 1 | Log in to the OPC and open the Network Browser tool. <i>The Network Browser main window appears.</i> | | | | | | |
| 2 | Display the list menu by pressing Ctrl_L / (or Keypad 3). <i>The list menu appears.</i> | | | | | | |
| 3 | Move to the Sort command, and then move to the cascade menu by pressing the right Arrow key. <i>The first item in the cascade menu is highlighted.</i> | | | | | | |
| 4 | Move to the option you want, then press Space (or Keypad 0). | | | | | | |
| | <table border="1"> <thead> <tr> <th>If you want to display network elements</th> <th>Then select</th> </tr> </thead> <tbody> <tr> <td>by alarm severity (such as, critical alarms first, then major alarms, then minor alarms)</td> <td>by alarm severity</td> </tr> <tr> <td>ordered by their ID numbers</td> <td>by network element</td> </tr> </tbody> </table> | If you want to display network elements | Then select | by alarm severity (such as, critical alarms first, then major alarms, then minor alarms) | by alarm severity | ordered by their ID numbers | by network element |
| If you want to display network elements | Then select | | | | | | |
| by alarm severity (such as, critical alarms first, then major alarms, then minor alarms) | by alarm severity | | | | | | |
| ordered by their ID numbers | by network element | | | | | | |
| | <i>The list is sorted according to the option you select.</i> | | | | | | |
| 5 | Return to the procedure that sent you here. | | | | | | |

—end—

Monitoring network alarm status

This chapter contains procedures for monitoring total alarm counts, protection switches, and performance alerts for the network and for individual network elements (NE). The Network Summary tool does not display detailed alarm reports, only total network status counts.

After you use the Network Summary tool to identify that an alarm exists, you must log in to the affected NE, attend to the alarm, and log out from the network element.

Reset the count if you wish Network Summary to display only those alarms received after the current time.

For further information on the Network Summary tool, see the description in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A.

An additional line on the Network Summary displays the status of OPC alarms. OPC alarms are reported and accessed on the OPC through the Alarm Monitor and Event Browser tools. Do not confuse these alarms with the OPC circuit pack alarms, which are raised as common equipment alarms. The OPC circuit pack alarms relate to the OPC hardware and are raised by the NE in which the OPC is installed.

The NE user interface does not display OPC alarms. However, you can provision a pointer alarm to indicate the presence of OPC alarms. The OPC automatically clears the pointer alarm when no active alarms exist on the OPC. You can assign the pointer alarm to only one NE for each OPC, usually the NE in which the OPC is installed.

For further information on the OPC Alarm Provisioning tool, see the description in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A.

Chapter task list

This chapter includes the following tasks. They can be performed at any time and in any order.

| Procedure | Task | See |
|------------------|--|------------|
| 4-1 | Identifying a change in network status | page 4-3 |
| 4-2 | Customizing the network element alarm count list | page 4-5 |
| 4-3 | Resetting the new and cleared alarm counts for selected network elements | page 4-6 |
| 4-4 | Resetting the new and cleared alarm counts for all network elements | page 4-7 |

If you cannot successfully complete these procedures, contact your next level of support.

Procedure 4-1

Identifying a change in network status

Use this procedure to identify a change in network status. The Network View banner displays status information counts for all network elements in the OPC span of control. A changed count is indicated in two ways: the number increases or decreases, and the field is highlighted in reverse video.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301*, in *Operations, Administration, and Provisioning, Volume 4A*

Action

| Step | Action |
|------|--|
| 1 | Log in to the OPC and open the Network Summary tool. <i>The Network Summary main window appears.</i> |
| 2 | Note any changes in the Network View banner. <i>Changed alarms are highlighted in reverse video.</i> |
| 3 | In the Network Element Alarm Count list, look for the status icon (+) indicating that a change in the counts for a network element or for the OPC has occurred. There may be more than one. <i>You have located the network element that has raised a new alarm or has a newly cleared alarm.</i> |
| 4 | Display the new and cleared alarms on all network elements in the list. If you do not know how to do this, see Procedure 4-2, "Customizing the network element alarm count list," on page 4-5. <i>The new and cleared alarms for each network element appear.</i> |
| 5 | Log in to the affected network element (see Procedure 7-1, "Logging in to a network element from the OPC" on page 7-3) or OPC. To resolve the alarm, see <i>Alarm and Trouble Clearing Procedures, 323-3001-543</i> , in this volume. |
| 6 | To reset the display of new alarms for all network elements, press Ctrl_X F. <i>All highlighting and plus (+) signs disappear.</i> |

—continued—

4-4 Monitoring network alarm status

Procedure 4-1 (continued)

Identifying a change in network status

| Step | Action |
|-------------|---|
| 7 | <p>To reset the display of new alarms for selected network elements, do the following:</p> <ul style="list-style-type: none">a. Tab to list of alarms. <i>The cursor appears in the list.</i>b. Move to the network elements which raised the alarms you have dealt with, then press Ctrl_Y (or Keypad.)c. Display the list item menu by pressing Ctrl_L (or Keypad Enter). <i>The menu appears.</i>d. Move to the Reset Counts command, then press Space (or Keypad 0). <i>The reset time is changed to the current time and the new alarm count and cleared alarm counts are set to zero (indicated by a dot).</i> |
| 8 | <p>To close the tool:</p> <ul style="list-style-type: none">a. Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i>b. Select the Exit command by pressing Space (or Keypad 0). <i>The tool disappears.</i> |

—end—

Procedure 4-2

Customizing the network element alarm count list

Use this procedure to customize the Network Element Alarm Count list. When you first open the alarm count list, only the active alarms appear for each network element in the list. An additional line displays the status of OPC alarms. You can customize the list to also show new alarms, or cleared alarms, or both.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|---|
| 1 | Log in to the OPC and open the Network Summary tool. <i>The Network Summary main window appears.</i> |
| 2 | To display new alarm counts, tab to the New since reset check box, then press Ctrl_A (or Keypad 0). <i>The alarms that are new since the last reset time are displayed for all network elements in the list.</i> |
| 3 | To display cleared alarm counts, tab to the Cleared since reset check box, then press Ctrl_A (or Keypad 0). <i>The alarms that have been cleared since the last reset time are displayed for all network elements in the list.</i> |

—end—

Procedure 4-3

Resetting the new and cleared alarm counts for selected network elements

Use this procedure to set selected new and cleared alarm counts to zero. Only those alarms received after the Reset time are then displayed in the new alarm and cleared alarm fields.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|---|
| 1 | Log in to the OPC and open the Network Summary tool. <i>The Network Summary main window appears.</i> |
| 2 | Tab to the list of alarms. <i>The cursor appears in the list.</i> |
| 3 | Display the new and cleared alarms on all network elements in the list. If you do not know how to do this, see Procedure 4-2, "Customizing the network element alarm count list," on page 4-5. <i>The new and cleared alarms for each network element appear.</i> |
| 4 | Move to each network element for which you want the count reset, then press Ctrl_Y (or Keypad .). <i>The selected items are highlighted in reverse video.</i> |
| 5 | Display the list item menu by pressing Ctrl_L (or Keypad Enter). <i>The menu appears.</i> |
| 6 | Move to the Reset Counts command, then press Space (or Keypad 0). <i>The reset time changes to the current time and the new alarm count and cleared alarm counts are set to zero (indicated by a dot).</i> |

—end—

Procedure 4-4

Resetting the new and cleared alarm counts for all network elements

Use this procedure to set all new and cleared alarm counts to zero. Only those alarms received after the Reset time are then displayed in the new alarm and cleared alarm fields.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|---|
| 1 | Log in to the OPC and open the Network Summary tool. <i>The Network Summary main window appears.</i> |
| 2 | Display the new and cleared alarms on all network elements in the list. If you do not know how to do this, see Procedure 4-2, "Customizing the network element alarm count list," on page 4-5. <i>The new and cleared alarms for each network element appear.</i> |
| 3 | Tab to the list of alarms. <i>The cursor appears in the list.</i> |
| 4 | Display the list menu by pressing Ctrl_L / (or keypad 3). |
| 5 | Move to the Reset all counts command, then press Space (or Keypad 0). <i>The reset time is changed to the current time and the new alarm count and cleared alarm counts are set to zero (indicated by a dot).</i> |

—end—

Viewing logs, alarms, and alerts

This chapter contains procedures for browsing the history of events on the OPC and for getting detailed information about individual events.

Note: For information about AccessNode Express events, see *Alarm and Trouble Clearing Procedures*, 323-3051-543, in the *AccessNode Express* volume.

The Event Browser tool allows you to view the record of OPC and NE logs, NE alarms and alerts, and also display or print detailed information about individual events. You can also modify the events list display so it shows only the event reports that interest you, in the order that you want to see them. You can use the command `archint` at the OPC prompt to the time interval between archiving cycles for NE logs.

To interpret log messages, see *Log Report Manual*, 323-3001-840, in *Maintenance*, Volume 5B. For information about the Event Browser tool, see *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A.

Chapter contents

The following topics are included in this chapter. They can be performed at any time and in any order.

| Topics | See |
|--|-----------|
| Procedure 5-1, Displaying a detailed event report | page 5-2 |
| Procedure 5-2, Sorting the events list | page 5-4 |
| Procedure 5-3, Updating the events list | page 5-5 |
| Procedure 5-4, Filtering the events list | page 5-6 |
| Procedure 5-5, Setting the time between archiving cycles for NE logs | page 5-12 |
| Procedure 5-6, Printing event details | page 5-13 |

If you cannot successfully complete these procedures, contact your next level of support.

Procedure 5-1

Displaying a detailed event report

Use this procedure to find out more information about an event than can be determined from the summary in the events list.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|---|
| 1 | <p>Log in to the OPC and open the Event Browser tool.</p> <p><i>The Event Browser main window appears.</i></p> <p>When there are more network elements than can be displayed in the events list, press the up or down arrow key to scroll a line at a time, or press Keypad 5 followed by an arrow key to scroll a screen at a time.</p> <p>You can sort the list by network element ID, severity, time, or class. See “Sorting the events list” on page 5-4.</p> |
| 2 | <p>Tab to the events list.</p> <p><i>The current item in the events list is highlighted.</i></p> |
| 3 | <p>If you want to select one or more events from the list:</p> <ol style="list-style-type: none">a. Move to the events (up to 5) you want detailed information about, then press Ctrl_Y (or Keypad .). <p><i>Selected items appear in reverse video.</i></p> <ol style="list-style-type: none">b. Display the list item menu by pressing Ctrl_L (or Keypad Enter). <p><i>The menu appears.</i></p> <ol style="list-style-type: none">c. Move to the Details command, then press the space bar (or Keypad 0). <p><i>The Log Event Details dialog(s) for the selected events appear.</i></p> <p>For information on how to interpret and respond to an event report, see <i>Alarm and Trouble Clearing Procedures</i>, 323-3001-543, in this volume.</p> |

—continued—

Procedure 5-1 (continued)
Displaying a detailed event report

- | Step | Action |
|------|--|
| 4 | <p>If you want to select one event by event number:</p> <ol style="list-style-type: none">Display the events list menu, by pressing Ctrl_L / (or Keypad 3). <i>The list menu appears.</i>Move to the show details command, then press the space bar (or Keypad 0). <i>The Show Details dialog appears.</i>Tab to the Network Element field, and type the name or number, or both, of the network element. Note: You can also use the chooser menu by pressing Ctrl_L / (or Keypad 3) and choosing the Network Element you want by moving to it and pressing the space bar (or Keypad 0).Tab to the Event # field, and type in the Event # of the specific event you want to locate.Tab to the OK button, then press the space bar (or Keypad 0). <i>The Show Details dialog disappears. If the event is found, it is highlighted in the events list on the main window and its Log Event Details dialog is displayed.</i> |
| 5 | <p>Move to the Done button, then press Ctrl_A (or Keypad 0). <i>The dialog disappears.</i></p> |
| 6 | <p>To close the tool:</p> <ol style="list-style-type: none">Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i>Select the Exit command by pressing the space bar (or Keypad 0). <i>The tool disappears.</i> |

—end—

Procedure 5-2

Sorting the events list

Use this procedure to sort the events list by severity, by network element, by time, or by event class. The current sort order appears above the events list.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|--|
| 1 | <p>Log in to the OPC and open the Event Browser tool.</p> <p><i>The Event Browser main window appears. To view the window, see Procedure 5-1.</i></p> <p>When there are more network elements than can be displayed in the events list, press the up or down arrow key to scroll a line at a time, or press Keypad 5 followed by an arrow key to scroll a screen at a time.</p> |
| 2 | <p>Tab to the events list, and display the events list menu by pressing Ctrl_L / (or Keypad 3).</p> <p><i>The list menu appears.</i></p> |
| 3 | <p>Move to the Sort command, then press Enter (or Keypad 0).</p> <p><i>The Event Listing Sorting dialog appears.</i></p> <p>You can sort events by time (ascending or descending), network element (name or number), reason, unit, class, or severity.</p> <p>Note 1: The Sort results reflect whatever filter you have determined for the events list. Only the types of events you included in the filter are sorted.</p> <p>Note 2: If you update the list, the new events are added to the list at their proper sort position. This means that they might not be in view when the list is updated.</p> |

—end—

Procedure 5-3

Updating the events list

Use this procedure to update the event list with new events. The events list must be updated manually. The events list is not updated as events occur.

The New Events icon (>>) beside the Update List button indicates that new events have been logged since the last time this procedure was used. If this icon is not visible, this procedure has no effect.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301, in Operations, Administration, and Provisioning, Volume 4A*

Action

| Step | Action |
|------|---|
| 1 | <p>Log in to the OPC and open the Event Browser tool.</p> <p><i>The Event Browser main window appears. To view the window, see Procedure 5-1.</i></p> <p>When there are more network elements than can be displayed in the events list, press the up or down arrow key to scroll a line at a time, or press Keypad 5 followed by an arrow key to scroll a screen at a time. To return to scrolling a line at a time, press Keypad -.</p> |
| 2 | <p>Tab to the Update list button, then press Ctrl_A (or Keypad 0).</p> <p><i>The most recent events are retrieved and added to the events list, according to the filter that is currently defined.</i></p> <p><i>For more information on events list filters, see "Filtering the events list" on page 5-6.</i></p> <p>Note: If the OPC has become inactive since the last time you used the Update List check button, an error message is displayed when you update the event list.</p> |

—end—

Procedure 5-4 Filtering the events list

Use this procedure to specify the filter used to select the events you wish to see in the events list. You can display events by network element, by class of event, by severity, or by time range.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301, in Operations, Administration, and Provisioning, Volume 4A*

Action

| Step | Action |
|------|--|
| 1 | Log in to the OPC and open the Event Browser tool. <i>The Event Browser main window appears. To view the window, see Procedure 5-2.</i> When there are more network elements than can be displayed in the events list, press the up or down arrow key to scroll a line at a time, or press Keypad 5 followed by an arrow key to scroll a screen at a time. |
| 2 | Tab to the Event list, and display the events list menu by pressing Ctrl_L / (or Keypad 3). <i>The list menu appears.</i> |
| 3 | Move to the Filter command, then press the space bar (or Keypad 0). <i>The Events List Filter dialog appears.</i> |
| 4 | If you want to limit the number of events displayed: Note: Use the Number of events field to limit the number of events displayed. Events not displayed are not lost. They can be viewed by resetting this field. The maximum number of events retrieved is 500. This field is reset to 25 each time you start the Event Browser tool, unless you use the save command to save the changes. <ol style="list-style-type: none">a. Tab to the Number of Events field, and display the list item menu by pressing Ctrl_L (or Keypad Enter).b. Select the Select All command by pressing the space bar (or Keypad 0). <i>The data in the field is highlighted in reverse video.</i>c. Type the number of events that you want displayed. |

—continued—

 Procedure 5-4 (continued)
Filtering the events list

- | Step | Action | | | | | | |
|---|---|----------------|--------------|---|-----|--|--------|
| 5 | <p>If you want to modify the event types to be filtered:</p> <p>Note: Use the Events type buttons to determine whether OPC or NE logs, or NE alarms or alerts appear in the events list. When a mark appears in one of these buttons, events of that type appear in the events list. You can select any number of event types.</p> <ol style="list-style-type: none"> a. Tab to the Events type buttons. <i>The first type button (Alarms) is highlighted.</i> b. Move to the event type you want to add or remove, then press Ctrl_A (or Keypad 0). <i>The mark beside the button appears or disappears (indicating selection or deselection).</i> | | | | | | |
| 6 | <p>If you want to modify the NE list:</p> <p>Note: The NE list indicates the network elements whose events are displayed by the events list on the Event Browser main window. Network elements whose events currently appear have the word “Include” appearing beside them in the NE list.</p> <ol style="list-style-type: none"> a. Tab to the list. <i>The current list item is highlighted.</i> b. Move to the network element you want to add or remove, then press Ctrl_L (or Keypad Enter). <i>The list item menu appears. The first menu item (Add) is highlighted.</i> c. Move to the option you want: <table border="1" style="margin-left: 20px; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">If you want to</th> <th style="text-align: left;">Then move to</th> </tr> </thead> <tbody> <tr> <td>add another network element to the list</td> <td>Add</td> </tr> <tr> <td>remove a network element from the list</td> <td>Remove</td> </tr> </tbody> </table> d. Press the space bar (or Keypad 0). <i>If you selected Add, the network element is added and the word “Include” appears beside it in the NE list.</i> <i>If you selected Remove, the network element is removed and the word “Exclude” appears beside it in the NE list.</i> <p>Note: If the NE is already added or removed, the corresponding option is grayed out and not accessible.</p> | If you want to | Then move to | add another network element to the list | Add | remove a network element from the list | Remove |
| If you want to | Then move to | | | | | | |
| add another network element to the list | Add | | | | | | |
| remove a network element from the list | Remove | | | | | | |

—continued—

Procedure 5-4 (continued)
Filtering the events list

| Step | Action |
|------|---|
| 7 | <p>If you want to modify the event severities:</p> <p>Note: Use the Severity check buttons to determine what severities of events appear in the events list. When a mark appears in one of these buttons, events of that severity appear in the Events list. You can select up to 5 event severities.</p> <ul style="list-style-type: none">a. Tab to the Severity buttons. <i>The first Severity button (Critical) is highlighted.</i>b. Move to the severity you want to add or remove, then press Ctrl_A (or Keypad 0). <i>The mark beside the button appears or disappears (indicating selection or deselection).</i> |
| 8 | <p>If you want to modify the class type:</p> <p>Note: Use the Class check buttons to determine what class of events appear in the events list. When a mark appears in one of these buttons, events of that class appear in the events list. You can select up to 5 event classes.</p> <ul style="list-style-type: none">a. Tab to the Class buttons. <i>The first Class button (Trbl) is highlighted.</i>b. Move to the class you want to add or remove, then press Ctrl_A (or Keypad 0). <i>The mark beside the button appears or disappears (indicating selection or deselection).</i> |
| 9 | <p>If you want to modify the OPC logs selected:</p> <p>Note: Use the OPC Logs check buttons to determine what type of logs appear in the events list. When a mark appears in one of these buttons, logs of that type appear in the events list. You can select up to 5 log types.</p> <ul style="list-style-type: none">a. Tab to the OPC Logs buttons. <i>The first Log button (COM) is highlighted.</i>b. Move to the log type you want to add or remove, then press Ctrl_A (or Keypad 0). <i>The mark beside the button appears or disappears (indicating selection or deselection).</i> |
| 10 | <p>If you want to modify the alarm types selected:</p> <p>Note: Use the alarm type check buttons to determine what type of alarms appear in the events list. When a mark appears in one of these buttons, alarms of that type appear in the events list. You can select up to 4 alarm types.</p> |

—continued—

 Procedure 5-4 (continued)
 Filtering the events list

| Step | Action |
|------|---|
| | <ul style="list-style-type: none"> a. Tab to the alarm types buttons. <i>The first button (Eqp) is highlighted.</i> b. Move to the alarm type you want to add or remove, then press Ctrl_A (or Keypad 0). <i>The mark beside the button appears or disappears (indicating selection or deselection).</i> |
| 11 | <p>If you want to modify the occurrences:</p> <p>Note: Use the Occurrences field to specify the type of occurrence (for example: less than, less than or equal to, equal to, greater than or equal to, or greater then) and the number of occurrences of an event that appears in the events list.)</p> <ul style="list-style-type: none"> a. Tab to the first part of the Occurrences field. b. To access the occurrences dialog, press Ctrl_L / (or Keypad 3). c. Tab to the type of occurrence you want, then press the space bar (or Keypad 0). d. Tab to the second part of the Occurrences field and type in the number of times the occurrences happen. |
| 12 | <p>If you want to modify the unit:</p> <p>Note: Use the Unit field to specify a type of unit that appears in the events list.</p> <ul style="list-style-type: none"> a. Tab to the Unit field. b. Type in the unit type. |
| 13 | <p>If you want to modify the reason:</p> <p>Note: Use the Reason field to specify a reason that caused the event to appear in the events list.)</p> <ul style="list-style-type: none"> a. Tab to the Reason field. b. Type in the description of the event. |
| 14 | <p>If you want to modify the time range:</p> <p>Note: Use the Date and time fields to specify a time range for events displayed in the events list. If you do not specify a range, the list is not filtered by time.)</p> <ul style="list-style-type: none"> a. Tab to one of the fields. b. If using a predefined time, press Ctrl_L / (or Keypad 3). <i>The chooser menu appears.</i> Move to the predefined time you want, then press Space (or Keypad 0). <i>The predefined time appears in the field.</i> |

—continued—

Procedure 5-4 (continued)
Filtering the events list

Step Action

- c. If typing your own time, use one of the following formats.

day/month/year hr:min:sec

Example: 9/03/95 10:15:37

OR

day month year hr:min:sec

Example: 9 mar 95 10:15:37

Note: If you leave out the year, or month, or entire date, the system assumes you mean the current year, month, or date. If you leave out the seconds, the system assumes you want zero seconds.

- d. Repeat for the other Date and time field if a “To” time is required.

- 15** If you want to modify the NE Logs list:

Note: The NE Logs list indicates the log types that appear by the Events list on the Event Browser main window. Log types that currently appear have the word “Include” appearing beside them in the NE Logs list.)

- a. Tab to either the General or the Technical NE logs list.

The first log type (COML or H MV) is highlighted.

- b. Move to the log type you want to add or remove, and display the list item menu by pressing **Ctrl_L** (or Keypad **Enter**).

The list item menu appears. The first menu item (Add) is highlighted.

- c. Move to the option you want:

| If you want to | Then move to |
|-------------------------------------|---------------------|
| add another NE log type to the list | Add |
| remove a NE log type from the list | Remove |

- d. Select the option you want by pressing the **space bar** (or Keypad **0**).

If Add was selected, the log type is added and the word “Include” appears beside it in the NE Logs list.

If Remove was selected, the log type is removed and the word “Exclude” appears beside it in the NE Logs list.

Note 1: If you have already added or removed the NE log type, the corresponding option is grayed out and not accessible.

Note 2: NE logs are not immediately transferred from the NE database to the OPC event browser database. An archiving level exists that you can provision (see “Setting the time between archiving cycles for NE logs” on page 5-12) or suspend. The event browser does not have to display NE logs.

—continued—

Procedure 5-4 (continued)
Filtering the events list

Step Action

16 The entry of filter data is now complete.

| If you want to | Then |
|---|---|
| save the data as a temporary filter for the current session | go to step 17 |
| remove the dialog without saving the data | Press Esc Del . OR Tab to the Cancel button, then press Ctrl_A (or Keypad 0). <i>The Events List Filter dialog disappears. Any data entered into the dialog is discarded, and filtering is unchanged.</i> You are now finished with the procedure. |
| save the data as the default filter | Tab to the Save button, then press Ctrl_A (or Keypad 0). <i>The filter you have defined is the default filter for the Event Browser. It does not become active in the current session unless you select the OK button.</i> Go to step 17. |
| replace the current data with the default filter | Tab to the Revert to last save button, then press Ctrl_A (or Keypad 0). <i>The Events List Filter dialog is filled with the default filter data. This filter does not become active in the current session unless you select the OK button.</i> Go to step 17. |

17 Press **Esc Return**.

OR

Tab to the OK button, then press **Ctrl_A** (or Keypad **0**).

The Events List Filter dialog disappears. The filter you have defined is in effect for the current session, and appears above the events list on the main window.

Now, only the events matching the filter criteria are displayed. Events that are not shown can still be displayed by changing the filter parameters.

—end—

Procedure 5-5

Setting the time between archiving cycles for NE logs

This procedure allows you to set the time between NE archiving cycles.

The OPC automatically goes through an archive cycle where it requests and processes logs for each NE under its span of control, one NE at a time. A user modifiable time interval dictates the amount of time between archiving cycles.

Time intervals can be set at 4, 8, 12, or 24 hours, by using the UNIX command line program `archint`. You can also suspend NE log archiving. The default value is 4 hours.

Requirements

To do this procedure, you must do the following:

- have a `userID` and password that allow you access to the OPC prompt
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|---|
| 1 | Log in to the OPC. <i>The OPC prompt appears.</i> |
| 2 | From the OPC prompt, display the NE log interval screen by typing: archint ↵ <i>The log interval screen appears.</i> |
| 3 | Type in the letter that corresponds to the required archive time interval. <i>The system displays a confirmation message indicating the time interval now in effect. The OPC prompt appears.</i> |

—end—

Procedure 5-6

Printing event details

Use this procedure to print event details. You can print the details of a single event, or you can select up to five events and print their details.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action | | | | | | |
|---|---|----------------|------------|--|--------|---|--------|
| 1 | <p>Log in to the OPC and open the Event Browser tool.</p> <p><i>The Event Browser main window appears. To view the window, see Procedure 5-1.</i></p> <p>When there are more network elements than can be displayed in the events list, you can scroll it a line at a time by pressing the up (and down) arrow keys.</p> | | | | | | |
| 2 | <p>You can select and print the details of up to five events at once from the events list, or you can print the details of an individual event while displaying its Event Details dialog.</p> <table border="1"> <thead> <tr> <th>If you want to</th> <th>Then go to</th> </tr> </thead> <tbody> <tr> <td>print an event from the Event Details dialog</td> <td>step 3</td> </tr> <tr> <td>print one to five events from the events list</td> <td>step 8</td> </tr> </tbody> </table> | If you want to | Then go to | print an event from the Event Details dialog | step 3 | print one to five events from the events list | step 8 |
| If you want to | Then go to | | | | | | |
| print an event from the Event Details dialog | step 3 | | | | | | |
| print one to five events from the events list | step 8 | | | | | | |
| 3 | <p>Tab to the events list.</p> <p><i>The current item in the events list is highlighted.</i></p> | | | | | | |
| 4 | <p>Move to the event you want to print, then press the space bar (or Keypad 0).</p> <p><i>The selected item appears in reverse video.</i></p> | | | | | | |
| 5 | <p>Display the list item menu by pressing Ctrl_L (or Keypad Enter).</p> <p><i>The list item menu appears.</i></p> | | | | | | |
| 6 | <p>Move to the Details command, then press the space bar (or Keypad 0).</p> <p><i>The Log Details dialog for the selected event appears.</i></p> | | | | | | |

—continued—

5-14 Viewing logs, alarms, and alerts

Procedure 5-6 (continued)
Printing event details

| Step | Action | | | | | | |
|-------------------|--|----------------|------------|-------------------|--------|----------------|---------|
| 7 | <p>Tab to the Print Details command, then press Ctrl_A (or Keypad 0).</p> <p><i>The details of the selected event are printed.</i></p> <p>Note: The Print Details command is not enabled if the port (3 for an ABM shelf, and B for a TBM shelf) is not defined for a printer. (See <i>System Administration Procedures</i>, 323-3001-302, in <i>Operations, Administration, and Provisioning</i>, Volume 4A, for procedures on configuring the OPC ports.)</p> <p>Go to step 11.</p> | | | | | | |
| 8 | <p>Move to the event you want to print, and select each event, up to a maximum of 5, by pressing Ctrl_Y (or Keypad .).</p> <p><i>Selected items appear in reverse video.</i></p> <p>You can select and print up to 5 events at once. If you select more than 5 events, the Print Details command is disabled.</p> | | | | | | |
| 9 | <p>Display the list item menu by pressing Ctrl_L (or Keypad Enter).</p> <p><i>The list item menu appears.</i></p> | | | | | | |
| 10 | <p>Move to the Print Details command, then press the space bar (or Keypad 0).</p> <p><i>The details of the selected events are printed.</i></p> <p>Note: The Print Details command is not enabled if the port (3 for an ABM shelf, and B for a TBM shelf) is not defined for a printer. (See <i>System Administration Procedures</i>, 323-3001-302, in <i>Operations, Administration, and Provisioning</i>, Volume 4A, for procedures on configuring the OPC ports.)</p> | | | | | | |
| 11 | <p>Tab to the Done button, then press Ctrl_A (or Keypad 0).</p> <p><i>The Event Details dialog disappears and the Event Browser main window appears.</i></p> | | | | | | |
| 12 | <p>You can print the details of more events or close the tool.</p> <table border="1"><thead><tr><th>If you want to</th><th>Then go to</th></tr></thead><tbody><tr><td>print more events</td><td>step 2</td></tr><tr><td>close the tool</td><td>step 13</td></tr></tbody></table> | If you want to | Then go to | print more events | step 2 | close the tool | step 13 |
| If you want to | Then go to | | | | | | |
| print more events | step 2 | | | | | | |
| close the tool | step 13 | | | | | | |
| 13 | <p>To close the tool:</p> <ol style="list-style-type: none">Display the Window menu by pressing Ctrl_L W (or Keypad 6).Select the Exit command by pressing the space bar (or Keypad 0). | | | | | | |

—end—

Monitoring alarms

This chapter contains procedures for monitoring the alarm counts for all the network elements in the OPC span of control, as well as for those in your specific user view. You can also get detailed information about individual alarms and print them out.

The Alarms list contains a one-line summary for each active alarm in the OPC span of control. The Alarms list does not contain logs, failed protections, lockouts, active protections, or performance data.

You can customize the Alarms list display so that it shows only the alarms that interest you, in the order that you want to see them. Also, you can customize the feedback for new alarms and your specific view of the network. In addition, you can set the updating of the Alarms list to automatic or manual.

After you identify an alarm, you can take appropriate action to clear it, as described in *Alarm and Trouble Clearing Procedures*, 323-3001-543, in this volume.

Note: The alarm database on the Network Element is cleared when a RESTART RELOAD occurs on the Network Element. When this database is cleared, all historical and current alarm information is lost to the Network Element. However, soon after the RESTART RELOAD is completed, the current alarm information is restored based on current conditions on the shelf.

For further information on the Alarm Monitor tool, see the description in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A.

Chapter contents

The following topics are included in this chapter. They can be performed at any time and in any order.

| Topic | See |
|---|------------|
| Procedure 6-1, Displaying a new alarm | page 6-3 |
| Procedure 6-2, Displaying an active alarm | page 6-5 |
| Procedure 6-3, Displaying the network protection summary | page 6-7 |
| Procedure 6-4, Defining the user view and its display options | page 6-8 |
| Procedure 6-5, Defining a filter | page 6-10 |
| Procedure 6-6, Changing the contents of the alarms list | page 6-13 |
| Procedure 6-7, Sorting the alarms list | page 6-14 |
| Procedure 6-8, Updating the alarms list | page 6-15 |
| Procedure 6-9, Printing alarm details | page 6-16 |

If you cannot successfully complete these procedures, contact your next level of support.

Procedure 6-1

Displaying a new alarm

Use this procedure to display a new alarm.

When a new alarm is raised, the count in the Network View and User View banner fields increases. You are notified of a new incoming alarm by a flashing, highlighting and/or beeping, based on how you have set your display options.

The Alarms list contains a one-line summary for each active alarm in the OPC span of control, and details are available for each alarm in a separate dialog. Cleared alarms remain displayed until the list is updated. The Alarms list does not contain logs, failed protections, lockouts, active protections, or performance data.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301*, in *Operations, Administration, and Provisioning, Volume 4A*

Action

| Step | Action |
|------|---|
| 1 | Log in to the OPC and open the Alarm Monitor tool. <i>The Alarm Monitor main window appears.</i> |
| 2 | Note any fields in the banner highlighted with inverse video, which indicates that new alarms of that category have arrived since the last reset. |
| 3 | In the left-most column of the Alarms list, look for one of the following symbols, which indicate a new alarm, and the severity of the alarm. ? alarm is suspect due to loss of communication or other conditions + a new alarm since the tool was started or highlighting was last cleared |
| 4 | Tab to the Alarms list. <i>The current list item is highlighted.</i> |

—continued—

6-4 Monitoring alarms

Procedure 6-1 (continued) Displaying a new alarm

| Step | Action |
|------|---|
| 5 | <p>Move to an alarm you want more information about, then press Ctrl_A (or Keypad 0).</p> <p><i>The selected item appears in reverse video.</i></p> <p>If there are any other alarms you want more information about (maximum 5), move to them and press Ctrl_Y.</p> <p><i>Selected items appear in reverse video.</i></p> |
| 6 | <p>Display the list item menu, by pressing Ctrl_L (or Keypad Enter).</p> <p><i>The list item menu appears.</i></p> |
| 7 | <p>Move to the Details command, then press Space (or Keypad 0).</p> <p><i>Alarm Details dialog(s) for the selected alarms appear.</i></p> |
| 8 | <p>Note any relevant information, such as the type and location of the unit generating the alarm, or Facility ID.</p> |
| 9 | <p>Select the Done button to close the dialog by pressing Ctrl_A (or Keypad 0).</p> <p><i>The Alarm Details dialog disappears.</i></p> |
| 10 | <p>Take appropriate action to deal with the alarm, as described in <i>Alarm and Trouble Clearing Procedures</i>, 323-3001-543, in this volume.</p> |
| 11 | <p>When you have dealt with all of the new alarms, you must explicitly reset the count of new alarms. First display the Tool menu, by pressing Ctrl_L T.</p> <p><i>The Tool menu appears.</i></p> |
| 12 | <p>Select the Clear highlighting command, by pressing Space (or Keypad 0).</p> <p><i>The count of new alarms is reset.</i></p> |
| 13 | <p>To close the tool:</p> <ol style="list-style-type: none">Display the window menu by pressing Ctrl_L W (or Keypad 6).Select the Exit command by pressing Space (or Keypad 0). <p><i>The tool disappears.</i></p> |

—end—

Procedure 6-2

Displaying an active alarm

Use this procedure to display any active alarm.

The Alarms list contains a one-line summary for each active alarm in the OPC span of control, and details are available for each alarm in a separate dialog. If you are updating the Alarms list manually, cleared alarms remain displayed until you update the list. The Alarms list does not contain logs, failed protections, lockouts, active protections, or performance data.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|--|
| 1 | Log in to the OPC and open the Alarm Monitor tool. <i>The Alarm Monitor main window appears.</i> |
| 2 | Tab to the alarms list. <i>The current list item is highlighted.</i> |
| 3 | Move to an alarm you want more information about, then press Ctrl_A (or Keypad 0). <i>The selected item appears in reverse video.</i> If you want more information about (maximum 5) any other alarms, move to them and press Ctrl_Y . <i>Selected items appear in reverse video.</i> |
| 4 | Display the list item menu, by pressing Ctrl_L (or Keypad Enter). <i>The list item menu appears.</i> |
| 5 | Move to the Details command, then press Space (or Keypad 0). <i>Alarm Details dialog(s) for the selected alarms appear.</i> |
| 6 | Note any relevant information, such as the type and location of the unit generating the alarm, or FacilityID. |
| 7 | Select the Done button to close the dialog by pressing Ctrl_A (or Keypad 0). <i>The Alarm Details dialog disappears.</i> |

—continued—

6-6 Monitoring alarms

Procedure 6-2 (continued)

Displaying an active alarm

| Step | Action |
|-------------|---|
| 8 | Take appropriate action to deal with the alarm, as described in <i>Alarm and Trouble Clearing Procedures</i> , 323-3001-543, in this volume. |
| 9 | To close the tool: <ol style="list-style-type: none">Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i>Select the Exit command by pressing Space (or Keypad 0). <i>The tool disappears.</i> |

—end—

Procedure 6-3

Displaying the network protection summary

Use this procedure to access protection summary data for network elements.

If you want to see more detailed information about the status of a protection group or to perform protection switching, you must log in to the network element remotely. First note the network element number, and service type that you will need to find the Detailed Protection screen you want.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|---|
| 1 | Log in to the OPC and open the Alarm Monitor tool. <i>The Alarm Monitor main window appears.</i> |
| 2 | Display the Options tool menu by pressing Ctrl_L T . <i>The menu appears.</i> |
| 3 | Move to the Protection Summary command, then press Space (or Keypad 0). <i>The Protection Summary dialog appears.</i> When there are more network elements than can be displayed in the Protection Summary dialog, press the up or down arrow key to scroll a line at a time. (For more information on scrolling, see <i>OPC User Interface Description</i> , 323-3001-301, in <i>Operations, Administration, and Provisioning</i> , Volume 4A.) |
| 4 | Note the type of the protected unit. |
| 5 | Select the Done button to close the dialog by pressing Ctrl_A (or Keypad 0). <i>The Protection Summary dialog disappears.</i> |
| 6 | To close the tool: <ol style="list-style-type: none"> a. Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i> b. Select the Exit command by pressing Space (or Keypad 0). <i>The tool disappears.</i> |

—end—

Procedure 6-4

Defining the user view and its display options

Use this procedure to define a user view of the network, which excludes the network elements that you are not responsible for monitoring.

Note: When you start up the Alarm Monitor for the very first time, the entire network is assigned to the user view.

You can also customize the display of new alarms in the user view section of the alarm banner. Changes in the alarm banner counts can be signalled by highlighting or beeping. The settings remain in effect until you change them.

If you have not defined a user view, or if the user view is equivalent to the network view, the user view banner line does not appear.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action |
|------|--|
| 1 | Log in to the OPC and open the Alarm Monitor tool. <i>The Alarm Monitor main window appears.</i> |
| 2 | Display the Tool menu, by pressing Ctrl_L T . <i>The menu appears.</i> |
| 3 | Move to the Display options command, then press Space (or Keypad 0). <i>The Alarm Monitor Display Options dialog appears. Some default settings are already selected for you.</i> Network elements in the user view are indicated by the word "Included" in the list at the bottom of the dialog. The categories of alarms (such as Critical, Major) appear at the top of the dialog. Feedback is configured separately for each category. |

—continued—

Procedure 6-4 (continued)

Defining the user view and its display options

- | Step | Action |
|------|---|
| 4 | <p>If you want to modify the user view:</p> <ol style="list-style-type: none">Tab to the Network Elements in user view list.Move to the network element you want to add or remove, then press Space (or Keypad 0). Display the list item menu, by pressing Ctrl_L (or Keypad Enter). <i>The list item menu appears. The first menu item (Add) is highlighted.</i>To add a network element, select Add by pressing Space (or Keypad 0). <i>The network element is added, and the word "Included" appears beside it in the NE list.</i>To remove a network element, move to the Remove command, then press Space (or Keypad 0). <i>The network element is removed, and the words Not included appears beside it in the list.</i> |
| 5 | <p>If you want to enable or disable beeping:</p> <ol style="list-style-type: none">Tab to the Beeps field beside the alarm category whose feedback you want to configure. <i>The field is highlighted.</i>Select the field by pressing Ctrl_A (or Keypad 0).Type the number of beeps you want (from 0 to 5). Note: Some terminals are not able to beep. |
| 6 | <p>If you want to save the new display options, tab to the OK button, then press Ctrl_A (or Keypad 0). <i>The Alarm Monitor Display Options dialog disappears, and the new display options take effect with the next new alarm.</i></p> |
| 7 | <p>To close the tool:</p> <ol style="list-style-type: none">Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i>Select the Exit command by pressing Space (or Keypad 0). <i>The tool disappears.</i> |

—end—

Procedure 6-5 Defining a filter

Use this procedure to specify the subset of alarms you wish to see in the Alarms list. You can display alarms by network element, by severity, or by time range.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301, in Operations, Administration, and Provisioning, Volume 4A*

Action

| Step | Action |
|------|---|
| 1 | Log in to the OPC and open the Alarm Monitor tool. <i>The Alarm Monitor main window appears.</i> |
| 2 | Tab to the Alarms list. <i>The current list item is highlighted.</i> |
| 3 | Display the Alarms list menu, by pressing Ctrl_L / (or Keypad 3). <i>The menu appears.</i> |
| 4 | Move to the Filter command, then press Space (or Keypad 0). <i>The Alarms List Filter dialog appears.</i> |
| 5 | If you want to change the maximum number of alarms displayed: <ol style="list-style-type: none">Tab to the Number of Alarms field, and display the list item menu by pressing Ctrl_L (or Keypad Enter). <i>The list item menu appears.</i> Note: This field is set to 100 each time the tool is started.Select the Select All command by pressing Space (or Keypad 0). <i>The data in the field is highlighted in reverse video.</i>Type the maximum number of alarms that you want displayed in the Alarms list. The number can be from 1 to 500. |
| 6 | If you want to change the network elements included in the Alarms list (and whose alarms will be displayed). <ol style="list-style-type: none">Tab to the Network Element list. <i>The current item in the list is highlighted.</i> |

—continued—

 Procedure 6-5 (continued)
Defining a filter

| Step | Action |
|----------|---|
| | <p>b. Move to the network element you want to add or remove, and display the list item menu by pressing Ctrl_L (or Keypad Enter).</p> <p><i>The list item menu appears. The first menu item (Add) is highlighted.</i></p> <p>c. To add a network element, select Add by pressing Space (or Keypad 0).</p> <p><i>The network element is added, and the word Included appears beside it in the NE list.</i></p> <p>d. To remove a network element, move to the Remove command, then press Space (or Keypad 0).</p> <p><i>The network element is removed, and the words Not included appear beside it in the list.</i></p> |
| 7 | <p>To add or remove an alarm severity type:</p> <p>a. Tab to the Severity buttons.</p> <p><i>The first Severity button (Critical) is highlighted.</i></p> <p>b. Move to the severity you want to add or remove, then press Ctrl_A (or Keypad 0).</p> <p><i>The mark beside the button appears or disappears (indicating selection or deselection).</i></p> |
| 8 | <p>To specify a time range:</p> <p>a. Tab to the from and to fields.</p> <p><i>The cursor appears in the field.</i></p> <p>b. To type your own time, use one of the following formats.</p> <p>day/month/year hr:min:sec Example: 9/03/92 10:15:37 OR day month year hr:min:sec Example: 9 mar 92 10:15:37</p> <p>Note: If you leave out the year, or month, or entire date, the system assumes you want the current year, month, or date. If you leave out the seconds, the system assumes you want zero seconds.</p> <p>c. To use a predefined offset time, press Ctrl_L / (or Keypad 3).</p> <p><i>The chooser menu appears.</i></p> <p>Move to the predefined offset time you want, then press Space (or Keypad 0).</p> <p><i>The predefined offset time appears in the field.</i></p> <p>d. Repeat for the other time range field if required.</p> |

—continued—

6-12 Monitoring alarms

Procedure 6-5 (continued)
Defining a filter

Step Action

9 The entry of filter data is now complete.

| If you want to | Then |
|---|--|
| save the data as a temporary filter for the current session | step 10 |
| remove the dialog without saving the data | Press Esc Delete OR Tab to the Cancel button, then press Ctrl_A (or Keypad 0). <i>The Alarms List Filter dialog disappears. Any data entered into the dialog is discarded, and filtering is unchanged. You are now finished with the procedure.</i> |
| save the data as the default filter | Tab to the Save button, then press Ctrl_A (or Keypad 0). <i>The filter you have defined is the default filter for the Alarm Summary. It does not become active in the current session unless you select the OK button.</i> Go to step 10. |
| replace the current data with the default filter | Tab to the Revert to last save button, then press Ctrl_A (or Keypad 0). <i>The Alarm List Filter dialog is filled with the default (last) filter data. This filter does not become active in the current session unless you select the OK button.</i> Go to step 10. |

10 Press **Esc Return**.

OR

Tab to the OK button, then press **Ctrl_A** (or Keypad **0**).

The Alarms List Filter dialog disappears. The filter you have defined is in effect for the current session, and appears above the Alarms list on the main window.

The selected alarms are added to the alarms currently in the display until a maximum of 500 is reached. After this, alarms are dropped from the display. However, they can still be selected by changing the filter.

—end—

Procedure 6-6

Changing the contents of the alarms list

Use this procedure to modify the Alarms list display so that it shows only new alarms, or active alarms.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action | | | | | | |
|---|---|----------------------------|--------------|---|------------|------------|---------------|
| 1 | Log in to the OPC and open the Alarm Monitor tool. <i>The Alarm Monitor main window appears.</i> | | | | | | |
| 2 | Display the Tool menu by pressing Ctrl_L T . <i>The tool menu appears.</i> | | | | | | |
| 3 | Move to the Show all command, and then move to the cascade menu by pressing the right Arrow key. | | | | | | |
| 4 | Move to the option in the cascade menu that you want: <table border="1" data-bbox="527 1192 1409 1344"> <thead> <tr> <th>If you want to view alarms</th> <th>Then move to</th> </tr> </thead> <tbody> <tr> <td>that have arrived since the last time you used the Clear highlighting command</td> <td>new alarms</td> </tr> <tr> <td>all alarms</td> <td>active alarms</td> </tr> </tbody> </table> | If you want to view alarms | Then move to | that have arrived since the last time you used the Clear highlighting command | new alarms | all alarms | active alarms |
| If you want to view alarms | Then move to | | | | | | |
| that have arrived since the last time you used the Clear highlighting command | new alarms | | | | | | |
| all alarms | active alarms | | | | | | |
| 5 | Press Space (or Keypad 0) to select the option. <i>The Alarms list is updated to show only the alarms you selected.</i> | | | | | | |
| 6 | Return to the procedure that sent you here. | | | | | | |

—end—

Procedure 6-7

Sorting the alarms list

Use this procedure to sort the alarms. The current sort order appears above the Alarm list.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action | | | | | | | | |
|--|--|----------------------------|--------------|---|-------------|--|--------------------|--|---------|
| 1 | Log in to the OPC and open the Alarm Monitor tool. <i>The Alarm Monitor main window appears.</i> | | | | | | | | |
| 2 | Tab to the Alarms list, and display the Alarms list menu by pressing Ctrl_L / (or Keypad 3). <i>The list menu appears.</i> | | | | | | | | |
| 3 | Move to the Sort command, and then move to the cascade menu by pressing the right Arrow key. <i>The first item in the cascade menu is highlighted.</i> | | | | | | | | |
| 4 | Move to the option in the cascade menu that you want: <table><thead><tr><th>If you want to view alarms</th><th>Then move to</th></tr></thead><tbody><tr><td>by alarm severity (that is, critical alarms first, then major alarms, then minor alarms etc.)</td><td>by severity</td></tr><tr><td>for each network element in a group, and ordered by the most recent (for example, OPC alarms first, then network element alarms)</td><td>by network element</td></tr><tr><td>in their reverse chronological order, most recent ones first</td><td>by time</td></tr></tbody></table> | If you want to view alarms | Then move to | by alarm severity (that is, critical alarms first, then major alarms, then minor alarms etc.) | by severity | for each network element in a group, and ordered by the most recent (for example, OPC alarms first, then network element alarms) | by network element | in their reverse chronological order, most recent ones first | by time |
| If you want to view alarms | Then move to | | | | | | | | |
| by alarm severity (that is, critical alarms first, then major alarms, then minor alarms etc.) | by severity | | | | | | | | |
| for each network element in a group, and ordered by the most recent (for example, OPC alarms first, then network element alarms) | by network element | | | | | | | | |
| in their reverse chronological order, most recent ones first | by time | | | | | | | | |
| 5 | Select the option by pressing space (or Keypad 0). <i>The Alarms list is updated to show the alarms in the sort order you selected. The new sort order appears above the Alarms list.</i> | | | | | | | | |

—end—

Procedure 6-8

Updating the alarms list

Use this procedure to add incoming new alarms to the list. You can choose to update the list automatically or manually. The data in the Alarms list are updated automatically when Auto Update List is turned on. If you select Auto Update List, the Update list command is disabled.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301, in Operations, Administration, and Provisioning, Volume 4A*

Action

| Step | Action |
|------|--|
| 1 | <p>Log in to the OPC and open the Alarm Monitor tool.</p> <p><i>The Alarm Monitor main window appears.</i></p> <p>Note: The contents of the Alarms list can be updated automatically or manually. Automatic updating can be switched on or off. Manual updating is available only when automatic updating is off.</p> |
| 2 | <p>To turn automatic updating on or off:</p> <ol style="list-style-type: none"> a. Tab to the Auto Update List button. <p><i>The button is highlighted. If a mark appears within the brackets beside the button, automatic updating is active.</i></p> b. To toggle it on or off, select the button by pressing Ctrl_A (or Keypad 0). <p><i>Automatic updating is enabled if not currently active, or disabled if currently active. The mark in the brackets beside the button indicates the new status.</i></p> |
| 3 | <p>To update the list manually (make sure the automatic updating is turned off):</p> <ol style="list-style-type: none"> a. Tab to the Alarms list, and display the Alarms list menu by pressing Ctrl_L / (or Keypad 3). <p><i>The menu appears.</i></p> b. Move to the Update List command, then press Space (or Keypad 0). <p><i>All new alarms are added to the list, and cleared ones are removed.</i></p> <p>Note: A new alarm needs to occur for the Update List command to become available from the time you turned off Auto Update.</p> |

—end—

Procedure 6-9

Printing alarm details

Use this procedure to print the details of an alarm. You can print the details of a single alarm, or you can select up to five alarms and print their details.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description, 323-3001-301, in Operations, Administration, and Provisioning, Volume 4A*

Action

| Step | Action | | | | | | |
|---|--|----------------|------------|--|--------|---|--------|
| 1 | Log in to the OPC and open the Alarm Monitor tool. <i>The Alarm Monitor main window appears.</i> When there are more alarms than can be displayed in the Alarms list, you can scroll it a line at a time by pressing the up and down arrow keys. | | | | | | |
| 2 | You can select and print the details of up to 5 alarms at once from the Alarms list, or you can print the details of an individual alarm while displaying its Alarm Details dialog. <table><thead><tr><th>If you want to</th><th>Then go to</th></tr></thead><tbody><tr><td>print an Alarm from the Alarm Details dialog</td><td>step 3</td></tr><tr><td>print one to five alarms from the Alarms list</td><td>step 8</td></tr></tbody></table> | If you want to | Then go to | print an Alarm from the Alarm Details dialog | step 3 | print one to five alarms from the Alarms list | step 8 |
| If you want to | Then go to | | | | | | |
| print an Alarm from the Alarm Details dialog | step 3 | | | | | | |
| print one to five alarms from the Alarms list | step 8 | | | | | | |
| 3 | Tab to the Alarms list. <i>The current item in the Alarms list is highlighted.</i> | | | | | | |
| 4 | Move to the alarm you want to print, then press Space (or Keypad 0). <i>The selected item appears in reverse video.</i> | | | | | | |
| 5 | Display the list item menu by pressing Ctrl_L (or Keypad Enter). <i>The menu appears.</i> | | | | | | |
| 6 | Move to the Details command, then press Space (or Keypad 0). <i>Alarm Details dialog for the selected alarm appears.</i> | | | | | | |
| 7 | Tab to the Print Details button, then press Ctrl_A (or Keypad 0). <i>The details of the selected alarm are printed.</i> Note: The Print Details command is not enabled if the port (3 for an ABM shelf, and B for a TBM shelf) is not defined for a printer. Go to step 11. | | | | | | |

—continued—

 Procedure 6-9 (continued)
 Printing alarm details

| Step | Action | | | | | | |
|-------------------|--|----------------|------------|-------------------|--------|----------------|---------|
| 8 | Move to the alarms you want to print, then press Ctrl_Y . <i>Selected items appear in reverse video.</i> | | | | | | |
| 9 | Display the list item menu by pressing Ctrl_L (or Keypad Enter). <i>The menu appears.</i> Note: If you select more than 5 alarms, the Print Details command is disabled. | | | | | | |
| 10 | Tab to the Print Details command, then press Space (or Keypad 0). <i>The details of the selected alarms are printed.</i> Note: The Print Details command is not enabled if the port (3 for an ABM shelf, and B for a TBM shelf) is not defined for a printer. | | | | | | |
| 11 | You can now print the details of more alarms or close the tool. <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">If you want to</th> <th style="text-align: left;">Then go to</th> </tr> </thead> <tbody> <tr> <td>print more alarms</td> <td>step 2</td> </tr> <tr> <td>close the tool</td> <td>step 12</td> </tr> </tbody> </table> | If you want to | Then go to | print more alarms | step 2 | close the tool | step 12 |
| If you want to | Then go to | | | | | | |
| print more alarms | step 2 | | | | | | |
| close the tool | step 12 | | | | | | |
| 12 | To close the tool: a. Display the Window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i> b. Select the Exit command by pressing Space (or Keypad 0). <i>The tool disappears.</i> | | | | | | |

—end—

Logging in to a network element from the OPC

The NE Login Manager tool is located in the Utilities toolset. It allows you to log in to a node from the operations controller (OPC). (In this chapter, a node refers to a network element.) You can log in to the local node (which is collocated with the OPC) or a remote node (any other node in the system to which the OPC has connectivity). The tool displays a list of nodes that you can log in to.

The NE Login Manager allows you to log in using either the userID and password you provided earlier or another userID and password for this login session. The maximum number of NE login sessions from an OPC is 12.

Remember to log out from a node when you no longer need the connection.

For further information on the NE Login Manager tool, see the description in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration and Provisioning*, Volume 4A.

Chapter contents

The following topic is included in this chapter. It can be performed at any time.

| Topic | See |
|---|----------|
| Procedure 7-1, Logging in to a network element from the OPC | page 7-3 |

If you cannot successfully complete this procedure, contact your next level of support.

Restrictions and limitations

You must manually update the list of available nodes, using the Refresh list button or command. Additions to the system can take up to a minute before they are listed when you refresh the list. Deletions can take up to 20 minutes.

After you have logged in to a node, you can perform any of the operations that can normally be done on a network element. However, the Break key does not perform its usual function. Instead, you must use Ctrl_B.

After you log in to a node, you cannot use the rlogin command to remotely log in to another network element or OPC. While logged in to a remote node, you may notice slower response times.

After four incorrect login attempts (userID and password do not match), further login attempts are prevented.

Procedure 7-1

Logging in to a network element from the OPC

Use the following procedure to log in to a node from the OPC.

The maximum number of NE login sessions from an OPC is 12.

Note 1: The Network Element field is case sensitive. Either select the node from the Available Nodes list or type the network element name exactly as it appears in the list.

Note 2: If you are denied access to the node, you can return to the NE Login Manager main window by doing the following. Press **Ctrl_B**. When the question mark (?) prompt appears, type "logout" then press the Return key.

Requirements

To do this procedure, you must do the following:

- have a userID and password that allow you access to the OPC
- read the command conventions for the type of interface you are using (CMT or graphical) in *OPC User Interface Description*, 323-3001-301, in *Operations, Administration, and Provisioning*, Volume 4A

Action

| Step | Action | | | | | | |
|---|--|--------|------|---|---|---|--------------|
| 1 | Log in to the OPC and open the NE Login Manager tool. <i>The NE Login Manager main window appears.</i> | | | | | | |
| | <table border="1"> <thead> <tr> <th>If you</th> <th>Then</th> </tr> </thead> <tbody> <tr> <td>know the network element ID or name you want to use</td> <td>type the ID or name directly in the Network Element field. Go to step 4.</td> </tr> <tr> <td>do not know the network element name or ID that you want to use</td> <td>go to step 2</td> </tr> </tbody> </table> | If you | Then | know the network element ID or name you want to use | type the ID or name directly in the Network Element field. Go to step 4. | do not know the network element name or ID that you want to use | go to step 2 |
| If you | Then | | | | | | |
| know the network element ID or name you want to use | type the ID or name directly in the Network Element field. Go to step 4. | | | | | | |
| do not know the network element name or ID that you want to use | go to step 2 | | | | | | |
| 2 | Tab to the Available Nodes list. Use the scroll bar if necessary to locate the network element that you want to log in to. | | | | | | |
| 3 | In the list, move to the node that you want, then press Ctrl_A (or Keypad 0). | | | | | | |

—continued—

7-4 Logging in to a network element from the OPC

Procedure 7-1 (continued)

Logging in to a network element from the OPC

| Step | Action | | | | | | |
|--|--|----------------|------------|--|--------|--|--------|
| 4 | <p>The ID (and name) of the selected node appears in the Network Element field.</p> <table><thead><tr><th>If you want to</th><th>Then go to</th></tr></thead><tbody><tr><td>log in without reentering your userID and password</td><td>step 5</td></tr><tr><td>log in using another userID and password</td><td>step 6</td></tr></tbody></table> | If you want to | Then go to | log in without reentering your userID and password | step 5 | log in using another userID and password | step 6 |
| If you want to | Then go to | | | | | | |
| log in without reentering your userID and password | step 5 | | | | | | |
| log in using another userID and password | step 6 | | | | | | |
| 5 | <p>To log in without reentering your userID and password, tab to the Auto login button, then press Ctrl_A (or Keypad 0). <i>If a connection is possible at this time, you are logged in directly to the node. The main menu of the network element user interface appears. You can now enter network element commands.</i></p> <p>Note: Auto login only works if the userID and password you used to log in to the OPC is also valid for the selected Network Element. Go to step 7.</p> | | | | | | |
| 6 | <p>To log in by specifying a userID and password:</p> <ol style="list-style-type: none">Tab to the Login button, then press Ctrl_A (or Keypad 0). <i>A blank screen appears, followed by the userID prompt.</i>Type your network element userID and press the Return key. <userID> ↵ <i>The password prompt appears.</i>Type your password and press the Return key. <password> ↵ <i>If the userID and password are correct, and connection is possible at this time, you are logged in to the node. The main menu of the network element user interface appears. You can now enter network element user interface commands.</i> | | | | | | |
| 7 | <p>When you no longer need the connection, log out from the network element by typing: logout ↵ <i>A message appears, prompting you to press the Return key.</i></p> | | | | | | |
| 8 | <p>To return to the NE Login Manager main window, press the Return key again. <i>The NE Login Manager tool main window appears.</i></p> | | | | | | |
| 9 | <p>To close the tool:</p> <ol style="list-style-type: none">Display the window menu by pressing Ctrl_L W (or Keypad 6). <i>The window menu appears.</i>Select Exit by pressing Space (or Keypad 0). <i>The tool disappears.</i> | | | | | | |

—end—

Alarm display procedures

This chapter contains the procedures required to display any active alarm in the network. Procedure conventions are given next to this to make the procedures easy to follow and the screens easy to read.

Note: The alarm database on the network element is cleared when a RESTART RELOAD occurs on the network element. When this database is cleared, all historical and current alarm information is lost to the network element. However, soon after the RESTART RELOAD is completed, the current alarm information is restored based on current conditions on the shelf. The OPC Alarm Monitor Tool is the one that provides archiving of network element alarm history.

Chapter contents

If you cannot successfully complete these procedures, contact your next level of support.

| Topic | See |
|---|-----------|
| Procedure 8-1, Displaying active alarms | page 8-3 |
| Procedure 8-2, Displaying new alarms | page 8-4 |
| Procedure 8-3, Displaying an alarm report | page 8-5 |
| Procedure 8-4, Displaying a detailed alarm report | page 8-6 |
| Procedure 8-5, Displaying active alarms according to class and severity | page 8-7 |
| Procedure 8-6, Updating the list of active alarms | page 8-8 |
| Procedure 8-7, Displaying telemetry input port | page 8-9 |
| Procedure 8-8, Displaying alarm history | page 8-10 |

The following is a list of symbols used in this chapter:

| Symbol | Meaning |
|---------------|--|
| ∅ | Press Return once |
| NE | Network Element |
| Sh | Shelf |
| MORE... | Press return to display more information |
| Class | Type of alarms; facility, equipment or environment |
| . | Normal condition or no alarm |
| Alm | Alarm (message) |
| AL | Alarms (command) |
| C | Critical alarm |
| M or Mi | Major alarm |
| m or Mi | Minor alarm |
| w | Warning |
| nsa | Non service-affecting |
| SA | Service-affecting |
| Cctpk | Circuit pack |
| GX | Group X |
| CE | Common equipment |
| OC | Optical carrier |
| DS | Digital signal |
| ACO | Alarm cut-off |
| FA | Facility alarm |
| EQ | Equipment alarm |
| EN | Environment alarm |
| Next | Next alarm in order of alarm report ID |
| Prev | Previous alarm in order of alarm report ID |
| B | Show previous 10 alarm points |
| F | Show next 10 alarm points |
| Unit | Equipment or service type that is in alarm |
| Almpts | Alarm points |
| Sil | Remove current screen highlighting (silence) |
| Fac | Facility |
| Eqp | Equipment |

Procedure 8-1

Displaying active alarms

Use this procedure to display an active alarm summary of the network element. You can display up to 50 active alarms.

Requirements

- You must be logged on the NE user interface and be at the main menu (mapci;fwpui) level.
- You must be familiar with the VT100-type NE user interface. For a reminder of how to use the interface, read the command conventions described in *Network Element User Interface Description, 323-3001-300*, in *Operations, Administration, and Provisioning, Volume 4A*.

Action

| Step | Action |
|------|--------|
|------|--------|

- | | |
|---|--|
| 1 | Access the alarms. Enter: alarms ↵ <i>A screen showing the active alarms appears.</i> |
|---|--|

—end—

Procedure 8-2

Displaying new alarms

Use this procedure to display up to 10 new alarms

Requirements

- You must be logged on the NE user interface and be at the main menu (mapci;fwpu) level.
- You must be familiar with the VT100-type NE user interface. For a reminder of how to use the interface, read the command conventions described in *Network Element User Interface Description*, 323-3001-300, in *Operations, Administration, and Provisioning, Volume 4A*.

Action

| Step | Action |
|------|--------|
|------|--------|

| | |
|---|---------------------------|
| 1 | Access the alarms. Enter: |
|---|---------------------------|

alarms ↵

| | |
|---|--|
| 2 | Display the list of new alarms. Enter: |
|---|--|

newalms ↵

A screen appears after you complete this procedure.

—end—

Procedure 8-3

Displaying an alarm report

Use this procedure to display an alarm report that contains detailed information about a current or historical alarm.

Each alarm is identified on screen by a unique alarm report number. Use this number to identify a specific alarm.

Requirements

- You must be logged on the NE user interface and be at the main menu (mapci;fwpui) level.
- You must be familiar with the VT100-type NE user interface. For a reminder of how to use the interface, read the command conventions described in *Network Element User Interface Description*, 323-3001-300, in *Operations, Administration, and Provisioning*, Volume 4A.

Action

| Step | Action |
|------|--|
| 1 | <p>Access the alarms screen and display the parameters. Enter:</p> <p>alarms ↵</p> <p><i>The alarms screen with the parameters appears.</i></p> |
| 2 | <p>Display the alarm report. Enter:</p> <p>almrpt <alarm #> ↵</p> <p>where:</p> <p><alarm #> is the number corresponding to the one-line alarm report under the heading Alm.</p> <p><i>A screen appears after you complete this procedure.</i></p> <p style="text-align: center;">—end—</p> |

Procedure 8-4

Displaying a detailed alarm report

Use this procedure to display a detailed alarm report. A detailed alarm report contains the most information about a specific alarm. It shows all the information for an alarm report, and whether the alarm is raised, locked, or unchanged.

The detailed alarm report also gives you access to a menu of commands that let you directly access the port, equipment or facility that is causing the alarm.

Requirements

- You must be logged on the NE user interface and be at the main menu (mapci;fwpu) level.
- You must be familiar with the VT100-type NE user interface. For a reminder of how to use the interface, read the command conventions described in *Network Element User Interface Description*, 323-3001-300, in *Operations, Administration, and Provisioning*, Volume 4A.

Action

| Step | Action |
|------|--|
| 1 | Access the alarms screen and display the parameters. Enter: alarms ↵ <i>The alarms screen with the parameters appears.</i> |
| 2 | Display the detailed alarm report. Enter: dtlalms <alarm #> ↵ where: <alarm #> is the number corresponding to the one-line alarm report under the heading Alm. If you do not specify an alarm number, the most severe alarm is selected. <i>A screen appears after you complete this procedure.</i> |

—end—

Procedure 8-5

Displaying active alarms according to class and severity

Use this procedure to display active alarms according to class and severity.

Requirements

- You must be logged on the NE user interface and be at the main menu (mapci;fwpu) level.
- You must be familiar with the VT100-type NE user interface. For a reminder of how to use the interface, read the command conventions described in *Network Element User Interface Description*, 323-3001-300, in *Operations, Administration, and Provisioning*, Volume 4A.

Action

| Step | Action |
|------|--|
| 1 | <p>Access the alarms screen and display the parameters. Enter: alarms ↵</p> <p><i>The alarms screen with the parameters appears.</i></p> |
| 2 | <p>Specify the criteria for the alarms in which you are interested. Enter: filter <class> or <severity> ↵</p> <p>where:</p> <p><class> is fa (for facility), eq (for equipment), en (for environmental) or all (for all of the above)</p> <p><severity> is c (for critical), ma (for major), mi (for minor) or w (for warning)</p> <p>Note: You can select only one parameter. For example, you can choose either ma (to display all major alarms) or eq (to display all equipment alarms). However, if you choose both eq and ma, you do not get a display of all major equipment alarms.</p> <p><i>A screen appears after you complete this procedure.</i></p> <p style="text-align: center;">—end—</p> |

Procedure 8-6

Updating the list of active alarms

Use this procedure to refresh the list of active alarms in the list of one-line alarm reports.

Requirements

- You must be logged on the NE user interface and be at the main menu (mapci;fwpui) level.
- You must be familiar with the VT100-type NE user interface. For a reminder of how to use the interface, read the command conventions described in *Network Element User Interface Description, 323-3001-300*, in *Operations, Administration, and Provisioning, Volume 4A*.

Action

| Step | Action |
|------|---|
| 1 | Access the alarms screen and display the parameters. Enter: alarms ↵ <i>The alarms screen with the parameters appears.</i> |
| 2 | Update the list of active alarms. Enter: update ↵ <i>The alarm screen refreshes and shows the latest alarms in the list of one line alarm reports.</i> |

—end—

Procedure 8-7

Displaying telemetry input port

Use this procedure to display the provisionable telemetry input port screen for the scan point in context. If no port has been provisioned for the given alarm, you are prompted for a port.

Requirements

- You must be logged on the NE user interface and be at the main menu (mapci;fwpui) level.
- You must be familiar with the VT100-type NE user interface. For a reminder of how to use the interface, read the command conventions described in *Network Element User Interface Description*, 323-3001-300, in *Operations, Administration, and Provisioning*, Volume 4A.
- Pin-outs for the telemetry ports can be found in *Commissioning and Testing*, Volume 3.

Action

| Step | Action |
|------|---|
| 1 | <p>Access the alarms screen and display the parameters. Enter: alarms ↵</p> <p><i>The alarms screen with the parameters appears.</i></p> |
| 2 | <p>Display the telemetry port parameters. Enter: dtlalms <alarm #> ↵</p> <p>where: <alarm #> is the telemetry input alarm which appears under the Alm column.</p> |
| 3 | <p>Display the telemetry port parameters. Enter: port ↵</p> <p>If you attempt the port command on an alarm that is not a telemetry alarm, the following message appears: "The Port command is only valid with a Telemetry Input Alarm."</p> <p><i>A screen appears after you complete this procedure.</i></p> |

—end—

Procedure 8-8

Displaying alarm history

Use this procedure to display up to the 50 most recent alarm events in the alarm screen buffer for the selected or in-context NE. The alarms are sorted by timestamp with the most recent being displayed first.

Requirements

- You must be logged on the NE user interface and be at the main menu (mapci;fwpui) level.
- You must be familiar with the VT100-type NE user interface. For a reminder of how to use the interface, read the command conventions described in *Network Element User Interface Description*, 323-3001-300, in *Operations, Administration, and Provisioning*, Volume 4A.

Action

| Step | Action |
|------|--------|
|------|--------|

1 Access the alarms screen and display the parameters. Enter:
alarms ↵

The alarms screen with the parameters appears.

2 Display the alarm history. Enter:
history ↵

A screen appears after you complete this procedure.

3 For details of an alarm, enter:

dtlalms <alarm #> ↵

OR

almrpt <alarm #> ↵

where:

<alarm #> is the alarm number listed in the Alm column.

—end—

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Publication number: 323-3001-510

Document release: Issue 1.0

Date: February 1999

Printed in Canada

