



Jetstream[®] JetVision

User's Guide

Release 2.6

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Appendix A JetVision Menu Map

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Preface

This *JetVision User's Guide* provides instructions for using JetVision software on Windows or Solaris computers. This guide explains how to use JetVision to configure, provision, and monitor Paradyne Jetstream equipment in broadband networks.

For information on how to install JetVision on Windows and Solaris platforms, refer to *JetVision Installation*.

Audience

The *JetVision User's Guide* is written for network operations center personnel who manage and maintain voice gateway networks. It is assumed that these personnel are familiar with telecom equipment, telecom network management software, and telecom terminology. In particular, the reader should be familiar with Paradyne Jetstream equipment and terminology.

JetVision Bundled Utilities

JetVision provides two utility programs that are automatically installed with the JetVision server: InfoCenter and jetutil. You can use InfoCenter to

- Start and stop JetVision and its related services
- Back up or restore Oracle database
- Adjust the size of historical alarm
- Add the geographical network map
- Change Data Collector Server values
- Customize colors on Integrated Monitor

You can run `jetutil` anytime to help with system diagnostics. `Jetutil` enables you to check the following:

- Operating system information (i.e., memory, disk space, etc.)
- Individual services (i.e., Apache and Oracle)
- JetVision Database (i.e., Oracle version, schema structure, etc.)
- Oracle error messages
- System health check
- System requirement (perform this check before installing JetVision)

New in This Release

Release 2.6 of JetVision includes the following enhancements:

- T1 Channel Associated Signaling (CAS) Interface Group
- Loop Emulation Service (LES) CAS Integrated Access Device (IAD)
- E&M Wink Start Signaling

JetVision features

The following table lists JetVision features.

Features	Description
CPX-1000 Configuration	<p>JetVision Server can manage up to 100 CPX-1000 units at a time. With backward compatibility, the JetVision 2.6 Client allows you to configure the CPX-1000 2.5 release.</p> <p>Besides BITS clock and multiple VPI/VCI settings, JetVision also supports Common Language Location Identifier (CLLI), Cell Delay Variation (CDV) for Frame Relay and ATM protocols and Line Build Out (LBO).</p>
Provisioning Interface Groups for T1 and STS-1	<p>JetVision supports RT provisioning and up to nine IGs can be provisioned, including T1 CAS.</p> <p>JetVision enables PPS settings and allows switchover on selected EOC and TMC.</p>

Features	Description
Protection Groups for PSTN and ATM	A Protection Group provides a logical mapping for two ports, where only one port is active at a time and another port is in a standby state. Up to six PSTN and four ATM PGs can be provisioned. JetVision also supports ATM APS configuration.
IAD Profiles	JetVision provides a variety of default profiles.
IADs	<p>JetVision supports RT provisioning and up to 8,192 IADs can be provisioned.</p> <p>Besides dynamic compression, JetVision also supports a null (0) Call Reference Value (CRV). This feature allows for a more effective use of the CRV IAD assignments when less than a full set of ports are required to be provisioned for the IAD.</p> <p>JetVision allows bulk IAD provisioning and IAD cloning.</p>
Performance monitoring	JetVision includes performance monitoring tools to analyze the performance of CPX-1000. When initiated, JetVision polls various statistics for both the real-time performance monitoring and historical data monitoring.
Alarms reporting	JetVision enables browsers to monitor both the active and historical alarms. Each browser provides filtering capability so that you can define the criteria for which the browser displays alarms.
Troubleshooting and maintenance	<p>Auto and manual backup of CPX-1000 configuration.</p> <p>Switchover: JetVision allows you to initiate a switchover, where two redundant cards exchange their active/standby states.</p> <p>Hot swap: JetVision allows you to hot swap (planned or unplanned) a card on module without affecting the operation of the CPX-1000.</p> <p>Loop back: JetVision provides a diagnostics tool to test the inbound traffic.</p> <p>In addition, you can maintain and upgrade the software for associated IADs.</p>
Integrated Monitor	A diagnostic tool to provide an a real-time view of the health of a CPX-1000 and its associated managed domain.
Security	JetVision provides multiple user-privilege levels to control access to JetVision and CPX-1000, and for report viewing.

Organization

The *JetVision User's Guide* is organized as follows:

- Chapter 1, *Getting Acquainted*, provides information about the JetVision graphical user interface (GUI), as well as information about starting JetVision Server, and starting JetVision Client for Windows and Solaris computers.
- Chapter 2, *Administration*, provides instructions to add CPX-1000 to the JetVision managed domain and to create grouping of CPX-1000 units in a network.
- Chapter 3, *CPX-1000 Configuration*, provides instructions to configure a CPX-1000.
- Chapter 4, *Protection Group Provisioning*, provides instructions to provision ATM and PSTN Protection Groups.
- Chapter 5, *Interface Groups Provisioning*, provides instructions to provision the T1, T1 CAS, and STS-1 Interface Groups.
- Chapter 6, *IAD Profile Provisioning*, provides instructions to provision IAD Profiles.
- Chapter 7, *IAD Provisioning*, provides instructions to provision and clone a single or multiple IADs.
- Chapter 8, *Network Resource Manager*, shows how to use the Network Resource Manager for Call Admission Control.
- Chapter 9, *JetVision Groups and Users*, provides instructions to create and administer JetVision user groups and users.
- Chapter 10, *CPX-1000 Users*, provides instructions to create and administer CPX-1000 users.
- Chapter 11, *Web Browser Users*, provides instructions to add, modify, and delete Apache Web server user IDs and passwords.
- Chapter 12, *Alarms*, provides alarms information and instructions to customize alarm filters to view both active and historical alarms.
- Chapter 13, *Reports*, provides instructions to generate and view different reports.
- Chapter 14, *Statistics*, provides instructions to poll error and performance statistics for real-time and historical data monitoring.

- Chapter 15, *Maintenance*, provides instructions to hot swap cards, back up and restore the CPX-1000 configuration, and switch the CP cards.
- Chapter 16, *Integrated Monitoring*, provides instructions to launch the Integrated Monitor and interpret the operational status of each entity it monitors.
- Chapter 17, *InfoCenter Services*, provides instructions to use InfoCenter.
- Chapter 18, *Jetutil Diagnostics*, provides instructions to use a utility tool to help with system diagnostics.
- Appendix A, *JetVision Menu Map*, provides a hierarchical overview of the JetVision Client menu options.
- Appendix B, *Statistics Descriptions*, provides descriptions for statistics used in JetVision.
- Appendix C, *Alarm Summary*, provides a summary of event and error alarms used in JetVision.
- Index

Related Documents

Complete documentation for this product is available online at www.paradyne.com. Select *Support* → *Technical Manuals* → *Jetstream Media Gateway Systems*.

- *JetVision Installation*
Describes how to install JetVision on Windows and Solaris platforms.
- *CPX-1000 Voice Services Platform Installation and Operation*
Describes features and characteristics of the CPX-1000 equipment, provides procedures to install the equipment, and provides instructions to troubleshoot and repair the CPX-1000.
- *JetCraft User's Guide*
Describes how to install and use JetCraft.

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Symbols

Pay special attention to symbols with text next to them, because they contain important information. This document uses the following special symbols:



Voice/Data Interruption

This symbol alerts you to procedure that disrupts voice traffic.



Note

Throughout this guide, the pointing finger highlights important information. Be sure to read this information.



Tip

This symbol points to helpful information.

Getting Acquainted

This chapter provides information about the JetVision graphical user interface (GUI), as well as information about starting JetVision Server, and starting JetVision Client on Windows and Solaris computers. This chapter includes these topics:

- Starting JetVision (Server and Client) on Windows (page 1-2)
- Starting JetVision (Server and Client) on Solaris (page 1-4)
- Reconnecting to JetVision Server (page 1-6)
- JetVision screens (page 1-7)
- JetVision configuration task flow (page 1-16)

JetVision is a Java application that provides the primary element management interface to the CPX-1000. It can be used to centrally manage the CPX-1000 equipment at multiple locations. JetVision provides a full suite of management capabilities, as well as supporting interfaces, to higher-level Network Management Systems (NMS). The client-server architecture of JetVision supports multiple remote and local client sessions on Windows and Solaris environments.

Windows Platform

Starting JetVision Server

Starting JetVision Server requires that you log on with administrator privileges.

If the autostart option was selected with the JetVision installation, JetVision Server automatically starts after you boot the host computer (refer to *JetVision Installation*). If the autostart option was not selected, you can start JetVision Server one of three ways:

1. Click the JetVision Server icon (Figure 1–1) on the desktop.



Figure 1–1. JetVision Server Icon

2. Click Start > Programs > Jetstream > JetVision Server from the JetVision Programs menu.
3. Type `startemsserver.bat` at the command window.

A PM History and DbMonitor windows appear, followed by a JetVision Server window, showing the status of the Apache http server and three Oracle instances. After which, the server is ready.



Notes

You can minimize all console windows or keep them in the background; but do not close them. Closing any of these windows will terminate the corresponding application.

The JetVision Server will stop running if the window is closed. Because both the PM History and DbMonitor interact with JetVision Server; their functions will be compromised if JetVision Server is closed.

Starting JetVision Client

Before you can start JetVision Client, JetVision Server must be running on the host computer.

To start JetVision Client:

Step 1

Double-click the JetVision Client icon (Figure 1-2) on the desktop.



Figure 1-2. JetVision Client Icon

– Or –

Click Start > Programs > Jetstream > JetVision Client from the JetVision Programs menu.

– Or –

Type *startemsclient.bat* at the command window.

The JetVision Login window (Figure 1-3) appears.



Figure 1-3. JetVision Login Window

Step 2

Type the IP address or host name of the JetVision Server in the Server IP field.



Note

If you are connecting via NAT, type the address that is outside of the NAT network, i.e., the unused address local to the NAT subnet.

Step 3 Type the server name of the computer into the `Server Name` field. The default server name is the same as the host computer.



Notes

The Server name is the same as the Host name.

To find the JetVision Server ID and Host names, go to Control panel > Network > Identification.

Step 4 Type the user ID and password in their respective fields.

- If this is the first time you are starting JetVision Client, type `jsems` (default user ID) in the `User ID` field. Otherwise, type your assigned JetVision user ID.
- If this is the first time you are starting the JetVision Client, type `jsems123` (default password) in the `Password` field. Otherwise, type your assigned JetVision password.

Step 5 Click OK.

Solaris Platform

Starting JetVision Server requires that you log on with administrator privileges.

Starting JetVision Server

If the autostart option was selected with the JetVision installation, verify the JetVision Server has started by using this command:

```
ps -eaf | grep startemsserver
```

If the autostart option was not selected with the JetVision installation, follow these steps:

Step 1 Go to the JetVision Server installation directory and find the `startemsserver.sh` file.

Step 2 Type the appropriate UNIX shell command. For example,

```
cd /opt/jetstream/emsserver_v25/bin
./startemsserver.sh
```

Step 3 Verify that JetVision Server started by using the following command:

```
ps -eaf | grep startemsserver
```

Starting JetVision Client

Before you can start JetVision Client, JetVision Server must be running on the host computer.

To start JetVision Client:

Step 1 Locate the `startemsclient.sh` file in the JetVision Client installation directory.

Step 2 Type the appropriate UNIX shell commands. For example:

```
cd /opt/jetstream/emsclient_v25/bin
./startemsclient.sh
```

The JetVision Login window appears (Figure 1-4).

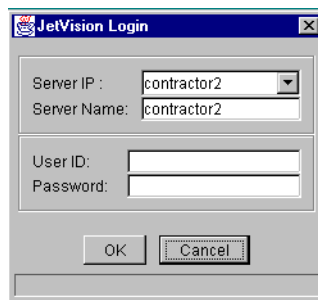


Figure 1-4. JetVision Login Window

Step 3 Type the IP address or host name of the JetVision Server in the `Server IP` field.



Note

If you are connecting via NAT, type the address that is outside of the NAT network (i.e., the unused address local to the NAT subnet).

Step 4 Type the server name of the computer into the `Server Name` field. The default server name is the same as the host computer.

Step 5

Type the user ID and password in their respective fields.

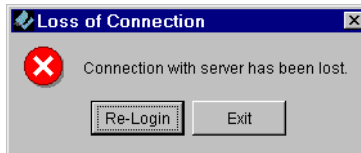
- If this is the first time you are launching JetVision Client, type *jsems* (default user ID) in the `User ID` field. Otherwise, type your assigned JetVision user ID.
- If this is the first time you are starting the JetVision Client, type *jsems123* (default password) in the `Password` field. Otherwise, type your assigned JetVision password.

Step 6

Click OK.

Reconnecting to JetVision Server

When connectivity is lost to the JetVision Server, the following dialog box appears:



Click Re-Login.

- For Windows, type your user ID and password in their respective fields when the JetVision Login window reappears.
- For Solaris:
 - Verify that JetVision Server started by using the following command:

```
ps -eaf | grep startemsserver
```
 - If PID (Process ID) is missing, change to the appropriate directory and invoke the shell command. For example,

```
cd /opt/jetstream/emsserver_v25/bin
./startemsserver.sh
```
 - When the JetVision Login window appears, type your user ID and password in their respective fields.

JetVision Screens

After successfully logging on to JetVision Client, JetVision Main screen appears (Figure 1-5). This screen is divided into six sections:

- the menu bar
- toolbar icons
- Tree View, Map View (changes to Shelf View when the Shelf icon is selected)
- alarm indicators
- status bar

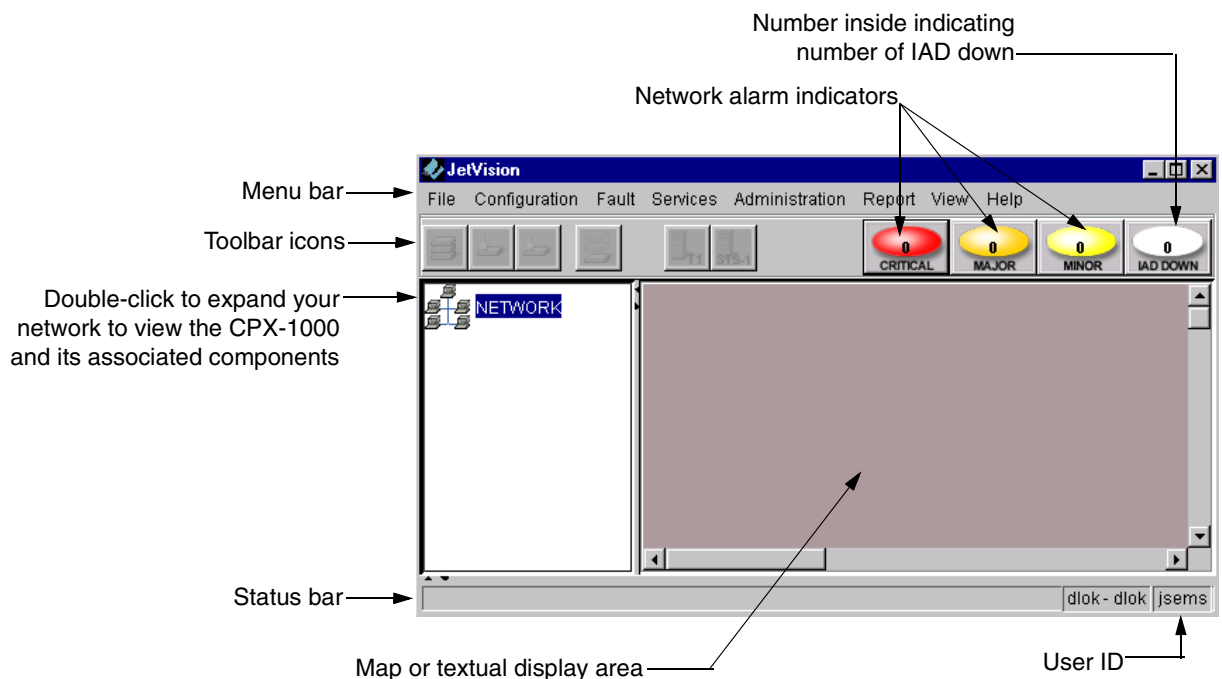


Figure 1-5. JetVision Main Screen

You can access commands from the menu bar, toolbar icons, and by right-clicking objects in the Tree and Map views. For a complete listing of options available for each menu and icons, refer to Appendix A, JetVision Menu Map.

You can choose to view JetVision objects either in geographical or textual presentation, but only one presentation is visible at one time. You can switch between the two presentation at any time, and the presentation you selected will remain in effect until you change it.

To switch between the two presentations, select the desired option from the View menu.

Menu Bar

To use the JetVision menus to perform an operation, make sure that you have access to this operation and that you have selected an appropriate CPX-1000 managed object for the operation. If your access to the operation is restricted, that menu selection is grayed out.

Seven menus provide JetVision operations:

- File
- Configuration
- Fault
- Services
- Administration
- Report
- View

The Help menu provides a quick look-up of JetVision procedures. It also provides an easy and convenient way to view information about JetVision.

For a complete listing of the options available for each menu, refer to Appendix A, JetVision Menu Map.

Toolbar Icons

Click a CPX-1000 icon in the Tree view to display the toolbar icons. Five icons are used as shortcuts to some menu selections (Figure 1-6).

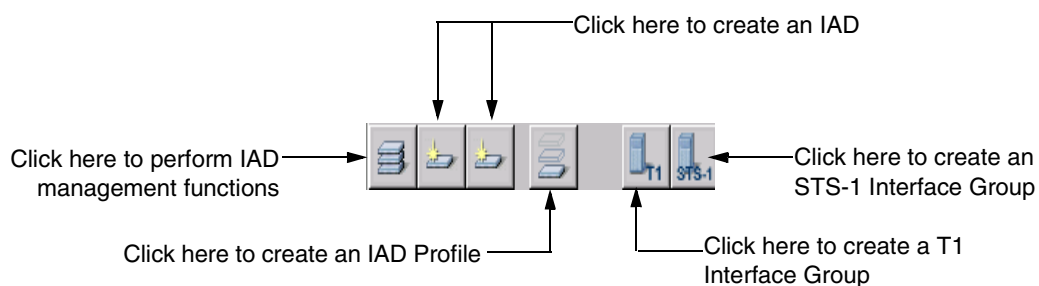


Figure 1-6. Toolbar Icons




Note

All toolbar icons are enabled only when the CPX-1000 icon is selected.

Tree View

The Tree view (Figure 1-7) provides a hierarchal “exploded” view of the CPX-1000 shelf. A plus sign (+) next to the CPX-1000 icon indicates that shelves are assigned to that CPX-1000. The name of the card includes the slot number and the name and number of the port. For example: a card labelled “07-CP-A” indicates that slot 7 contains the primary Control Processor (CP) card.

Double-click the network icon to expand and view your network. To expand and view the structure of the CPX-1000 cards, either double-click  on the Tree View or click the plus sign (+) next to that icon.

You can also use the Tree View to quickly find specific shelf or alarm information. Right-click an element icon to select a graph from the menu or select a report from the Fault or Services menu.

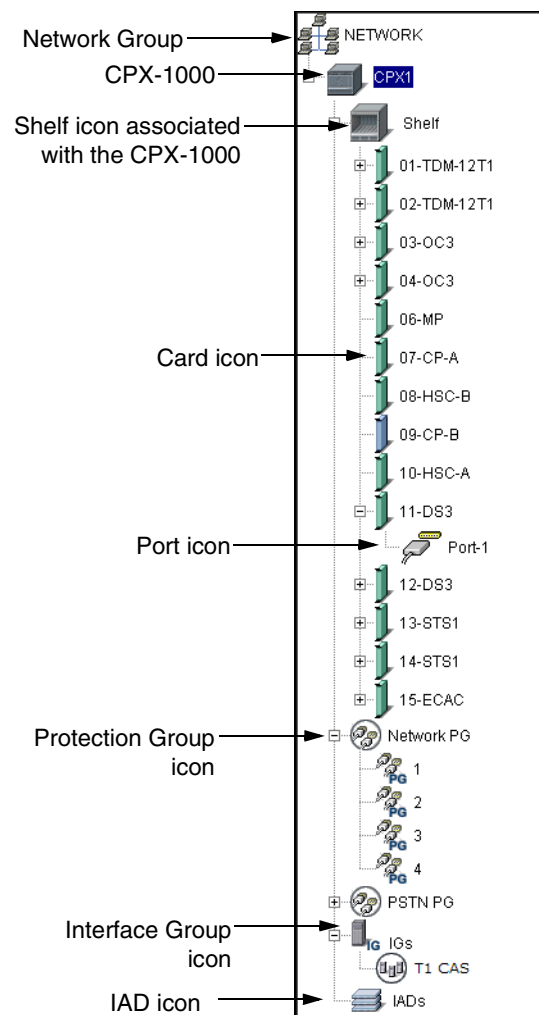


Figure 1-7. Tree View

Geographic Map View

When Map View is selected from the View menu, a geographic map is displayed in the background and the CPX-1000 units you have created are displayed (Figure 1-8). If necessary, you can move the CPX-1000 to any location on the map, and the CPX-1000 will remain on that location until you move it the next time.

JetVision provides one background geographic map. For instructions to change the background map, refer to Chapter 2, Administration, For instructions about adding maps to the depository, refer to Chapter 17, InfoCenter Services.

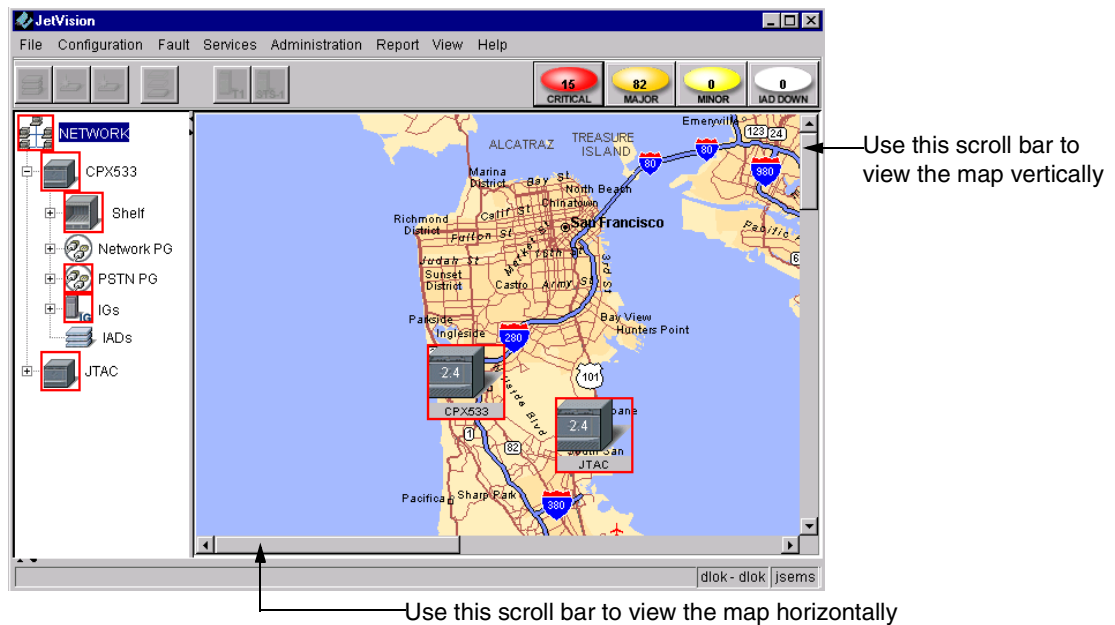


Figure 1-8. Geographic Map View

Textual View

The textual view allows you to view all information related to the selected JetVision objects simultaneously (Figure 1–9). To display the textual view, select **List View** from the View menu.

You can sort, rearrange, and resize the columns. Click the column header to sort the columns. The sorting order is toggled between descending and ascending orders. You can also rearrange the order of the columns by dragging-and-dropping a column in the header area. To resize the columns, drag the divider between the columns.



Note

The rearrangement and resizing of the column are not persistent in the current release.

Name	Card Type	Admin State	Operational State	Sw. Version	Hw. Version	Fw. Version
02-TDM-8T1	T1 Card	Unlocked	Enabled	N/A	1	r06.07.61
03-TDM-8T1	T1 Card	Unlocked	Enabled	N/A	1	r06.07.61
04-ST51	ST51 Card	Unlocked	Enabled	2.4.0.9157	F	2.4.0.9157
05-TDM-12T1	12T1 Card	Unlocked	Enabled	2.4.0.9157	F	2.4.0.9157
06-MP	MPCard	Unlocked	Enabled	2.4.0.0		
07-CP-A	CP Card	Unlocked	Enabled	JetCpx 2.4.0.91...	N/A	N/A
08-HSC-B	BridgeCard	Unlocked	Enabled			
09-CP-B	CP Card	Unlocked	Enabled	JetCpx 2.4.0.91...	N/A	N/A
10-HSC-A	BridgeCard	Unlocked	Enabled			
11-ST51	ST51 Card	Unlocked	Enabled	2.4.0.9157	A	2.4.0.9157
12-ST51	ST51 Card	Unlocked	Enabled	2.4.0.9157	A	2.4.0.9157
13-OC3	AtmCard	Unlocked	Enabled	4.3.3.11 SoOpt...	N/A	5.152
14-OC3	AtmCard	Unlocked	Enabled	4.3.3.11 SoOpt...	N/A	5.152
15-EC	EchoCard	Unlocked	Enabled	2.3.11	IM010662	2.6.0.8

Figure 1–9. List View

Network Map View

When the IAD icon on the Tree View is selected, the map is changed to the Network Map View. Use the Network Map view (Figure 1–10) to select and view configuration, performance, and alarm information about the CPX-1000 and IADs. Right-click an element and view configuration or report information.

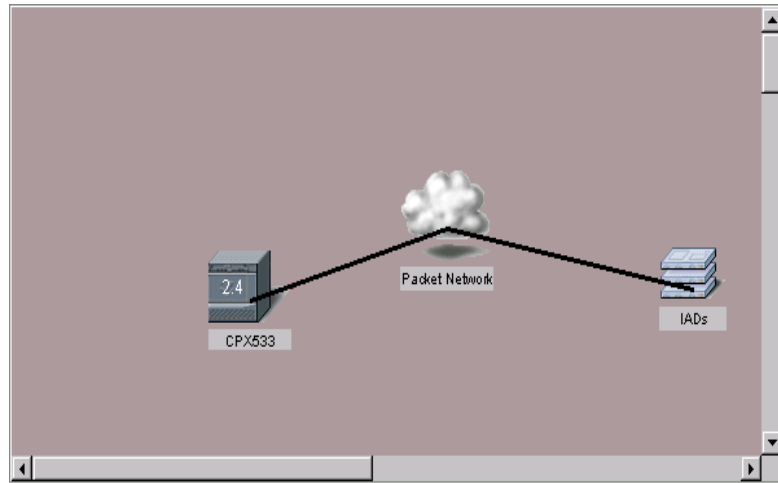









Figure 1–10. Network Map View

Table 1–1 describes icons in the Tree and Map views.

Table 1–1. Icons Description

Tree View Icon	Description
	CPX-1000 icon: displays the Tree View to select a specific managed object (shelf, Interface Group, Protection Group, or IAD).
	Shelf icon: displays the Shelf view to select a specific shelf (card or port).
	Card icon: selects a card and view the card configuration or report information.
	Port icon: selects a port to perform an operation.
	IAD icon: selects a specific IAD to perform an operation.
	Protection Group icon: selects a Protection Group (ATM or PSTN) to perform an operation.
	Interface Group icon: selects an Interface Group (STS-1 or T1) to perform an operation.

Shelf View

Use the Shelf view (Figure 1–11) to select and view configuration, performance, and alarm information about CPX-1000 cards and ports. Right-click a card or port to view configuration or status information.

The color shown indicates the states of the cards: green for active and blue for standby. The two CP and an MP cards are located in fixed slots assignment. The primary CP occupies slot 7 with its corresponding primary HSC card in slot 10. The secondary CP occupies slot 9 with its corresponding secondary HSC card in slot 8. The MP card occupies slot 6. Other line cards slot assignments does not have fixed slot assignments and are detected at startup. The ECAC card requires two side-by-side slots.

For a description of individual cards, refer to *CPX-1000 Voice Services Platform Introduction and Technical Description*.

Table 1–2 lists the types of cards that are currently available.

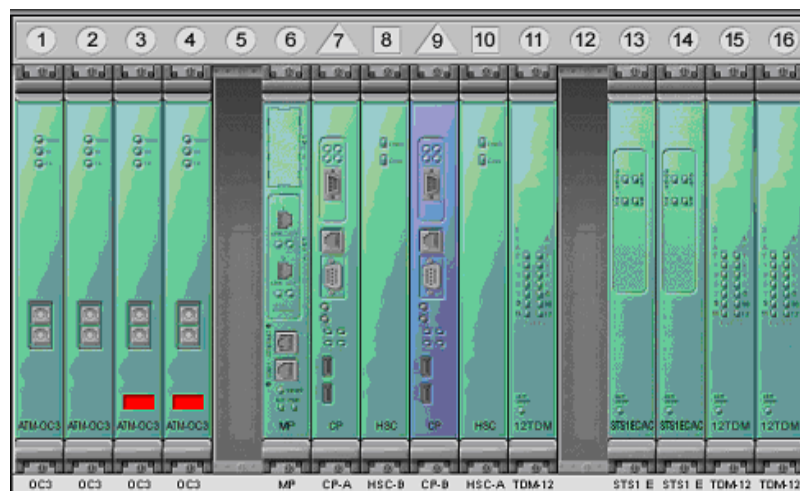


Figure 1–11. Shelf View

Table 1–2. CPX-1000 Card Descriptions

Card Type	Abbreviation	Description
ATM-DS3	ATM-DS3	ATM DS-3 card
ATM-OC3	ATM-OC3	ATM OC-3 card
Call Processor	CP-A and CP-B	Control Processor card
HSC	HSC-A and HSC-B	Hot Swap Controller card
Management Processor	MP	Management Processor card
STS-1	STS-1	Synchronous Transport Signal Level 1 card
TDM-12T1	TDM-12T1	12-Port TDM T1 card

Alarm Indicators

Network alarms appear as colored oval indicators (Figure 1–12) on the right-hand side of the menu bar. Each color indicates the severity of the alarm (Table 1–3). A number displayed inside the oval indicates the number of alarms reported for that level of severity.

For more information on alarms, refer to Chapter 12, Alarms.

**Figure 1–12. Alarm Indicators**

Table 1-3. Network Alarm Indicator Definitions

Alarm Indicator	Alarm Severity
Red (Critical)	A severe, service-affecting condition has occurred; require immediate corrective action regardless of the time of day or day of the week.
Yellow (Major)	A serious disruption of service or a malfunction or failure of important circuits has occurred; require immediate corrective action and response to restore or maintain system capabilities.
Light yellow (Minor)	A non-service-affecting condition has occurred; no immediate corrective action is necessary.
White (IAD Down)	An IAD is no longer in service; require immediate corrective action.

Status Bar

Alarm events and messages are displayed in the status bar. Two colors are used to indicate the type of message: blue for status and red for error. The names of the login user and JetVision Server are also displayed at the right side of the status bar.

Where to go Next

First, follow the instructions in Chapter 2, Administration, to add CXP-1000 to the JetVision managed domain. Then follow the task flow shown in Figure 1-13. It's your preference whether to first perform configuration and provisioning or to set up groups and users. However, when you are within the task group, make sure to perform the tasks in the order presented. For example, if you choose to perform configuration and provisioning first, you must finish configuring the CPX-1000 before provisioning the Interface Groups.

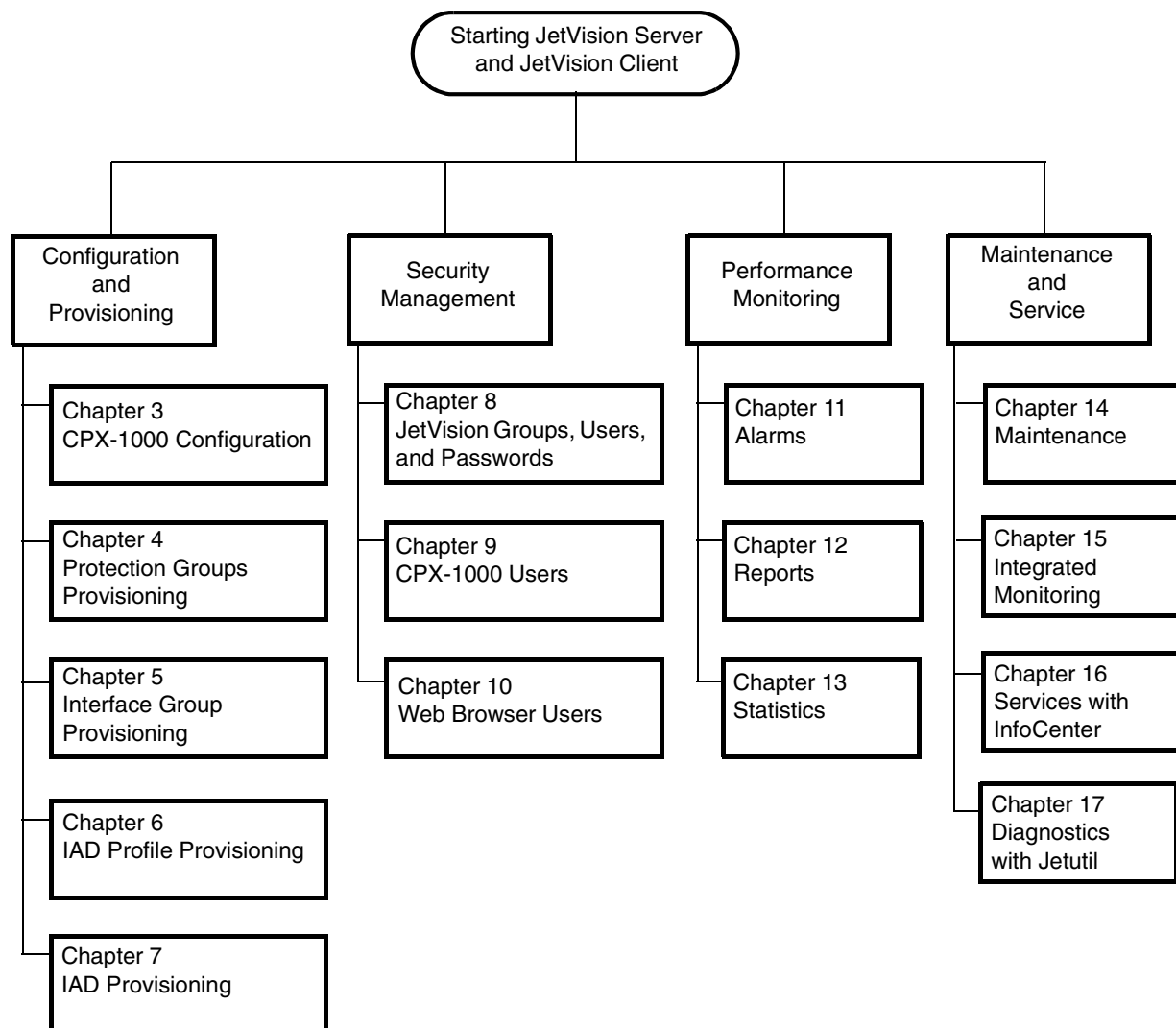


Figure 1-13. JetVision Task Flow Chart

Administration

The JetVision Server can manage up to 20 CPX-1000 units at a time. To manage a large number of CPX-1000s, JetVision allows arbitrary and logical grouping of CPX-1000s in a network. These logical groups can be nested within other groups to form a hierarchy of groups of CPX-1000. Up to six levels can be nested within a group. The maximum number of nodes supported in a group is two times the CPX-1000 in the system. For example, if you have 10 CPX-1000 units in your system, you can create 20 nodes.

This chapter provides instructions to include these tasks:

- Adding a CPX-1000 (page 2-2)
- Updating CPX-1000 information (page 2-3)
- Removing a CPX-1000 (page 2-4)
- Adding a group (page 2-4)
- Modifying a group (page 2-5)
- Deleting a group (page 2-6)
- Moving a group (page 2-6)
- Finding a CPX-1000 location (page 2-7)
- Monitoring JetVision Sessions (page 2-8)

JetVison automatically discovers all CPX-1000 managed elements when a CPX-1000 is added to the JetVision managed domain. The state of each CPX-1000 managed element is continuously monitored. The CPX-1000 managed elements include

- MP card
- CP cards
- Line cards and ports
- Associated IADs



Note

Before putting the CPX-1000 to service, ensure that the IP address (Chapter 3, CPX-1000 Configuration) as well as date and time is accurate (Chapter 15, Maintenance).

Adding a CPX-1000

To add a CPX-1000:

- Step 1** Click the group icon from the Tree View where the CPX-1000 will be added.
- Step 2** Select **Create CPX** from the Configuration menu. The Add CPX window appears (Figure 2-1).




Figure 2-1. Add CPX Window

- Step 3** Enter information in the following fields:
- **Name:** An identifier for the CPX-1000 consisting of 4 to 16 alphanumeric characters (no spaces, hyphens, or special characters).
 - **IP Address:** If DNS is running, enter the CPX-1000 name in this field.
 - **User:** Type *cpxuser* (default user ID).
 - **Password:** Type *cpxuser* (default password).
- Step 4** Click **OK**. The CPX-1000 you created appears in the Tree and Map views.



Note

An out-of-sync icon  and a gray-out CPX-1000 image appear in the Map View during initialization. When the initialization process completes, the icon disappears and the color of the CPX-1000 returns to gray.

Updating CPX-1000 Information

- When you use JetCraft to change CPX-1000 information, such as IP address, you can update the CPX-1000 with JetVision.
- To update CPX-1000 information:
- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
 - Step 2** Click a CPX-1000 and expand the tree.
 - Step 3** Click the CPX-1000 icon from the Tree View.
 - Step 4** Select `Update CPX Info` from the Administration menu. The Update CPX Info window appears (Figure 2-2).



Figure 2-2. Update CPX Info Window

- Step 5** Click OK to accept the changes.

Removing a CPX-1000



Caution

Removing a CPX-1000 configuration deletes all JetVision information stored from the database for that CPX-1000.

To remove a CPX-1000:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click the CPX-1000 icon from the Tree View.
- Step 4** Select **Remove CPX** from the Configuration menu. A prompt appears, asking if you want to remove the CPX-1000.
- Step 5** Click **Yes** to remove the CPX-1000. The CPX-1000 icon is removed from the Tree, Geographic, and Network Map views.

Adding a Group

To add a group:

- Step 1** Select **Create Group** from the Administration menu. The Add Group window appears (Figure 2-3).

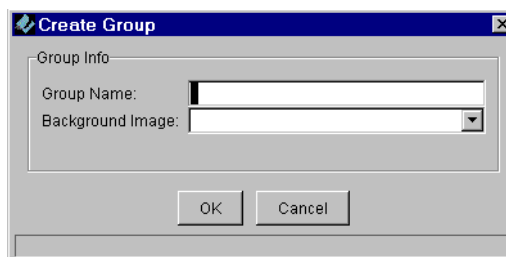


Figure 2-3. Add Group Window

- Step 2** Type the name of the group in the Group Name field. (The name consists of 4–16 alphanumeric characters.)



Note

You can use two special characters dash (-) and underscore (_) with the name of the group.

Step 3


Optionally, select the background map from the drop-down list. (The background map displays in the Map View when this group is selected.)



Note

The map images are stored in a repository. Refer to Chapter 17, InfoCenter Services, for depositing images into the repository.

Step 4

Observe the Tree and Map views. A network icon  with the new group name is inserted in both views.

Modifying a Group

To modify a group:

Step 1

Click a group icon in the Tree or Map views.

Step 2

Select **Modify Group** from the Administration menu. The Modify Group window appears (Figure 2-4).

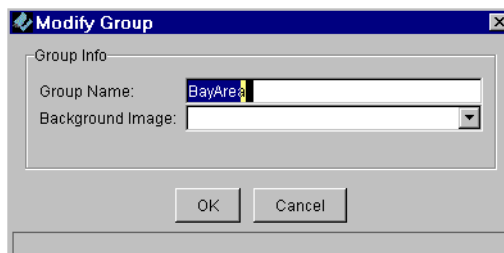


Figure 2-4. Modify Group Window

Step 3

Modify the fields, as necessary (Adding a Group on page 2-4).

Deleting a Group

You cannot delete the default Network group or a group with CPX-1000 units and sub-groups associated to it.

To delete a group,

- Step 1** Click a group icon in the Tree or Map views.
- Step 2** Select `Remove Group` from the Administration menu. A message appears, asking if you want to delete the selected group.
- Step 3** Click `Yes`. The group is deleted.

Moving a Group

JetVision allows you to move one group to another after a group is created. The move does not affect the tree structure or the alarms information; however, the move changes the location of the group node within the group hierarchy.

When a group is moved, all the sub-groups and the CPX-1000 units in the group move with it, and the sub-tree remains the same after the move. All propagated alarms of this groups also go with the new group.

There are three conditions when a move is not allowed:

1. You cannot move the default Network group.
2. You cannot move to a group where the new parent group already contains a group with the same name.
3. You cannot move a group to under any of its descendant groups.

To move a group, drag the desired group node and drop it on the new parent group node or the Network node in the Tree View.

Finding CPX-1000

Step 1

JetVision allows you to locate a CPX-1000 in the group hierarchy by name. To locate a CPX-1000:

Select **Find CPX** from the Administration menu. The Find CPX window appears (Figure 2-5).

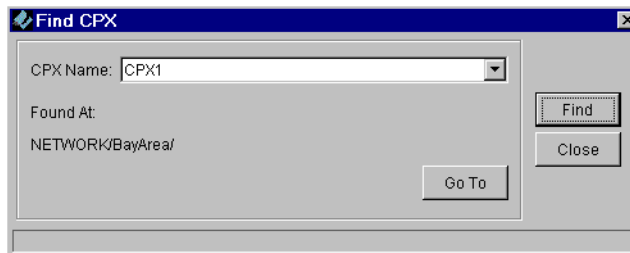


Figure 2-5. Find CPX Window

Step 2

Type or select the name of the CPX-1000 from the CPX Name drop-down list.

When the CPX-1000 is found, its full path is displayed in the Found panel.

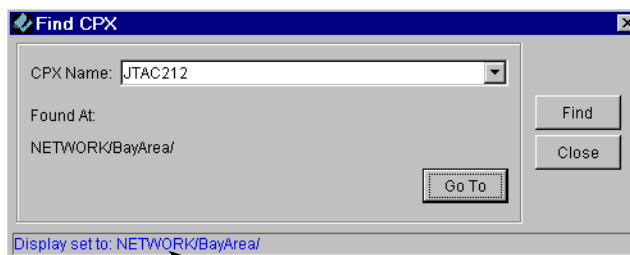


Note

Wild card searching is not supported. Ensure to enter the name of the CPX-1000 exactly the same as it appears in the Tree View.

Step 3

Click **Go To**. A message appears on the status line as shown in Figure 2-6, and the found CPX-1000 is highlighted and displayed in the Main screen.



Displayed message

Figure 2-6. Find CPX Window with Message Displayed

Monitoring JetVision User Sessions

JetVision allows you to learn the identity and location of active JetVision users.

To monitor user sessions:

Step 1

Select `JetVision User Sessions` from the `Services` menu. The `JetVision User Sessions` window appears (Figure 2–7).

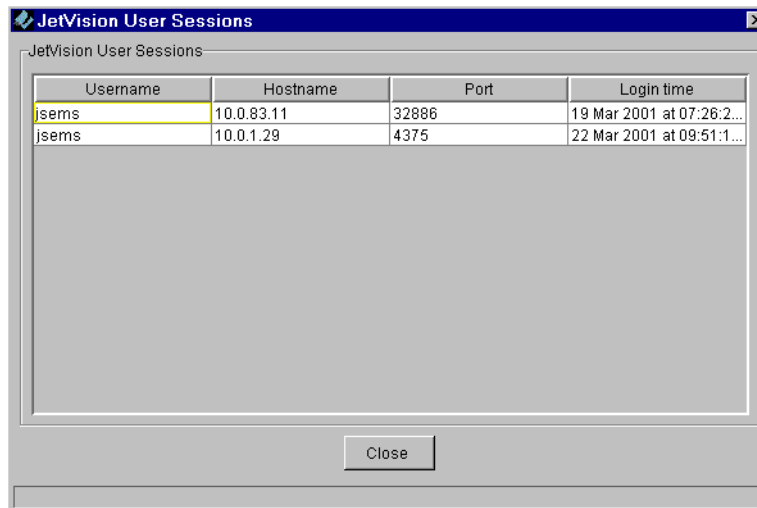


Figure 2–7. JetVision User Sessions Window

Step 2

Review the login information.

Step 3

Click `Close` when done.

CPX-1000 Configuration

This chapter provides instructions to configure the CPX-1000 Voice Services Platform. This chapter includes these tasks:

- Changing the IP address (page 3-2)
- Configuring global VCI settings (page 3-3)
- Setting CDV value (page 3-5)
- Setting LBO value (page 3-6)
- Configuring STS-1 card (page 3-7)
- Setting the clock source (page 3-8)
- Annotating CPX-1000 location (page 3-12)

The JetVision Server can manage up to 100 CPX-1000 units at a time. With backward compatibility, JetVision 2.6 Client allows you to configure the CPX-1000 2.5 release. However, you can configure only features that exist in the loaded release. For example, the T1 CAS Interface Group is a 2.6 feature which can be used on the 2.6 release but not on the 2.5 release.

Changing the CPX-1000 IP Address

Each CPX-1000 is shipped with a default IP address (10.0.10.100) that is used during turn-up. Because there might be more than one CPX-1000 installed in the network, we recommend changing the default IP address as soon as possible to a unique address to avoid addressing conflicts.



Tip

Before changing the IP address, obtain a list of IP addresses for each CPX-1000 in the network.

To change the CPX-1000 IP address:

- Step 1** Click the network icon from the Tree View where the CPX-1000 resides and expand the tree by clicking the + key.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click the Shelf icon associated with the CPX-1000, and select the MP card from the Tree or Shelf View.
- Step 4** Select IP Configuration from the Services menu. The CPX IP Configuration window appears (Figure 3-1).

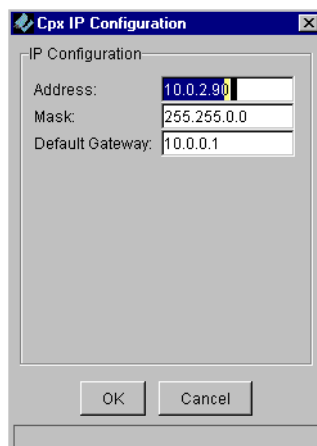
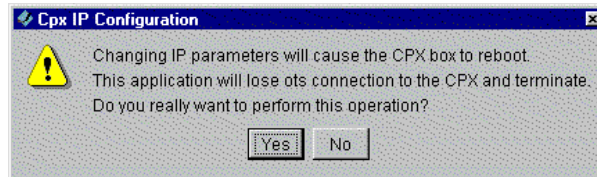


Figure 3-1. CPX IP Configuration Window

- Step 5** Type the IP address, subnet mask, and default gateway in the appropriate fields.
- Step 6** Click OK. A dialog box appears, asking you if you want to reboot the CPX-1000.



Warning

Rebooting the MP card interrupts service.

Step 7

Click Yes.

- When the CPX-1000 reboots, your changes are accepted.
- If you click No, your changes will not take effect.



Note

After you reboot the CPX-1000, we recommend that you exit and re-login to JetCraft.

Configuring Global VCI Settings

The default VCI value is 1024.

You can change the VCI value only when there are no IADs provisioned to the CPX-1000.



Warning

Changing the VCI value requires rebooting the CPX-1000. Rebooting the CPX-1000 drops all calls.

To set the VCI value:

- Step 1** Click a desired CPX-1000 from the Tree View.
- Step 2** Select **Configure Global System** from the Services menu. The Global System Setting window appears (Figure 3–2).

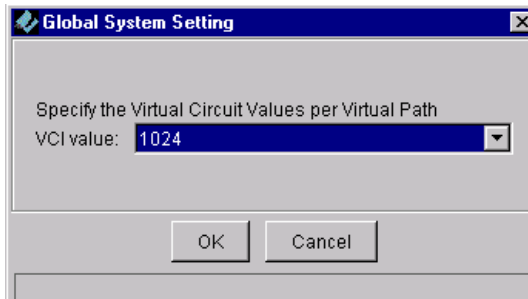


Figure 3–2. Global System Setting Window

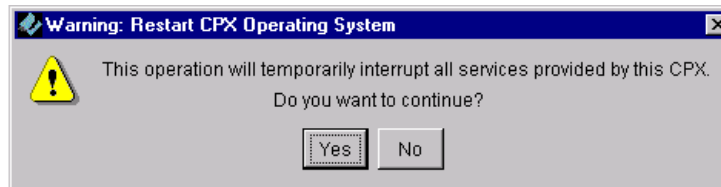
- Step 3** Type the VCI value or select one from the drop-down list. Your options are 64, 128, 256, 512, 1024.



Note

This value determines the number of VCIs allowed per VPI.

- Step 4** Click OK. The following dialog box appears, informing you that a reboot is required and asking if you want to continue with the update.



- Step 5** Click Yes.

Setting CDV Value

Cell Delay Variation (CDV) is a QoS parameter that measures the time needed for each cell to travel over the Virtual Circuit (VC). The value expressed is in the microsecond (ms). The higher the CDV value, the less the calls allowed.

To set the CDV value:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click the CPX-1000 icon from the Tree View.
- Step 4** Select **Configure** from the Configuration menu. The CPX Configuration window appears (Figure 3-3).

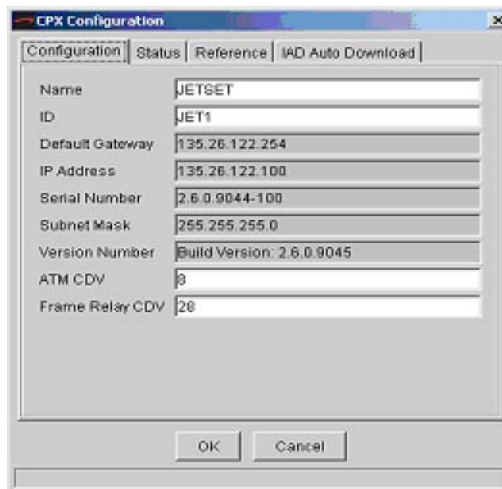


Figure 3-3. CPX Configuration Window

- Step 5** Type the values between 1 – 60 in both the ATM and Frame Relay fields (default for ATM is 8 ms and frame relay is 28 ms).
- Step 6** Click OK.

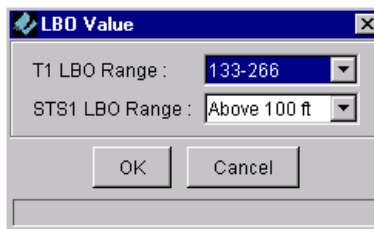
Setting LBO Value

Line Build Out (LBO) is used to offset the output attenuation.

To set the LBO value:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click the CPX-1000 icon from the Tree View.
- Step 4** Select **LBO Value** from the Configuration menu.

The following dialog box appears.



- Step 5** Select the linear measurement (feet) from the drop-down lists.
 - Ranges for T1 LBO are:
 - 0–133
 - 133–266 (default)
 - 266–366
 - 399–533
 - 533–655
 - Options for STS1 LBO are Above 100 ft. (default) or Below 100 ft.
- Step 6** Click OK.

Configuring STS-1 Card

To change the frame format and line encoding on the STS-1 card:

- Step 1** Click a CPX-1000 from the Tree View and expand the tree by clicking the + sign.
- Step 2** Click the Shelf icon associated with the CPX-1000 and expand the tree by clicking the + sign.
- Step 3** Expand the STS-1 card on the Tree View, and select BITS.
- Step 4** Select `Configure` from the Configuration menu. The Port Configuration window appears (Figure 3-4).

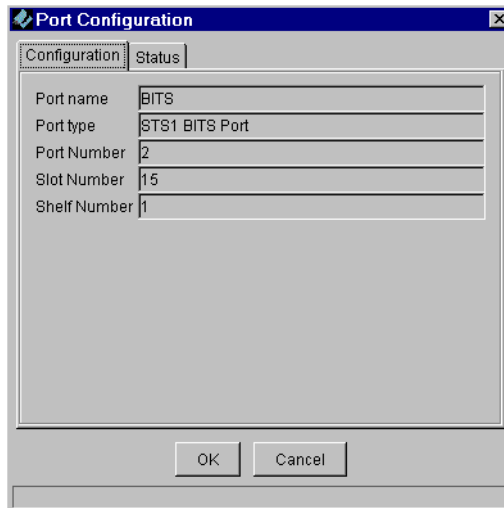


Figure 3-4. STS1 BITS Port Configuration

Step 5 Click **Status**. The Status tab appears (Figure 3–5).

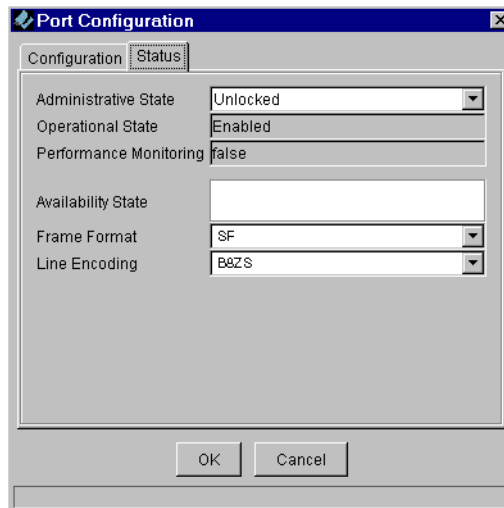


Figure 3–5. STS1 BITS Port Configuration—Status Tab

Step 6 Select the frame format options (SF or ESF) from its drop-down list.

Step 7 Select the line encoding options (AMI or B8ZS) from its drop-down list.

Setting Clock Source

Clock source comes from BITS (STS-1 cards) and Interface Groups. There are 13 possible priorities. When present, priorities 1 through 4 are used for STS-1 cards and 5 through 12 for interface groups. Priority 13 is reserved for system clock and is not user-configurable.

When “Revertive” is set, it takes place across all priorities. For example, priorities 1 and 2 lose the clock, and priority 3 takes over and is actively driving the bus. When priority 1 regains its clock, then priority 1 will then take control of driving the bus.




Note

The revertive behavior is on a CPX-1000 basis.

To assign priority of CPX clock source:

Step 1

Select  in the Tree View, then select **Clock Synch** from the Configuration menu.

– Or –

Right-click  in the Tree View and select **Clock Synch**.

The Clock Synch window similar to Figure 3–6) appears.

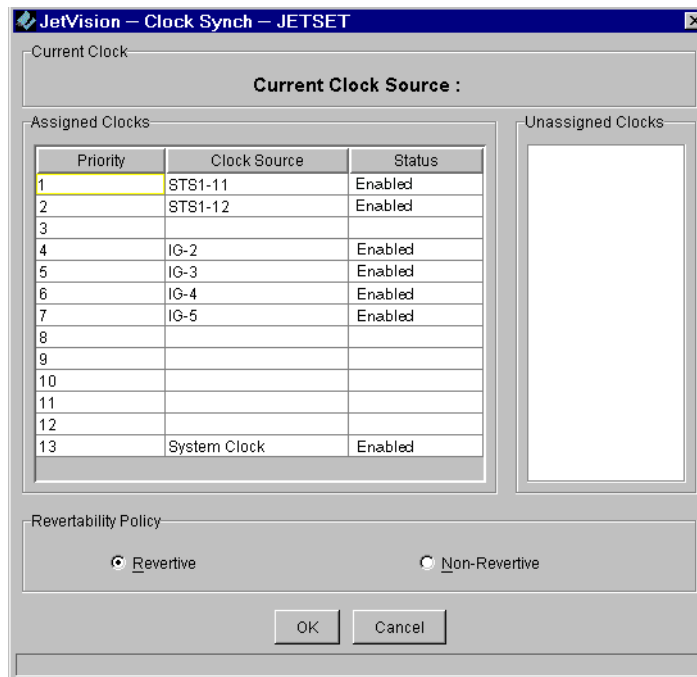


Figure 3-6. Clock Synch Window



Notes

The Priority and Status fields are read only.

The number of clock source available depends on the number of STS-1 cards and Interface Groups you have configured on your CPX-1000.

- Step 2** Select a row in which you want to remove a clock source.
- Step 3** Remove the old clock source by double-clicking the Clock Source field and selecting the blank line. The clock source is moved to the Unassigned Clocks panel (Figure 3–7).

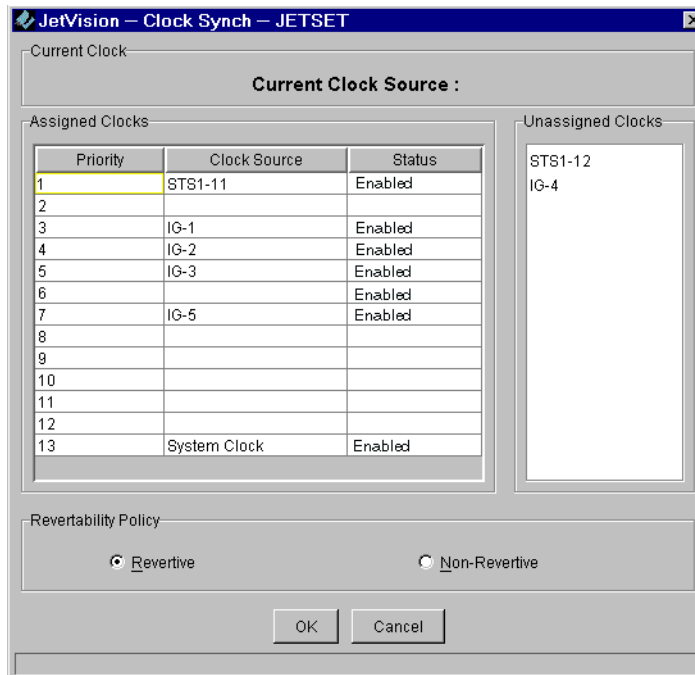


Figure 3-7. Clock Synch Window with Clocks Unassigned

- Step 4** Select a row in which you want to set a new clock source.

- Step 5** Double-click the Clock Source field, and select a new clock source. The selected clock source is moved from the Unassigned Clocks panel and is displayed in the Clock Source field (Figure 3–8).

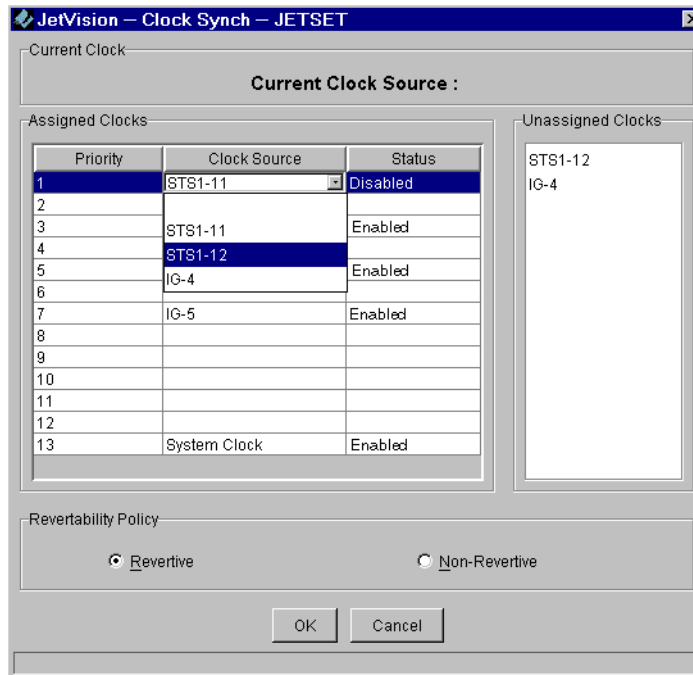


Figure 3–8. Clock Synchronizer Window with Clocks Assigned

- Step 6** Select a revertability policy (default is Revertive).
- Step 7** Click OK.

Annotating CPX-1000 Location

To annotate a CPX-1000 location:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click the Shelf icon associated with a CPX-1000 icon from the Tree View.
- Step 3** Select **Configure** from Configuration menu. The CPX Configuration window appears (Figure 3-9).



Figure 3-9. CPX Configuration Window

- Step 4** Click *Reference*, and the Reference tab window appears (Figure 3–10).

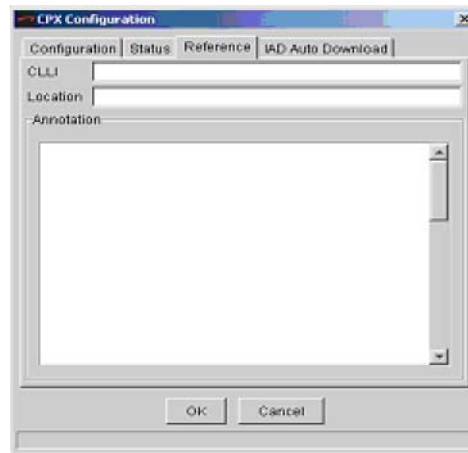


Figure 3–10. CPX Configuration Window—Reference Tab

- Step 5** Type a string of up to 11 alphanumeric characters that identify the CPX-1000 in the *CLLI* (Common Language Location Identifier) field.
- Step 6** Type the physical location of the CPX-1000 of up to 32 alphanumeric characters in the *Location* field.
- Step 7** Type any notes of up to 200 characters in the *Annotation* field.

Reviewing CPX-1000 Information

To review the CPX-1000 information, click a CPX-1000 icon from the Tree View, then select **CPX Configuration** from Configuration menu. The CPX Configuration window appears, displaying the CPX-1000 read-only information.

Protection Group Provisioning

This chapter provides instructions to provision Network (ATM) and PSTN Protection Groups. This chapter includes the following tasks:

- Assigning members to the ATM Network Protection Group (page 4-2)
- Assigning members to the PSTN Protection Group (page 4-5)
- Swapping Protection Group members (page 4-7)
- Removing members from the Protection Group (page 4-9)

The ATM redundancy uses duplicate links between the ATM network and ATM card (OC-3 or DS-3) whereby you can assign which ATM interfaces on the CPX-1000 are associated with a particular Protection Group.

Table 4-1 describes the fields in the Protection Group.

Table 4-1. Protection Group Summary

Fields	Description
ID	Four network and six PSTN protection groups are assigned by CPX Management Entity (CME), you cannot add or delete protection groups.
Primary Member	The active port of the Protection Group is specified by <i>slot_number/port_number</i> and indicated by a green background.
Secondary Member	The standby port of the Protection Group is indicated by a blue background. "Not assigned" indicates that the Protection Group has no members.



Note

The gray background indicates that the states (active/standby) of the card are unknown because the card corresponding to a member has been removed; however, the slot/port information continues to display.

Assigning Network Protection Group Members


Before assigning members to the ATM Network Protection Group, make sure that the CPX-1000 is up with redundant ATM cards (OC-3 or DS-3).

To assign members to the ATM Protection Group:

Step 1

Expand the desired CPX-1000 from the Tree View.

Step 2

Click  Network PG on the Tree View, the right-hand pane changes to the Protection Group tabular view (Figure 4-1).

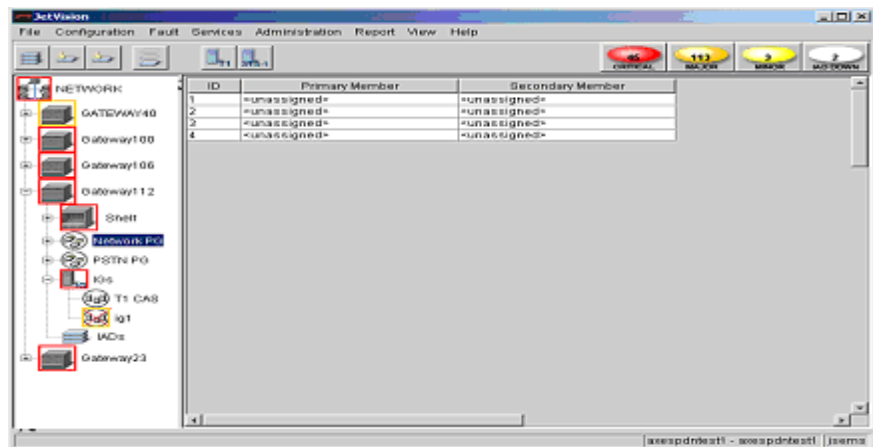


Figure 4-1. Network Protection Group Manager Tabular View

Step 3

Select a Protection Group ID to which you want to assign member.

Step 4 Select **Configure** from the **Configuration** menu.

– Or –

Right-click the highlighted selection and select **Configure** from the pop-up menu.

The **Configuration for Network PG** window appears (Figure 4–2).

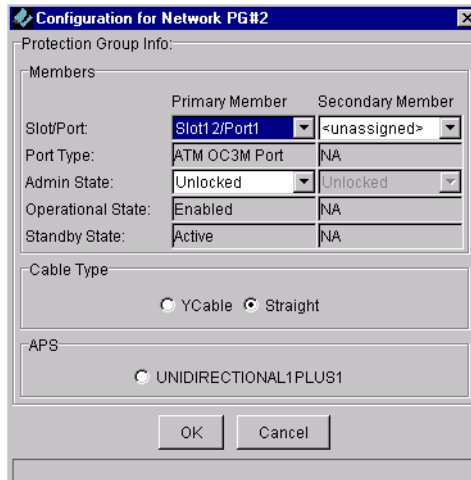


Figure 4–2. Configuration for Network PG Window

Step 5 Select a slot and port number for the Primary Member from the **Slot/Port** drop-down list. Once a port assignment is selected, all other fields in the area are automatically populated.



Notes

You cannot assign ports that are already members of some other Protection Group.

Ensure that you assign the same port type to the same Protection Group.

Step 6 Select **Unlocked** from the **Admin State** drop-down list.

Step 7 Repeat Step 5 for the Secondary Member.

Step 8

Select a cable type.

- For OC3 ports, select Straight.
- For DS3 ports, select either Ycable or Straight.

**Note**

The APS selection is enabled only when straight cable is selected.

Step 9

Click to select the Unidirectional 1 Plus 1 to enable the ATM switch to automatically switch the active to standby if the card fails.

Step 10

Click OK to accept the configuration. The newly created Protection Group displays in the Protection Group Manager tabular view (Figure 4-3).

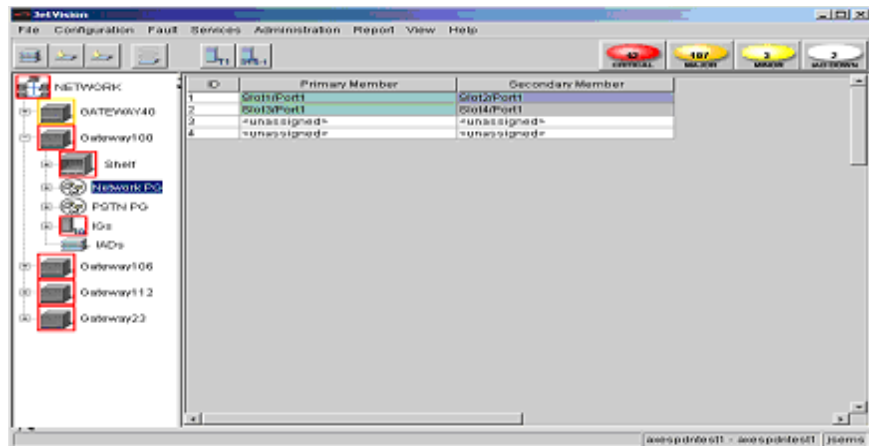



Figure 4-3. Tabular View with Network Protection Groups Displayed

Assigning PSTN Protection Group Members

Before assigning members to the PSTN network Protection Group, make sure that the CPX-1000 is up with redundant STS-1 cards.

To assign members to the PSTN Protection Group:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  Network PSTN on the Tree View, the right-hand pane changes to the Protection Group tabular view (Figure 4-4).

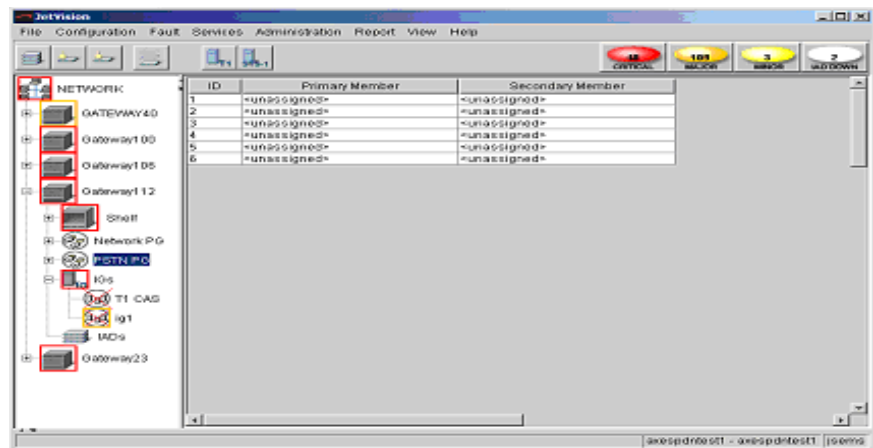


Figure 4-4. PSTN Protection Group Manager Tabular View

- Step 3** Select a Protection Group ID to which you want to assign member.
- Step 4** Select Configure from the Configuration menu.

– Or –

Right-click the highlighted selection and select Configure from the pop-up menu.

The Configuration for Network PG window appears (Figure 4-5).

	Primary Member	Secondary Member
Slot/Port:	<unassigned>	<unassigned>
Port Type:	NA	NA
Admin State:	Unlocked	Unlocked
Operational State:	NA	NA
Standby State:	NA	NA

Cable Type

Ycable Straight

OK Cancel

Figure 4-5. Configuration for PSTN PG Window

- Step 5** Select a slot and port number for the Primary Member from the Slot/Port drop-down list. Once a port assignment is selected, all other fields in the area are automatically populated.



Notes

You cannot assign ports that are already members of some other Protection Group.

Ensure that you assign the same port type to the same Protection Group.

- Step 6** Select Unlocked from the Admin State drop-down list.
- Step 7** Repeat Step 5 for the Secondary Member.
- Step 8** Select Ycable.

Step 9 Click OK to accept the configuration. The updated PG is displayed in the Protection Group Manager tabular view (Figure 4–6).

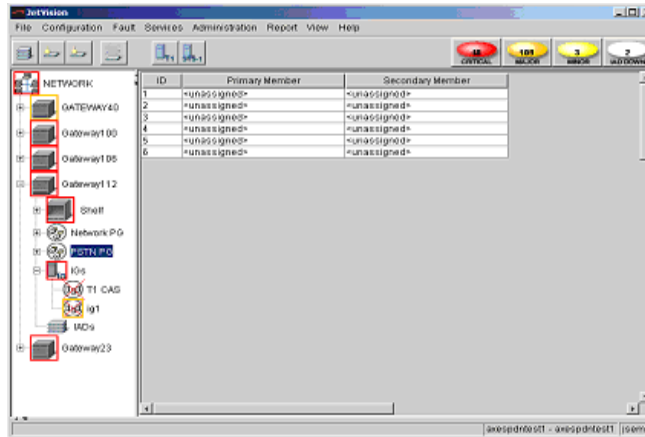


Figure 4–6. Tabular View with PSTN Protection Groups Displayed

Swapping Protection Group Member

To swap between the primary and secondary members of the Protection Group:

Step 1 Click the desired PG icon (Network or PSTN) on the Tree View, the Protection Group Manager view similar to Figure 4–7 appears.

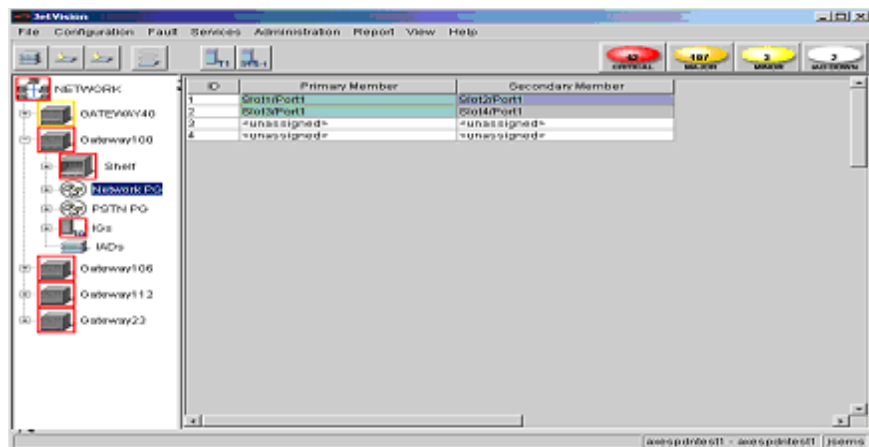


Figure 4–7. Protection Group Manager

Step 2 Select a Protection Group ID to which you want to switch member.

Step 3 Select `Configure` from the Configuration menu.

– Or –

Right-click the highlighted selection and select `Configure`.

The Protection Group Manager window similar to Figure 4–8 appears.

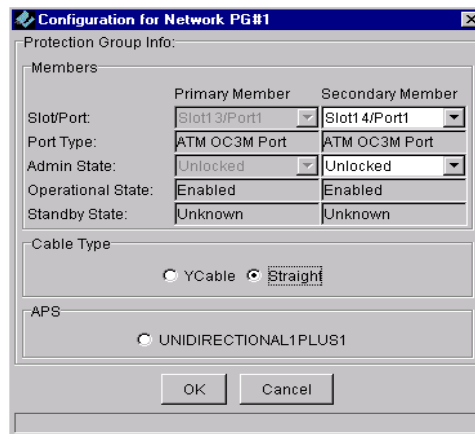


Figure 4–8. Configuration for Network PG Window



Note

The APS feature is not applicable for the PSTN PG.

Step 4 Select `Locked` from the Admin State drop-down list.

Step 5 Click `OK` to return to the Protection Group Manager window.

Step 6 Select `PG Swap` from the Configuration menu.

– Or –

Right-click the highlighted selection and select `PG Swap` from the pop-up menu.

Step 7 Observe the colors. The Primary Member is now blue and the Secondary Member green.

Removing Protection Group Members

Before removing members from a Protection Group, ensure that the port assigned to the group member is Locked.

To remove members from a Protection Group:

Step 1

Click the desired PG icon (Network or PSTN) on the Tree View, the Protection Group Manager view similar to Figure 4–9 appears.

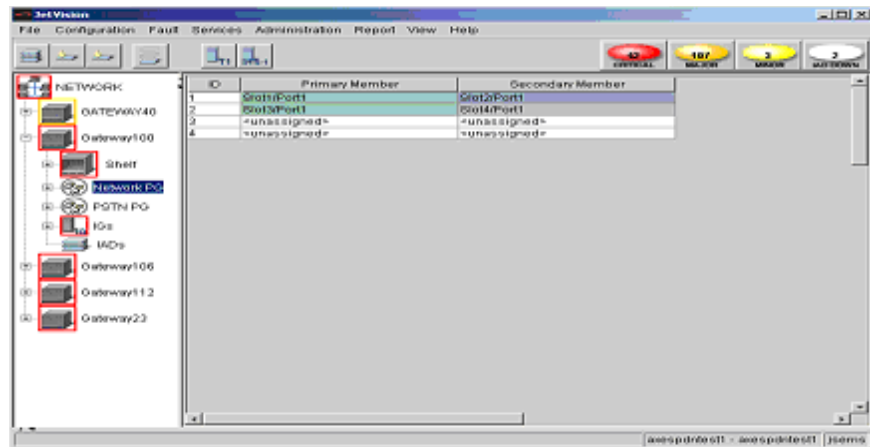


Figure 4–9. Protection Group Manager Window

Step 2

Select a Protection Group member that you want to remove.

Step 3

Select **Configure** from the **Configuration** menu.

– Or –

Right-click the highlighted selection and select **Configure** from the pop-up menu.

The Protection Group Manager window similar to Figure 4–10 appears.

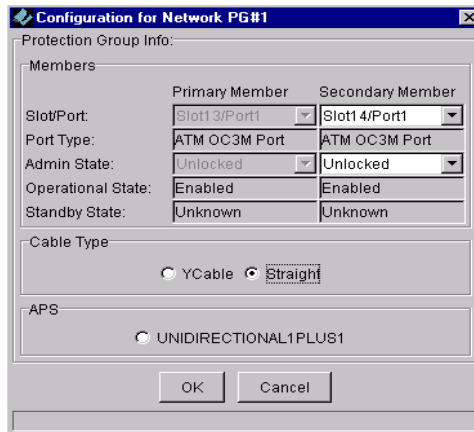


Figure 4-10. Configuration for Network PG Window

- Step 4** Select Unassigned from the Slot/Port drop-down list for the Secondary Member.
- Step 5** Select Locked from the Admin State drop-down list.
- Step 6** Repeat Step 5 for the Primary Member.



Note

The unassigned list does not appear in the Slot/Port drop-down list in the Primary Member area until after you select unassigned for the Secondary Member. This selection ensures that the primary port (Primary Member) remains assigned when the secondary port is unassigned.

- Step 7** Click OK.

Interface Groups Provisioning

This chapter provides detailed instructions to provision Interface Groups. This chapter includes the following tasks:

- Creating T1 Interface Groups (page 5-2)
- Creating STS-1 Interface Groups (page 5-7)
- Assigning ports/channels to GR-303 Interface Groups (page 5-11)
- Removing ports/channels from GR-303 Interface Groups (page 5-13)
- Assigning ports/channels to T1 CAS Interface Groups (page 5-15)
- Removing ports/channels from T1 CAS Interface groups (page 5-17)
- Modifying GR-303 Interface Groups (page 5-19)
- Deleting GR-303 Interface Groups (page 5-22)
- Performing an EOC switchover on GR-303 Interface Groups (Figure 5-23)
- Performing a TMC switchover on GR-303 Interface Groups (Figure 5-24)
- Configuring PPS settings (Figure 5-25)

JetVision supports up to nine Interface Groups for each CPX-1000. Each Interface Group supports up to 28 DS1 lines or 28 channels from the CPX-1000.


Typically, the Interface Groups are created without a physical connection. As a result, the Interface Groups are alarmed as they are created, then cleared when they are connected to the cable.

Note

An empty T1 CAS Interface Group (Interface Group 9) exists by default. Modification of a T1 CAS Interface Group entails only Assigning and Removing DS1s.

Creating T-1 Interface Groups

To create a T-1 Interface Group:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5-1).

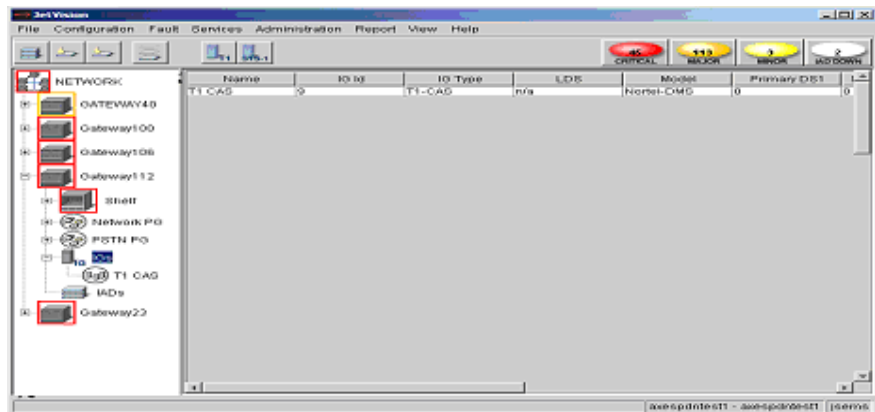




Figure 5-1. Interface Groups Tabular View

- Step 3** Select Create T1 IG from the Configuration menu.
- Or –
- Right-click  on the Tree View and select Create T1 IG.
- Or –
- Click  on the toolbar.
- The View/Update Interface Groups window appears (Figure 5-2).

View/Update GR303 Interface Groups

Interface Group Information

ID: Name: Primary DS1:

Model: LDS: Secondary DS1:

RT Provision:

DS1 Assignment Information

Card	Port
11	1
11	2
11	3
11	4
11	5
11	6
11	7
11	8
11	9
15	1
15	2
15	3
15	4
15	5
15	6
15	7
15	8
15	9
15	10
15	11
15	12
16	1
16	2
16	3
16	4

DS1 #	Card	Port
1-P		
2-S		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
24		

OK Cancel

Figure 5-2. View/Update Interface Groups Window

- Step 4** Type a name up to 32 alphanumeric characters (including spaces and/or hyphens) for the Interface Group in the Name field.
- Step 5** Type a new name or select the type of Class 5 switch used from the Model drop-down list.
- If no Class 5 switches have been created, type a name in the Model field.
- Step 6** Type a new name or select the name of the Local Digital Switch (LDS) to which the Interface Group connects from the LDS drop-down list.
- If no LDS names have been created, type a name in the LDS field.

Step 7 Click to select the `RT Provision` checkbox if you want to enable the Class 5 switch to assign CRVs on the CPX-1000.



Notes

You can select Real Time (RT) provisioning only at the initial creation of the Interface Group. You can neither modify nor remove RT provisioning once it's selected. If you want to remove RT provisioning after the creation of Interface Group, you must first delete the desired Interface Group, then reprovision it without the RT provisioning option. You cannot change the primary DS1.

Step 8 Select a secondary DS1 number from the `Secondary DS1` drop-down list. For example, selecting 4 means that port 4 will be assigned as the secondary DS1 channel.



Note

The DS1 port assignment is populated sequentially. For example, the first assignment is for the primary and the second assignment is the secondary.

Step 9 Select a DS1 by clicking the card/port, then make the assignment by clicking the `>` button.



Note

If the port is assigned to the unintended DS1, click the `<` button to return the port to the DS1 Assignment area.

Step 10 Assign up to 28 ports to the Interface Group (Figure 5–3).



Tip

To select multiple cards/ports, hold down the `Shift` or `Ctrl` key while making your selections. Using the `Shift` key lets you make your selections in contiguous order; the `Ctrl` key lets you select cards/ports in a random order.

The screenshot shows the 'View/Update GR383 Interface Groups' window. It is divided into two main sections: 'Interface Group Information' and 'DB1 Assignment Information'.

Interface Group Information:

- ID:
- Name:
- Primary DB1:
- Model:
- LDS:
- Secondary DB1:
- RT Provision:

DB1 Assignment Information:

This section contains two tables with a central navigation area between them.

Card	Port
11	1
11	2
11	3
11	4
11	5
11	6
11	7
11	8
11	9
11	10
11	11
11	12
16	1
16	2
16	3
16	4
16	5
16	6
16	7
16	8
16	9
16	10
16	11
16	12

Navigation buttons: > (right arrow), < (left arrow)

DB1#	Card	Port
1-P	15	1
2-B	15	2
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Buttons: OK, Cancel

Figure 5–3. View/Update Interface Groups Window with Port Assignments

- Step 11** Click OK to save your settings. The following dialog box appears, asking if you want to continue with the changes (Figure 5-4).

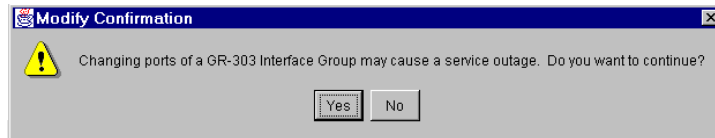


Figure 5-4. Modify Confirmation Dialog

- Step 12** Click Yes. The Interface Group tabular view appears, displaying the newly created Interface Group information (Figure 5-5).


The screenshot shows the JitVision software interface. On the left, a tree view shows the network configuration with "IO1" selected. The main window displays a table with the following data:

Name	IO Id	IO Type	LDS	Model	Primary DS1	L
IO1	2	T1	n/a	Lucent-5ESS	1	2
T1 CAS	9	T1-CAS	n/a	Nortel-DMS	0	0
chandu	3	T1	n/a	Lucent-5ESS	1	2
sts1	1	STS1	n/a	Lucent-5ESS	1	2

Figure 5-5. Tabular View with Interface Groups Displayed

Creating STS-1 Interface Groups

To create a STS-1 Interface Group:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–6).

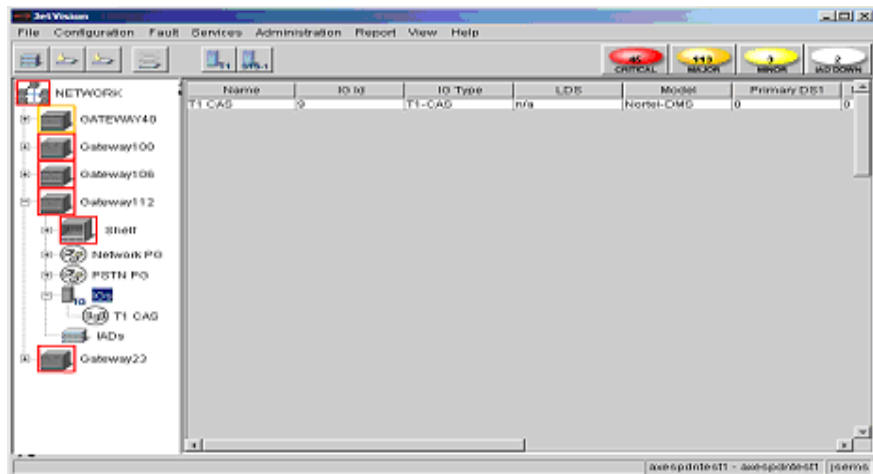


Figure 5–6. Interface Groups Tabular View



- Step 3** Select Create STS1 IG from the Configuration menu.
- Or –
- Right-click  on the Tree View and select Create STS1 IG.
- Or –
- Click  on the toolbar.
- The View/Update Interface Groups window appears (Figure 5–7).

Figure 5-7. View/Update Interface Groups Window

- Step 4** Type a name up to 32 alphanumeric characters (including spaces and/or hyphens) for the Interface Group in the Name field.
- Step 5** Type a new name or select the type of Class 5 switch used from the Model drop-down list.
- Step 6** Type a new name or select the name of the Local Digital Switch (LDS) to which the Interface Group connects from the LDS drop-down list.
If no LDS names have been created, type a name in the LDS field.
- Step 7** Click to select the RT Provision checkbox if you want to enable the Class 5 switch to assign CRVs on the CPX-1000.



Notes

You can select Real Time (RT) provisioning only at the initial creation of the Interface Group. You can neither modify nor remove RT provisioning once it's selected. If you want to remove RT provisioning after the creation of Interface Group, you must first delete the desired Interface Group then re-provision it without the RT provisioning option.

You cannot change the primary DS1.

Step 8

Select a secondary DS1 number from the *Secondary DS1* drop-down list. For example, selecting 4 means that port 4 will be assigned as the secondary DS1 channel.

**Note**

The DS1 port assignment is populated sequentially. For example, the first assignment is for the primary and the second assignment is the secondary.

Step 9

Select a channel by clicking the PG/channel, then make the assignment by clicking the > button.

**Note**

If the channel is assigned to the unintended DS1, click the < button to return the port to the DS1 Assignment area.

Step 10 Assign up to 28 channels to the Interface Group (Figure 5–8).

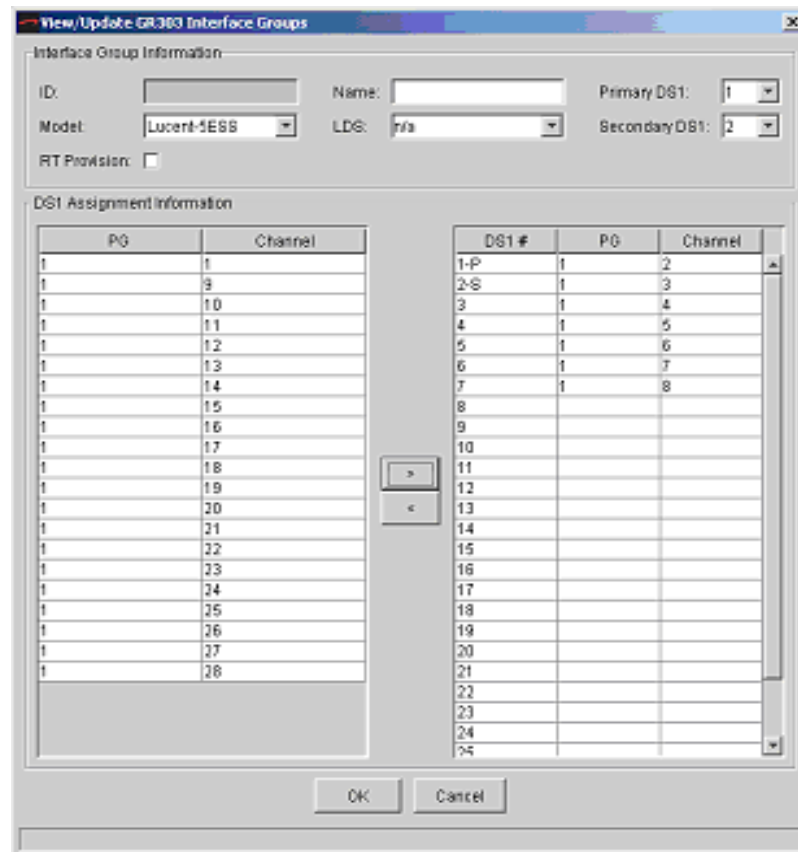


Figure 5–8. View/Update GR-303 Interface Groups Window with Channels Assignments

Step 11 Click OK to save your settings. The following dialog box appears, asking if you want to continue with the changes (Figure 5–9).

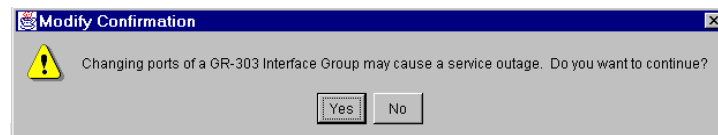
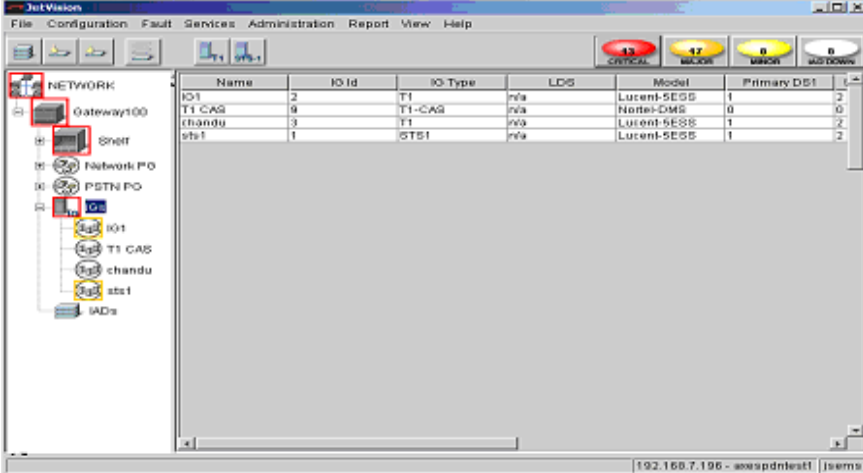


Figure 5–9. Modify Confirmation Dialog

Step 12

Click Yes. The Interface Group tabular view appears, displaying the newly created Interface Group information (Figure 5–10).




Name	IO Id	IO Type	LDS	Model	Primary DS1
T1 CAS	2	T1	n/a	Lucent-5ESS	1
chandu	3	T1-CAS	n/a	Nortel-DMS	0
sts1	1	T1	n/a	Lucent-5ESS	1
sts1	1	STST	n/a	Lucent-5ESS	2

Figure 5–10. Tabular View with Interface Groups Displayed

Assigning Ports/Channels to a GR-303 Interface Group

To assign ports/channels to GR-303 Interface Groups:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–10 on page 5-11).
- Step 3** Select the name of the GR-303 Interface Group to which you want to assign ports/channels.
- Step 4** Select `Modify IG` from the Configuration menu.

– Or –

Right-click the highlighted selection and select `Modify IG` from the pop-up menu.

The View/Update GR-303 Interface Groups window similar to Figure 5–11 appears.

Interface Group Information

ID: Name: IG1 Primary DS1: 1
 Model: Lucent-5ESS LDS: n/a Secondary DS1: 2
 RT Provision:

DS1 Assignment Information

Card	Port	DS1 #	Card	Port
11	7	1-P	11	1
11	8	2-S		
11	9	3		
11	10	4	11	5
11	11	5		
11	12	6		
11	4	7		
11	6	8		
15	3	9		
15	4	10		
15	5	11		
15	6	12		
15	7	13		
15	8	14		
15	9	15		
15	10	16		
15	11	17		
15	12	18		
16	1	19		
16	2	20		
16	3	21		
16	4	22		
16	5	23		
16	6	24		
16	7	25		

OK Cancel

Figure 5-11. View/Update GR-303 Interface Groups Window

- Step 5** Select a port/channel by clicking the Card/Port or PG/channel, then make the assignment by clicking the > button.
- Step 6** Assign as many ports/channels (up to 28) as needed to the Interface Group.



Tip

To assign multiple ports/channels, hold down the Shift or Ctrl key while making your selections. Using the Shift key lets you make your selections in contiguous order; the Ctrl key lets you select ports/channels in a random order.

- Step 7** Click OK to save your settings. The following dialog box appears, asking if you want to continue with the changes (Figure 5–12).

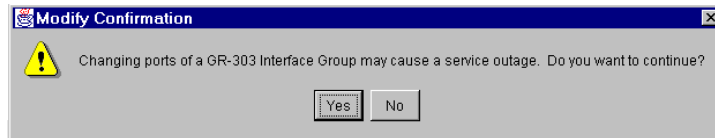



Figure 5–12. Modify Confirmation Dialog

- Step 8** Click Yes.

Removing Ports/Channels from GR-303 Interface Groups

To remove ports/channels from an Interface Group:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–10 on page 5-11).
- Step 3** Select the name of the Interface Group to which you want to remove ports/channels.
- Step 4** Select `Modify IG` from the Configuration menu.
- Or –
- Right-click the highlighted selection and select `Modify IG` from the pop-up menu.
- The View/Update Interface Groups window appears (Figure 5–13).

View/Update GR303 Interface Groups

Interface Group Information:

ID: Name: Primary DS1:

Model: LDS: Secondary DS1:

RT Provision:

DS1 Assignment Information:

Card	Port
11	1
11	2
11	3
11	4
11	5
11	6
11	7
11	8
11	9
11	10
11	11
11	12
16	1
16	2
16	3
16	4
16	5
16	6
16	7
16	8
16	9
16	10
16	11
16	12

DS1 #	Card	Port
1-P	15	1
2-B	15	2
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

OK Cancel

Figure 5-13. View/Update GR-303 Interface Groups Window with Port Assignments

Step 5

Select the port/channel number that you want to remove in the DS1 area and click the < button. The removed DS1 returns to the DS1 Assignment area.



Tip

To select multiple ports/channels, hold down the Shift or Ctrl key while making your selections. Using the Shift key lets you make your selections in contiguous order; the Ctrl key lets you select ports/channels in a random order.

- Step 6** Click OK to save your settings. The following dialog box appears, asking if you want to continue with the changes (Figure 5–14).

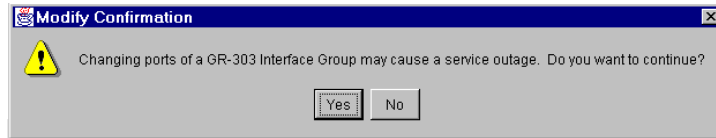



Figure 5-14. Modify Confirmation Dialog

- Step 7** Click Yes.

Assigning Ports/Channels to the T1 CAS Interface Group

To assign ports/channels to the T1 CAS Interface Group:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View. The right-hand pane changes to the Interface Group tabular view (Figure 5–10 on page 5-11).
- Step 3** Expand the Interface Group in the tree view.
- Step 4** Click on the T1 CAS IG, then select `Modify` from the Configuration menu.

– Or –

Right-click the highlighted selection and select `Modify IG` from the pop-up menu.

The View/Update T1 CAS Interface Groups window similar to Figure 5–15 appears.

Figure 5-15. View/Update T1 CAS Interface Groups Window

- Step 5** Select a port/channel by clicking the Card/Port or PG/channel, then make the assignment by clicking the > button.
- Step 6** Assign as many ports/channels (up to 28) as needed to the Interface Group.



Tip

To select multiple ports/channels, hold down the `Shift` or `Ctrl` key while making your selections. Using the `Shift` key lets you make your selections in contiguous order; the `Ctrl` key lets you select ports/channels in a random order.

- Step 7** Click OK to save your settings. The following dialog box appears, asking if you want to continue with the changes (Figure 5–16).

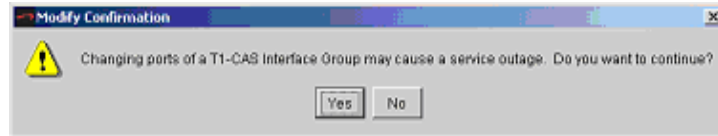



Figure 5–16. Modify Confirmation Dialog

- Step 8** Click Yes.

Removing Ports/Channels from the T1 CAS Interface Group

To remove ports/channels from the T1 CAS Interface Group:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–10 on page 5-11).
- Step 3** Expand the Interface Group in the tree view. The T1 CAS group is displayed.
- Step 4** Click on the T1 CAS IG, then select **Modify** from the Configuration menu.

– Or –

Right-click the highlighted selection and select **Modify IG** from the pop-up menu.

The View/Update T1 CAS Interface Groups window appears (Figure 5–17).

Interface Group Information

ID: 9 Name: T1 CAS Model: Nortel-CMS LDB: n/a

DS1 Assignment Information

Card	Port
13	7
13	9
13	10
13	11
13	12
13	8

PG	Channel
1	5
1	6
1	7
1	8
1	9
1	10
1	11
1	12
1	13
1	14
1	15
1	16
1	17

DS1 #	Card	Port	PG	Channel
1	11	4	-1	-1
2	11	5	-1	-1
3	13	5	-1	-1
4	13	6	-1	-1
5	-1	-1	1	1
6	-1	-1	1	2
7	-1	-1	1	3
8	-1	-1	1	4
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				

OK Cancel

Figure 5-17. View/Update GR-303 Interface Groups Window with Port Assignments

Step 5

Select the port/channel number that you want to remove in the DS1 area and click the < button. The removed DS1 returns to the DS1 Assignment area.



Tip

To select multiple ports/channels, hold down the Shift or Ctrl key while making your selections. Using the Shift key lets you make your selections in contiguous order; the Ctrl key lets you select ports/channels in a random order.

- Step 6** Click OK to save your settings. The following dialog box appears, asking if you want to continue with the changes (Figure 5–18).

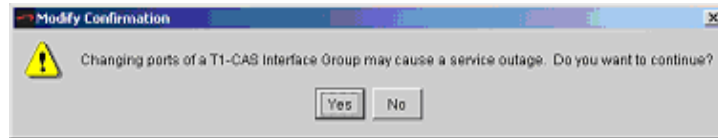


Figure 5-18. Modify Confirmation Dialog

- Step 7** Click Yes.



Note

Delete IG, Switchover EOC, Switchover TMC, PPS settings, Error graphs, Performance graph, DS1 path registers actions are not supported for a T1 CAS Interface Group. The error message "T1CAS IG does not support this action!" is displayed in the status bar if any of the above actions is attempted (Figure 5–19).

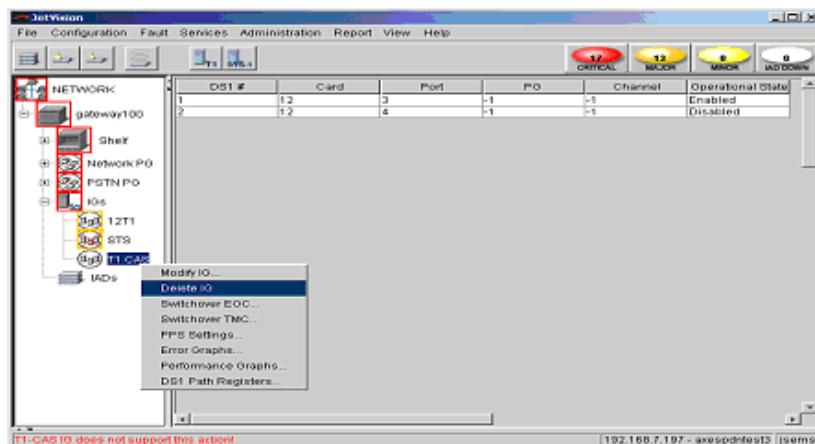

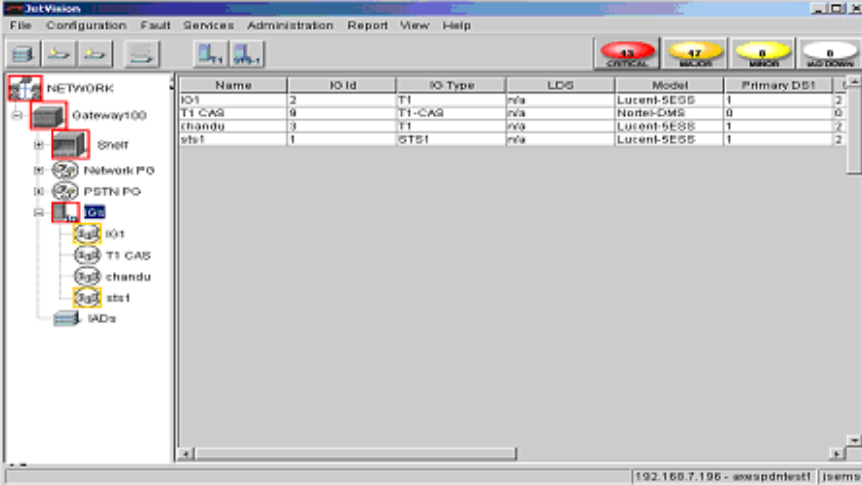


Figure 5-19. Action Not Supported Message

Modifying GR-303 Interface Groups

To modify a GR-303 Interface Group:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–20).



Name	IO Id	IO Type	LDS	Model	Primary DB1
IG1	2	T1	n/a	Lucent-5ESS	1
T1 CAS	9	T1-CAS	n/a	Nortel-DMS	0
chandu	3	T1	n/a	Lucent-5ESS	1
sts1	1	GTST	n/a	Lucent-5ESS	1

Figure 5–20. Tabular View with Interface Groups Displayed

Step 3 Select the name of the Interface Group that you want to modify.

Step 4 Select **Modify IG** from the Configuration menu.

– Or –

Right-click the highlighted selection and select **Modify IG** from the pop-up menu.

The View/Update Interface Groups window similar to Figure 5–21 appears.

Interface Group Information:

ID: Name: Primary DB1:

Model: LDS: Secondary DB1:

RT Provision:

DB1 Assignment Information:

Card	Port	DB1 #	Card	Port
11	1	1-P	15	1
11	2	2-B	15	2
11	3	3		
11	4	4		
11	5	5		
11	6	6		
11	7	7		
11	8	8		
11	9	9		
11	10	10		
11	11	11		
11	12	12		
16	1	13		
16	2	14		
16	3	15		
16	4	16		
16	5	17		
16	6	18		
16	7	19		
16	8	20		
16	9	21		
16	10	22		
16	11	23		
16	12	24		
		25		

OK Cancel

Figure 5–21. View/Update GR-303 Interface Groups Window with Port Assignments

Step 5 Modify the following fields, if necessary:

- Name
- Secondary DS1 Number

Step 6 Click OK to save your settings. The following dialog box appears, asking if you want to continue with the changes (Figure 5–22).

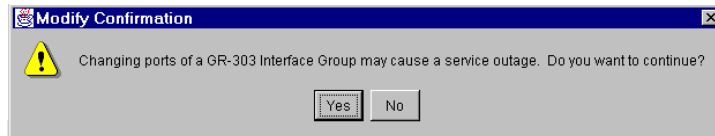



Figure 5–22. Modify Confirmation Dialog

Step 7 Click Yes.

Deleting GR-303 Interface Groups

To delete an Interface Group:

Step 1 Expand the desired CPX-1000 from the Tree View.

Step 2 Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–23).

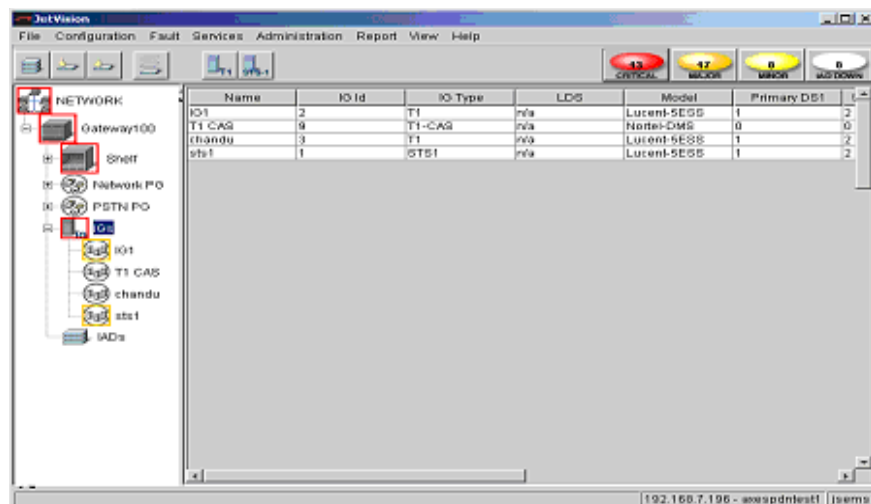


Figure 5-23. Tabular View with Interface Groups Displayed

Step 3 Click the name of the Interface Group that you want to delete.

Step 4 Select `Delete IG` from the Configuration menu.

– Or –

Right-click the highlighted selection and select `Delete IG` from the pop-up menu. A prompt appears, asking if you want to delete the Interface Group.



Note

You can only delete Interface Groups that are not associated with IADs.


Step 5 Click `Yes` to delete the Interface Group.

Switching Over

Each GR-303 Interface Group has a primary and secondary channel. When a primary channel fails, the secondary channel takes over and vice versa. This switchover is automatic and requires no user intervention or control over which channel to switch. The new switching capabilities enables you to switch the Embedded Operations Channel (EOC) and Timeslot Management Channel (TMC) on a specified Interface Group.

Performing an EOC Switchover

To perform an EOC switchover:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–24).

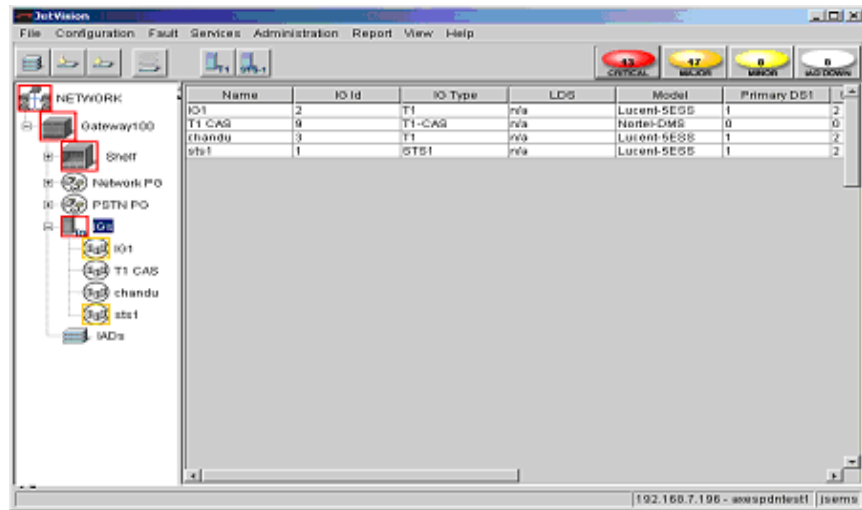


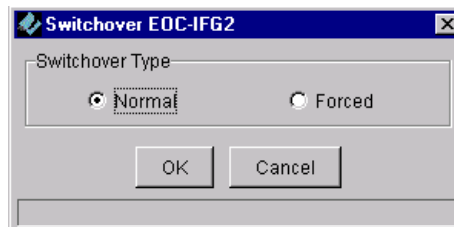
Figure 5–24. Tabular View with Interface Groups Displayed

- Step 3** Select the name of the GR-303 Interface Group that you want to switch.
- Step 4** Select Switchover EOC from the Configuration menu.

– Or –

Right-click the highlighted selection and select Switchover EOC from the pop-up menu.

The following dialog box appears.



- Step 5** Select the type of switchover you want to perform.
- Normal means that the switchover takes place under normal working conditions (i.e., TMC/EOC is up).
 - Forced means that the switchover takes place even when the standby TMC/EOC is down.
- Step 6** Click OK.




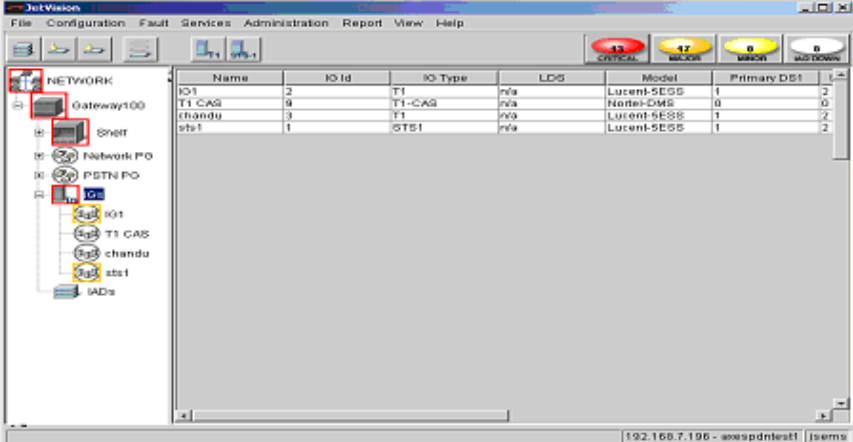
Note

You can launch the Integrated Monitor to view the status of the switchover (Chapter 16, Integrated Monitoring).

Performing a TMC Switchover

To perform a TMC switchover:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–25).



Name	IO Id	IO Type	LDS	Model	Primary DS1
IG1	2	T1	n/a	Lucent-SESS	1 2
T1-CAS	9	T1-CAS	n/a	Nortel-CMS	0 0
chandu	3	T1	n/a	Lucent-SESS	1 2
sts1	1	STS1	n/a	Lucent-SESS	1 2

Figure 5–25. Tabular View with Interface Groups Displayed

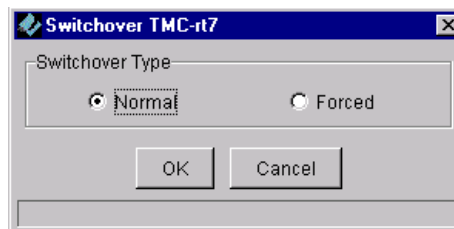
Step 3 Select the name of the GR-303 Interface Group that you want to switch.

Step 4 Select `Switchover TMC` from the Configuration menu.

– Or –

Right-click the highlighted selection and select `Switchover EOC` from the pop-up menu.

The following dialog box appears.



Step 5 Select the type of switchover you want to perform.

- Normal means that the switchover takes place under normal working conditions (i.e., TMC/EOC is up).
- Forced means that the switchover takes place even when the standby TMC/EOC is down.

Step 6 Click OK.




Note

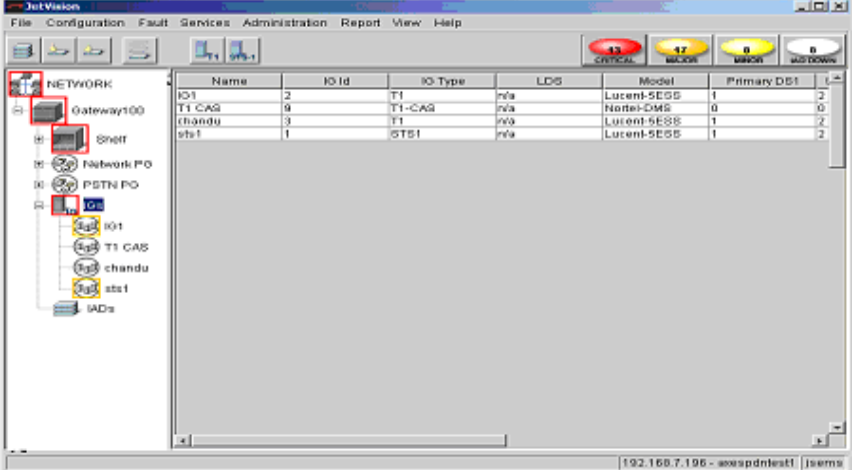
You can launch the Integrated Monitor to view the status of the switchover (Chapter 16, Integrated Monitoring).

Configuring PPS Settings

The Path Protection Switchover (PPS) capability enables you to determine which channel (i.e, EOC and TMC) that you do not want switched.

To configure the PPS settings:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 5–26).



Name	IO Id	IO Type	LDS	Model	Primary DS1
IO1	2	T1	n/a	Lucent-SESS	1
T1 CAS	9	T1-CAS	n/a	Nortel-DMS	0
chandu	3	T1	n/a	Lucent-SESS	1
sts1	1	STS1	n/a	Lucent-SESS	1

Figure 5–26. Tabular View with Interface Groups Displayed

- Step 3** Select the name of the GR-303 Interface Group that you want to switch.
- Step 4** Select PPS Settings from the Configuration menu.

– Or –

Right-click the highlighted selection and select PPS Settings from the pop-up menu.

The PPS Settings window appears, displaying the current settings (Figure 5–27).

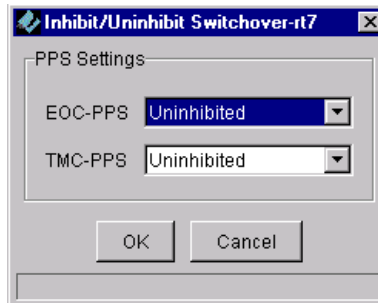


Figure 5-27. PPS Settings Window

- Step 5** Select the settings from the drop-down list.
- Uninhibited (default) means that the switchover is allowed, when initiated.
 - Inhibit means that no switchover is allowed.
- Step 6** Click OK. A dialog box appears, asking if you want to change the current state.
- Step 7** Click Yes.

IAD Profile Provisioning

This chapter provides instructions to provision Integrated Access Device (IAD) Profiles. This chapter includes the following tasks:

- Adding IAD Profiles on page 6-2
- Modifying IAD Profiles on page 6-4
- Deleting IAD Profiles on page 6-6

JetVision uses IAD Profiles to specify common default parameters for identical IAD models. Once an IAD profile is created, you can customize the profile parameters for each IAD port. You can create as many IAD Profiles as you want or use one of the following default IAD Profiles provided by JetVision:

- Generic DSX
- Jetstream IAD-1601
- Jetstream IAD-402
- Jetstream IAD-801
- Jetstream IAD-802
- Jetstream IAD-flex
- LES CAS E&M Wink
- LES CAS Loop Start
- Netopia WIAD

Adding IAD Profiles

To add an IAD Profile:

- Step 1** Click a desired CPX-1000 icon in the Tree view.
- Step 2** Select **Create IAD Profile** from the Configuration menu. The Add IAD Profile window appears (Figure 6–1).

Figure 6–1. Add IAD Profile Window

- Step 3** Type the name of the profile that you are creating (up to 32 alphanumeric characters, including spaces, ampersands, and hyphens) in the Name field.
- Step 4** Select an IAD Type of Voiceband or LES CAS. The E&M Wink selection box becomes available if you select E&M Wink.



Note

You can select a combination of options available. For example, if your profile uses ATM and Frame Relay, select them both. Your selection appears in the Default Value field.

Step 5 Click to select the number of ports available for the profile.

Step 6 Click to select the data transport type.

Step 7 Click to select the compression type.



Note

Dynamic compression enables the immediate change from a compressed to an uncompressed call when fax or modem tones are detected. While adding a LES CAS profile, do not select Dynamic 16kbps or Dynamic 32kbps should not be selected. LES CAS does not support dynamic compression.

Step 8 Click to select the echo cancellation.

Step 9 Click to select the signaling type. The E&M Wink selection is available only if the IAD type selected is LES CAS.

Step 10 Click OK to save your IAD Profile.

Modifying IAD Profiles



Note

You cannot modify any default IAD Profiles. IAD Profiles associated with an IAD cannot be modified unless all of the IADs that use that IAD Profile have been deleted.

To modify an IAD Profile:


Step 1

Click a desired CPX-1000 icon in the Tree view.

Step 2

Select `IAD Profile Manager` from the Configuration menu.

– Or –

Click  on the toolbar.

The Modify IAD Profile window appears (Figure 6–2).

From this window, you can also:

- add a profile (page 6-2)
- delete a profile (page 6-6)

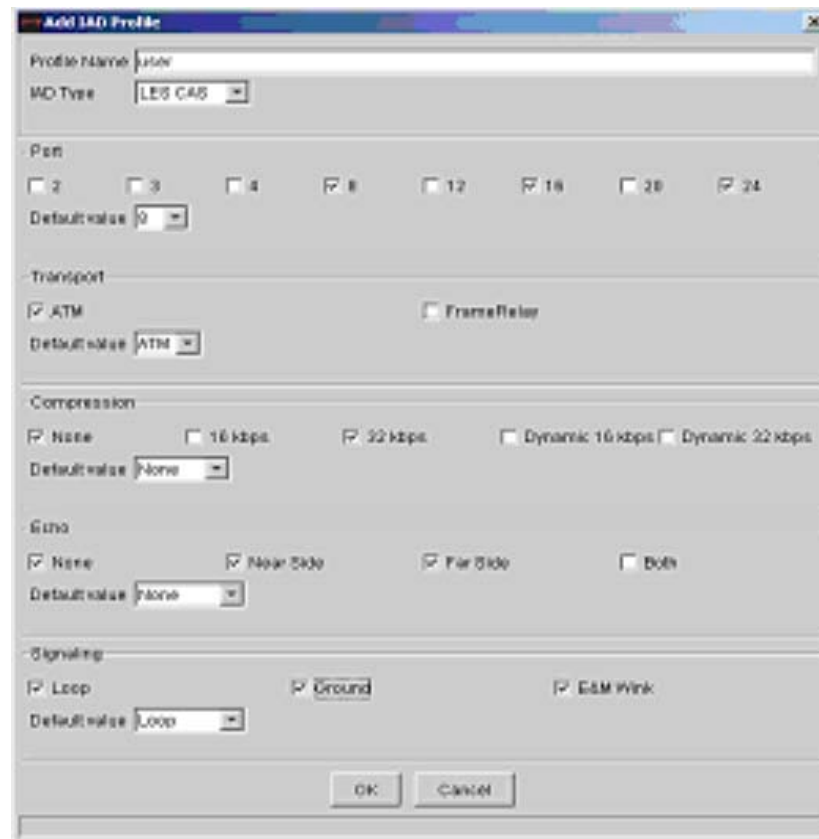


Figure 6-2. Modify IAD Profile Window

- Step 3** Modify any fields, if necessary (Adding IAD Profiles on page 6-2).
- Step 4** Click OK to modify the IAD Profile.

Deleting IAD Profiles




Note

You cannot delete any default IAD Profiles. IAD Profiles associated with an IAD cannot be deleted unless all of the IADs that use that IAD Profile have been deleted.

To delete an IAD Profile:

- Step 1** Click a desired CPX-1000 icon in the Tree view.
- Step 2** Select IAD Profile Manager from the Configuration menu.

– Or –

Click  on the toolbar.

The Update IAD Profile window appears (Figure 6–2).

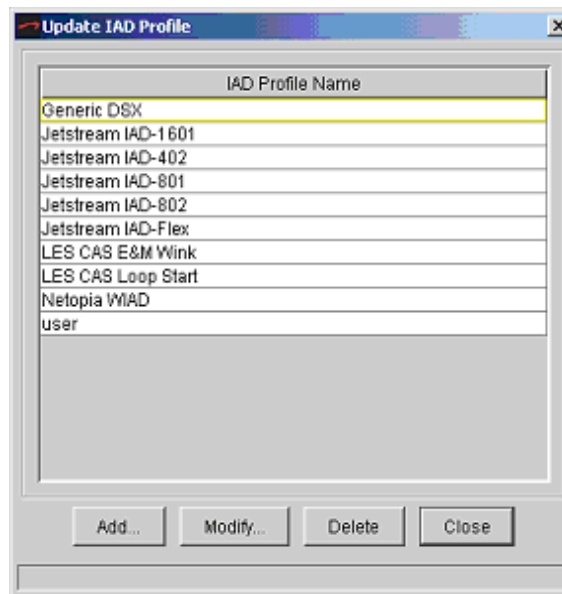


Figure 6–3. Update IAD Profile Window

- Step 3** Click the name of the IAD Profile that you want to delete.
- Step 4** Click Delete. A message appears, asking if you want to delete the profile.

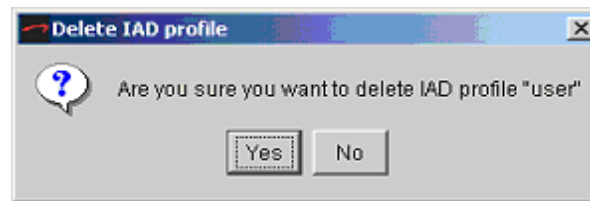


Figure 6-4. IAD Profile Deletion Confirmation

Step 5 Click *Yes* to delete the profile.

IAD Provisioning

This chapter provides instructions for provisioning IADs. JetVision allows you to create one IAD at a time or multiple IADs at a time. You can also clone one or more IADs based on an existing IAD's provisioning attributes. This chapter includes these tasks:

- Creating single IADs (page 7-4):
 - Voiceband IAD
 - LES CAS Loop Start/Ground Start IAD
 - LES CAS E&M Wink IAD
 - LES CAS Mixed Port IAD
- Creating bulk IADs (page 7-30)
- Cloning IADs (page 7-37)
- Modifying single IAD (page 7-40)
- Modifying multiple IADs (page 7-42)
- Deleting IADs (page 7-47)
- Filtering IADs (page 7-49)

For downloading IAD software instructions, refer to Chapter 15, Maintenance. For IADs reports and statistics information, refer to Chapter 13, Reports, and Chapter 14, Statistics, respectively.

Integrated Access Devices (IADs) are installed at the customer/subscriber premises. Figure 7-1 shows the relationship of an IAD to a Voice-over-Broadband (VoBB) network.

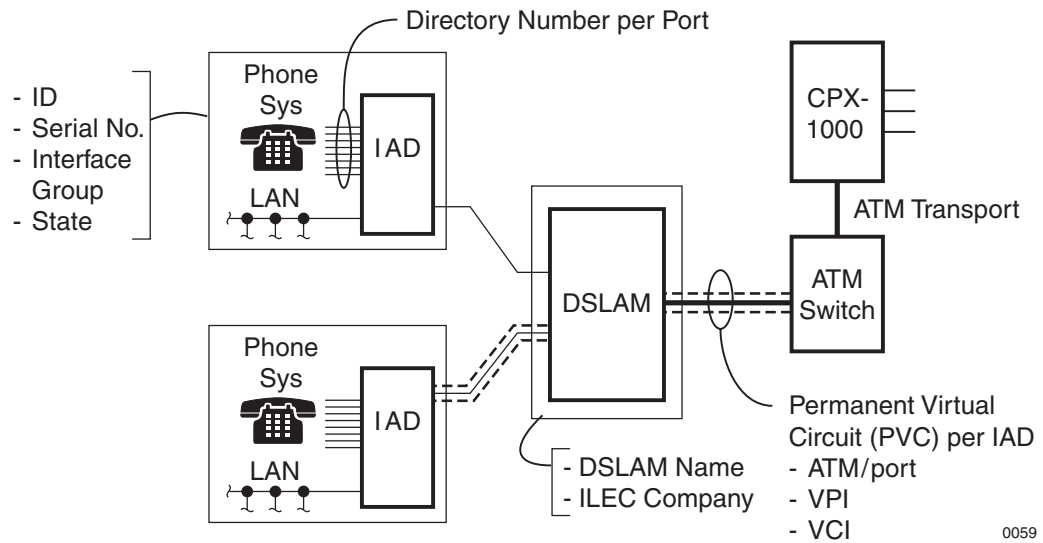


Figure 7-1. IAD Installation

IAD Admin States

The IAD administrative state determines which IAD and IAD port options can be modified. Four administrative states are available:

- Provisional
- Unlocked
- Locked
- Shutting Down

When an IAD is created before its physical installation, the administrative state is *Provisional*, and the operational state is *Disabled*. When the IAD is discovered and initialized, the administrative state automatically changes to *Unlocked*, and the operational state changes to *Enabled*.

Some options can be modified while others cannot, regardless of the administrative state of the IAD and its ports (Table 7-1).

Table 7-1. Modifiable and Unmodifiable Options in All Administrative States

Modifiable Attributes in IAD	Unmodifiable Attributes in IAD Ports
Admin	Compression
Company	Echo cancellation
DSLAM	
Subscriber	

An IAD administrative state determines attributes that can be modified. The IAD and its port administrative states determine the CRV and signaling. For example, when an IAD administrative state is `Unlocked`, and the port administrative state is `Locked`, both CRV and signaling can be modified for that port. When the administrative state of the IAD and its ports are `Unlocked`, the CRV and signaling cannot be modified (Table 7-2).

Table 7-2. Modifiable Options in Different Administrative States

Tasks/Admin State	At IAD Level...			At Port Level...						
	Profile Name	Service Affecting	# of Ports	IAD Port Admin State	CRV	DS1	DS0	Signaling	Echo	Compression
Create IAD/ Provisional	Yes	Yes	Yes	Locked or Unlocked	Yes	Yes	Yes	Yes	Yes	Yes
Modify IAD/ Provisional	No	No	Yes	Locked Unlocked	Yes No	Yes No	Yes No	Yes No	Yes	Yes No
Modify IAD/ Unlocked	No	No	No	Locked Unlocked	Yes No	Yes No	Yes No	Yes No	Yes	Yes No

Table 7-2. Modifiable Options in Different Administrative States (Continued)

Tasks/Admin State	At IAD Level...			At Port Level...						
	Profile Name	Service Affecting	# of Ports	IAD Port Admin State	CRV	DS1	DS0	Signaling	Echo	Compression
Modify IAD/ Locked	No	Yes	Yes	Locked or Unlocked	Yes	Yes	Yes	Yes	Yes	Yes
Create/ Modify IAD w/RT Provisioned	Yes	Yes	Yes	Locked or Unlocked	Yes	NA	NA	No	No	No

Provisioning IADs

The CPX-1000 supports up to 8,192 IADs. The maximum number of provisioned IADs is limited by the CRVs available (4096).

Each IAD has a VPI and VCI assigned to it. An IAD group is a set of IADs with the same VCI but different VPIs. The maximum number of active calls supported in an IAD Group is limited to 63.



Note

You can provision more than 63 ports in an IAD group; however, only 63 of those ports can have active calls on them at one time.

You provision IADs on the CPX-1000 before the IADs are physically installed. You can install an IAD first, but it will not function until it is provisioned on the CPX-1000.

There are two ways to create IADs: one IAD at a time or multiple IADs at a time (Creating Bulk IADs on page 7-30). Depending on your preference and experience, you can choose the following methods when creating an IAD:

- Using IAD Wizard provides a step-by-step instruction to set up an IAD. This method is suited for new or less experience users.
- Using Create IAD, better suited for experience users, enables the IAD creation in an one-shot approach.

Creating Voiceband IADs Using the Wizard

Step 1 Click to expand a desired CPX-1000 icon in the Tree view.


Step 2 Click  in the Tree View.

Step 3 Select IAD Wizard from the Configuration menu.

– Or –

Right-click  and select IAD Wizard from the pop-up menu.

– Or –

Click  (IAD wizard icon) from the toolbar.

The IAD Creation Wizard–Introduction screen appears (Figure 7–2).

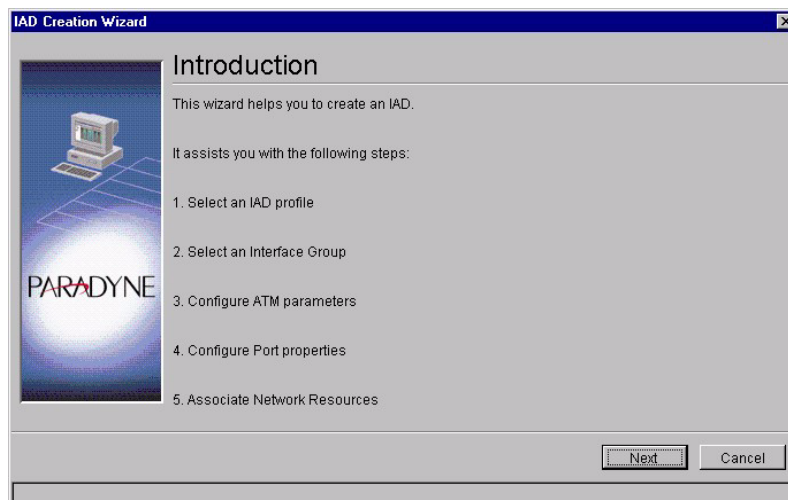


Figure 7–2. IAD Creation Wizard–Introduction Screen

Step 4 Click **Next**. The Informational screen appears (Figure 7-3).

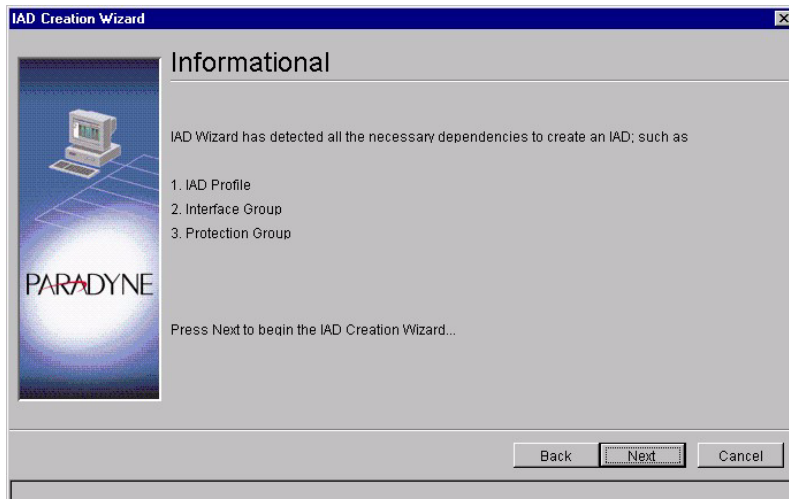


Figure 7-3. IAD Creation Wizard-Informational Screen

Step 5 Click **Next**. The IAD Creation Wizard-IAD Profile Selection screen appears (Figure 7-4).

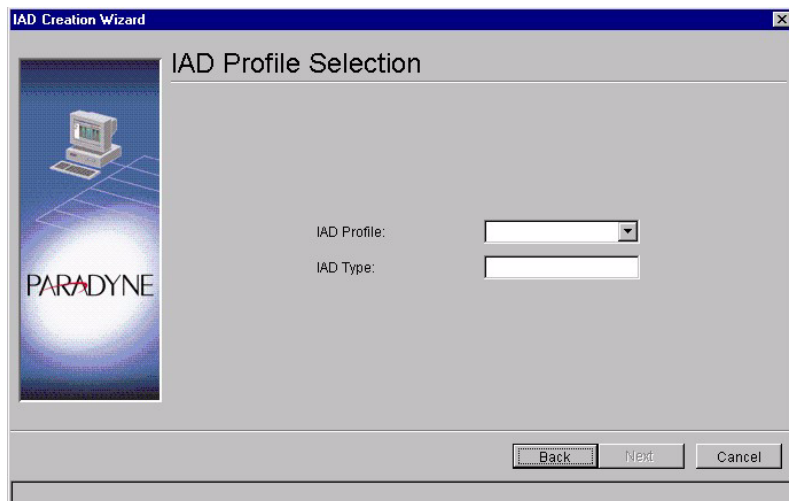


Figure 7-4. IAD Creation Wizard-IAD Profile Selection Screen



Note

The **Next** button is enabled when the profile information is selected.

- Step 6** Select a Jetstream IAD (for VB) Profile from the IAD Profile drop-down list. The IAD Type field is automatically populated.
- Step 7** Click **Next**. The IAD Creation Wizard–Interface Group Selection screen appears (Figure 7–5).

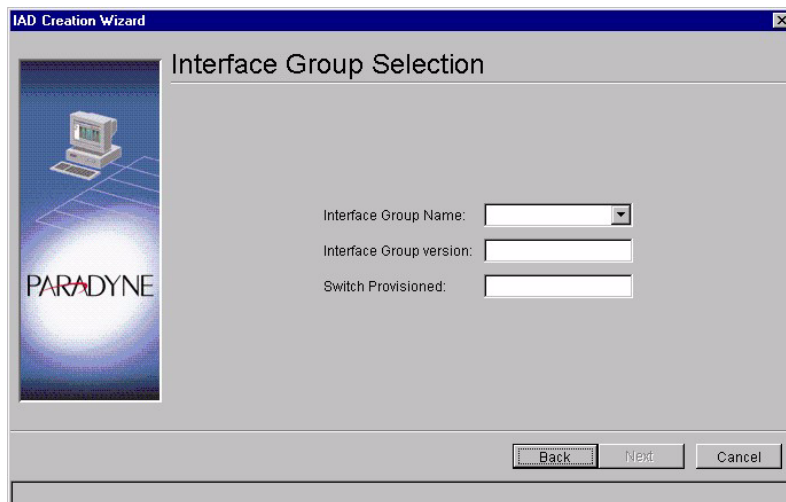


Figure 7–5. IAD Creation Wizard–IG Selection Screen

- Step 8** Select a Interface Group from the Interface Group Name drop-down list. The other two fields (Interface Group version and Switch Provisioned) are automatically populated.
- Step 9** Click **Next**. The IAD Creation Wizard–ATM Protection Group Configuration screen appears (Figure 7–6).

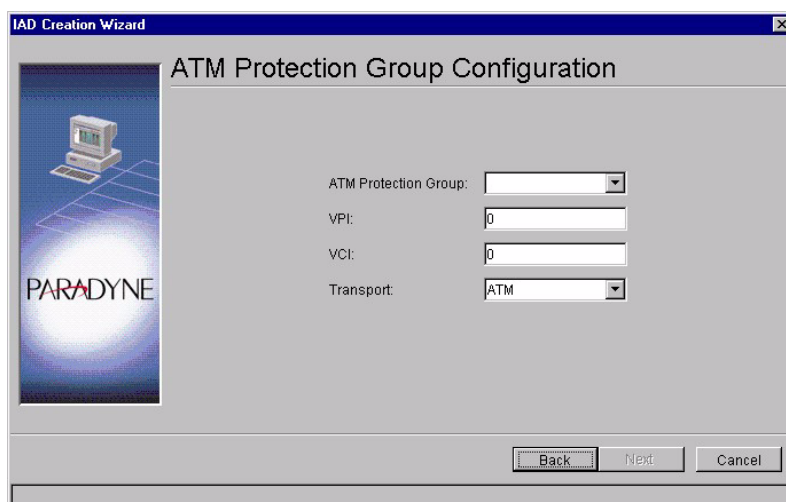


Figure 7–6. IAD Creation Wizard–ATM PG Configuration Screen

- Step 10** Select the Protection Group that the IAD is assigned from the ATM Protection Group drop-down list.
- Step 11** Type the VPI value between 0 to 255 in the VPI field.
- Step 12** Type the VCI value in the VCI field. This identifies the subscriber-specific virtual circuit between the CPX-1000 and the ATM network.
- If VPI is 0, then the VCI range is 32 to 1023.
 - If VPI is greater than 0, then the VCI range is 0 to 1023. (Refer to Chapter 3, CPX-1000 Configuration, for VCI setting.)
- Step 13** Select either ATM or Frame Relay from the Transport drop-down list. Transport selections are dependant upon the IAD Profile.
- Step 14** Click Next. The Reference Configuration screen appears (Figure 7-7).

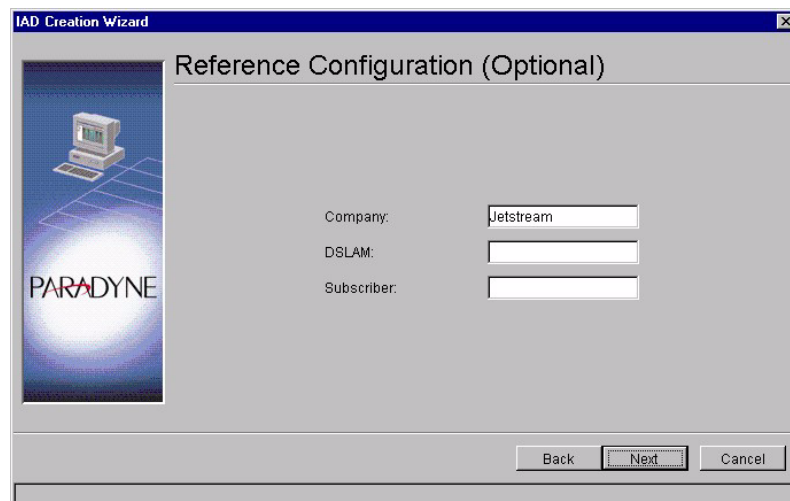


Figure 7-7. IAD Creation Wizard-Reference Configuration Screen

- Step 15** Type the optional information in their associated fields.
- Company—the company providing the voice service
 - DSLAM—the DSLAM serving the subscribers
 - Subscriber—the name of the subscriber
- Step 16** Click Next. The IAD Creation Wizard - Associate Network Resources screen appears (Figure 7-8).

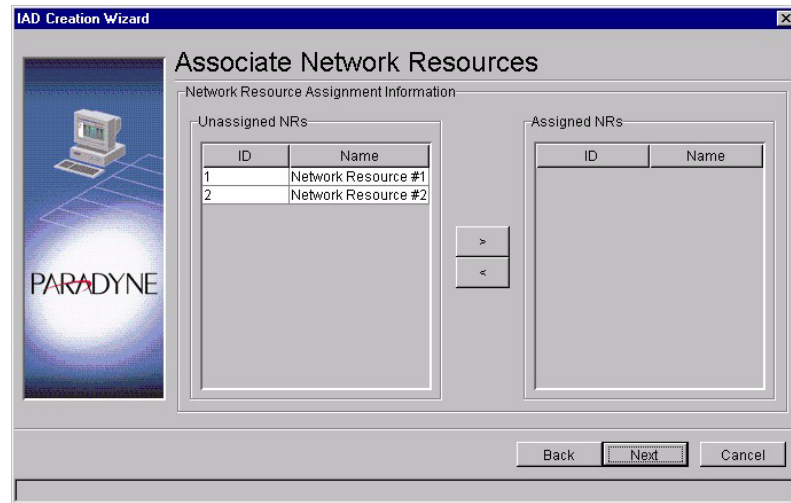


Figure 7-8. IAD Creation Wizard–Port Configuration Screen

Step 17 Select the appropriate Network Resources from the Unassigned NRs column and the right-arrow button to move the Network Resource to the Assigned NRs column.

Step 18 Click Next.



Note

Assignment of Network Resources is optional. A maximum of eight NRs can be assigned to an IAD.

Step 19 Click Next. The IAD Creation Wizard–Port Configuration screen appears (Figure 7-9).

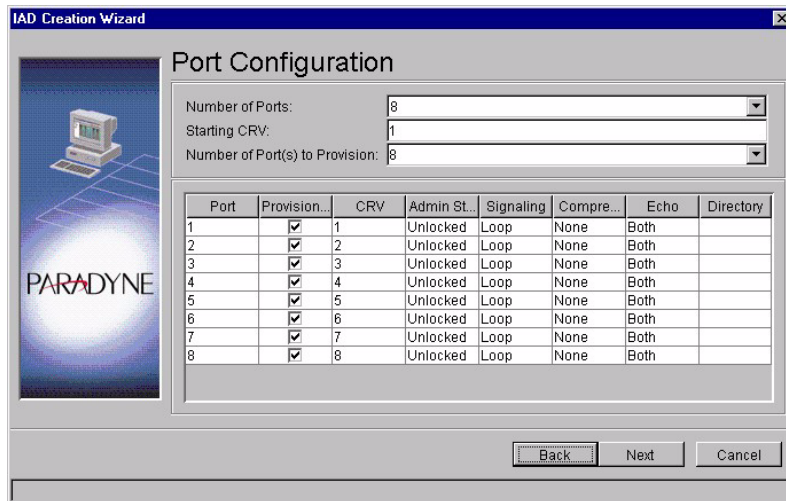


Figure 7-9. IAD Creation Wizard-Port Configuration Screen



Note

The number of ports is dependant upon the IAD Profile. The field is automatically populated based on the profile selection.

Step 20

Type the starting CRV in the `Starting CRV` field.



Note

All CRV must be unique across IADs within the same Interface Group.

Step 21

Click to select the values for the following IAD port parameters from the associated drop-down list.

- Provisioning
- Admin State
- Signaling
- Compression
- Echo Cancellation

Step 22

Click `Next`. The IAD Creation Summary screen appears, listing the IAD parameters you've just created (Figure 7-10).

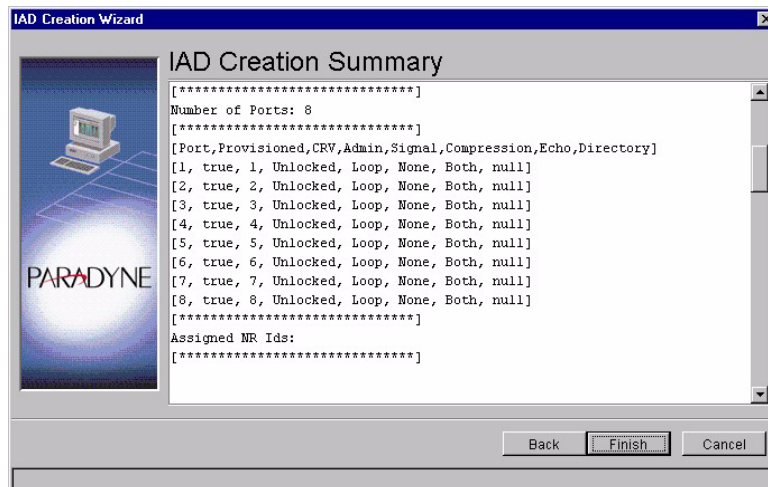


Figure 7-10. IAD Creation Summary Screen

Step 23 Review the IAD parameters.

- If parameters are correct, click **Finish**.
- If any of parameters are incorrect, click **Back** until you reach the screen in question and correct the parameters, then proceed from that point forward.

Creating LES CAS IADs Using the Wizard

To create a single LES CAS IAD using the wizard:

Step 1 Click to expand a desired CPX-1000 icon in the Tree view.


Step 2 Click  in the Tree View.

Step 3 Select **IAD Wizard** from the Configuration menu.

– Or –

Right-click  and select **IAD Wizard** from the pop-up menu.

– Or –

Click  (IAD wizard icon) from the toolbar.

The IAD Creation Wizard–Introduction screen appears (Figure 7–11).

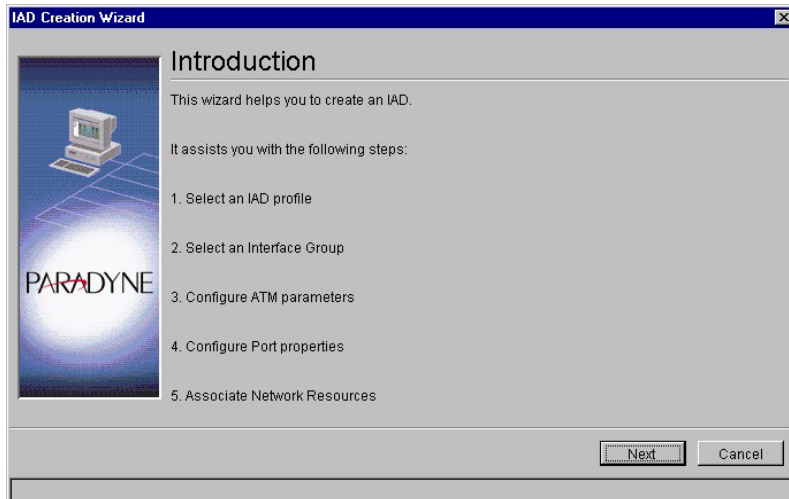


Figure 7–11. IAD Creation Wizard–Introduction Screen

Step 4

Click Next. The Informational screen appears (Figure 7–12).

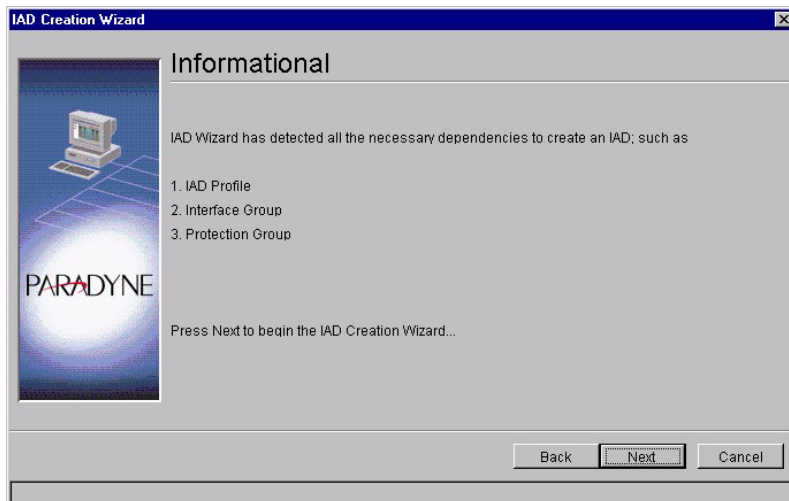


Figure 7–12. IAD Creation Wizard–Informational Screen

- Step 5** Click **Next**. The IAD Creation Wizard–IAD Profile Selection screen appears (Figure 7–13).

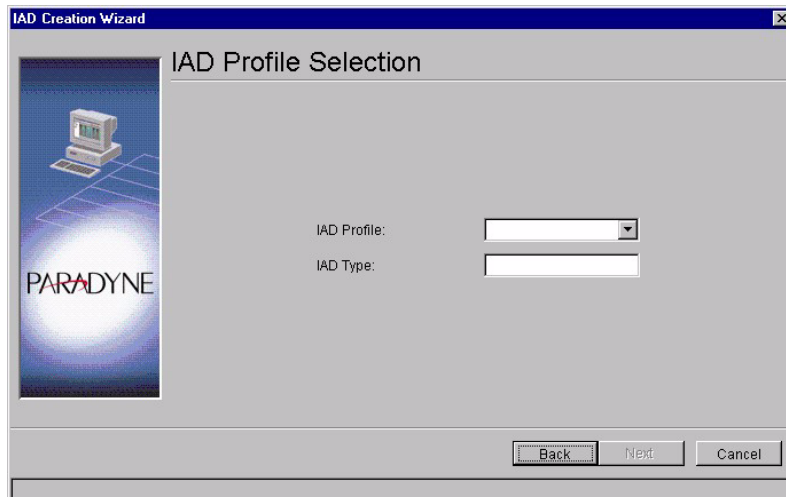


Figure 7–13. IAD Creation Wizard–IAD Profile Selection Screen



Note

The **Next** button is enabled when the profile information is selected.

- Step 6** Select a LES CAS (default or user-created) IAD Profile from the IAD Profile drop-down list. The IAD Type field is automatically populated.

- Step 7** Click Next. The IAD Creation Wizard–Interface Group Selection screen appears (Figure 7–5).

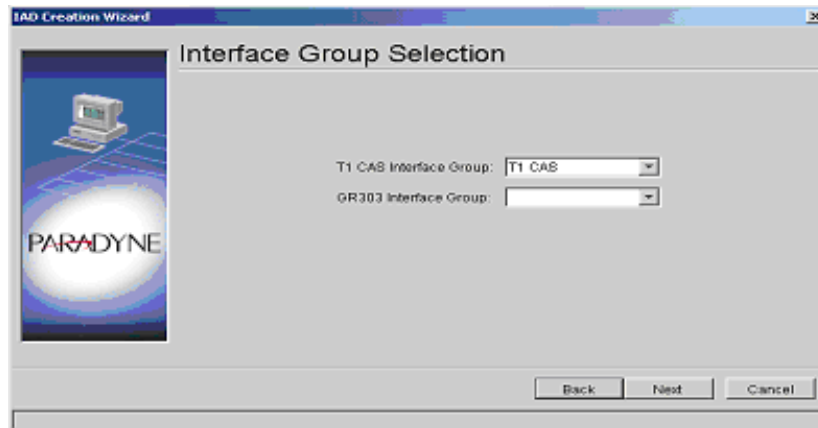


Figure 7–14. IAD Creation Wizard IG Selection Screen

- Step 8** The T1 CAS Interface Group is populated automatically. For a Loop/Ground Start or Mixed Port IAD, select a GR-303 Interface Group name from the GR-303 Interface Group drop-down list.
- Step 9** Click Next. The IAD Creation Wizard–ATM Protection Group Configuration screen appears (Figure 7–15).

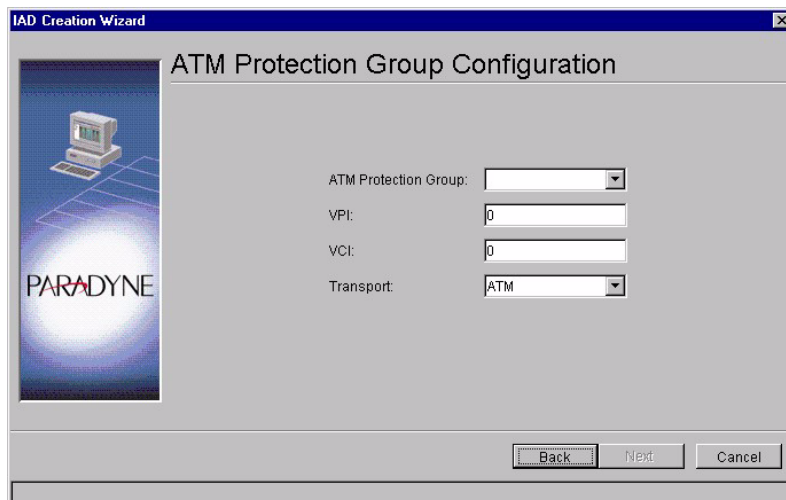


Figure 7–15. IAD Creation Wizard–ATM PG Configuration Screen

- Step 10** Select the Protection Group that the IAD is assigned from the ATM Protection Group drop-down list.
- Step 11** Type the VPI value between 0 to 255 in the VPI field.

- Step 12** Type the VCI value in the VCI field. This identifies the subscriber-specific virtual circuit between the CPX-1000 and the ATM network.
- If VPI is 0, then the VCI range is 32 to 1023.
 - If VPI is greater than 0, then the VCI range is 0 to 1023. (Refer to Chapter 3, CPX-1000 Configuration, for VCI setting.)
- Step 13** Select either ATM or Frame Relay from the Transport drop-down list. Transport selections are dependant upon the IAD Profile.
- Step 14** Click Next. The Reference Configuration screen appears (Figure 7-16).

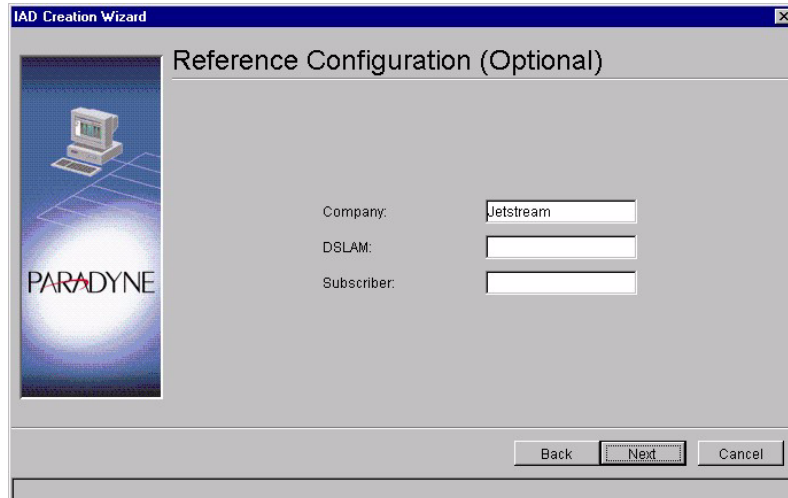


Figure 7-16. IAD Creation Wizard-Reference Configuration Screen

- Step 15** Type the optional information in its associated fields.
- Company—the company providing the voice service
 - DSLAM—the DSLAM serving the subscribers
 - Subscriber—the name of the subscriber

- Step 16** Click Next. The IAD Creation Wizard - Associate Network Resources screen appears (Figure 7-17).

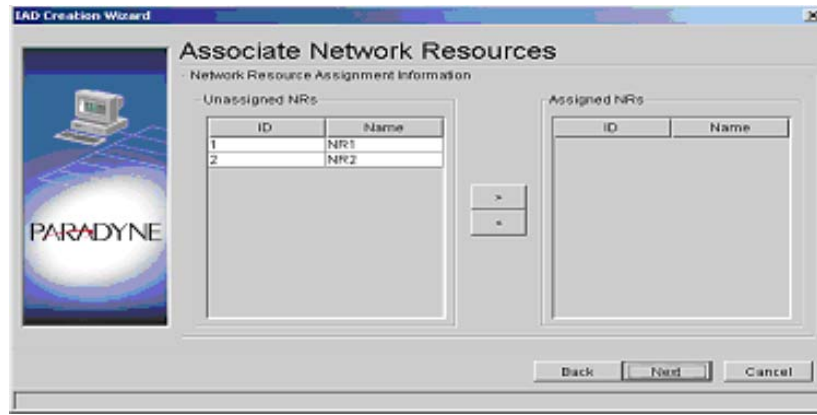


Figure 7-17. IAD Creation Wizard-Associate Network Resources Screen

- Step 17** Select the appropriate Network Resources from the Unassigned NRs column and click on the right-arrow button to move the Network Resource to the Assigned NRs column.
- Step 18** Click Next.



Note

Assignment of Network Resources is optional. Up to eight Network Resources can be assigned to an IAD.

Step 19

Click Next. The IAD Creation Wizard–Port Configuration screen appears (Figure 7–18).

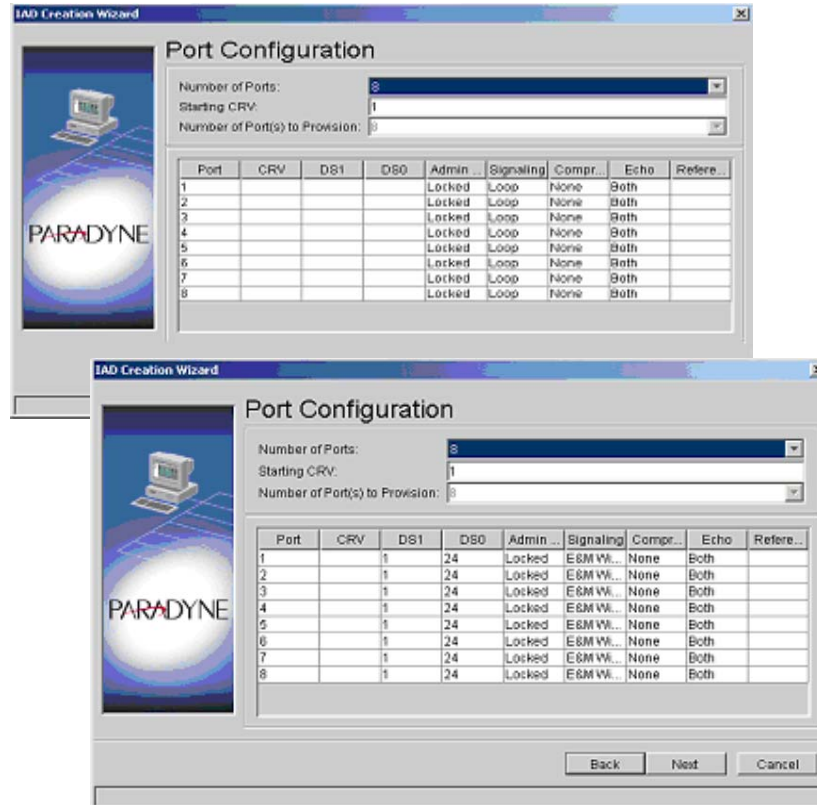


Figure 7–18. IAD Creation Wizard–Port Configuration Screens

**Note**

The number and type of ports is dependant upon the IAD Profile. The field is automatically populated based on the profile selection.

Step 20

Click to select the values for the following IAD port parameters from the associated drop-down list.

- Provisioning
- Admin State
- Signaling
- Compression
- Echo Cancellation



Note

Do not select static 16 kbps compression for LES CAS IADs. LES CAS does not support 16 kbps compression.

Step 21

For:

- **Loop or Ground Start ports** – Type the starting Cell Reference Value (CRV) in the `Starting CRV` field. All CRVs must be unique across IADs within the same Interface Group.
- **E&M Wink Start ports** – Enter the proper DS1/DS0 values. All DS1/DS0 pairs must be unique across IADs within the same Interface Group.

Step 22

Click `Next`. The IAD Creation Summary screen appears, listing the IAD parameters you've just created (Figure 7–19).

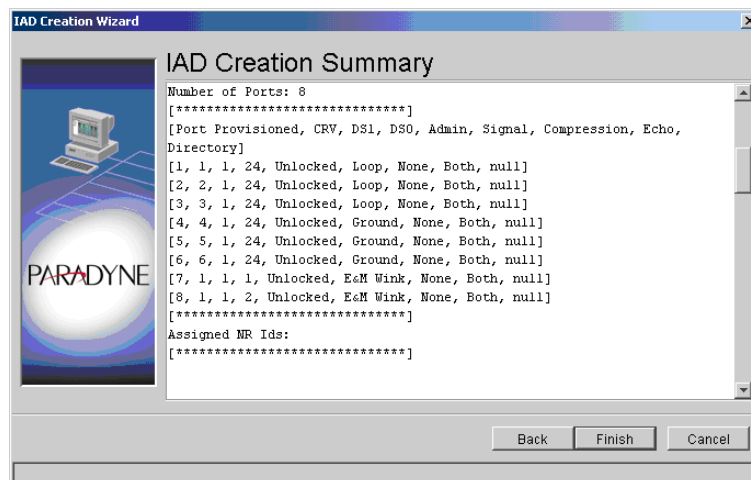


Figure 7–19. Example IAD Creation Summary Screen

Step 23

Review the IAD parameters.

- If parameters are correct, click `Finish`.
- If any of parameters are incorrect, click `Back` until you reach the screen in question and correct the parameters, then proceed from that point forward.

Creating a Voiceband IAD Using the Create IAD Command



Note

The operational state of ports must be locked before modifying CRV, DS1, DS0, or Signaling type when creating an IAD through the Create IAD process. After the modification is done the ports must be unlocked.


Step 1

Click a desired CPX-1000 icon in the Tree view.


Step 2

Select **Create IAD** from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select **Create IAD**.

– Or –

Click  on the toolbar.

The Create IAD window appears (Figure 7–20).

Switch Provision Info tab is grayed out if Interface Group is not RT provisioned.

Port	CRV	DS1	DS0	Admin S...	Signaling	Compre..	Echo	Referen...
1	9			Unlocked	Loop	None	Both	
2	10			Unlocked	Loop	None	Both	
3	11			Unlocked	Loop	None	Both	
4	12			Unlocked	Loop	None	Both	
5	13			Unlocked	Loop	None	Both	
6	14			Unlocked	Loop	None	Both	
7	15			Unlocked	Loop	None	Both	

Figure 7–20. Create IAD Window



Notes

If the Interface Group you selected is not RT provisioned, the `Switch Provision Info` tab is grayed out.

The IAD ID and serial number appear in their respective fields after you finish creating the IAD, and it is successfully initialized.

- Step 3** Select an IAD Profile from the `Profile Name` drop-down list.
- Step 4** Select an Interface Group from the `GR-303 Interface Group` drop-down list.
- Step 5** Select the number of ports for the IAD from the `Number of Ports` drop-down list.
- Step 6** Select the values for the following IAD port parameters from the associated drop-down list.
- CRV
 - Admin State
 - Signaling
 - Compression
 - Echo Cancellation



Notes

If you do not know the CRV or want to enter it later, enter 0 (null). The Admin state of the port with CRV 0 is automatically locked.

If the CRV is provisioned by the Class 5 switch, CME returns the available CRVs and their corresponding signaling types.

- Step 7** Optionally, type a directory number in the `Reference` field.
- Step 8** Click `PVC`. The `PVC` tab appears (Figure 7-21).

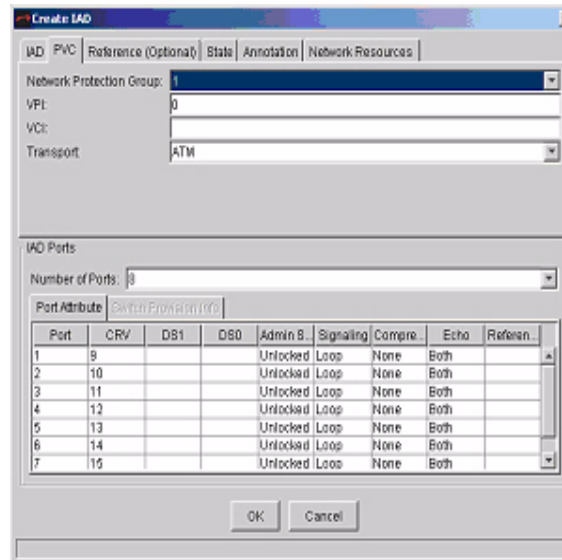


Figure 7-21. Create IAD—PVC Tab

- Step 9** Select a Protection Group to which the IAD is assigned from the Network Protection Group drop-down list.
- Step 10** Type the VPI value between 0 to 255 in the VPI field.
- Step 11** Type the VCI value in the VCI field. This identifies the subscriber-specific virtual circuit between the CPX-1000 and the ATM network.
- If VPI is 0, then the VCI range is 32 to 1023.
 - If VPI is >0, then the VCI range is 0 to 1023.
- Step 12** Select either ATM or Frame Relay from the Transport drop-down list. Transport selections are dependant upon the IAD Profile.



Note

The information on the Reference and Annotation tab is optional and does not affect the operation of IADs. It provides easy record-keeping when using multiple DSLAMs or having different subscriber's locations.

- Step 13** Click Reference (Optional). The Create IAD Reference tab appears (Figure 7-22).

Port	CRV	DS1	DS0	Admin S.	Signaling	Compre.	Echo	Referen..
1	9			Unlocked	Loop	None	Both	
2	10			Unlocked	Loop	None	Both	
3	11			Unlocked	Loop	None	Both	
4	12			Unlocked	Loop	None	Both	
5	13			Unlocked	Loop	None	Both	
6	14			Unlocked	Loop	None	Both	
7	15			Unlocked	Loop	None	Both	

Figure 7-22. Create IAD—Reference (Optional) Tab

- Step 14** Select the company providing the voice service from the Company drop-down list. If the company is not listed, type the name of the company in the Company field.
- Step 15** Select the DSLAM serving the subscriber from the DSLAM drop-down list. If the DSLAM is not listed, type the name of the DSLAM in the DSLAM field.
- Step 16** Select the subscriber from the Subscriber drop-down list. If the subscriber is not listed, type the name of the subscriber in the Subscriber field.



Note

When creating an IAD before its physical installation, the administrative state is Provisional (default). When the CPX-1000 discovers and recognizes the IAD, the administrative state automatically changes to Unlocked (IAD Admin States on page 7-2).

- Step 17** Click Annotation. The Annotation tab appears (page 7-23).

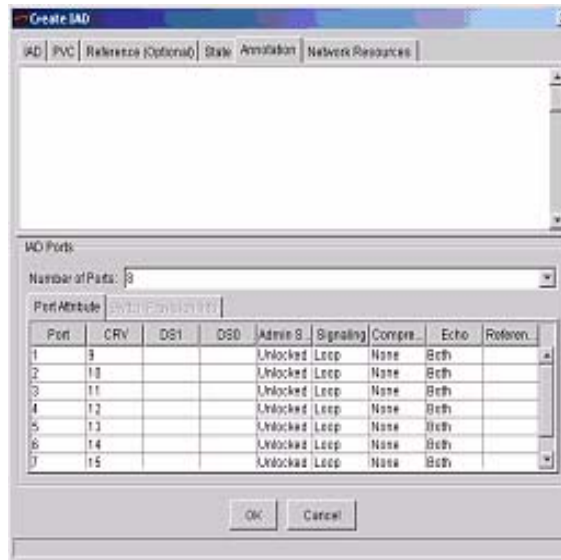


Figure 7-23. Create IAD—Annotation Tab

- Step 18** Place your cursor in the text box, and type a description of up to 200 alphanumeric characters (including punctuation and special characters).
- Step 19** Click Network Resources. The Network Resources tab appears (Figure 7-24).

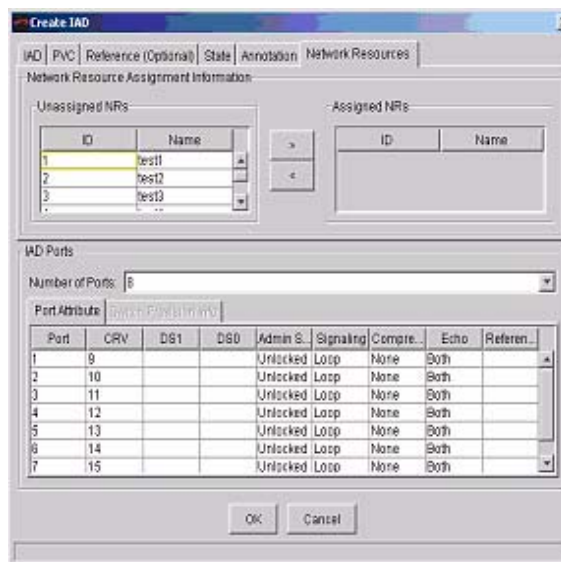



Figure 7-24. Create IAD—Network Resources Tab

- Step 20** Select the appropriate Network Resources from the Unassigned NRs column and click on the right-arrow button to move the Network Resource to the Assigned NRs column.
- Step 21** Click on OK to create the IAD.


Creating a LES CAS IAD Using the Create IAD Command

- Step 1** Click a desired CPX-1000 icon in the Tree view.
- Step 2** Select **Create IAD** from the Configuration menu.

– Or –

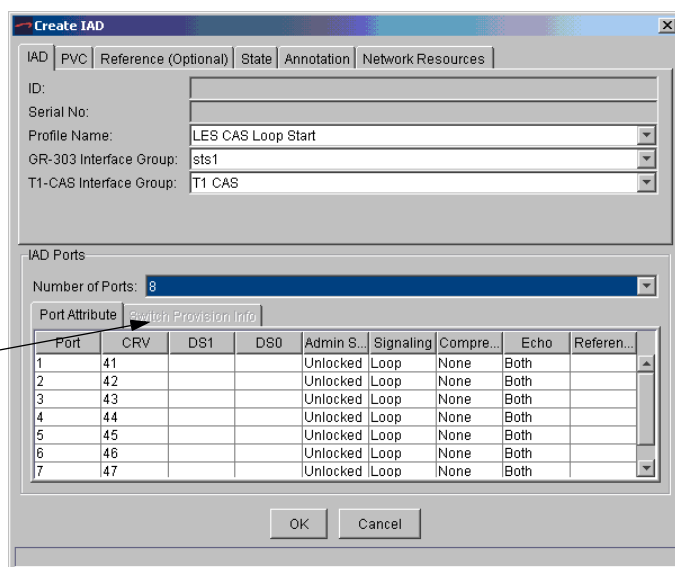
Right-click  on the Tree View or Map View and select **Create IAD**.

– Or –

Click  on the toolbar.

The Create IAD window appears (Figure 7–20).

Switch Provision Info tab is grayed out if Interface Group is not RT provisioned.



The screenshot shows the 'Create IAD' dialog box with the following configuration:

- ID:** (empty)
- Serial No.:** (empty)
- Profile Name:** LES CAS Loop Start
- GR-303 Interface Group:** sts1
- T1-CAS Interface Group:** T1 CAS
- IAD Ports:** Number of Ports: 8

The 'Port Attribute' tab is selected, showing a table of ports:

Port	CRV	DS1	DS0	Admin S.	Signaling	Compre...	Echo	Referen...
1	41			Unlocked	Loop	None	Both	
2	42			Unlocked	Loop	None	Both	
3	43			Unlocked	Loop	None	Both	
4	44			Unlocked	Loop	None	Both	
5	45			Unlocked	Loop	None	Both	
6	46			Unlocked	Loop	None	Both	
7	47			Unlocked	Loop	None	Both	

Buttons: OK, Cancel

Figure 7–25. Create IAD Window



Notes

If the Interface Group you selected is not RT provisioned, the `Switch Provision Info` tab is grayed out.

The IAD ID and serial number appear in their respective fields after you finish creating the IAD and it is successfully initialized.

Step 3 Select a LES CAS IAD Profile from the `Profile Name` drop-down list.

Step 4 For a Loop/Ground Start or Mixed Port IAD, select a GR-303 Interface Group from the `GR-303 Interface Group` drop-down list.

Step 5 Select the number of ports for the IAD from the `Number of Ports` drop-down list.

Step 6 As appropriate for the IAD type, select the values for the following IAD port parameters from the associated drop-down lists.

- CRV (Loop/Ground Start)
- DS1 (E&M Wink Start)
- DS0 (E&M Wink Start)
- Admin State
- Signaling
- Compression
- Echo Cancellation



Notes

If you do not know the CRV or want to enter it later, enter 0 (null). The Admin state of the port with CRV 0 is automatically locked.

If the CRV is provisioned by the Class 5 switch, CME returns the available CRVs and their corresponding signaling types.

Do not specify static 16 kbps compression for a LES CAS IAD.

Step 7 Optionally, type a directory number in the `Reference` field.

Step 8 Click PVC. The PVC tab appears (Figure 7–21).

The screenshot shows the 'Create IAD' dialog box with the 'PVC' tab selected. The 'Network Protection Group' is set to 1, 'VPI' is 0, 'VCI' is empty, and 'Transport' is ATM. The 'IAD Ports' section shows 8 ports. The table below is a representation of the data in the screenshot.

Port	CRV	DS1	DS0	Admin S.	Signaling	Compre...	Echo	Referen...
1	41			Unlocked	Loop	None	Both	
2	42			Unlocked	Loop	None	Both	
3	43			Unlocked	Loop	None	Both	
4	44			Unlocked	Loop	None	Both	
5	45			Unlocked	Loop	None	Both	
6	46			Unlocked	Loop	None	Both	
7	47			Unlocked	Loop	None	Both	

Figure 7–26. Create IAD—PVC Tab

Step 9 Select a Protection Group to which the IAD is assigned from the Network Protection Group drop-down list.

Step 10 Type the VPI value between 0 to 255 in the VPI field.

Step 11 Type the VCI value in the VCI field. This identifies the subscriber-specific virtual circuit between the CPX-1000 and the ATM network.

- If VPI is 0, then the VCI range is 32 to 1023.
- If VPI is >0, then the VCI range is 0 to 1023.

Step 12 Select either ATM or Frame Relay from the Transport drop-down list. Transport selections are dependant upon the IAD Profile.



Note

The information on the Reference and Annotation tab is optional and does not affect the operation of IADs. It provides easy record-keeping when using multiple DSLAMs or having different subscriber's locations.

- Step 13** Click Reference (Optional). The Create IAD Reference tab appears (Figure 7–22).

Port	CRV	DS1	DS0	Admin S.	Signaling	Compre...	Echo	Referen...
1	41			Unlocked	Loop	None	Both	
2	42			Unlocked	Loop	None	Both	
3	43			Unlocked	Loop	None	Both	
4	44			Unlocked	Loop	None	Both	
5	45			Unlocked	Loop	None	Both	
6	46			Unlocked	Loop	None	Both	
7	47			Unlocked	Loop	None	Both	

Figure 7–27. Create IAD—Reference (Optional) Tab

- Step 14** Select the company providing the voice service from the Company drop-down list. If the company is not listed, type the name of the company in the Company field.
- Step 15** Select the DSLAM serving the subscriber from the DSLAM drop-down list. If the DSLAM is not listed, type the name of the DSLAM in the DSLAM field.
- Step 16** Select the subscriber from the Subscriber drop-down list. If the subscriber is not listed, type the name of the subscriber in the Subscriber field.



Note

When creating an IAD before its physical installation, the administrative state is Provisional (default). When the CPX-1000 discovers and recognizes the IAD, the administrative state automatically changes to Unlocked.

Step 17 Click **Annotation**. The **Annotation** tab appears (page 7-23).

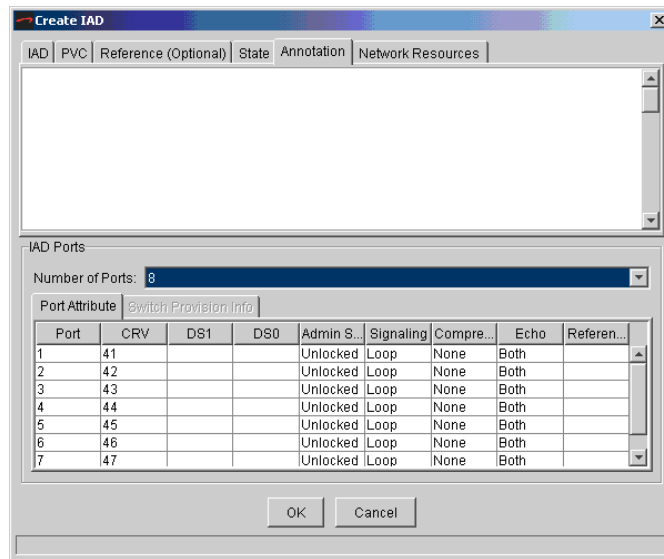


Figure 7-28. Create IAD—Annotation Tab

Step 18 Place your cursor in the text box and type a description of up to 200 alphanumeric characters (including punctuation and special characters).

Step 19 Click **Network Resources**. The **Network Resources** tab appears (Figure 7-24).

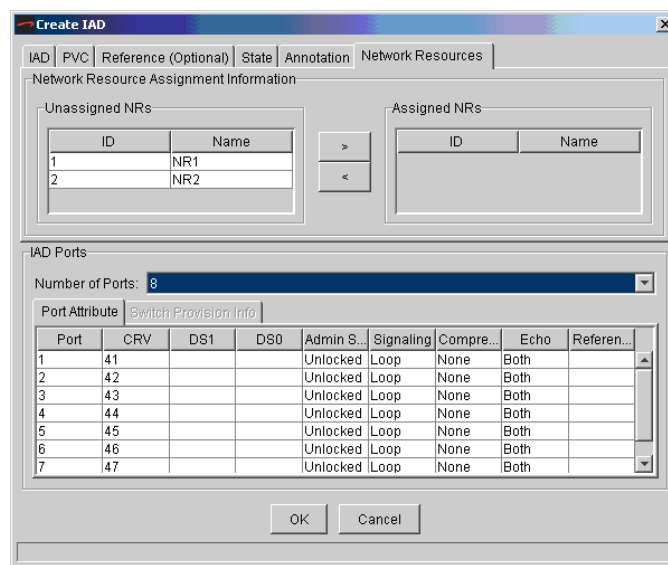


Figure 7-29. Create IAD—Network Resources Tab

- Step 20** Select the appropriate Network Resources from the Unassigned NRs column and click on the right-arrow button to move the Network Resource to the Assigned NRs column.
- Step 21** Click on OK to create the IAD.

Creating Bulk IADs

You can specify a contiguous order or a range of CRVs when creating multiple IADs. Regardless of your options, you must specify at least 1 CRV and cannot exceed 2,048 CRVs per IG.

When specifying a range of CRV and some of the CRVs in between are already taken, then those CRVs are omitted during the bulk creation. You can use one and/or any combinations of syntax listed in Table 7-3 when creating bulk IADs.

Table 7-3. Bulk Creation Syntax

Syntax	Description
N or N-	The CRV starts from a continues ascending order. For example, if N=1. The CRV starts from the first available one until it reaches the maximum CRV available.
N N N	The CRV starts with multiple digits from a continues ascending order. A space is placed between each digit. For example, if N N N= 1 2 3. The CRV starts from the first available one until it reaches the maximum CRV available.
N,	The specified CRV is used. For example, if N=40, then CRV used is 40.
N, R1-R2	A specified CRV, then followed by a range of CRVs. For example, if N=1, R1=100, and R2=200. The CRV starts with 1, then move to 100 and continues through 200 until the maximum CRV is reached.
N, R1-R2	A specified CRV, then descends to a range of CRVs. For example, if N=200, R1=250, and R2=100. The CRV starts with 200, then goes to 250 and descends to 100 until the minimum CRV is reached.
≤N	Any available/not-used CRV less than or equal to the number specified. For example, if N=1024. The CRV starts with 1024 and descends until the minimum CRV is reached.

Table 7-3. Bulk Creation Syntax (Continued)

Syntax	Description
<N	Any available CRV less than the number specified. For example, if N=1024. The CRV starts with 1023 and descends until the minimum CRV is reached.
≥N	Any available/not-used CRV more than or equal to the number specified. For example, if N=1024. The CRV starts with 1024 and continues until the minimum CRV is reached.
>N	Any available CRV more than the number specified. For example, if N=1024. The CRV starts with 1025 and continues until the maximum CRV is reached.

**Note**

Bulk creation of LES CAS E&M Wink and Mixed Port IADs is not supported.

RT Provisioning is not supported when creating multiple IADs.


You can create multiple IADs based on a common IAD Profile.

To create multiple IADs:


Step 1 Click a CPX-1000 icon in the Tree View.

Step 2 Select IAD Manager from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select IAD Manager from the pop-up menu.

– Or –

Click  on the toolbar.

The IAD Configuration Manager window appears (Figure 7-30).

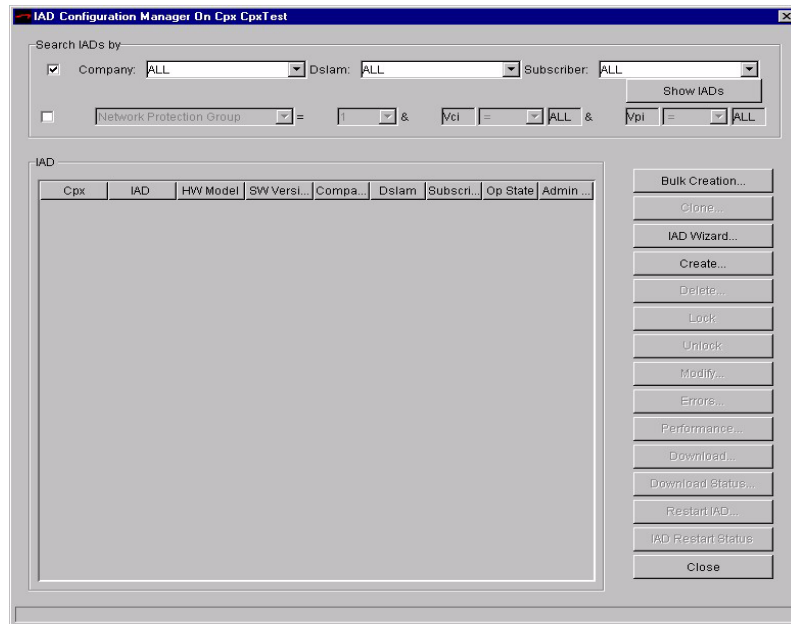


Figure 7-30. IAD Configuration Manager Window

Step 3

Click Bulk Creation. The Bulk IAD Creation window appears (Figure 7-31).

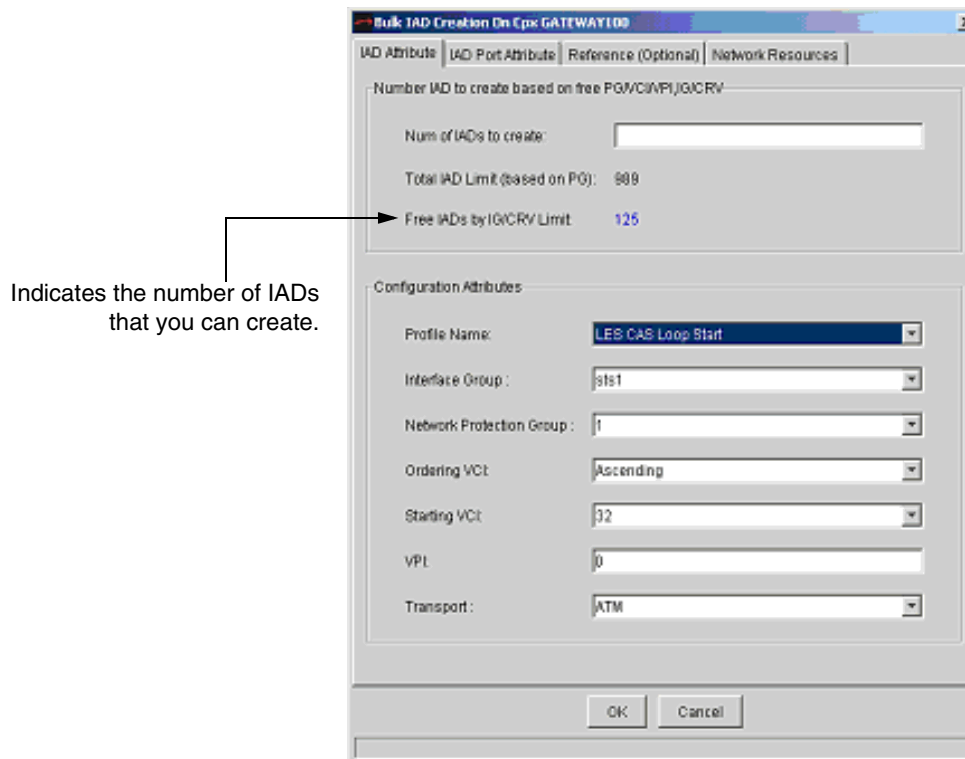


Figure 7-31. Bulk IAD Creation Window



Note

The number of IADs you can create is the lower value between PG and IG/CRV limits.

- Step 4** Type the VPI value between 0 to 255 in the VPI field.
- Step 5** Select an IAD Profile association for the IADs from the Profile Name drop-down list.
- Step 6** Select an Interface Group association from the Interface Group drop-down list.
- Step 7** Select a Protection Group association from the ATM Protection Group drop-down list.
- Step 8** Select *Ascending* or *Descending* from the Ordering VCI drop-down list.
- Step 9** Select the starting VCI value from the Starting VCI drop-down list.
- Step 10** Type the number of IADs you want to create in the Num of IADs to create field.
- Step 11** Select ATM or Frame Relay from the Transport drop-down list.

- Step 12** Click IAD Port Attribute. The IAD Port Attribute tab appears (Figure 7-32).

The screenshot shows a dialog box titled "Bulk IAD Creation On Cpe: GATEWAY100". It has four tabs: "IAD Attribute", "IAD Port Attribute", "Reference (Optional)", and "Network Resources". The "IAD Port Attribute" tab is selected. The dialog is divided into two main sections: "IAD Port Settings" and "Configuration Attributes".

IAD Port Settings:

- Num of IAD Ports: 16 (dropdown menu)
- Null CRV Port list: (empty text field)
- Example: 1, 3-5, 7

Configuration Attributes:

- CRV Range: 41 (text field)
- Example: 100,150-200,>301
- Echo: Both (dropdown menu)
- Signaling: Loop (dropdown menu)
- Compression: None (dropdown menu)

At the bottom of the dialog are "OK" and "Cancel" buttons.

Figure 7-32. Bulk IAD Creation Window—IAD Port Attribute Tab

- Step 13** Select the number of IAD ports that will be used by each IAD from the Num of IAD Ports drop-down list.
- Step 14** Type the number of ports with “null” CRVs in the Null CRV Port list field.



Notes

Null ports can be manually assigned CRVs from the Modify IAD window (page 7-40).

You can specify a range of CRV by using commas (,) and dashes (-).

- Step 15** Type the starting CRV number if you want to change the value shown in the CRV Range field. (By default, this field shows the first available CRV.)
- Step 16** Select *Both* or *None* echo support from the Echo drop-down list.
- Step 17** Select *Loop* or *Ground* from the Signaling drop-down list.
- Step 18** Select a compression type from the Compression drop-down list.



Note

The information on the Reference tab is optional and does not affect the operation of IADs. It provides easy record-keeping when using multiple DSLAMs or having different subscriber's locations.

- Step 19** Click *Reference (Optional)*. The Reference (Optional) tab appears (Figure 7-33).

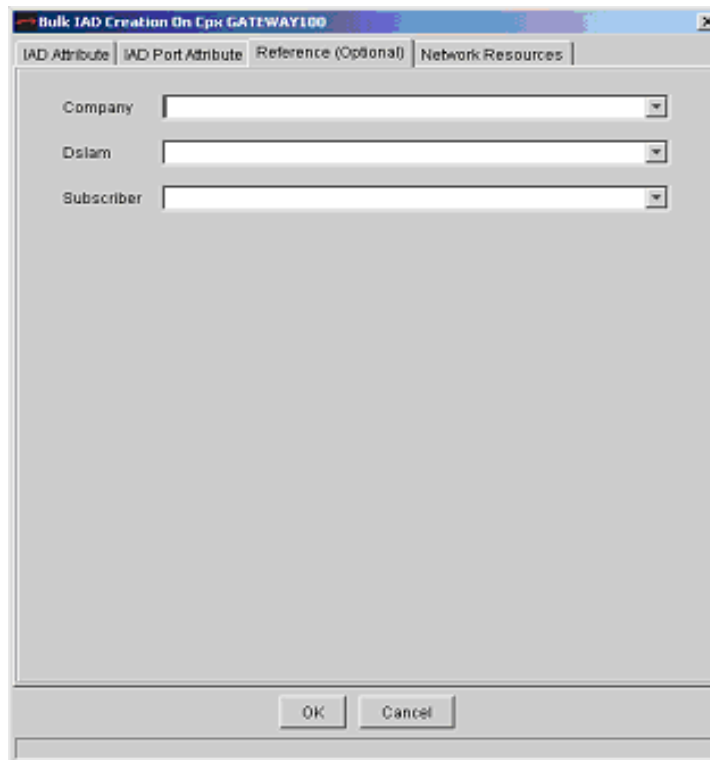


Figure 7-33. Bulk IAD Creation Window—Reference (Optional) Tab

- Step 20** Select the company providing the voice service from the Company drop-down list. If the company is not listed, type the name of the company in the Company field.
- Step 21** Select the DSLAM serving the subscriber from the DSLAM drop-down list. If the DSLAM is not listed, type the name of the DSLAM in the DSLAM field.
- Step 22** Select the subscriber from the Subscriber drop-down list. If the subscriber is not listed, type the name of the subscriber in the Subscriber field.
- Step 23** Click on the Network Resources tab. The Network Resources screen appears (Figure 7-34).

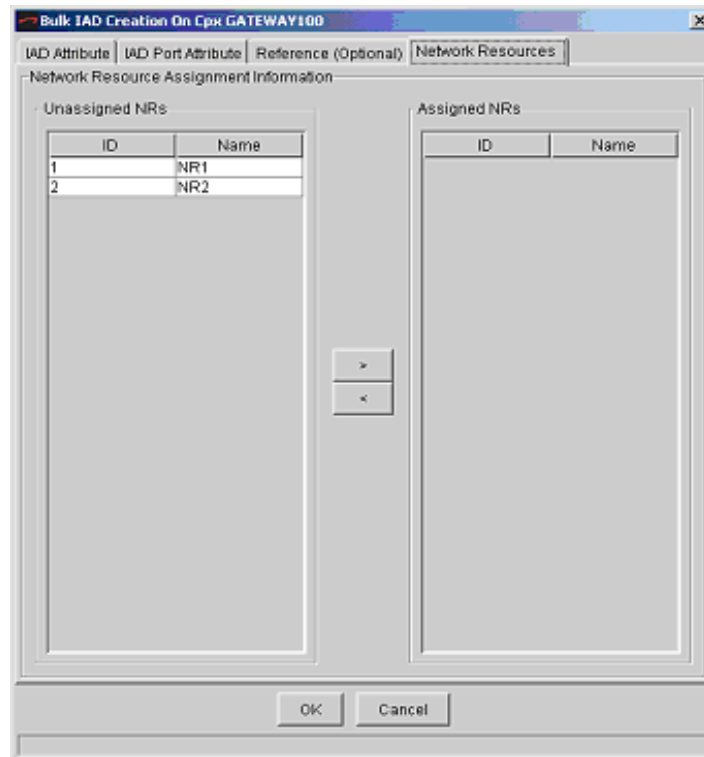


Figure 7-34. Bulk IAD Creation Window—Network Resources Tab

- Step 24** Select and assign NRs as required. The Assign button (>) moves a selected NR from the Unassigned column to the Assigned column. The Unassign button (<) moves a selected NR from the Assigned column to the Unassigned column.
- Step 25** Click OK to create the IADs.

Cloning IADs

Cloning IADs lets you create one or more IADs based on an existing IAD's provisioning attributes. IADs cloned from an existing IAD have the same attributes as the original.



Note

RT Provisioning is not supported when cloning IADs. Cloning of LESCAS E&M Wink and Mixed Port IADs is not supported.

To clone an existing IAD:


Step 1

Click a desired CPX-1000 icon in the Tree view.

Step 2

Select **IAD Manager** from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select **IAD Manager** from the pop-up menu.

– Or –

Click  on toolbar.

The IAD Configuration Manager window appears (Figure 7–35).

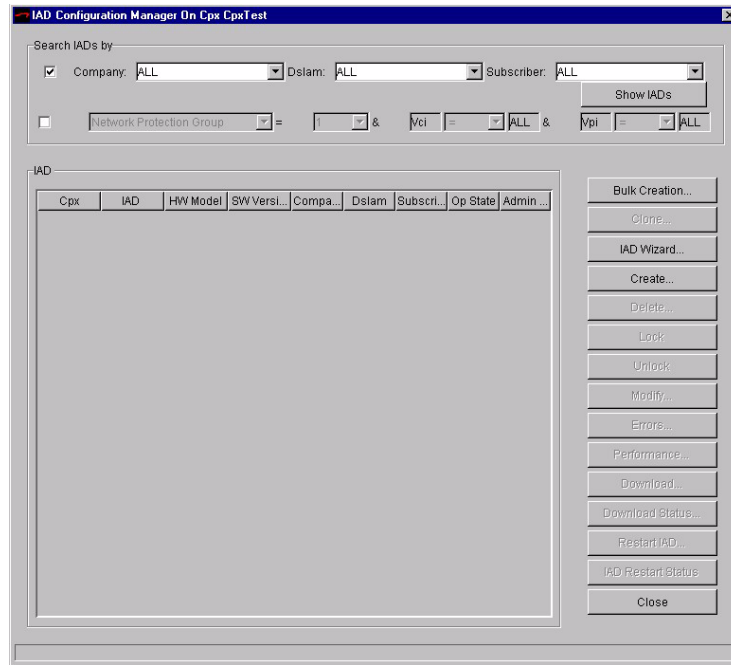


Figure 7-35. IAD Configuration Manager Window

Step 3 Click Show IADs. A list of available IADs appears (Figure 7-36).

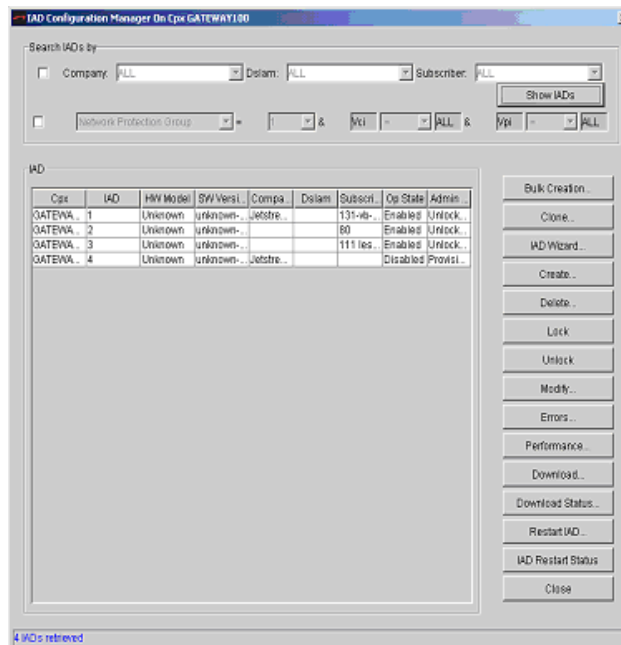


Figure 7-36. IAD Configuration Manager Window with IADs Displayed

Step 4 Select an IAD that you want to use for cloning from the IAD list.

Step 5 Click Clone. The Clone IAD window appears (Figure 7–37).

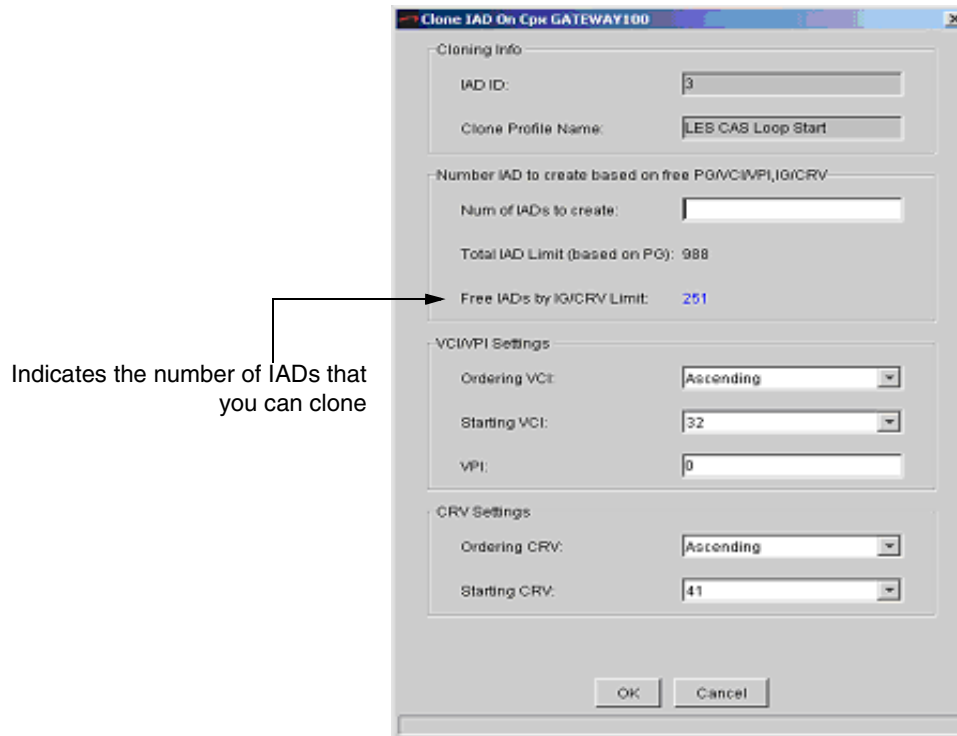


Figure 7–37. Clone IAD Window

Step 6 Type the VPI value between 0 to 255 in the VPI field.

Step 7 Select the following VCI settings.

- Ascending or Descending from the Ordering VCI drop-down list.
- the starting VCI value from the Starting VCI drop-down list.

Step 8 Select the following CRV settings.

- Ascending or Descending from the Ordering CRV drop-down list.
- the starting CRV number from the Starting CRV drop-down list.

Step 9 Type the number of IADs you want to create in the Num of IADs to create field.

Step 10 Click OK. A progress window appears, indicating the cloning status.

When cloning is complete, the new IADs appear in the IAD list in the IAD Configuration Manager window.

Modifying IADs

You can modify one IAD or multiple IADs at a time (Modifying Multiple IADs on page 7-42).



Note

The Modification of DS1/DS0s in LES CAS E&M Wink or Mixed Port IADs is not supported. If modification for those ports is required, the IAD must be deleted and recreated.

Modifying an IAD

To modify an IAD:


Step 1

Click a desired CPX-1000 icon in the Tree view.


Step 2

Select **IAD Manager** from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select **IAD Manager** from the pop-up menu.

– Or –

Click  on the toolbar.

The IAD Configuration Manager window appears (Figure 7-38).

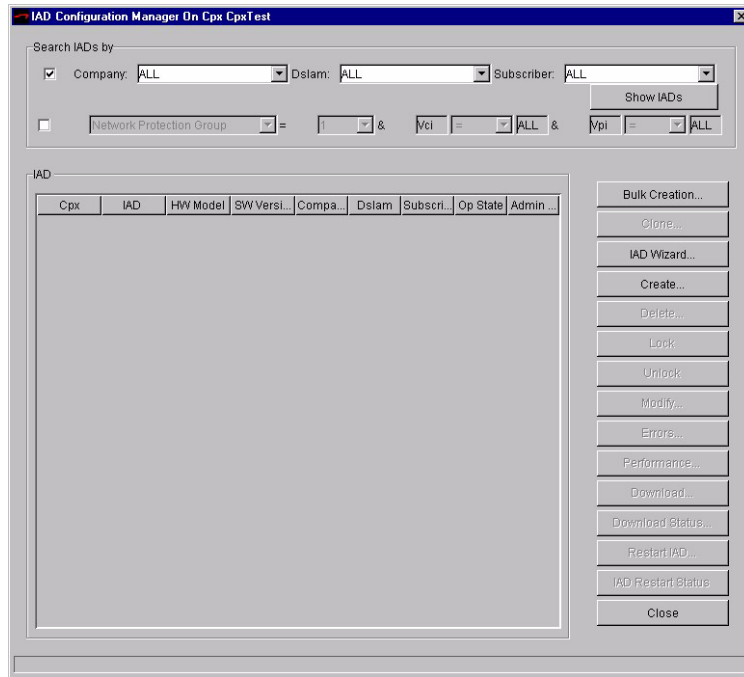


Figure 7-38. IAD Configuration Manager Window

Step 3 Click Show IADs. A list of available IADs appears (Figure 7-39).

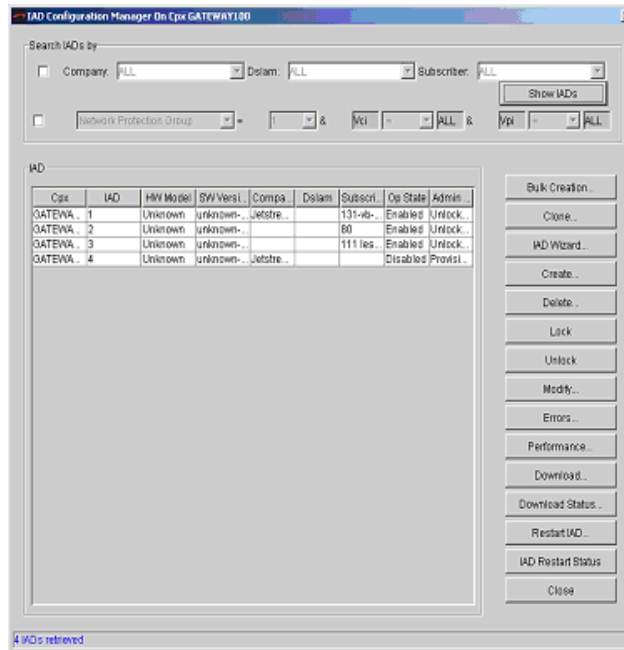


Figure 7-39. IAD Configuration Manager Window with IADs Displayed

- Step 4** Select the IAD that you want to modify.
- Step 5** Click **Modify**. The Modify IAD window appears (Figure 7-40).

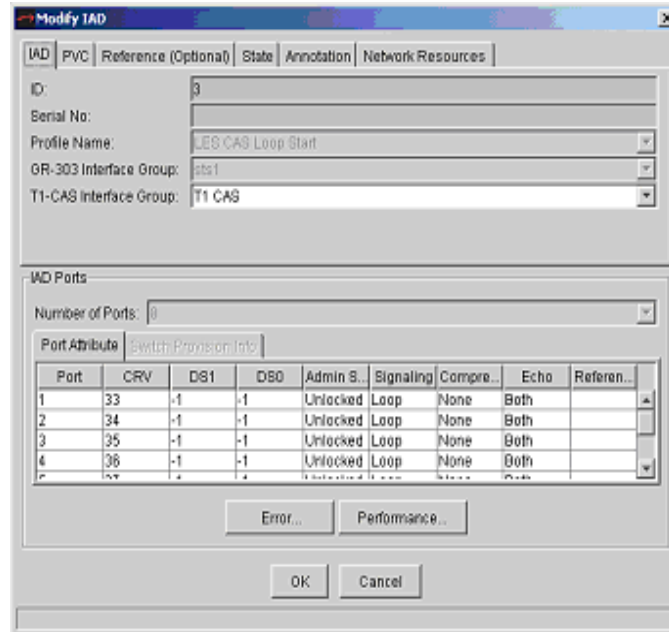


Figure 7-40. Modify IAD Window

- Step 6** Modify any information, as necessary (Provisioning IADs on page 7-4).



Notes

The Admin state of the IAD port must be locked before the CRV can be changed.
The PVC tab cannot be modified.


- Step 7** Click **OK** to accept the changes and return to the IAD Configuration Manager window.
- Step 8** Click **Close**.

Modifying Multiple IADs


To modify multiple IADs:

- Step 1** Click a desired CPX-1000 icon in the Tree view.
- Step 2** Select **IAD Manager** from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select IAD Manager from the pop-up menu.

– Or –

Click  on the toolbar.

The IAD Configuration Manager window appears (Figure 7–41).

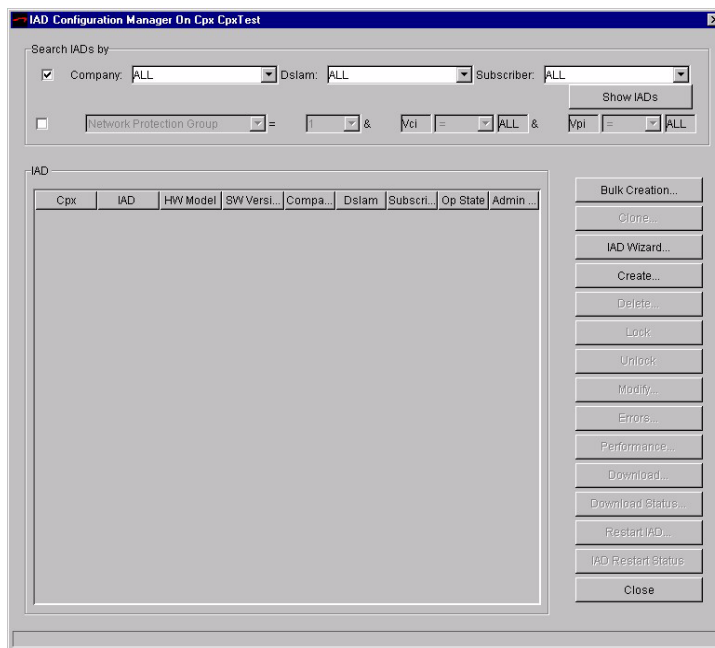


Figure 7–41. IAD Configuration Manager Window

Step 3 Click Show IADs. A list of available IADs appears (Figure 7–42).

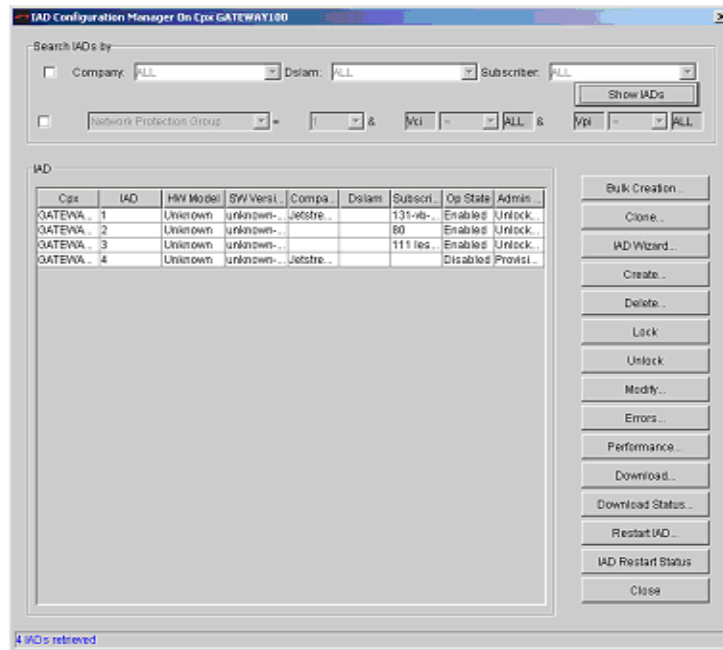


Figure 7-42. IAD Configuration Manager Window with IADs Displayed

Step 4 Select the IADs that you want to modify.



Note

To select multiple IADs, hold down the **Shift** or **Ctrl** key while making your selections. Using the **Shift** key lets you make your selections in contiguous order; the **Ctrl** key lets you select IADs in a random order.

Step 5 Click **Modify**. The Bulk IAD Modification window appears (Figure 7-43).

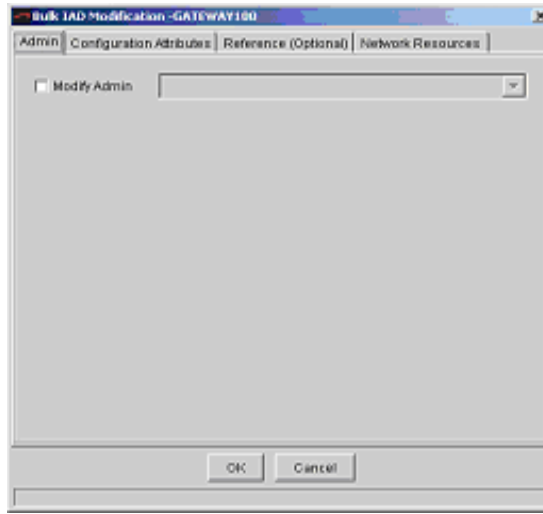


Figure 7-43. Bulk IAD Modification Window

Step 6

Click to select the `Modify Admin` checkbox, and select `Locked` from the drop-down list (Figure 7-44).

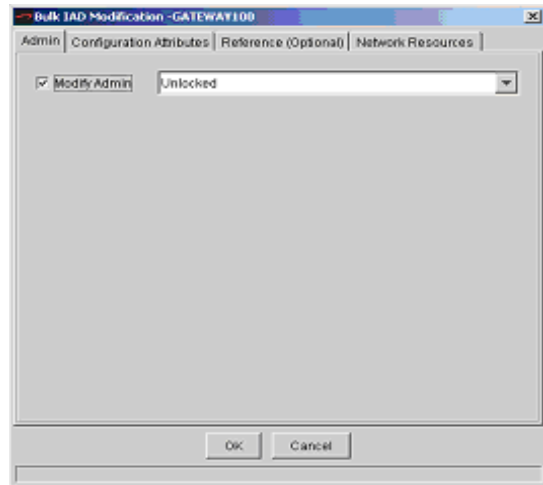


Figure 7-44. Bulk IAD Modification Window with Admin State Selection

- Step 7** Click **Configuration Attributes**. The **Configuration Attributes** window appears (Figure 7-45).

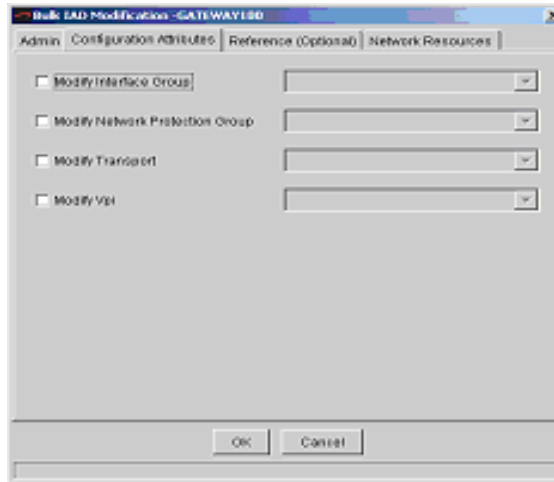


Figure 7-45. Bulk IAD Modification—Configuration Attributes Tab

- Step 8** Click to select the appropriate modification checkbox and make a selection from the accompanying drop-down list.



Note

The information on the **Reference** tab is optional and does not affect the operation of IADs. It provides easy record-keeping when using multiple DSLAMs or having different subscriber's locations.

- Step 9** Click **Reference (Optional)**. The **Reference (Optional)** window appears (Figure 7-46).

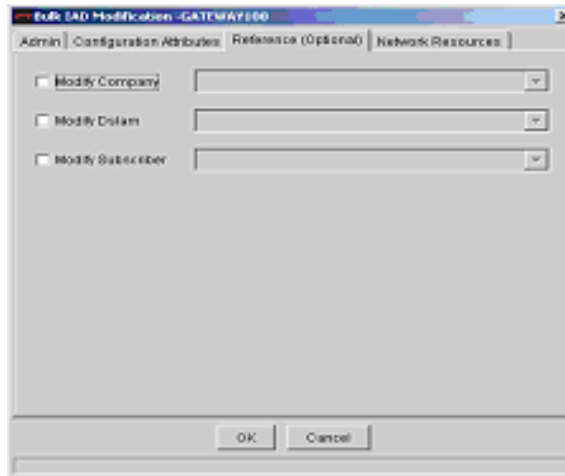


Figure 7-46. Bulk IAD Modification—Reference (Optional) Tab

- Step 10** Select the appropriate modification checkbox and make a selection from the accompanying drop-down list.
- Step 11** Click the **Admin** tab and select **Unlocked** from the accompanying drop-down list.
- Step 12** Click **OK** to modify the IADs.

Deleting IADs

Before deleting an IAD, set its administrative state to **Locked** (Modifying IADs on page 7-40).


To delete an IAD:

- Step 1** Click a desired CPX-1000 icon in the Tree view.
- Step 2** Select **IAD Manager** from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select **IAD Manager** from the pop-up menu.

– Or –

Click  on the toolbar.

The IAD Configuration Manager window appears (Figure 7-47).

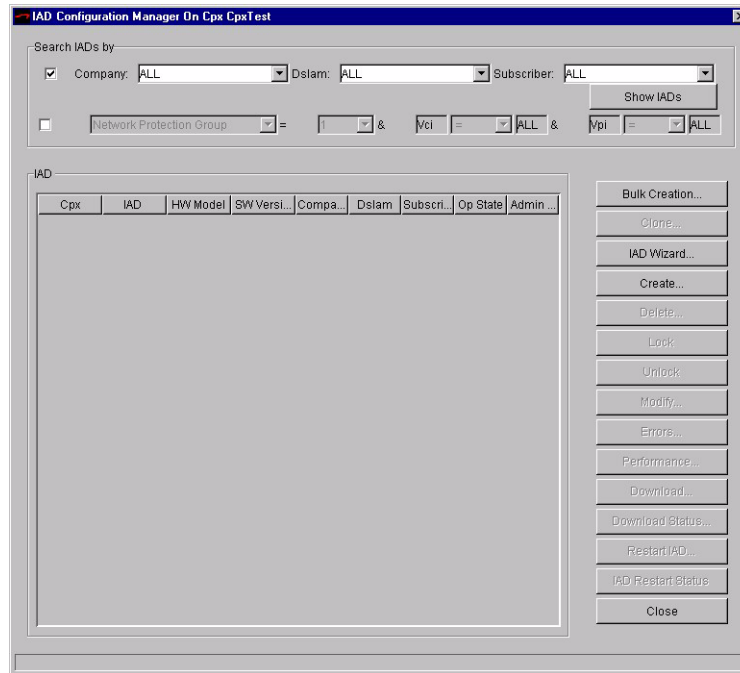


Figure 7-47. IAD Configuration Manager Window

Step 3 Click Show IADs. A list of available IADs appears (Figure 7-48).

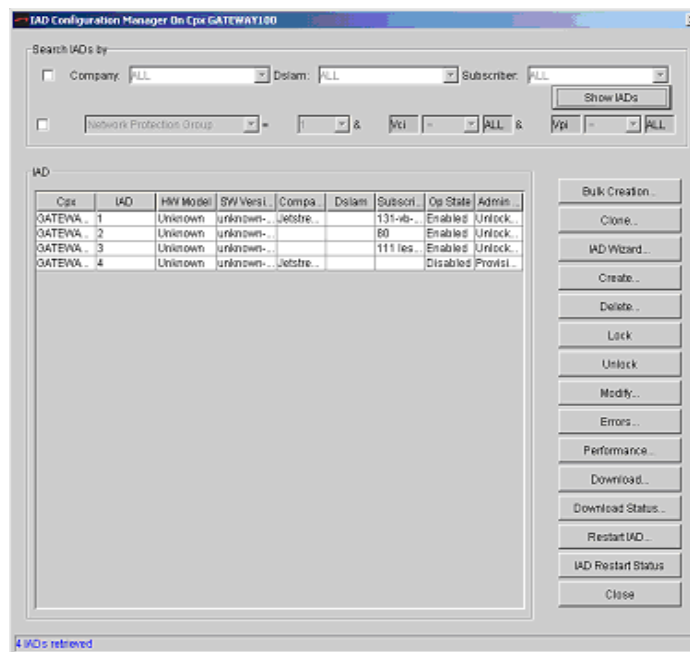


Figure 7-48. IAD Configuration Manager Window with IADs Displayed

Step 4 Select the IADs that you want to delete.



Note

To select multiple IADs, hold down the `Shift` or `Ctrl` key while making your selections. Using the `Shift` key lets you make your selections in contiguous order; the `Ctrl` key lets you select IADs in a random order.

Step 5 Click `Delete IAD`. The Delete IAD window appears (Figure 7-49).

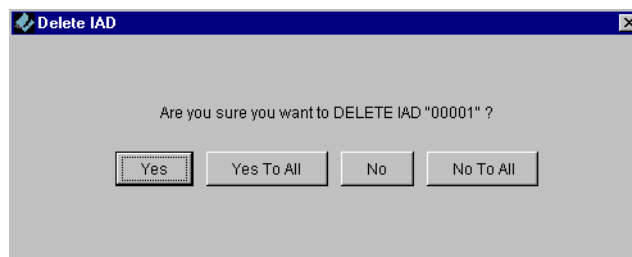


Figure 7-49. Delete IAD Window

Step 6 Click one of the following:

- `Yes`: deletes a single IAD and returns you to the IAD Configuration Manager window.
- `Yes To All`: deletes all selected IADs.
- `No`: returns you to the IAD Configuration Manager window.
- `No To All`: returns you to the IAD Configuration Manager window.

Step 7 Click `Close` to exit the IAD Configuration Manager window.

Filtering IADs

You can customize the search of IADs by using one or a combination of the following areas:

- Company and DSLAM and Subscriber
- ATM Protection Group, Interface Group, IAD hardware model and software version


Searching of LES CAS IADs based upon IAD hardware model and software version is not supported.

To search for IADs:


Step 1 Click a desired CPX-1000 icon in the Tree view.

Step 2 Select IAD Manager from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select IAD Manager from the pop-up menu.

– Or –

Click  on the toolbar.

The IAD Configuration Manager window appears (Figure 7-47).

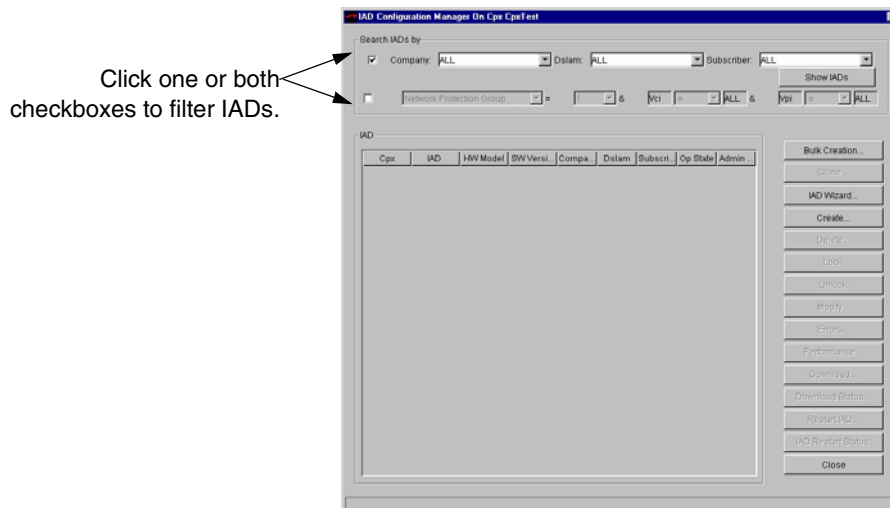


Figure 7-50. IAD Configuration Manager Window

Step 3 Specify your search by clicking one or a combination of the following areas:

- Company and DSLAM and Subscriber
- Network Protection Groups, Interface Group, hardware (HW) model and software (SW) version

Searching by Company, DSLAM, and Subscriber

Step 1 Proceed as Steps 1 and 2 in Filtering IADs on page 7-49.

Step 2 Click the checkbox next to *Company*, and select the name of the company assigned to the IADs from the drop-down list. The DSLAM and the subscriber for that company is automatically selected.

Searching by the Network Protection Groups

- Step 1** Proceed as Steps 1 and 2 in Filtering IADs on page 7-49.
- Step 2** Select `Network Protection Group` from the drop-down list. Both the VCI and VPI fields are enabled.
- Step 3** Type the Network Protection Group identifier, or select it from the drop-down list.
- Step 4** Select a range of VCI values by using the less than (<) or greater than (>) symbols from the drop-down list, then type a VCI value in the text field.
- Step 5** Select a range of VPI values by using the less than (<) or greater than (>) symbols from the drop-down list, then type a VPI value in the text field.



Note

When the CRV/VCI/VPI value is not specified, *All* (default) is used. The default indicates that the filter only applies to the Interface Group or Network Protection Group, regardless of the CRV/VCI/VPI value.

Searching by the Interface Groups

- Step 1** Proceed as Steps 1 and 2 in Filtering IADs on page 7-49.
- Step 2** Select `Interface Group` from the drop-down list.
- Step 3** Type the Interface Group identifier, or select it from the drop-down list.
- Step 4** Select a range of CRV by using the less than (<) or greater than (>) symbols from the drop-down list.
- Step 5** Type a CRV number, or select it from the drop-down list.

Searching by the Hardware Model and Software Version

- Step 1** Proceed as Steps 1 and 2 in Filtering IADs on page 7-49.
- Step 2** Select `HW Model` from the drop-down list.
- Step 3** Type the model type, or select it from the drop-down list.

Step 4

To further refine the search, select a software version from the SW Version drop-down list, or leave the default as ALL to select all software versions..

The software version(s) available in the list depends upon the hardware model chosen.

Network Resource Manager

Overview

The Network Resource Manager (NRM) is a mechanism to allow carriers to manage constraints within their network. These constraints may be bandwidth or number of calls a network resource can handle without service degradation.

In typical VoBB deployments, the first method of defense against bandwidth over-allocation is prioritization: voice traffic is granted priority over data traffic, so as more calls are allowed to enter the network, data traffic is reduced.

However, it is critical that Call Admission Control be properly performed. If a packet link is overloaded with high priority traffic, the network cannot identify which packets to throw away, so all calls are affected (not just those recently added). The results can be catastrophic, with dozens of calls rendered unintelligible.

While the CPX-1000 does not have direct knowledge of the network, it can track resources that are common to IADS. The CPX can learn the topology of the network and the associated network constraints and perform the Call Admission Control (CAC).

The CPX can support up to 256 network resources with a provisionable bandwidth thresholds. The CPX can then track utilization of each network resource. Before starting a call, it verifies that there is sufficient bandwidth available for the associated network resource to accept the call. If not, the call is rejected.

This chapter describes:

- Provisioning network resources
- Configuring network resources for IADs
- Viewing online performance charts for network resources
- Viewing historical performance charts for network resources

Provisioning

The user can create, modify and delete network resources from the NRM window. These operations can be performed using the tool bar or the Operations menu in the Network Resource Manager window.

To provision network resources:

- Step 1** Click a desired CPX-1000 icon in the Tree view.
- Step 2** Select Network Resource Manager from the Services menu. The Network Resource Manager window appears (Figure 8-1).

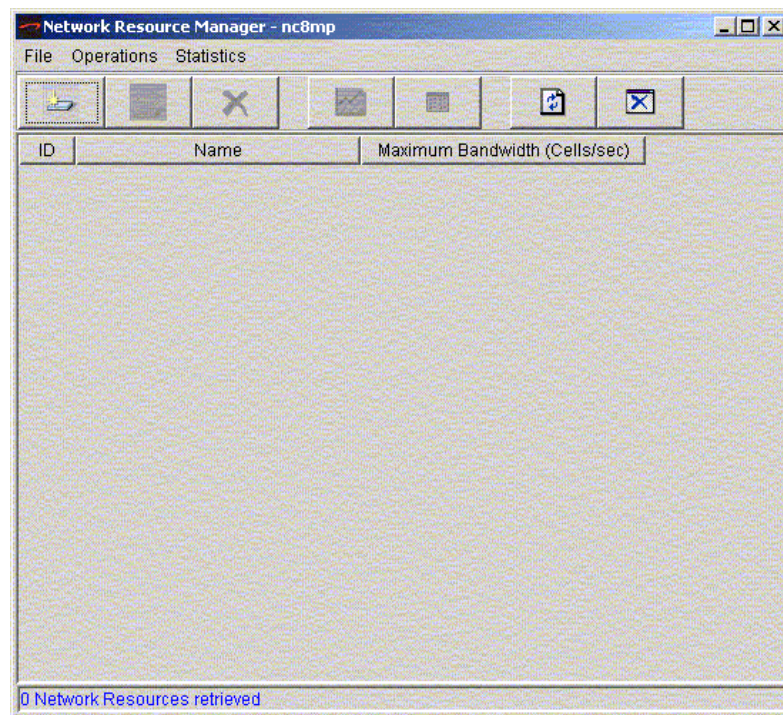



Figure 8-1. Network Resource Management Window

- Step 3** Select Create from the Operations menu

- Or -

Click the Create icon  on the toolbar. A Create dialog box appears.

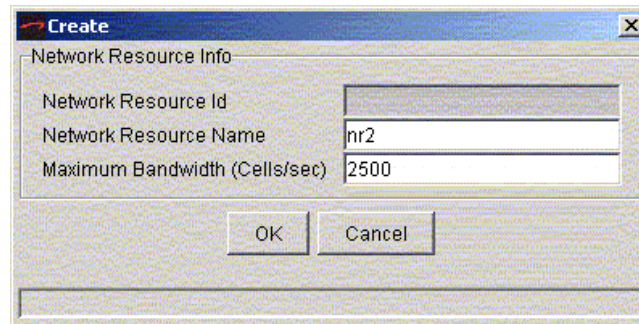



Figure 8-2. Network Resource Manager Create Dialog

- Step 4** Enter the following information:
- Network Resource Name. Enter from 4 to 63 alphanumeric characters (including no spaces, hyphens, or special characters).
 - Maximum Bandwidth (Cells/sec). Enter a number between 200 and 1466981, inclusive.
- Step 5** Click on OK. The new network resource you created appears in the Network Resource Manager Window.

Modifying a Network Resource

To modify a provisioned network resource:

- Step 1** Select a network resource in the Network Resource Manager window.
- Step 2** Select **Modify** from the Operations menu
- Or –
- Click  on the toolbar. The Modify dialog window appears.
- Step 3** Make your desired modifications.
- Step 4** Click on OK.

Deleting a Network Resource

To delete a provisioned network resource:

- Step 1** Select a network resource in the Network Resource Manager window.
- Step 2** Click the Delete icon. A deletion confirmation window appears. Click on OK.
- Click on Close to exit the Network Resource Manager.

Viewing Online Performance Charts

The CPX Network Management system provides the user with current statistics of Allocated Bandwidth and Rejected Calls.

To view online performance charts for NRM:

- Step 1** Click a CPX node icon from the Tree View for the CPX-1000 that the Network Resources is associated with.
- Step 2** Select Network Resource Manager from the Services menu. The Network Resource Manager window appears.
- Step 3** Select a network resource in the Network Resource Manager window
- Step 4** Select Online Performance Graphs from Statistics menu
- Or -
- Click on the Current PM icon on the toolbar. The Performance Graphs window appears.
- Step 5** Click on the Show button to view the graphs.
- Step 6** Click on the Close button to exit the window.

Viewing Historical Performance Charts

Jetvision can also provide the user with 15-minute and 24-hour historical performance charts for each network resource. The following values are displayed:

- Allocated Bandwidth
- Released Bandwidth
- Number of Rejected Calls
- Peak Bandwidth

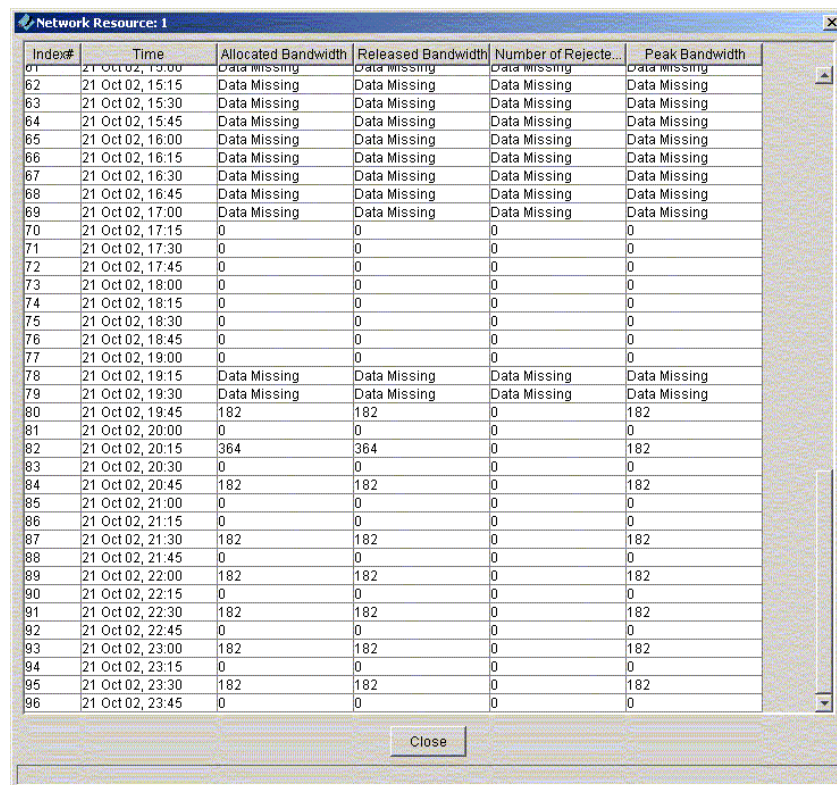
To view historical performance charts for NRM:

- Step 1** Click a CPX node icon from the Tree View for the CPX-1000 that the Network Resource is associated with.

Step 2 Select Network Resource Manager from the Services menu. The Network Resource Manager window appears.

Step 3 Select a network resource in the Network Resource Manager window, then click on the Historical PM icon from the toolbar, or select Historical Performance Graphs from Statistics menu. The Performance Graphs window appears.

The display can be shown in a table format (Figure 8–3), bar graph (Figure 8–4) or line graph (Figure 8–5). The tool bar in this window has zoom, filter and summary features which can be used to further refine the displayed data.



Index#	Time	Allocated Bandwidth	Released Bandwidth	Number of Rejects...	Peak Bandwidth
61	21 Oct 02, 15:00	Data Missing	Data Missing	Data Missing	Data Missing
62	21 Oct 02, 15:15	Data Missing	Data Missing	Data Missing	Data Missing
63	21 Oct 02, 15:30	Data Missing	Data Missing	Data Missing	Data Missing
64	21 Oct 02, 15:45	Data Missing	Data Missing	Data Missing	Data Missing
65	21 Oct 02, 16:00	Data Missing	Data Missing	Data Missing	Data Missing
66	21 Oct 02, 16:15	Data Missing	Data Missing	Data Missing	Data Missing
67	21 Oct 02, 16:30	Data Missing	Data Missing	Data Missing	Data Missing
68	21 Oct 02, 16:45	Data Missing	Data Missing	Data Missing	Data Missing
69	21 Oct 02, 17:00	Data Missing	Data Missing	Data Missing	Data Missing
70	21 Oct 02, 17:15	0	0	0	0
71	21 Oct 02, 17:30	0	0	0	0
72	21 Oct 02, 17:45	0	0	0	0
73	21 Oct 02, 18:00	0	0	0	0
74	21 Oct 02, 18:15	0	0	0	0
75	21 Oct 02, 18:30	0	0	0	0
76	21 Oct 02, 18:45	0	0	0	0
77	21 Oct 02, 19:00	0	0	0	0
78	21 Oct 02, 19:15	Data Missing	Data Missing	Data Missing	Data Missing
79	21 Oct 02, 19:30	Data Missing	Data Missing	Data Missing	Data Missing
80	21 Oct 02, 19:45	182	182	0	182
81	21 Oct 02, 20:00	0	0	0	0
82	21 Oct 02, 20:15	364	364	0	182
83	21 Oct 02, 20:30	0	0	0	0
84	21 Oct 02, 20:45	182	182	0	182
85	21 Oct 02, 21:00	0	0	0	0
86	21 Oct 02, 21:15	0	0	0	0
87	21 Oct 02, 21:30	182	182	0	182
88	21 Oct 02, 21:45	0	0	0	0
89	21 Oct 02, 22:00	182	182	0	182
90	21 Oct 02, 22:15	0	0	0	0
91	21 Oct 02, 22:30	182	182	0	182
92	21 Oct 02, 22:45	0	0	0	0
93	21 Oct 02, 23:00	182	182	0	182
94	21 Oct 02, 23:15	0	0	0	0
95	21 Oct 02, 23:30	182	182	0	182
96	21 Oct 02, 23:45	0	0	0	0

Figure 8–3. NRM Historical PM – Table Format

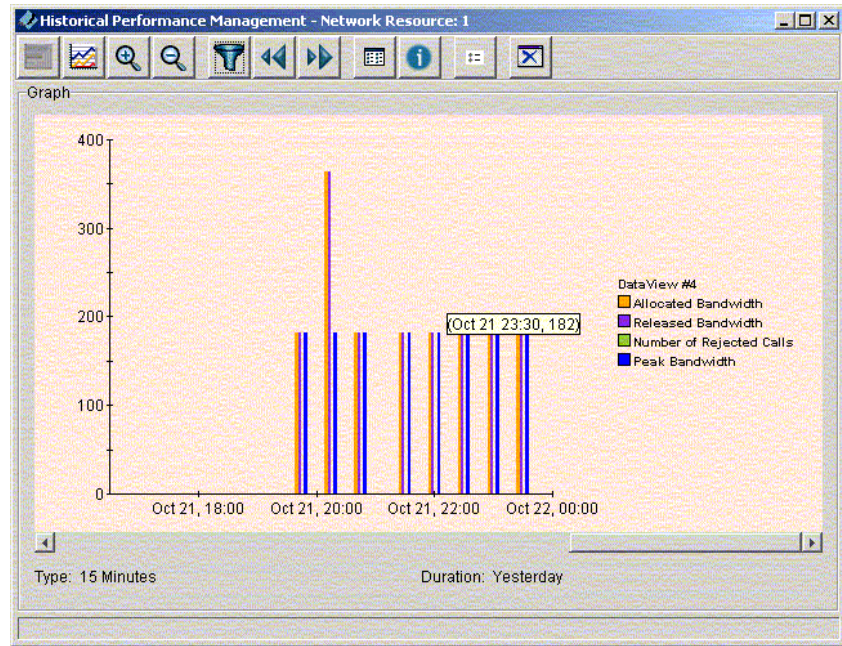


Figure 8-4. NRM Historical PM – Bar Format

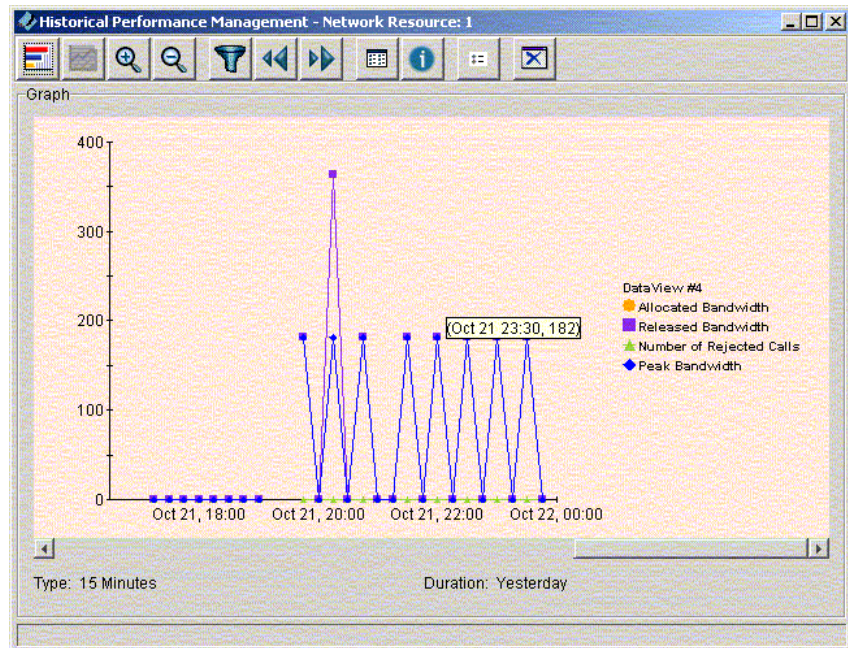


Figure 8-5. NRM Historical PM – Line Format

JetVision Groups and Users

This chapter provides instructions on how to create and administer JetVision user groups and users. This chapter includes the following tasks:

- Creating or adding JetVision groups (page 9-2)
- Modifying JetVision group's information (page 9-4)
- Deleting JetVision groups (page 9-6)
- Reviewing JetVision group's information (page 9-6)
- Creating or adding JetVision users (page 9-7)
- Modifying JetVision user's information (page 9-10)
- Deleting JetVision users (page 9-11)
- Reviewing JetVision user's information (page 9-12)
- Changing default password (page 9-12)

When you first start JetVision, you log on using the default JetVision user ID (`jsems`) and password (`jsems123`). To control access to your CPX-1000 networks, we recommend changing the default password as soon as possible (Changing JetVision Default Password on page 9-12).

JetVision Groups

JetVision comes with one default Admin group, which has access to all JetVision operations. JetVision group specifies a profile of operations that a user can perform.

Adding JetVision Groups

To create or add a JetVision groups:

Step 1

Select `Create JetVision Group` from the Services menu. The Create Group window appears (Figure 9-1).

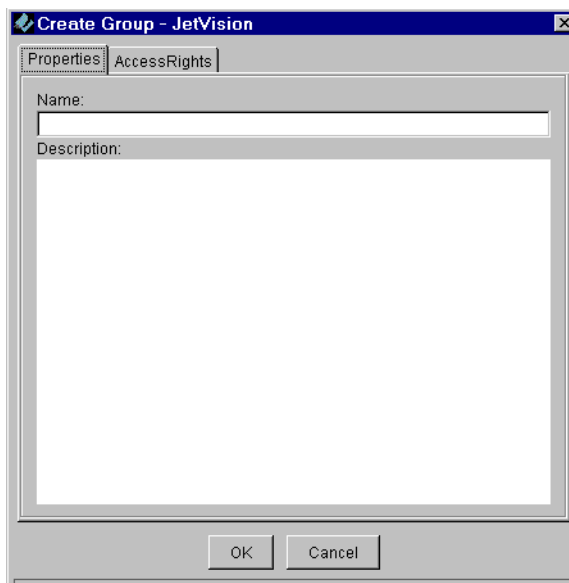


Figure 9-1. Add Group Window

Step 2

Type the group name between 4 to 16 alphanumeric characters (no spaces, hyphens, or special characters) in the Name field.

Step 3

Optionally, type a description of the user group in the Description field.

Step 4 Click Access Rights. The Access Right tab appears (Figure 9–2).

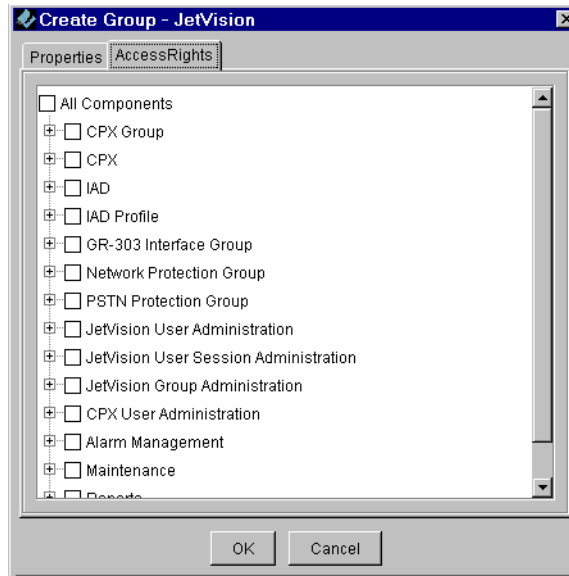


Figure 9–2. Create Group Window—Access Rights Tab

Step 5 Select the operations that the group provides its users by clicking the checkbox next to the operation.



Note

Click the plus (+) symbol to view the subtasks of each category.

Step 6 Click OK to create the group.

After a group is created, you can assign users to it (Adding JetVision Users on page 9-7).

Modifying JetVision Groups

Step 1

To modify a JetVision group:

Select `JetVision Group Administration` from the `Services` menu. The `JetVision Group Administration` window appears (Figure 9-3).

From this window, you can also

- add a JetVision group (page 9-2)
- delete a JetVision group (page 9-6)

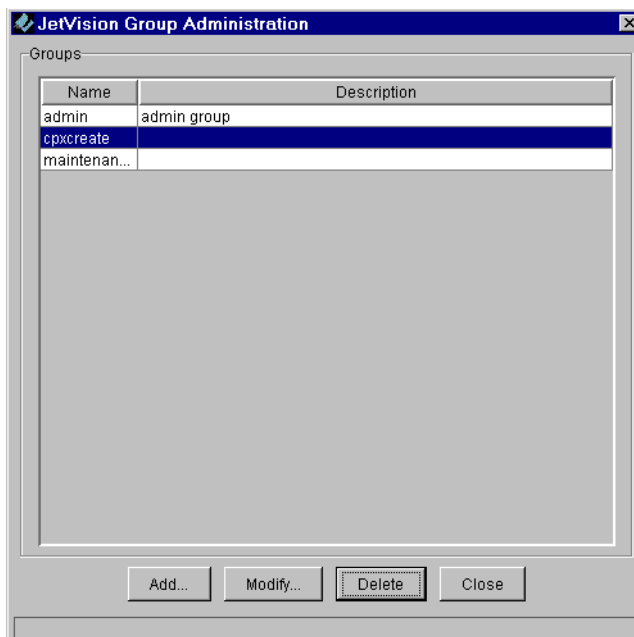


Figure 9-3. JetVision Group Administration Window

- Step 2** Select the group whose information you want to modify, then click **Modify**. The **Modify Group** window appears (Figure 9-4).

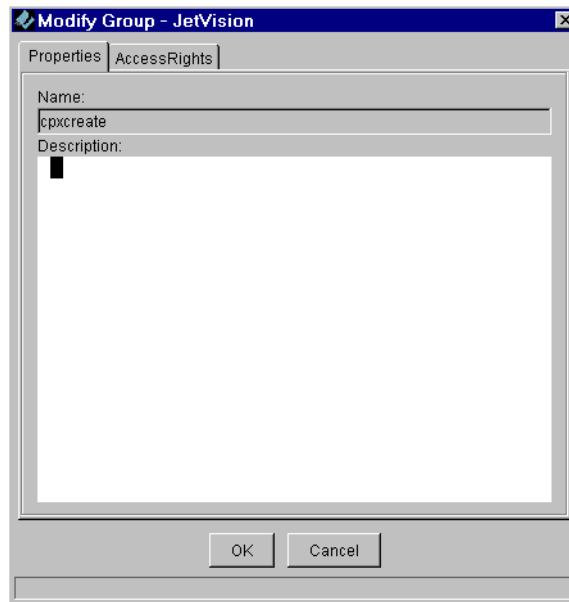


Figure 9-4. Modify Group Window

- Step 3** Click **Access Rights** to modify the operations that the group provides its users by clicking the checkbox next to the operation (Adding JetVision Groups on page 9-2).
- Step 4** Click **OK**.

Deleting JetVision Groups

When deleting a JetVision group, all users associated with that group are deleted. When a user from a group is logged on to JetVision, that group cannot be deleted.

To delete a JetVision group:

Step 1

Select `JetVision Group Administration` from the `Services` menu. The `JetVision Group Administration` window appears (Figure 9-5).

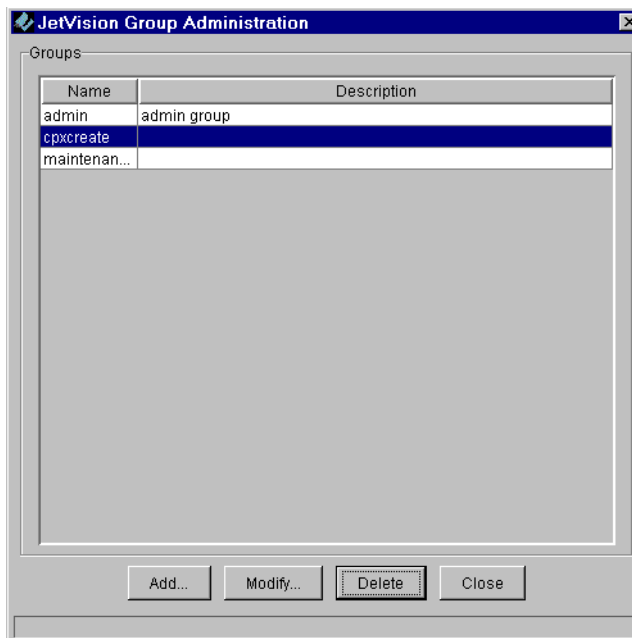


Figure 9-5. JetVision Group Administration Window

Step 2

Select a group you want to delete and click `Delete`. A prompt appears, asking if you want to delete the selected user group.



Note

You cannot delete the default “admin” group unless another group with the same admin privileges is added.

Step 3

Click `Yes` to delete the group.

Reviewing JetVision Groups

To review the JetVision groups that you have created, select `JetVision Group Administration` from the `Services` menu. The `JetVision Group Administration` window (Figure 9-5 on page 9-6) appears displaying the group information.

JetVision Users

When creating a JetVision user, you assign that user to the appropriate JetVision group. JetVision groups contain operational profiles that the users perform. You can assign a user to multiple groups.

Adding JetVision Users

To add a JetVision user:

Step 1

Select **Create JetVision User** from the Services menu. The Add User window appears (Figure 9-6).



Figure 9-6. Add User Window

Step 2

Enter the following user information in their respective fields.

- Name: user log in name (up to 16 alphanumeric characters)
- Password: up to 16 alphanumeric characters
- Re-enter the password

Step 3 Click Group. The Group information fields appear (Figure 9-7).

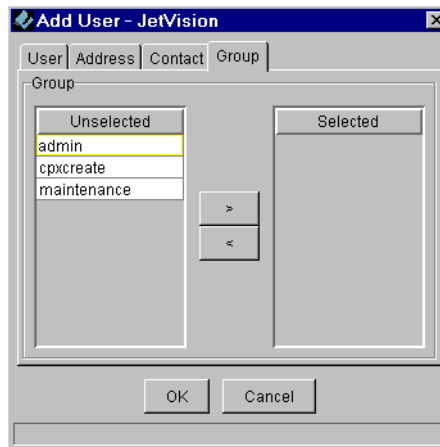


Figure 9-7. Add User—Group Tab

Step 4 Select one or more groups for this user from the Unselected list in the Group field.

Step 5 Move each selected user group to the Selected list by clicking the right-arrow (>).



Note

The address and contact information are optional.

Step 6 Click Address. The Address information fields appear (Figure 9-8).

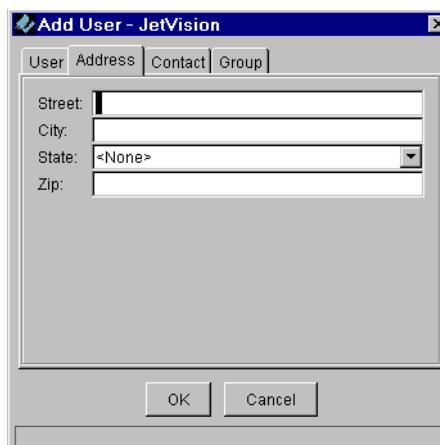


Figure 9-8. Add User—Address Tab

Step 7 Enter the following optional information (up to 32 characters):

- Street: user's street number and name
- City: user's city
- State: select from the drop-down list
- Zip: user's zip code

Step 8 Select Contact. The Contact information fields appear (Figure 9-9).

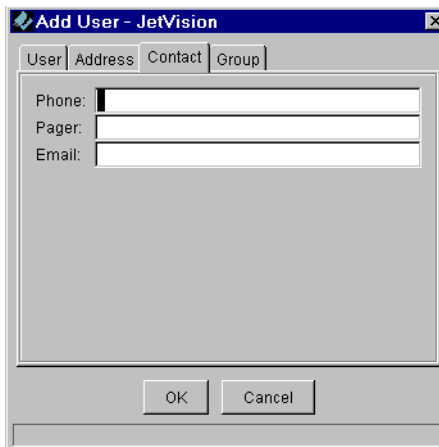


Figure 9-9. Add User—Contact Tab

Step 9 Enter the following optional information:

- Phone: user's phone number (up to 16 characters)
- Pager: user's pager number (up to 32 characters)
- Email: user's e-mail address (up to 32 characters)

Step 10 Click OK to add this user.

Modifying JetVision Users

Step 1

To modify a JetVision user's information:

Select **JetVision User Administration** from the Services menu. The User Info window appears (Figure 9-10).

From this window, you can also

- add a new user (page 9-7)
- delete an existing user (page 9-11)

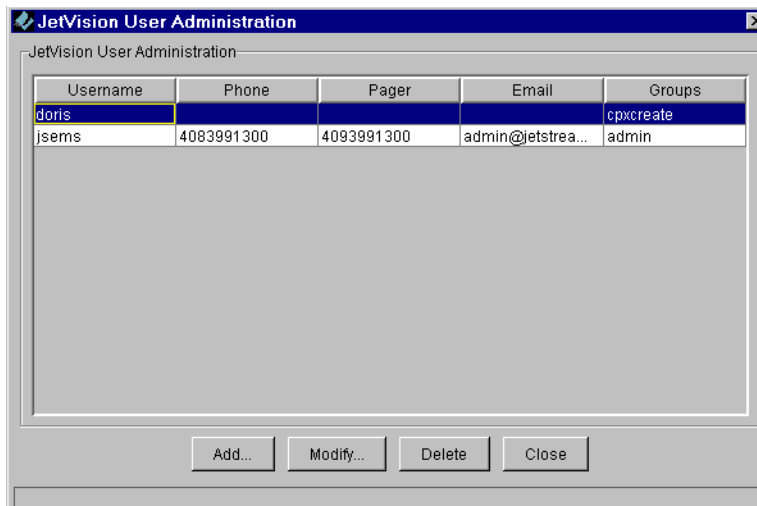


Figure 9-10. JetVision User Administration Window

Step 2

Select the user whose information you want to modify, then click **Modify**. The Modify User window appears (Figure 9-11).

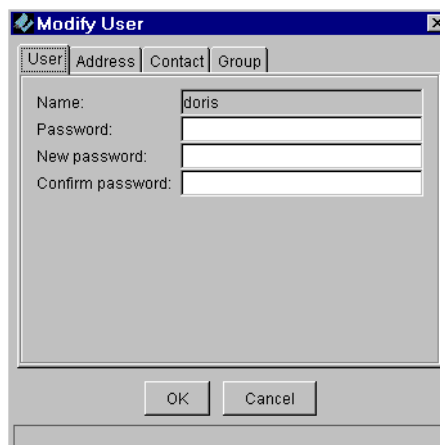


Figure 9-11. Modify User Window

Step 3 Modify the fields in any of the Modify User tabs.

Step 4 Click OK to accept the changes.

Deleting JetVision Users

To delete a JetVision user:

Step 1 Select `JetVision User Administration` from the Services menu. The JetVision User Administration window appears (Figure 9–12).

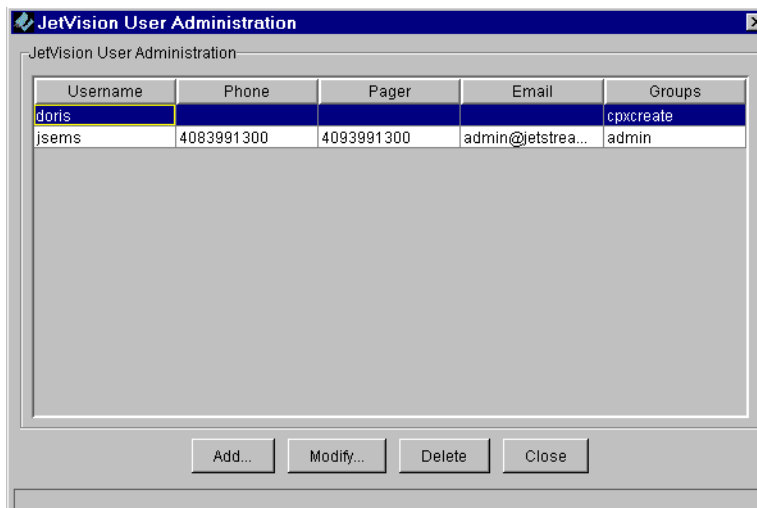


Figure 9–12. User Info Window

Step 2 Select the user that you want to delete.



Note

jsems is the JetVision default user and cannot be deleted.

Step 3 Click `Delete`. A prompt appears, asking if you want to delete the selected user.

Step 4 Click `Yes` to delete the user.

Reviewing JetVision Users

To review the JetVision users that you have created, select *JetVision User Administration* from the *Services* menu. The *JetVision User Administration* window (*User Info Window* on page 9-11) appears, displaying the user information.

Changing JetVision Default Password

This section provides instructions to change the default password. To change another user's password, refer to *Modifying JetVision Users* on page 9-10.



Note

Changing the default password requires that you have *Admin* privileges.

To change the default password:

Step 1

Select *Change JetVision User Password* from the *Services* menu. The *Change Password* window appears (Figure 9-13).



Figure 9-13. Change Password Window

Step 2

Type your old password.

Step 3

Type your new password.

Step 4

Retype your new password again.

Step 5

Click *OK* to change your password.

CPX-1000 Users

This chapter provides instructions on how to administer CPX-1000 users. This chapter includes the following tasks:

- Creating or adding CPX-1000 users (page 10-2)
- Modifying CPX-1000 users (page 10-4)
- Deleting CPX-1000 users (page 10-6)
- Reviewing CPX-1000 users (page 10-6)

When you initially configure a CPX-1000, you log on to the CPX-1000 using the default CPX-1000 user ID (`cpxuser`) and password (`cpxuser`). To restrict access to the CPX-1000, you can use JetVision to change the CPX-1000 user ID, password, and define the user operational privileges.

Each CPX-1000 comes with three groups that define the tasks that users can perform (Table 10-1). You can create up to 17 users per CPX-1000.

Table 10-1. CPX-1000 Users Access Summary

Groups	Privileges
Admin	Full read-write access. This group can perform all operations; can add, modify, and delete all users.
Operations	Full read-write access. This group can perform all operations, but cannot add, modify, and delete other users.
Reports	Read-only access.

Creating CPX-1000 Users

To create a CPX-1000 user:

- Step 1** Select the network in which the CPX-1000 reside.
- Step 2** Select a CPX-1000 from the Tree view.
- Step 3** Select `Create CPX-1000 User` from the Services menu. The Create User window appears (Figure 10-1).

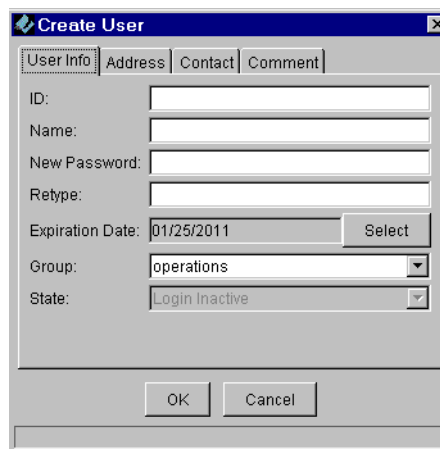


Figure 10-1. Create User Window

- Step 4** Enter the user information (up to 32 alphanumeric characters) in their respective fields. (The default for the expiration date is 10 years from the date when this user is created.)



Note

The address, contact, and comments fields are optional.

- Step 5** Click **Address**. The Address information fields appear (Figure 10–2).

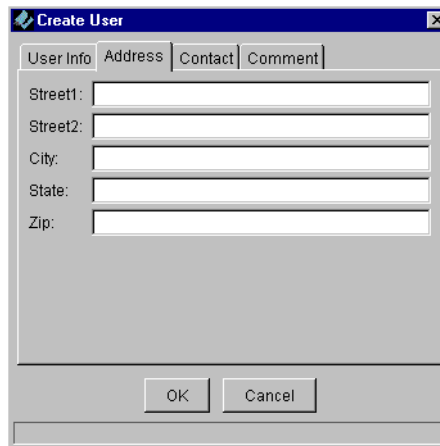
The screenshot shows a dialog box titled "Create User" with a close button (X) in the top right corner. The dialog has four tabs: "User Info", "Address", "Contact", and "Comment". The "Address" tab is selected and active. It contains five text input fields labeled "Street1:", "Street2:", "City:", "State:", and "Zip:". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Figure 10-2. Create User—Address Tab

- Step 6** Type the optional information (up to 32 alphanumeric characters) in their respective fields.

- Step 7** Click **Contact**. The Contact information fields appear (Figure 10–3).

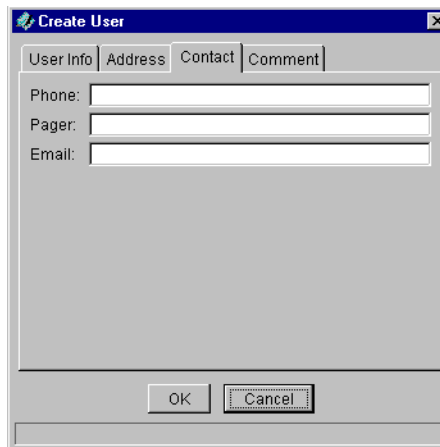
The screenshot shows the same "Create User" dialog box, but now the "Contact" tab is selected and active. It contains three text input fields labeled "Phone:", "Pager:", and "Email:". The "Cancel" button at the bottom is highlighted with a dashed border, indicating it is the focus. The "OK" button is also visible.

Figure 10-3. Create User—Contact Tab

Step 8 Type the optional contact information (up to 32 alphanumeric characters) in their respective fields.

Step 9 Click **Comments**. The **Comment** field appears (Figure 10-4).

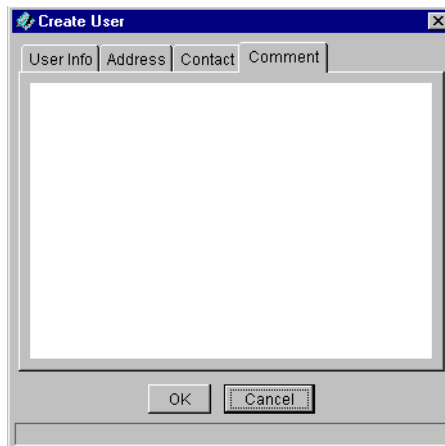


Figure 10-4. Create User—Comment Tab

Step 10 Type any comments related to the user.

Step 11 Click **OK** to create the CPX-1000 user.

Modifying CPX-1000 Users

To modify a CPX-1000 user:

Step 1 Select **CPX User Administration** from the **Services** menu. The **Update User Information** window (Figure 10-5) appears.

From this window, you can also

- add a CPX-1000 user (page 10-2)
- delete a CPX-1000 user (page 10-6)

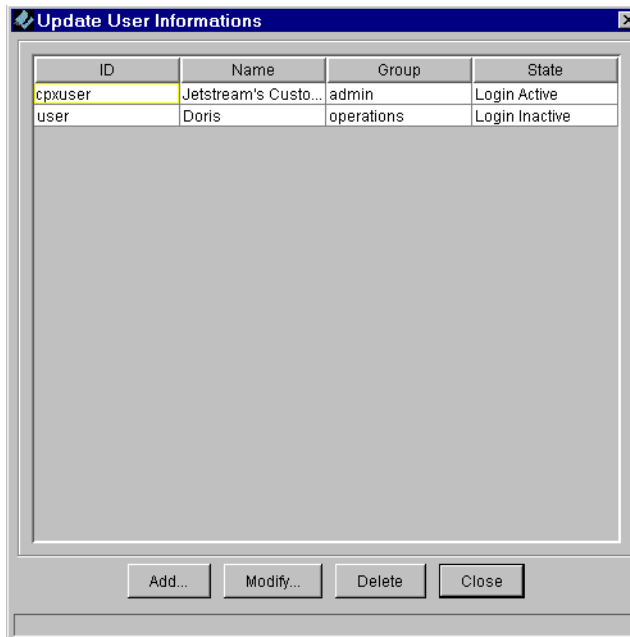


Figure 10-5. Update User Information Window

- Step 2** Select the user whose information you want to modify and click **Modi fy**. The **Modi fy User** window appears (Figure 10-6).

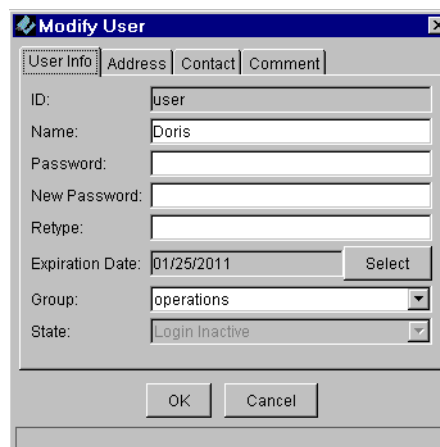


Figure 10-6. Modify User Window

- Step 3** Modify the fields in any of the **Modi fy Users** tabs.
- Step 4** Click **OK** to modify the CPX-1000 user.

Deleting CPX-1000 Users

To delete a CPX-1000 user:

- Step 1** Select *CPX User Administration* from the *Services* menu. The *Update User Information* window appears (Figure 10–7).

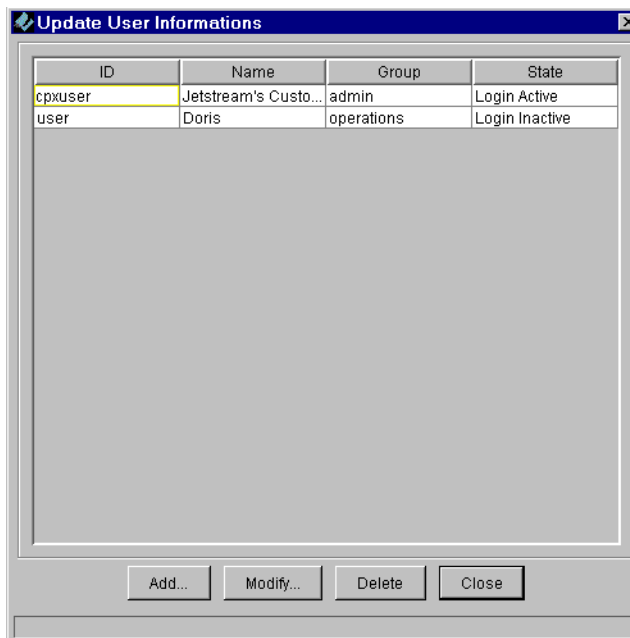


Figure 10–7. Update User Information Window

- Step 2** Select the CPX-1000 user that you want to delete.
- Step 3** Click *Delete*. A prompt appears, asking if you want to delete the selected CPX-1000 user.
- Step 4** Click *Yes* to delete the CPX-1000 user.

Reviewing CPX-1000 Users

To review the CPX-1000 users that you have created, select *CPX User Administration* from the *Services* menu. The *Update User Information* window (Figure 10–7 on page 10-6) appears, displaying the user information.

Web Browser Users

Reports generated by JetVision can be viewed with any Web browser. JetVision provides a default user ID and password (`jsreport`) to view reports, both of which can be modified. This chapter provides instructions for the following tasks:

- Modifying the Apache user ID and password (page 11-2)
- Adding users to Apache (page 11-2)
- Deleting users from Apache (page 11-2)



Note

Because the Apache Web server is included with the JetVision application, it is used throughout this section.

Modifying User ID and Password



Note

We recommend that you have an understanding of basic Web security, such as login authentications, when interacting with the Web server.

To modify a user ID and password in the Web server:

Step 1

Open a console window and change the directory to the Apache's "bin" directory.

- For Windows, type

```
CD C:\Jetstream\Apache1312\bin
```

- For Solaris, type

```
CD /opt/Jetstream/Apache1312/bin
```

Step 2

Invoke the Apache utility to change the password.

- Syntax for Windows,

```
htpasswd.exe -bc <userfile><loginid><password>
```

- Syntax for Solaris,

```
htpasswd -bc <userfile><loginid><password>
```

Where

-b	indicates don't prompt the user for the password
-c	indicates to create a new User File; use only if you want to overwrite any existing users information.
<userfile>	an ASCII file that keeps track of the user ID and encrypted password
<loginid>	a login user ID
<password>	a login password

Example on Windows,

```
htpasswd.exe -b C:\Jetstream\Apache1312\users  
jsreport js123
```

Example on Solaris,

```
htpasswd -b /opt/Jetstream/Apache1312/users  
jsreport js123
```

Adding Users to Apache

To add users to the Apache Web server:

Step 1

Change the directory to <JetVision Server>\reports. For example,

```
C:\Jetstream\emsserver_2.5\reports
```

Step 2

Locate the *.htaccess* file, edit the line that reads "require user jsreport" to "require user jsreport newuser."

Where

newuser is the new user ID.



Note

When adding multiple users, make sure to put a space between each new user.

Step 3

Proceed as steps 1 and 2 in Modifying User ID and Password on page 11-2 to add a user to the Apache Web server.

Deleting Users From Apache

To delete users from the Apache Web server:

- Step 1** Open a console window and change to the Apache's root directory.
- Step 2**
- In Windows, for example,
`CD C:\Jetstream\Apache1312`
 - In Solaris, for example,
`cd /opt/jetstream/apache1312`
- Step 3** Locate the user file that was created initially (for example, "users").
- Step 4** Open the "users" file by using a text editor.
- For Windows, use notepad
 - For Solaris, use vi
- Step 5** Delete the line that is associated with the user ID you want to delete.
- Step 6** Change the directory to <JetVision Server>\reports. For example,
- In Windows, for example,
`C:\Jetstream\emsserver_2.5\reports`
 - In Solaris, for example,
`cd /opt/jetstream/emsclient_v25/reports`
- Step 7** Locate the `.htaccess` file, edit the line that reads "require user <namedelete> <namedelete> <name> <name>" to "require user <name> <name>."

Where <namedelete> is the deleted user, and <name> is the remaining user.

Alarms

This chapter provides alarms information and instructions to customize alarm filters to view both active alarms and historical data. This chapter includes these topics:

- Alarm indicators and alarmed elements (page 12-1)
- Alarm browsers (page 12-4)
- Customizing alarm filters (page 12-4)
- Viewing active alarms and historical data (page 12-7)
- Deleting alarm filters (page 12-8)

JetVision monitors both the active alarms and historical data. Active alarms are current alarms that are updated dynamically. JetVision displays up to 1000 active alarms and/or events from the Oracle database.

Historical data are cleared alarms. The historical data buffer size is determined during JetVision installation (default is 150 MB). You can increase the buffer size (Chapter 15, Maintenance) and/or adjust the historical data disk threshold (Chapter 17, InfoCenter Services).

Refer to Appendix C, Alarm Summary, for a list of alarm messages.

Alarm Indicators

When alarms are detected, they can be viewed in several areas: Geographic Map, Network Map, Tree View, and Shelf View. As shown in Figure 12-1, network alarms are displayed as colored ovals that appear on the top-right side of the menu bar. Each color indicates the severity of the network alarm. A number displayed inside the oval indicates the number of alarms reported for that level of severity.

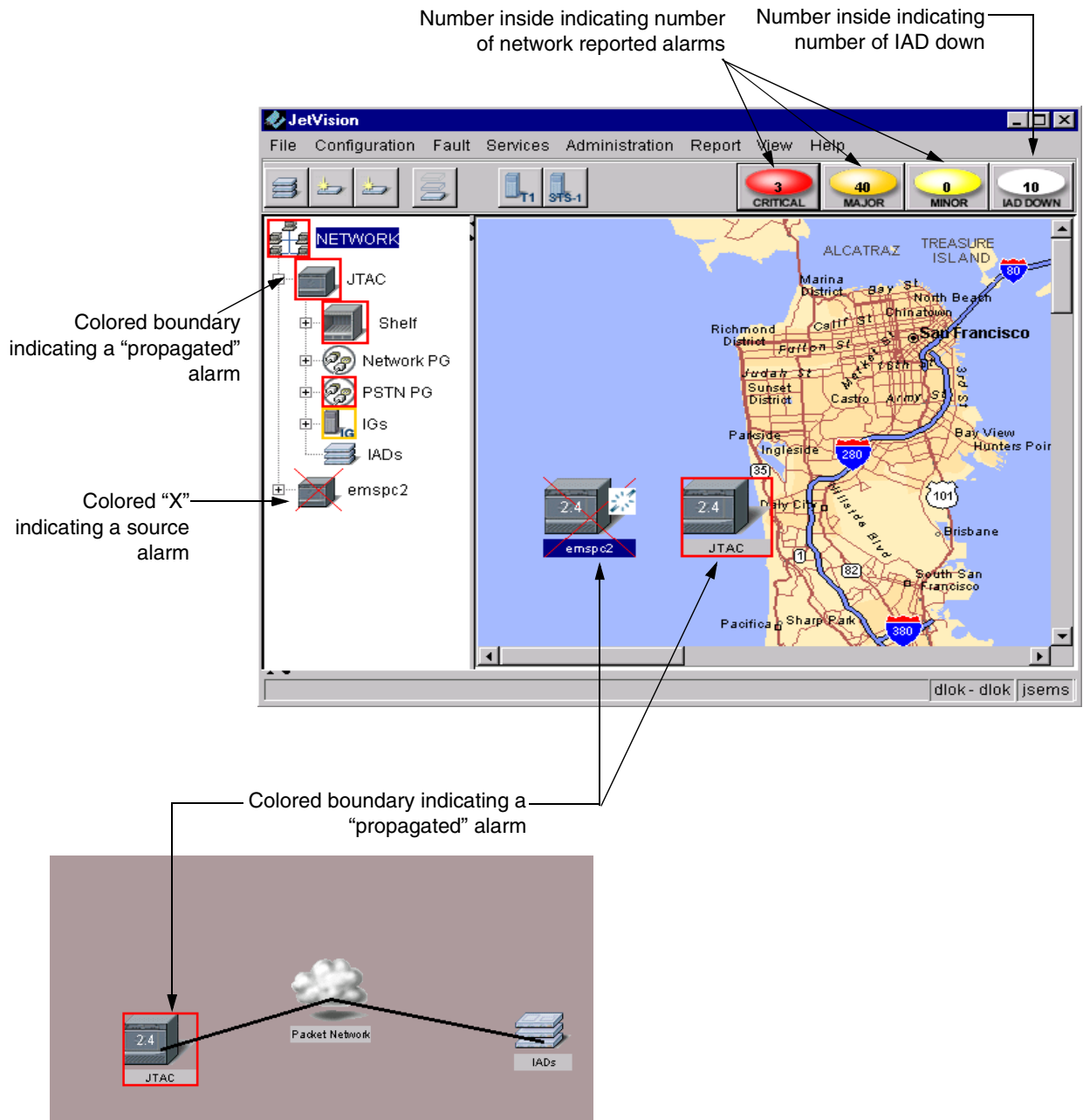


Figure 12-1. Alarm Indicators and Alarmed Elements

In the Tree View, a propagated alarm is indicated as a colored boundary around an icon (e.g., CPX-1000, shelf, or card). A source alarm is displayed as an “X” drawn over the managed object. The color of the boundary or “X” indicates the severity of the alarm.

Typically, the Interface Groups are created without a physical connection. As a result, the Interface Groups are alarmed as they are created, then cleared when they are connected to the host Class 5 switch.



Note

Network alarms propagate from an originating source up to its CPX-1000, which reports the alarm. The alarmed element shows the most severe alarm condition.

The Shelf View (Figure 12–2) displays alarm indicators on individual MP, CP, and line cards. Indicators appear as colored rectangles in the upper and lower regions on the card. The upper rectangle indicates a source alarm; the lower rectangle indicates a propagated alarm.

Table 12–1 describes the alarm severity associated with each color.

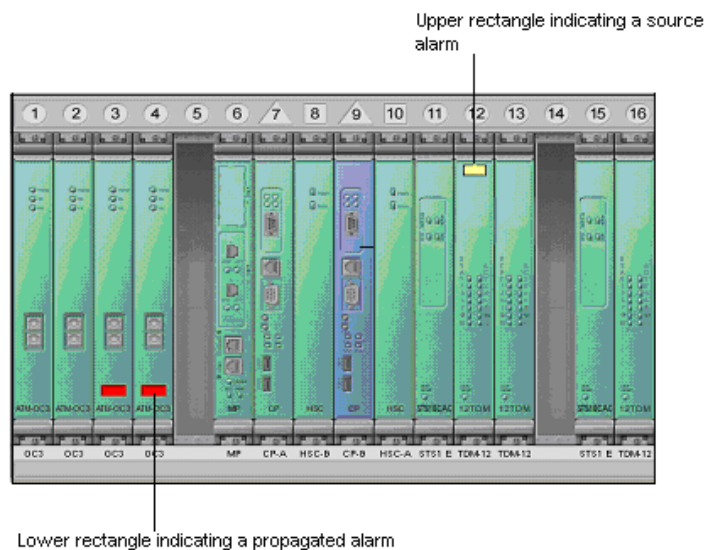


Figure 12-2. Alarmed Cards

Table 12-1. JetVision Alarm Indicator Description

Alarm Indicator	Alarm Severity
Red (Critical)	A severe, service-affecting condition has occurred; require immediate corrective action regardless of the time of day or day of the week.
Yellow (Major)	A serious disruption of service or a malfunction or failure of important circuits has occurred; require immediate corrective action and response to restore or maintain system capabilities.
Light yellow (Minor)	A non-service-affecting condition has occurred; no immediate corrective action is necessary.
White (IAD Down)	An IAD is no longer in service; require immediate corrective action.

JetVision Alarm Browsers

JetVision provides three methods (called “browsers”) to view alarms and event:

- *active alarm browser* displays active (current) alarms and is updated dynamically
- *historical alarm browser* displays both past and cleared alarms
- *event browser* displays the events information

Each browser provides filtering capability so that you can define the criteria for which the browser displays alarms.

Customizing Alarm Filters

To customize an alarm filter for an alarm browser:

- Step 1** Click the Network icon or a CPX-1000 icon in the Tree View.
- Step 2** Select a browser type from the Fault menu. A browser window appears (Figure 12-3, an active alarm browser is shown).

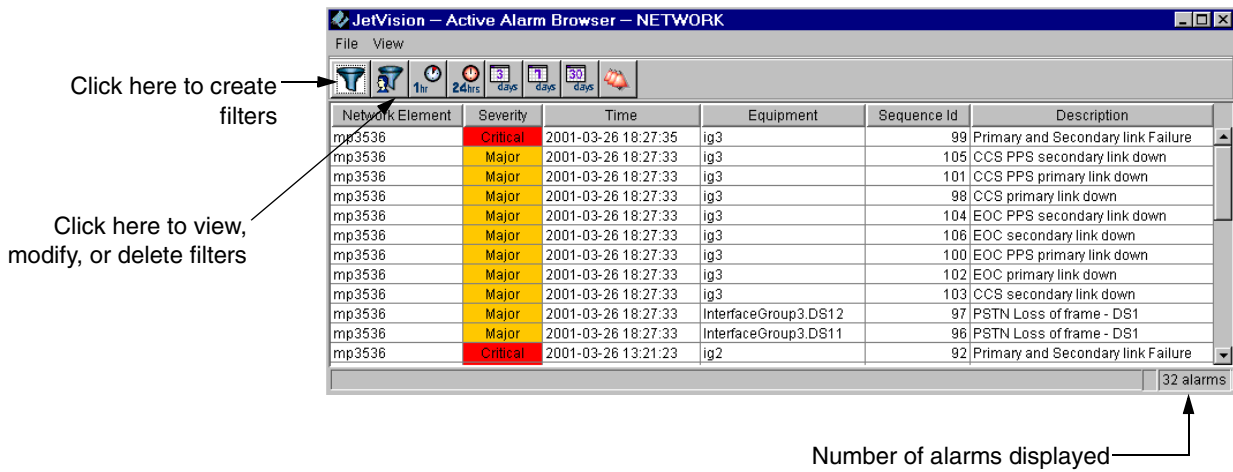



Figure 12-3. Historical Alarm Browser

Creating Active and Historical Data Filters

To create active and historical data filters:

- Step 1** Proceed as Steps 1 and 2 in Customizing Alarm Filters on page 12-4.
- Step 2** Click  and the Alarm Filter window appears (Figure 12-4).

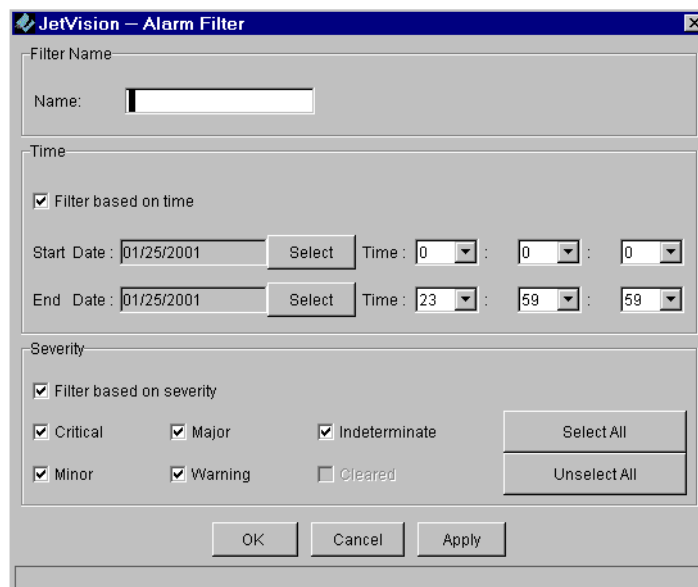



Figure 12-4. Alarm Filter Window

- Step 3** Type the name of the filter in the Name field.
- Step 4** Select the start and end dates (e.g., month, day, and year) from their respective drop-down lists.
- Or –
- Click *Select* to enter your dates from the calendar.
- Step 5** Type the start and end times in their respective fields or use the drop-down lists to select the time.
- Step 6** Select the filtering criteria by clicking the checkboxes in the Alarm Severity area, or click *Select All* to select all criteria.
- Step 7** Click OK.

Creating Event Filters

To create event filters:

- Step 1** Proceed as Steps 1 and 2 in Customizing Alarm Filters on page 12-4.
- Step 2** Click  and the Event Filter window appears (Figure 12-5).

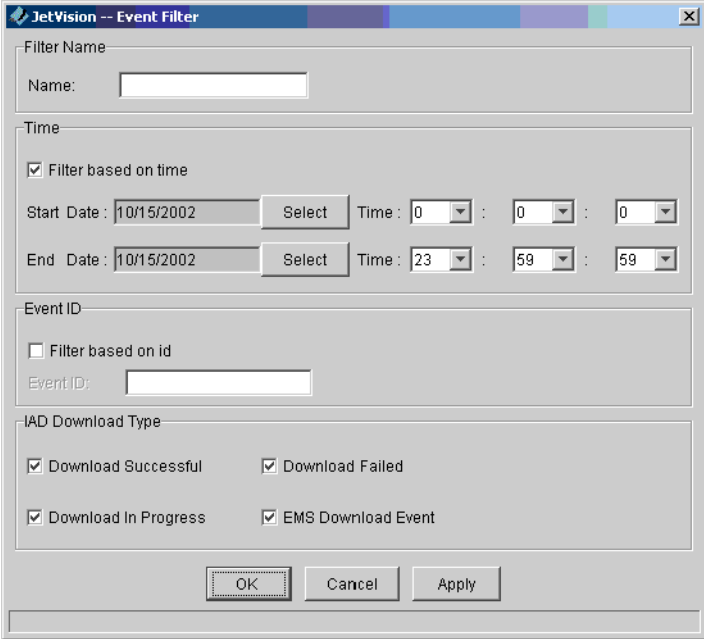


Figure 12-5. Event Filter Window

- Step 3** Select the start and end dates (e.g., month, day, and year) from their respective drop-down lists.
- Or –
- Click **Select** to enter your dates from the calendar.
- Step 4** Type the Event ID (this is a unique sequence ID).
- Step 5** In the IAD Download Type section, place a check in the boxes for the types of download events that you wish to view.
- Step 6** Click **OK**.

Viewing Alarms From Filters


To view alarms from a customized filter:

- Step 1** Click the Network icon or a CPX-1000 icon in the Tree View.



Note

Clicking the Network icon displays current alarms for the entire CPX-1000 network. Clicking a CPX-1000 icon displays alarms for that CPX-1000.

- Step 2** Select the alarm browsers type from the Fault menu. The browser window appears, displaying alarms per your filtering criteria.
- Select Active Alarm Browser to view the current alarms
 - Select Historical Alarm Browser to view current and past alarms
 - Select Event Browser to view the current event information
- Step 3** Click . The Alarm Filter Manager window appears

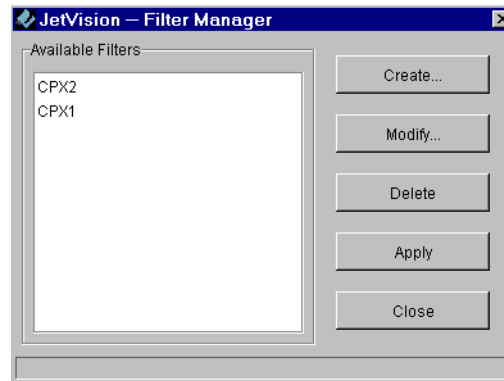


Figure 12-6. Alarm Filtering Window

- Step 4** Select the desired filter and click **Apply**. The browser window displays the alarms based on your criterion, as indicated in the status bar (Figure 12-7).

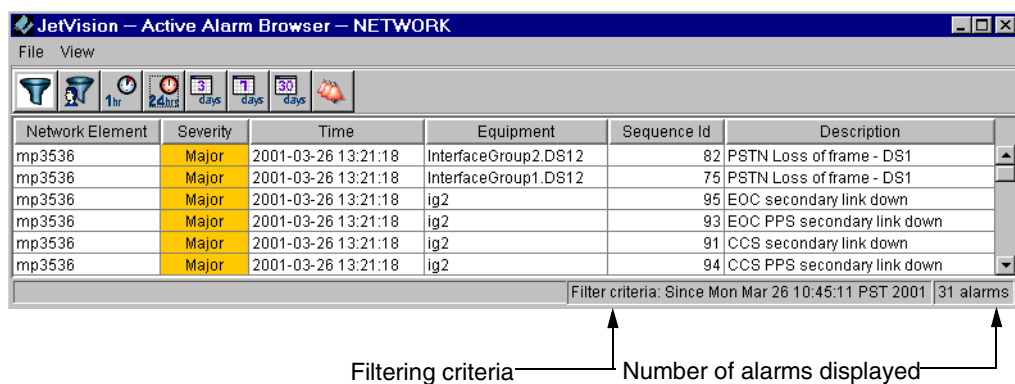



Figure 12-7. Alarm Browser Window with Filtering Criteria

Deleting an Alarm Filter

To delete an alarm filter:

- Step 1** Click on the Network icon or a CPX-1000 icon in the Tree View.
- Step 2** Select the alarm browser types from the Fault menu. The browser window appears.
- Step 3** Click . The Filter Manager appears (Figure 12-6 on page 12-8).

Step 4

Select the filter that you want to delete and click `Delete`.



Note

JetVision provides no confirmation for deletion. Once you click delete, the selected filter is deleted.

Reports

JetVision provides a variety of informational reports that are used for monitoring and analyzing the CPX-1000 managed elements. This chapter provides instructions on how to generate and view reports. This chapter includes these topics:

- Generating and viewing reports (page 13-2)
- Alarm Report (page 13-3)
- Historical Alarm Report (page 13-4)
- Action Report (page 13-5)
- Event Report (page 13-6)
- IAD Report (page 13-6)
- Card Report (page 13-7)
- CPX Report (page 13-8)
- Interface Groups Report (page 13-8)
- CRV Report (page 13-9)
- Protection Groups Report (page 13-10)

Reports generated by JetVision can be viewed with any Web browsers. JetVision provides a default user ID and password (`jsreport`) to view reports, both of which can be modified. You can also add users to and delete users from the Apache Web server (Chapter 11, Web Browser Users).

Generating and Viewing Reports

To generate or view a report:

Step 1

Click the Network icon or CPX-1000 icon in the Tree View.

- To set the viewing criteria for Alarm, Historical Alarm, Action, and Event reports, continue with Step 2.
- For other reports, proceed to Step 5.

Step 2

Select a report type from the Report menu. The Report Generator window similar to Figure 13-1 appears.

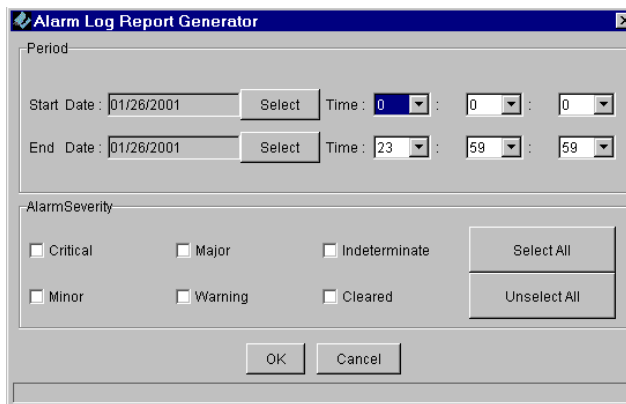


Figure 13-1. Report Generator Window



Note

The Action and Event logs have slightly different GUI appearance.

Step 3

Click *Select* to set the start and end date of the reports.



Note

Skip Step 4 for the Action Log Report and Event Report.

- Step 4** Select the filtering criteria by clicking any or all of the checkboxes in the Alarm Severity area.
- Step 5** Click OK. The Enter Network Password window appears, (Figure 13–2).

Figure 13–2. Enter Network Password Window

- Step 6** Type the user name and password in the respective fields (default is *jsreport*) and click OK. The report is displayed in your Web browser.

Alarm Reports

Alarm reports (Figure 13–3) provide information about alarms reported by the CPX-1000 managed domain.

Active Alarm Report

This report was automatically generated with the given criteria at JetVision Server "contractor1" on Fri Jan 26 15:35:57 PST 2001

Selected Alarms List

Alarm ID	Time Stamp	Source	Severity	Description	Service Affecting	Additional Data
37	Fri Jan 26 14:16:08 PST 2001	Cpx=CPX1, Shelf=1, Card=9	Major	CP is faulty	true	
3117	Fri Jan 26 14:19:33 PST 2001	Cpx=CPX1, Type=IGs, GR303-IG=1, DS1=1	Critical	FSTN Alarm indication signal - DS1	true	

Figure 13–3. Alarm Report

Historical Alarm Reports

Historical reports (Figure 13–4) provide information about alarms that occurred in the past up to the present.

History Alarm Report

This report was automatically generated with the given criteria at JetVision Server "contact2" on Thu Jul 20 12:05:30 PDT 2000

Selected Alarms List

Alarm ID	Time Stamp	Source	Severity	Description	Service Affecting	Additional Data
909	Thu Jul 20 00:03:54 PDT 2000	Cpx=cpx533, Type=IGs, GR303-IG=1	Major	EOC Primary link down	true	
910	Thu Jul 20 00:03:55 PDT 2000	Cpx=cpx533, Type=IGs, GR303-IG=1	Major	EOC Secondary link down	true	
903	Thu Jul 20 00:03:55 PDT 2000	Cpx=cpx533, Type=IGs, GR303-IG=1	Major	CCS Primary link down	true	
904	Thu Jul 20 00:03:55 PDT 2000	Cpx=cpx533, Type=IGs, GR303-IG=1	Major	CCS Secondary link down	true	
602	Thu Jul 20 00:03:55 PDT 2000	Cpx=cpx533, Shelf=1, Card=1, Port=2	Major	Lost frame sync - Red alarm	true	
602	Thu Jul 20 00:03:55 PDT 2000	Cpx=cpx533, Shelf=1, Card=2, Port=1	Major	Lost frame sync - Red alarm	true	

Figure 13–4. Historical Report

Action Reports

Action reports (Figure 13–5) provide information about JetVision operations that were performed on a CPX-1000 managed element.

You can use this report to list all operations for a specific time interval or to customize the report, specifying which operation(s) you want displayed. Operations that can be included:

- Add Network Element
- Add CPE-(IAD)
- Add IAD Profile
- Add/Modify IG
- Add New User

Action Log Report

This report was automatically generated with the given criteria at JetVision Server "contractor1" on Fri Jan 26 14:05:17 PST 2001

Selected Action List

Managed Element Name	Operation	User Id	Action Time
Cpx=CPX1	Bulk Get IAD Software Component Info	jsems	2001-01-26 11:46:42
Cpx=CPX1, Type=IADs, IAD=00004	Get IAD Software Component Info	jsems	2001-01-26 11:46:42
Cpx=CPX1, Shelf=1, Card=9	CP switchover	jsems	2001-01-26 11:44:39
Cpx=CPX1, Shelf=1, Card=7	CP switchover	jsems	2001-01-26 11:39:36
Cpx=CPX1, Type=IADs, IAD=00004	Add Cpe	jsems	2001-01-26 11:20:40
Cpx=CPX1, Type=IADs, IAD=00002	Add Cpe	jsems	2001-01-26 11:19:15
Cpx=CPX1, Type=IADs, IAD=00001	Provision CPE	jsems	2001-01-26 11:17:54
Cpx=CPX1, Type=IADs, IAD=00002	Delete Cpe	jsems	2001-01-26 11:17:35
Cpx=CPX1, Type=IADs, IAD=00002	Provision CPE	jsems	2001-01-26 11:15:34
Cpx=CPX1, Type=IADs, IAD=00003	Add Cpe	jsems	2001-01-26 11:14:47
Cpx=CPX1, Type=IADs, IAD=00002	Add Cpe	jsems	2001-01-26 11:12:58
Cpx=CPX1, Type=IADs, IAD=00001	Add Cpe	jsems	2001-01-26 11:05:06
Cpx=CPX1, Type=IGs, GR303-IG=4	Add Interface Group	jsems	2001-01-26 10:39:46
Cpx=CPX1, Shelf=1, Card=14, Port=1	Set Port AdminState	jsems	2001-01-26 10:37:34
Cpx=CPX1, Shelf=1, Card=13, Port=1	Set Port AdminState	jsems	2001-01-26 10:37:29
Cpx=CPX1, Type=IGs, GR303-IG=4	Remove Interface Group	jsems	2001-01-26 10:33:51
Cpx=CPX1, Shelf=1, Card=13, Port=1	Set Port AdminState	jsems	2001-01-26 10:33:25
Cpx=CPX1, Shelf=1, Card=14, Port=1	Set Port AdminState	jsems	2001-01-26 10:32:01
Cpx=CPX1, Type=BBPGs, BBPG=2	manual swap PG	jsems	2001-01-26 10:30:41
Cpx=CPX1, Type=BBPGs, BBPG=2	manual swap PG	jsems	2001-01-26 10:26:34
Cpx=CPX1, Shelf=1, Card=4, Port=1	Set Port AdminState	jsems	2001-01-26 10:25:39

Figure 13–5. Action Report

Event Reports

Event reports (Figure 13–6) provide event and alarm information that occurred during a specific time period.

Event Log Report

This report was automatically generated with the given criteria at JetVision Server "contractor1" on Fri Jan 26 13:54:33 PST 2001

Selected Events List

Managed Element Name	ME Address	Object Type	ME Type	Sub Alarm Id	Time Created	Generic Type	Specific Type	Event Type	Event State	Equipment Status	Severity	Description	Shelf Id	Card Id	Port Id	Interface Group	Cont Char
CPX1		CP Card	5	1501	2001-01-26 11:44:41	Event	CP is in active state	Card	Event		Informational	CP is in active state	1	7			
CPX1		CP Card	5	1102	2001-01-26 11:44:39	Event	CP switch over started.	Card	Event		Informational	CP switch over started.	1	9			
CPX1		CP Card	5	1502	2001-01-26 11:44:39	Event	CP is in standby state	Card	Event		Informational	CP is in standby state	1	9			
CPX1		CP Card	5	1104	2001-01-26 11:44:39	Event	CP switch over completed.	Card	Event		Informational	CP switch over completed.	1	9			
CPX1		CP Card	5	1501	2001-01-26 11:39:37	Event	CP is in active state	Card	Event		Informational	CP is in active state	1	9			

Figure 13–6. Event Report

IAD Reports

IAD reports (Figure 13–7) provide configuration and status information about IADs.

Jetstream IAD Information Report

This report was generated with existing information at JetVision Server "contractor1" on Fri Jan 26 13:42:07 PST 2001

Selected IAD Info List for CPX1

IAD	IAD Profile	IAD Hardware Model	Company	Dslam	Subscriber	Interface Group	Serial No	Atm Protection Group/Vpi/Vci	CRV Value for IAD Ports	Transport Type	Operational State	Admin State
00001	Jetstream IAD-Flex	Unknown				1		1/0/35	(1,2,3,4,5,6,7,8)	ATM	Disabled	UnLocked
00002	Jetstream IAD-802	Unknown				2		1/0/40	(1,2,3,4,5,6,7,8)	FrameRelay	Disabled	Provisional
00003	Jetstream IAD-802	Unknown				1		1/0/42	(17,18,19,20,21,22,23,24)	ATM	Disabled	Provisional
00004	Jetstream IAD-801	Unknown				2		1/0/45	(9,10,11,12,13,14,15,16)	ATM	Disabled	Provisional

Figure 13–7. IAD Report

Card Reports

Card Reports (Figure 13–8) provide configuration and status information about MP, CP, and line cards, on individual or all CPX-1000 units in the network.

Jetstream CPX-1000 Equipment Report

This report was generated with existing information at JetVision Server "contractor1" on Fri Jan 26 13:47:07 PST 2001

Equipment Information For CPX1

Slot Number	Card Type	Number of Ports	Standby State	Admin State	Operational State	Serial Number
1	T1	8	Not Applicable	Unlocked	Disabled	T1CARD
2	T1	8	Not Applicable	Unlocked	Disabled	T1CARD
3	ATM_OC3S	1	Not Applicable	Unlocked	Disabled	ATMCARD
4	ATM_OC3S	1	Not Applicable	Unlocked	Disabled	ATMCARD
5	T1	8	Not Applicable	Unlocked	Disabled	T1CARD
6	MP	0	Not Applicable	Not Applicable	Enabled	jetstream_MP
7	CP	0	Active	Unlocked	Enabled	CPCARD
8	BRIDGE	0	Not Applicable	Not Applicable	Enabled	jsbridgecard2
9	CP	0	Standby	Unlocked	Enabled	CPCARD
10	BRIDGE	0	Not Applicable	Not Applicable	Enabled	jsbridgecard1
11	DS3	1	Not Applicable	Unlocked	Disabled	ATMCARD
12	DS3	1	Not Applicable	Unlocked	Disabled	ATMCARD
13	STS1	1	Not Applicable	Unlocked	Disabled	T1CARD
14	STS1	1	Not Applicable	Unlocked	Disabled	T1CARD
15	ECAC	0	Not Applicable	Unlocked	Disabled	ECACCARD
16	Unoccupied					

Figure 13–8. Card Report

CPX Reports

CPX Reports (Figure 13–9) provide configuration and status information about a specific CPX-1000 or all CPX-1000 units in the network.

Jetstream CPX-1000 Information Report

This report was generated with existing information at JetVision Server "contractor1" on Thu Jan 25 17:12:08 PST 2001

Selected Cpx Info List

Cpx ID	Cpx Name	IpAddress	Serial Number	Operational State	Admin State	Version
JET1	CPX1	10.0.1.29	CONTRACTOR1	Enabled	UnLocked	Build Version: 2.3.0.9085

Figure 13–9. CPX Report

Interface Groups Reports

Interface Groups Reports (Figure 13–10) provide configuration and status information about GR-303 Interface Groups.

Jetstream Interface Groups Report

This report was generated with existing information at JetVision Server "contractor1" on Fri Jan 26 13:45:23 PST 2001

Interface Group Information For CPX1

ID	Name	Switch Model Name	LDS	RTProvision	PrimaryDS1	SecondaryDS1	DS1 Map Sequence (DS1Number, mapName, channel, IGType)
1	IG1	Lucent-SESS	SJ_Bay	0	1	2	(1, (card=1,port=3), 1, T1) (2, (card=2,port=2), 1, T1) (3, (card=1,port=6), 1, T1) (4, (card=2,port=3), 1, T1) (5, (card=2,port=6), 1, T1)
2	IG2	Lucent-SESS	SJ_Bay	1	1	2	(1, (card=2,port=5), 1, T1) (2, (card=1,port=4), 1, T1) (3, (card=2,port=4), 1, T1) (4, (card=2,port=7), 1, T1) (5, (card=2,port=8), 1, T1) (6, (card=5,port=1), 1, T1) (7, (card=5,port=2), 1, T1)
3	IG3	Lucent-SESS	SJ_Bay	0	1	2	(1, (card=1,port=1), 1, T1) (2, (card=1,port=5), 1, T1) (3, (card=5,port=5), 1, T1)
4	STS1	Lucent-SESS	SJ_Bay	1	1	2	(1, (pgId=1), 7, STS1) (2, (pgId=1), 10, STS1) (3, (pgId=1), 14, STS1) (4, (pgId=1), 15, STS1) (5, (pgId=1), 16, STS1)

Figure 13–10. Interface Groups Report

CRV Reports

CRV Reports (Figure 13–11) provide configuration and status information about Call Reference Value (CRV).

Jetstream CRV Information Report

This report was generated with existing information at JefVision Server "contractor1" on Fri Jan 26 13:50:11 PST 2001

Selected For CPX1

CRV value	Related IAD	IAD Port	Related IG	Switch Provisioned
1	00001	1	1	Do not know
2	00001	2	1	Do not know
3	00001	3	1	Do not know
4	00001	4	1	Do not know
5	00001	5	1	Do not know
6	00001	6	1	Do not know
7	00001	7	1	Do not know
8	00001	8	1	Do not know
9	00004	1	2	Do not know
10	00004	2	2	Do not know
11	00004	3	2	Do not know
12	00004	4	2	Do not know
13	00004	5	2	Do not know
14	00004	6	2	Do not know
15	00004	7	2	Do not know
16	00004	8	2	Do not know
17	00003	1	1	Do not know
18	00003	2	1	Do not know
19	00003	3	1	Do not know
20	00003	4	1	Do not know

Figure 13–11. CRV Report

Protection Groups Reports

Protection Groups Reports (Figure 13–12) provide configuration and status information about Protection Groups.

Jetstream Protection Groups Information Report

This report was generated with existing information at JetVision Server "contractor1" on Fri Jan 26 13:48:52 PST 2001

Selected For CPX1 BroadBand PG

ID	A-Member	B-Member	Active-member
1	Slot 3/Port 1	Slot 4/Port 1	A
2	Slot 11/Port 1	Slot 12/Port 1	A
3	unassigned	unassigned	unassigned
4	unassigned	unassigned	unassigned

Selected For CPX1 PSTN PG

ID	A-Member	B-Member	Active-member
1	Slot 13/Port 1	Slot 14/Port 1	A
2	unassigned	unassigned	unassigned
3	unassigned	unassigned	unassigned
4	unassigned	unassigned	unassigned
5	unassigned	unassigned	unassigned
6	unassigned	unassigned	unassigned

Figure 13–12. Protection Groups Report

Statistics

JetVision provides two monitors to analyze the performance of CPX-1000: real-time performance monitoring and historical data monitoring. This chapter provides instructions to poll various statistics for both the real-time performance monitoring and historical data monitoring.

The real-time monitoring includes these elements:

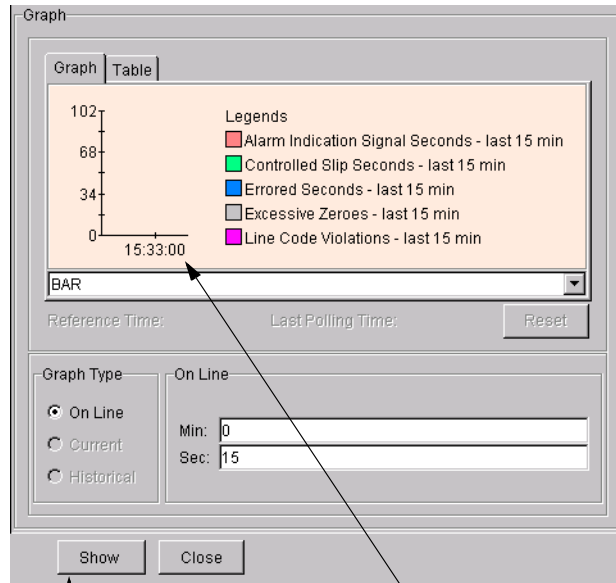
- Interface Groups (page 14-7)
- Network Protection Group (page 14-8)
- PSTN Protection Group (page 14-9)
- STS 1 ports (page 14-10)
- DS-1 ports (page 14-10)
- IADs (page 14-11)
- CPX-1000, T-1 ports, CP, and MP card (page 14-13)

The historical data monitoring includes these elements:

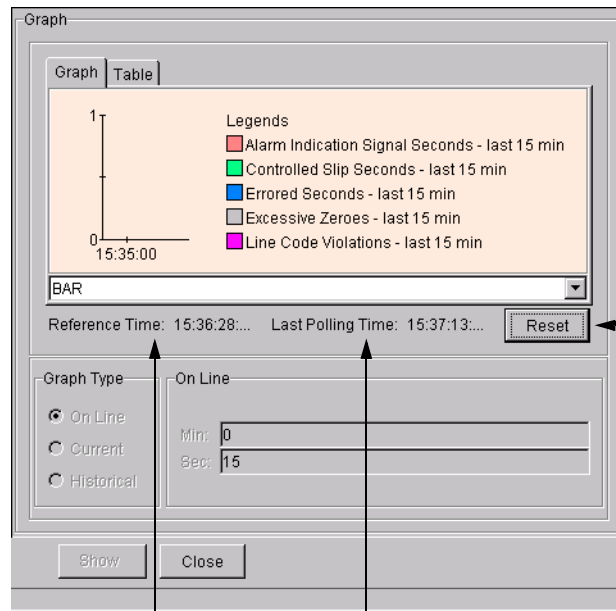
- MP card (page 14-18)
- CP card (page 14-18)
- DS1 lines or paths (page 14-19)

Graphs display absolute and relative values. Clicking **Show** marks the initial absolute value. Clicking **Reset** freezes the absolute value, and starts marking new relative values. Subsequent resets add the last relative value to the absolute value, and start marking new relative values (Figure 14-1). These values are in minutes.

Only online graphing is available for current data. Online graphs are charted over a user-defined interval, up to a maximum of fifteen minutes.



Click Show to mark the initial absolute value



Click Reset to display the relative value

Absolute

Relative

Figure 14-1. Absolute and Relative Values

Statistics Summary

Table 14–1 lists error and performance statistics that you can graph for various CPX-1000 managed entities. The statistics that are available for you to graph depend on the currently selected network element. For example, if you select a port, that port statistics will be available for you to graph. Refer to Appendix B, Statistics Descriptions, for definitions of errors and performance statistics.

Table 14–1. Summary of Error and Performance Statistics

Selected Element	Error Statistics Available	Performance Statistics Available
CPX-1000	Assembly errors Blocked incalls Blocked outcalls CRC errors IADs down Non echo calls Rejected compress calls Uncompressed calls Unsuccessful calls insufficient bandwidth	Active calls Active compress calls Ctrl cells rcvd Ctrl cells sent Cumulative compress calls Cumulative outcalls IADs Provisioned IADs Up Peak calls
MP card	Not applicable	Available physical memory (MB) CPU usage (percent) Disk size (MB) Disk usage (MB) Disk usage (percent) Free disk space (MB) Free page size (MB) Page size (MB) Page usage (MB) Page usage (percent) Physical memory (MB) Physical memory usage (MB) Physical memory usage (percent)
CP card	Not applicable	Percent CPU used Percent flash used Percent memory used

Table 14-1. Summary of Error and Performance Statistics (Continued)

Selected Element	Error Statistics Available	Performance Statistics Available
Interface Group	CCS PPS to Primary CCS PPS to Secondary EOC PPS to Primary EOC PPS to Secondary Timer timeouts	CCS PPS msgs rcvd CCS PPS msgs sent CCS msgs rcvd CCS msgs sent EOC PPS msgs rcvd EOC PPS msgs sent EOC msgs rcvd EOC msgs sent
DS-1	Alarm Indication Signal Seconds—last 15 minutes Bipolar Violations—last 15 minutes Controlled Slips Seconds—last 15 minutes Controlled Slips—last 15 minutes Degraded Minutes—last 15 minutes Errored Seconds—last 15 minutes Excessive Zeroes—last 15 minutes Line Coding Violations—last 15 minutes Line Errored Seconds—last 15 minutes Out Of Frame Seconds—last 15 minutes Severely Errored Framing Seconds—last 15 minutes Severely Errored Seconds—last 15 minutes Unavailable Seconds—last 15 minutes	DS0s in use
Network Protection Group	Not applicable	Automatic switches Manual switches Switches to primary Switches to secondary

Table 14-1. Summary of Error and Performance Statistics (Continued)


Selected Element	Error Statistics Available	Performance Statistics Available
PSTN Protection Group	Coding Violations—Path Errored Seconds—Path Severely Errored Seconds—Path Unavailable Seconds—Path	Not applicable
STS-1 Port	Coding Violations—Line Errored Seconds—Line Severely Errored Seconds—Line Unavailable Seconds—Line Coding Violations—Section Errored Seconds—Section Severely Errored Framed Seconds—Section Severely Errored Seconds—Section	Not applicable
IAD	Assembly errors Blocked incalls Blocked outcalls CRC errors I-Frames retrans Invalid frames MDL Error A–O Non echo calls OutOfSeq I-Frames Rejected compress calls Uncompressed calls Unsuccessful calls insufficient bandwidth	Active calls Active compress calls Cells rcvd Cells sent Ctrl cells rcvd Ctrl cells sent Cumulative calls Cumulative compress calls Frames rcvd Frames sent I-Frames rcvd I-Frames sent Peak calls
IAD Port	Blocked incalls Blocked outcalls	Active calls Peak calls Cumulative calls

Table 14-1. Summary of Error and Performance Statistics (Continued)

Selected Element	Error Statistics Available	Performance Statistics Available
ATM DS-3	Far end alarm indication Far end receive failure Loss of cell delineation Loss of frame Loss of signal Out of cell delineation Red count	Not applicable
ATM OC-3	AAL1 byte CRC errors AAL1 byte parity errors AAL1 byte seq errors Clock generation failures Correctable errors OAM line AIS OAM line RDI OAM path AIS OAM path RDI Overrun counter rollover Overrun errors Physical service Pointer byte parity errors Pointer byte range errors Ref cells loss Ref cells out of sync Rx Utopia FIFO overrun Rx Utopia overrun SONET loss frame SONET loss pointer SONET loss signal TDM master clocks absent Tx bandwidth errors TxFIFO overrun Uncorrectable errors Underrun counter rollover Underrun errors	Cells rcvd Cells sent Open Rx VCs Open Tx VCs Open Rx Chans Open Rx Inactive Chans Open Tx Chans Open Tx Inactive Chans Interrupt count Counter rollover Cells rcvd in FIFO Physical service Cells rcvd by PHY Cells sent by PHY

Accessing Interface Groups

To access Interface Groups statistics:

- Step 1** Click the network icon from the Tree View where the CPX-1000 resides and expand the tree by clicking the + key.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click  on the Tree View to display the Interface Group list (Figure 14-2).

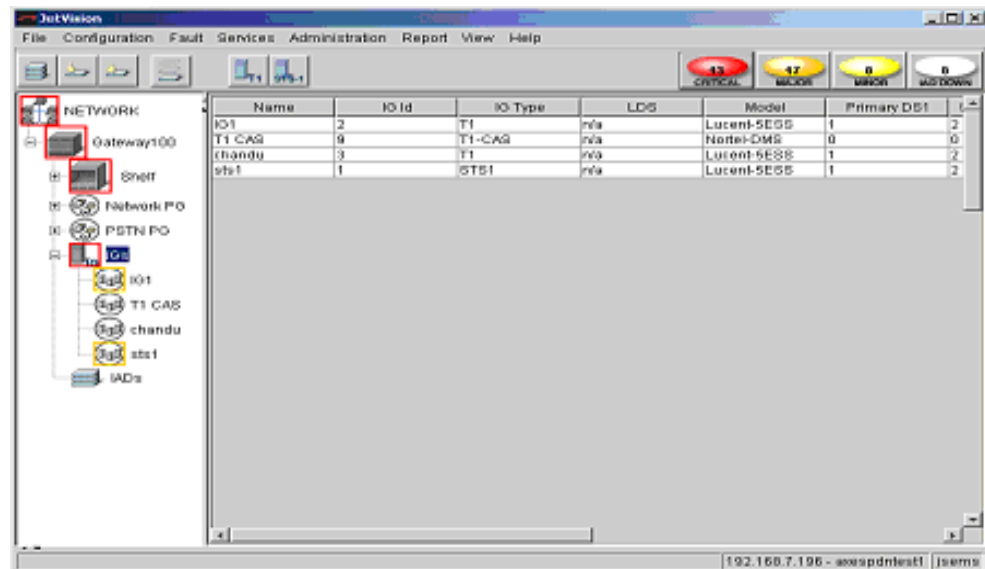



Figure 14-2. Interface Group Manager Window

- Step 4** Select the Interface Group on which you want to poll the statistics.
- Step 5** Select **Error Graphs** or **Performance Graphs** from the **Report** menu.
- Or –
- Right-click the highlighted selection and select the desired graphs.
- Step 6** Continue with Step 5 in **Polling Real-time Statistics** on page 14-13.

Accessing Network Protection Groups

To access the network Protection Group statistics:

- Step 1** Click the network icon from the Tree View where the CPX-1000 resides and expand the tree by clicking the + key.
- Step 2** Click a CPX-1000 and expand the tree.
- Click  Network PG on the Tree View to display the Protection Group list (Figure 14-3).

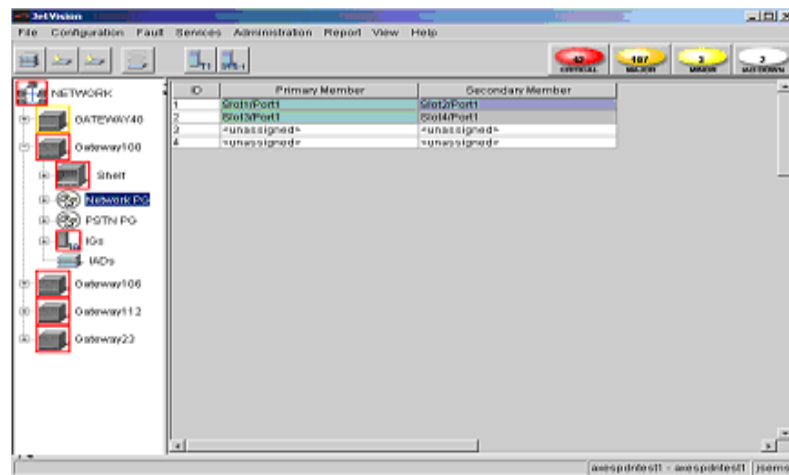



Figure 14-3. Protection Group Manager Window

- Step 3** Select a Protection Group member on which you want to poll statistics (only Performance statistics is available).
- Step 4** Select Performance Graphs from the Report menu.
- Or –
- Right-click the highlighted selection and make your selection.
- Step 5** Continue with Step 5 in Polling Real-time Statistics on page 14-13.

Accessing PSTN Protection Groups

To access the PSTN Protection Group statistics:

- Step 1** Click the network icon from the Tree View where the CPX-1000 resides and expand the tree by clicking the + key.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click  PSTN PG on the Tree View to display the Protection Group list (Figure 14-3).

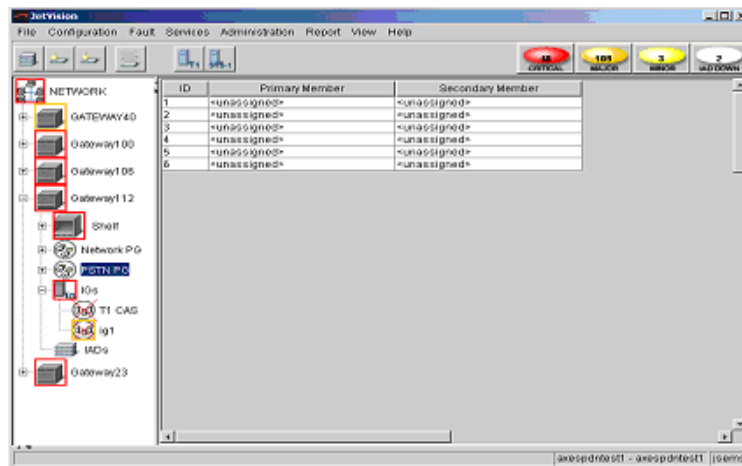


Figure 14-4. Protection Group Manager Window

- Step 4** Select a Protection Group member on which you want to poll statistics (only Performance statistics is available).
- Step 5** Select Performance Graphs from the Report menu.
- Or –
- Right-click the highlighted selection and make your selection.
- Step 6** Continue with Step 5 in Polling Real-time Statistics on page 14-13.


Accessing STS-1 Port

To access the STS-1 port statistics:

- Step 1** Click the network icon from the Tree View where the CPX-1000 resides and expand the tree by clicking the + key.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click the Shelf icon associated with the CPX-1000 and expand the tree.
- Step 4** Click a STS-1 card on which you want to poll statistics.
- Step 5** Click the desired port and select **Line Error Graphs** or **Section Error Graphs** from the **Report** menu.
– Or –
Right-click the selected port and make your selection.
- Step 6** Continue with Step 5 in **Polling Real-time Statistics** on page 14-13.

Accessing DS-1 Port

To access the DS-1 port statistics:

- Step 1** Click the network icon from the Tree View where the CPX-1000 resides and expand the tree by clicking the + key.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click  on the Tree View to display the Interface Group list (Figure 14-5).

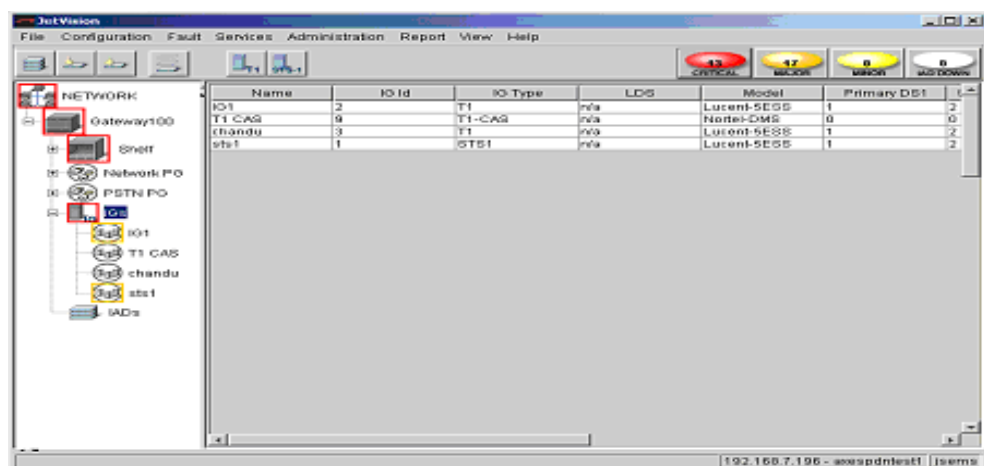


Figure 14-5. Interface Group Manager Window

- Step 4** Select the Interface Group (from the Map or List View) on which you want to poll the statistics. The Select DS1 window appears (Figure 14–6).

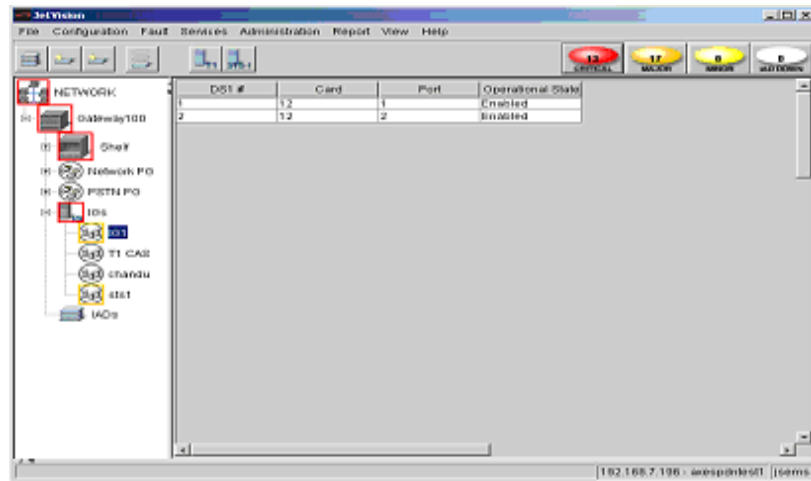


Figure 14–6. Select DS1 Window

- Step 5** Select the desired DS1 #, then select DS1 Error Graphs or DS1 Performance Graphs from the Configuration menu.

– Or –

Right-click the highlighted selection and select the desired graphs from the pop-up menu.

- Step 6** Continue with Step 5 in Polling Real-time Statistics on page 14-13.


Accessing IADs

To access the IADs statistics:


- Step 1** Click the network icon from the Tree View where the CPX-1000 resides and expand the tree by clicking the + key.
- Step 2** Click a CPX-1000 and expand the tree.

Step 3 Select IAD Manager from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select IAD Manager.

– Or –

Click  on the toolbar.

The View/Update IADs window appears.

Step 4 Click Show IADs. The View/Update IADs window appears (Figure 14–7). The configured IADs are displayed, and a message appears in the status bar indicating how many IADs have been retrieved.

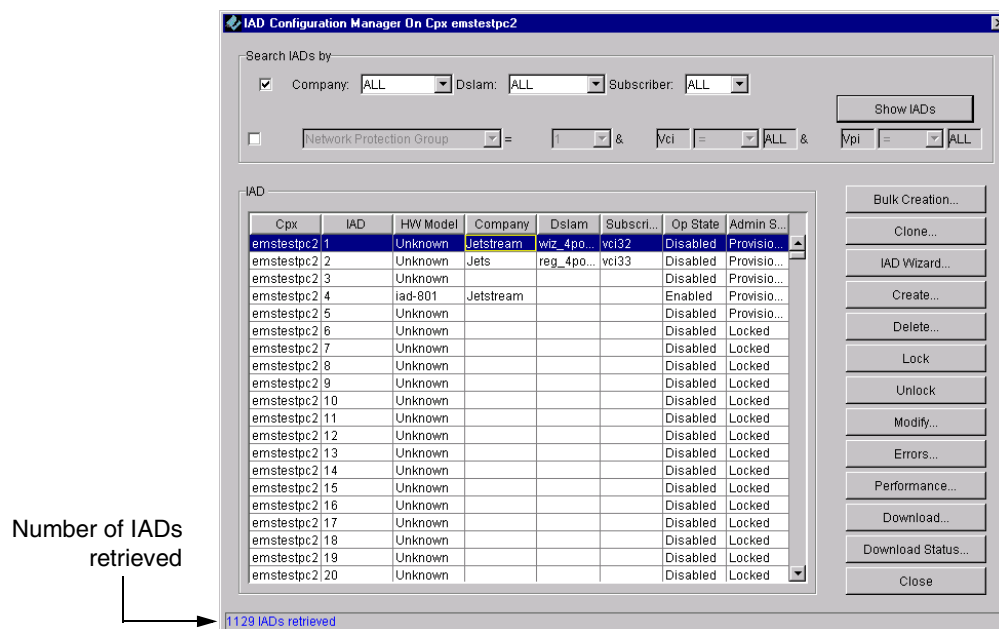


Figure 14-7. Update IAD Window with IAD Displayed

Step 5 Select the IAD on which you want to poll statistics, the option buttons are enabled.

Step 6 Select Errors or Performance. The graphing window appears.

Step 7 Continue with Step 5 in Polling Real-time Statistics on page 14-13.

Polling Real-time Statistics

To poll statistics on CPX-1000, T-1 ports, CP, or MP card:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Select the desired icon in the Tree View. For example, to poll statistics on a port, select the port icon in the Tree View.
- Step 4** Select the type of graph from the Report menu or right-click the appropriate icon. The graphing window similar to Figure 14-8 appears.

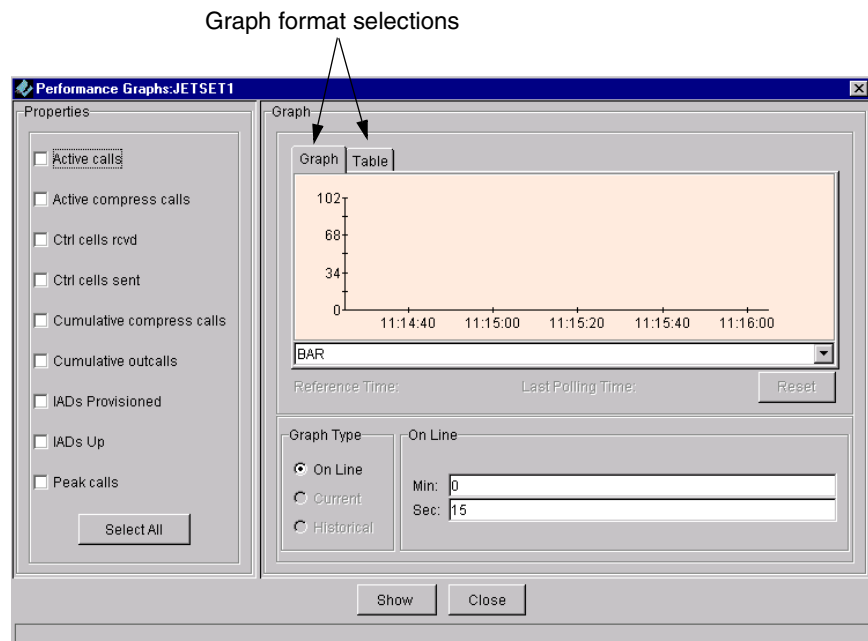


Figure 14-8. Graphing Window

- Step 5** Select the items on which you want to poll statistics from the Properties panel by clicking the adjacent box. Or click *Select All* if you want to poll all items listed. (A maximum of 20 properties can be graphed at a time.)
- Step 6** Choose the type of graph you want to generate (format options are a *bar* graph or a *plot*).

- Step 7** Choose the frequency of the data that will be graphed from the options in the On Line panel (your option is 15 seconds).
- Step 8** Select a method to view your statistical presentation. Your options are *Graph* or *Table*.



Note

Graphs display absolute and relative values. Clicking Show marks the initial absolute value. Clicking Reset freezes the absolute value, and starts marking new relative values. Subsequent resets add the last relative value to the absolute value, and start marking new relative values.

- Step 9** Click Show. JetVision displays the graph based on the options you selected (Figure 14–9 and Figure 14–10).
- Step 10** Click Close to exit this window.

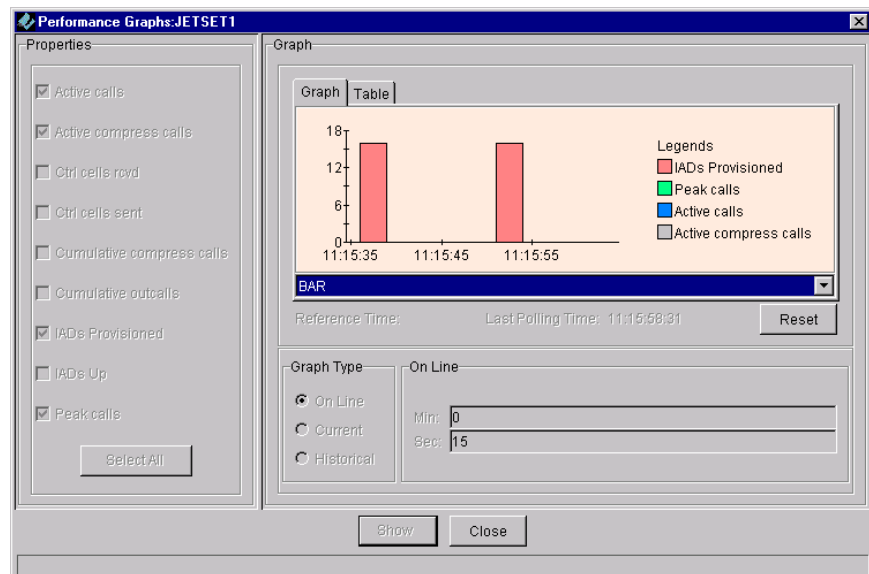


Figure 14–9. Sample Graph Window

The screenshot shows a window titled "Performance Graphs: JETSET1" with a "Table" tab selected. The table displays various performance parameters with their absolute and relative values. The "Active calls" parameter is highlighted in yellow.

Parameter	Absolute	Relative
Active calls	0	-
Active compress calls	0	-
Ctrl cells rcvd	-	-
Ctrl cells sent	-	-
Cumulative compress c...	-	-
Cumulative outcalls	-	-
IADs Provisioned	16	-
IADs Up	-	-

Below the table, the "Reference Time" is blank and the "Last Polling Time" is 11:16:49:699. There is a "Reset" button. The "Graph Type" section has "On Line" selected, with "Min" set to 0 and "Sec" set to 15. "Show" and "Close" buttons are at the bottom.

Figure 14-10. Sample Table Window

Understanding Historical Data Monitors

JetVision uses two tools to monitor historical data: DbMonitor and Performance Management (PM) history. Both monitors start simultaneously as JetVision Server. You can minimize these console windows or keep them in the background, but do not close them. Closing these windows will terminate the corresponding application.



Note

Do not close the JetVision Server console window. Because DbMonitor and PM history interact with JetVision Server, their functions will be compromised if JetVision Server is closed.

DbMonitor Window






DbMonitor monitors JetVision Server disk usage, which includes data size and report html files. It also gathers Oracle database statistics so that Oracle can come up with optimal query execution plans. When the data exceeds the high threshold limit, data are truncated to the low threshold. When data is at the low threshold, the data is purged in a FIFO (First In First Out) manner. Refer to Chapter 17, InfoCenter Services, to change the threshold limits.

PM Data Collector Window

Historical data is a useful tool for performance analysis. The size of historical data buffer is specified during installation. Refer to Chapter 17, InfoCenter Services, to increase the buffer size. The historical performance monitors these elements:

- MP card
- CP card
- DS1 ports

Figure 14–11 shows a historical performance management window where you determine how your graph is displayed. For example,

- Click  to filter the parameters.
- Click  to view the predefined interval.
- Click  to view the graph in tabular form.
- Click  to view the chart summary.
- Click  to display the legends in the graph.

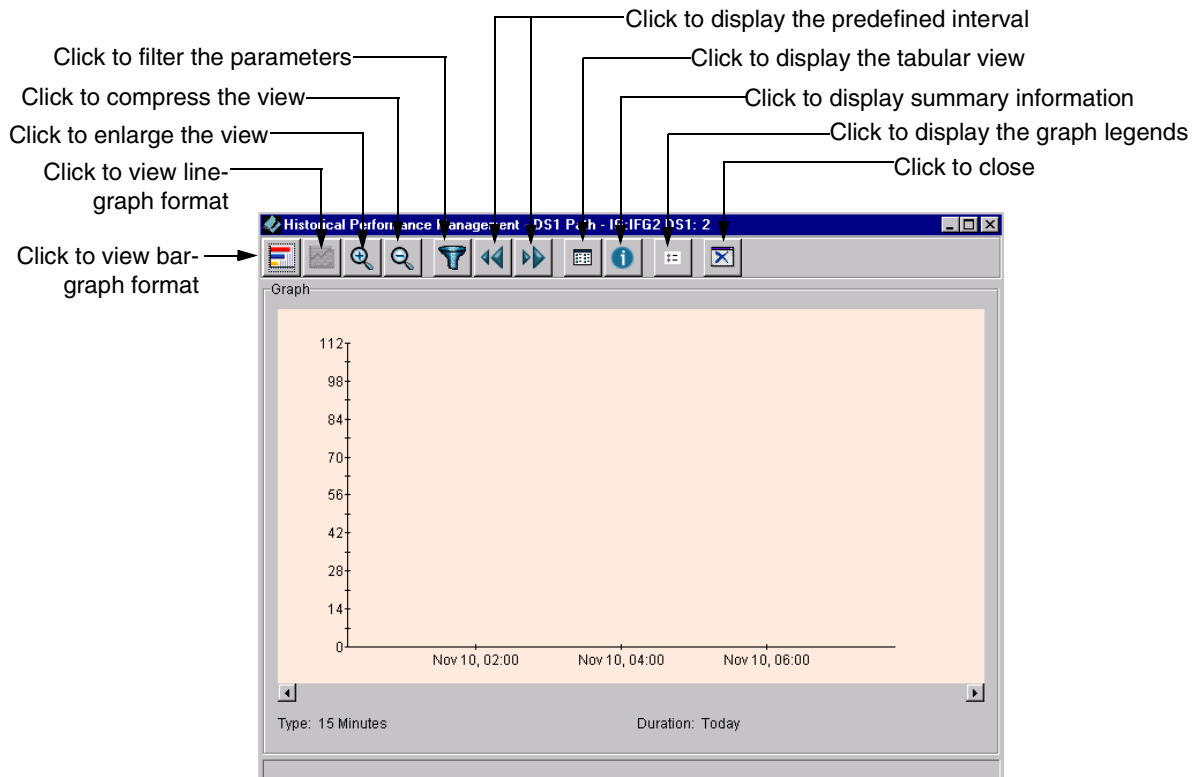



Figure 14–11. Historical Performance Management Window

Filtering Graph Parameters

JetVision enables you to select a range of parameters to present in the graph. To filter the graph parameters:

Step 1

Click  at the historical performance management window (Figure 14–11 on page 14-16). A Historical PM Filter window similar to Figure 14–12 appears.

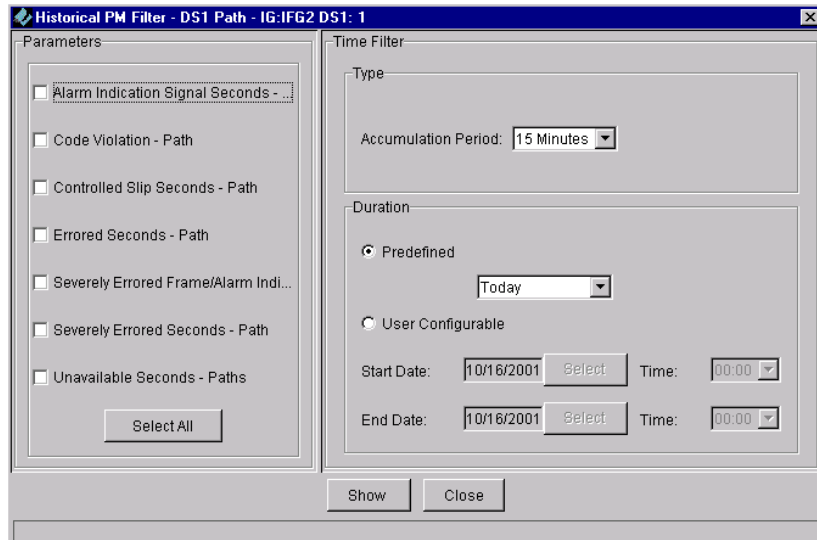


Figure 14–12. Historical PM Filter Window

Step 2

Click to select the parameters for which you want to poll statistics, or click `Select All`.

Step 3

Select the time filter from the associate drop-down lists, or click `User Configurable` to define your time preference.

Step 4

Click `Show`. JetVision displays the graph based on the options you selected.

Accessing MP or CP Cards

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Click to expand the shelf associated with the CPX-1000.
- Step 3** Select the desired card (MP or CP) from the Tree or Shelf views.
- Step 4** Select Historical Performance Graphs (MP or CP) from the Report menu.

– Or –

Right-click your selection and select Historical Performance Graphs (MP or CP) from the pop-up menu.

A Historical Performance Management window of your selection appears (Figure 14–11 on page 14-16).

- Step 5** Filter the graphing parameters (Filtering Graph Parameters on page 14-17).

Figure 14–13 shows a sample of a historical performance management graph of the MP card.

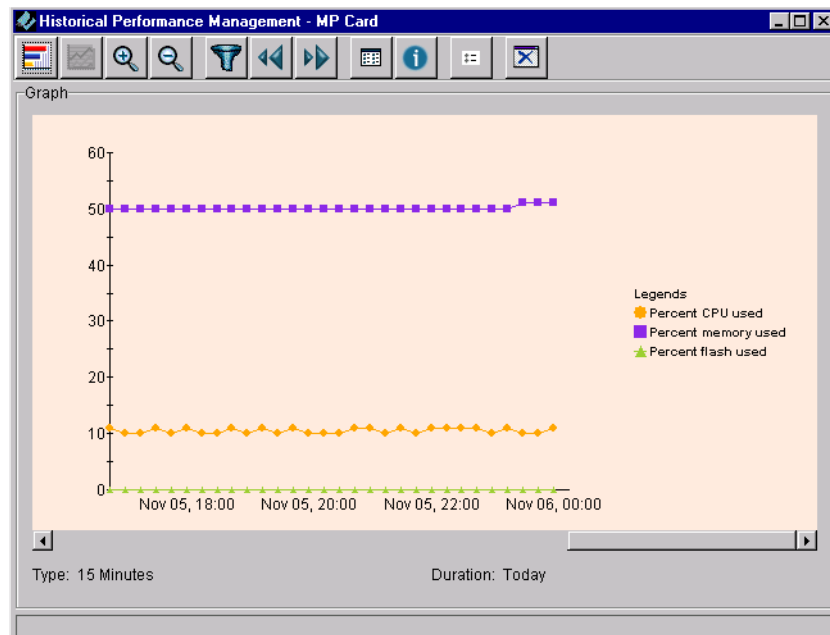



Figure 14–13. Sample Historical Performance Management Graph

Accessing DS1 Graphs

To poll historical performance data on DS1s:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Determine the type of DS1 graph you want to poll.
- To poll DS1 lines, expand the shelf as well as the desired TDM-T1 card, and select the DS1 port on which you want to poll statistics. Then go to Step 5.
 - To poll DS1 paths, continue with the next step.
- Step 3** Click  on the Tree View, and select the Interface Group on which you want to poll statistics. The right-hand pane displays the DS1 information (Figure 14-14).

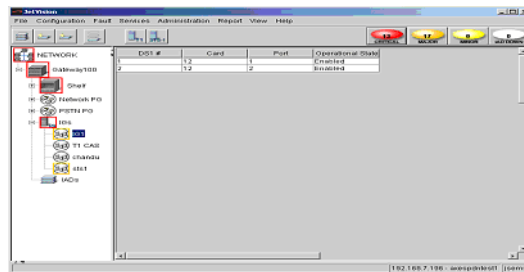


Figure 14-14. Tabular View with DS1 Information

- Step 4** Select the desired DS1 #, then select DS1 Historical Performance Graph from the Report menu.

– Or –

Right-click the DS1# and select DS1 Historical Performance Graph from the pop-up menu.

The Historical Performance Management window appears (Figure 14-11 on page 14-16).

Step 5

Select one of the following buttons from the toolbar to perform a desired operation.






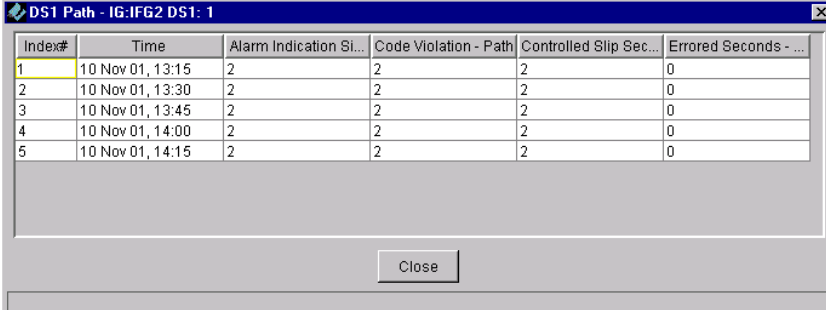
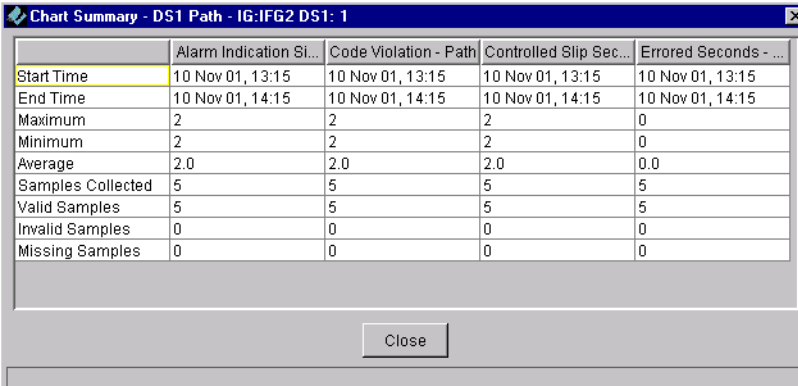
- Select the type of graphs (bar or line) to display.
- Click  to filter the parameters (Filtering Graph Parameters on page 14-17).
- Click  to view the predefined interval.
- Click  to view the graph in tabular form.
- Click  to view the chart summary.
- Click  to display the legends in the graph.

Figure 14-15 shows a sample of the graph in tabular format; Figure 14-16 shows a sample of the chart summary, and Figure 14-17 shows a sample of the graph with legends displayed.



Index#	Time	Alarm Indication Si...	Code Violation - Path	Controlled Slip Sec...	Errored Seconds - ...
1	10 Nov 01, 13:15	2	2	2	0
2	10 Nov 01, 13:30	2	2	2	0
3	10 Nov 01, 13:45	2	2	2	0
4	10 Nov 01, 14:00	2	2	2	0
5	10 Nov 01, 14:15	2	2	2	0

Figure 14-15. Historical Performance Sample Tabular View



	Alarm Indication Si...	Code Violation - Path	Controlled Slip Sec...	Errored Seconds - ...
Start Time	10 Nov 01, 13:15	10 Nov 01, 13:15	10 Nov 01, 13:15	10 Nov 01, 13:15
End Time	10 Nov 01, 14:15	10 Nov 01, 14:15	10 Nov 01, 14:15	10 Nov 01, 14:15
Maximum	2	2	2	0
Minimum	2	2	2	0
Average	2.0	2.0	2.0	0.0
Samples Collected	5	5	5	5
Valid Samples	5	5	5	5
Invalid Samples	0	0	0	0
Missing Samples	0	0	0	0

Figure 14-16. Sample Chart Summary

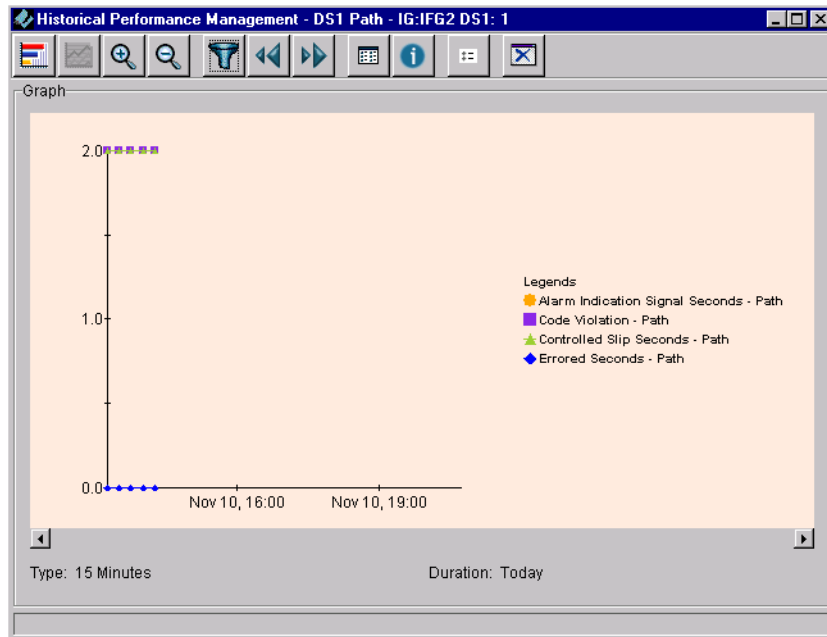



Figure 14-17. Historical Performance Sample Graph

Resetting DS1 Registers

Once initiated, the historical database in the register is reset to zero.

To reset DS1 registers:

- Step 1** Expand the desired CPX-1000 from the Tree View.
- Step 2** Determine which register you want to reset.
- To reset line registers, expand the shelf as well as the desired TDM-T1 card, and select the DS1 port on which you want to reset registers. Then go to Step 5.
 - To reset path registers, continue with the next step.
- Step 3** Click  on the Tree View, the right-hand pane changes to the Interface Group tabular view (Figure 14-18).

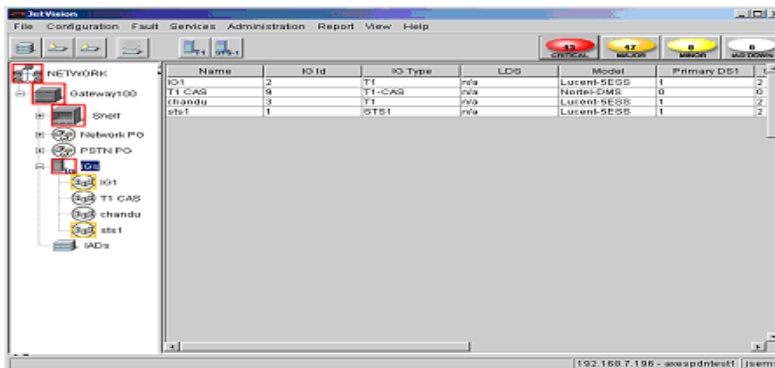


Figure 14-18. Tabular View with Interface Groups Displayed

Step 4 Select the Interface Group that you want to reset the register.

Step 5 Select DS1 Registers from the Configuration menu.

– Or –

Right-click the Interface Group and select DS1 Registers from the pop-up menu.

The Reset Registers window of your specification appears.

Figure 14-19 shows a sample of the DS1 path register.

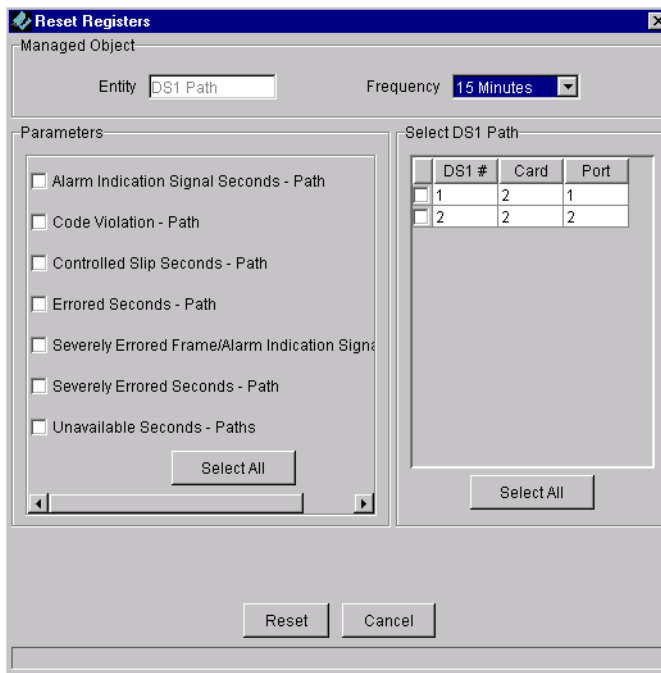


Figure 14-19. Reset Registers Window

Step 6 Set the time frequency (15 minutes or 24 hours) for which you want the register to reset.

Step 7 Click Reset.

Maintenance

Some maintenance tasks, such as backing up CPX-1000 configuration files, are performed routinely while others are performed as needed. This chapter provides instructions to perform the following tasks:

- Creating a CPX-1000 configuration destination profile (page 15-2)
- Performing an on-demand CPX-1000 configuration backup (page 15-7)
- Creating a CPX-1000 configuration backup schedule (page 15-8)
- Reviewing active tasks (page 15-17)
- Reviewing backup files (page 15-18)
- Restoring CPX-1000 configuration (page 15-19)
- Rebooting the CPX-1000 (page 15-23)
- Rebooting the MP or CP card (page 15-24)
- Setting the CPX-1000 internal clock (page 15-25)
- Performing a switchover (page 15-26)
- Changing CP card states (page 15-27)
- Performing a hot swap (page 15-30)
- Performing a loop back test (page 15-33)
- Performing a path trace on STS-1 card (page 15-35)
- Changing the CPX-1000 managing states (page 15-35)
- Downloading IAD software (page 15-37)
- Automated IAD software download (page 15-41)
- Remote restart of IADs (page 15-46)
- Increasing the historical buffer (page 15-49)

CPX-1000 Configuration Backup

You can perform an on-demand backup or a scheduled backup. Before performing a remote backup, you need to create a destination profile first.



Note

Ensure that your user account have been created in the FTP server.

Creating a Destination Profile

A destination profile contains common parameters for the backup operation.

To create a destination profile:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Select CPXBackUpManager from the Services Menu. The CPX Backup Manager window appears (Figure 15–1).

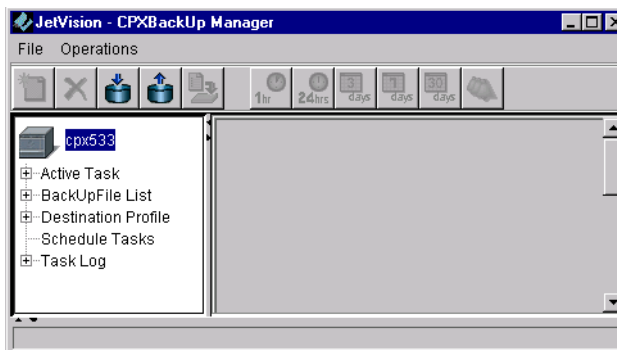


Figure 15–1. CPX Backup Manager

Step 3 Right-click Destination Profile and select **Create** from the pop-up menu.

– Or –

Click Destination Profile and select **Create** from the Operations menu.

– Or –

Click  from the toolbar.

The Create Destination Profile window appears (Figure 15–2).

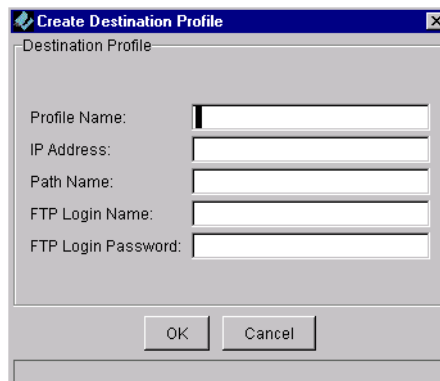


Figure 15–2. Create Destination Profile Window

Step 4 Type the information in the following fields.

- **Profile Name:** the name of the profile consists between 4 to 32 alphanumeric characters, including dashes (-) and underscores (_). No spaces allowed.
- **IP Address:** the IP address of the FTP server.
- **Path Name:** the relative path to the FTP directory. For example, if the FTP working directory is /usr/jsems and you want to transfer the file to it, then the path name is ./usr/jsems.
- **FTP Login Name:** this is the same login identifier as the FTP server.
- **FTP Login Password:** this is the same login password as the FTP server.



Note

A forward slash (/) is used for both Windows and Solaris environments. In Windows, the forward slash signifies a relative path in respect to the configuration of the FTP server.

Step 5

Click OK.

Modifying Destination Profile



Note

You cannot modify a destination profile if it is associated with any schedules.

To modify destination profiles:

Step 1

Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.

Step 2

Select CPXBackUpManager from the Services Menu. The CPX Backup Manager window appears (Figure 15-2 on page 15-3).

Step 3

Click Destination Profile to display the profile list (Figure 15-3).

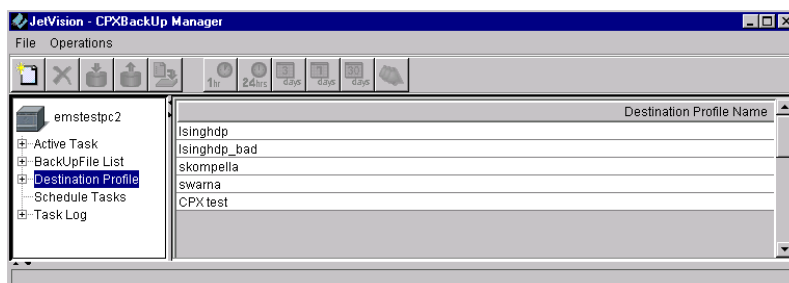


Figure 15-3. Destination Profile List

Step 4 Right-click the profile you want to modify, and select `Modify` from the pop-up menu.

– Or –

Select the profile you want to modify, and select `Modify` from the Operations menu.

The Modify Destination Profile window appears (Figure 15–4).

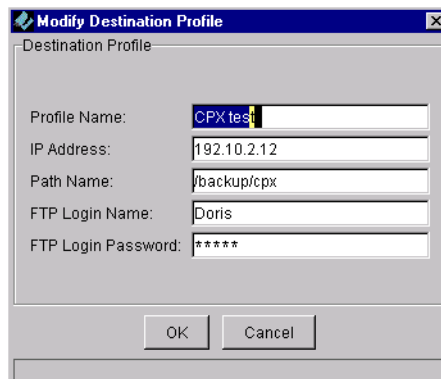


Figure 15–4. Modify Destination Profile Window

Step 5 Modify any information, then click `OK`.


Deleting Destination Profile



Note

You cannot delete a destination profile if it is associated with any schedules.

To delete destination profiles:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Select `CPXBackUpManager` from the Services Menu. The CPX Backup Manager window appears (Figure 15-2 on page 15-3).
- Step 3** Click Destination Profile to display the profile list (Figure 15-3 on page 15-4).
- Step 4** Right-click the profile name you want to delete, and select `Delete` from the pop-up menu.
- Or –
- Select the profile you want to delete, and select `Delete` from the Operations menu.
- Or –
- Click  from the toolbar.
- A dialog box appears, asking if you want to delete the selected profile.
- Step 5** Click `Yes`.

Performing an On-demand Backup

To perform an on-demand backup:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Select CPXBackUpManager from the Services Menu. The CPX Backup Manager window appears (Figure 15-5).

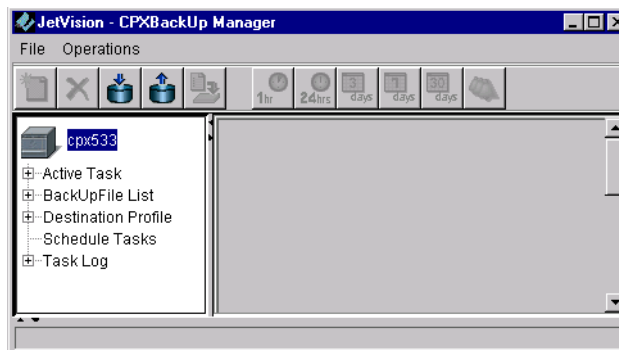



Figure 15-5. CPX Backup Manager

- Step 3** Right-click the CPX icon and select Backup CPX Configuration from the pop-up menu.
- Or –
- Click the shelf icon and select Backup CPX Configuration from the Operations menu.
- Or –
- Click  from the toolbar.

The Backup CPX Configuration window appears (Figure 15-6).

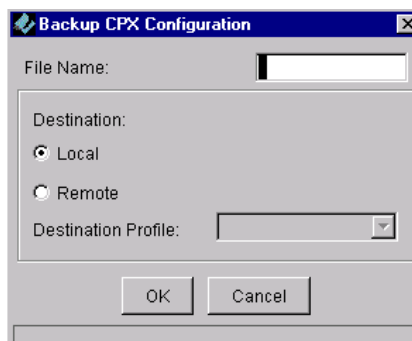


Figure 15-6. Backup CPX Configuration Window

- Step 4** Type the name of the backup file in the `File Name` field.
- Step 5** Select a file backup location.
- Local: the file is backed up to the MP backup directory. Then go to Step 7.
 - Remote: the file is backed up to the FTP server. The Destination Profile is enabled when Remote is selected. Continue with the next step.
- Step 6** Select the destination profile from its drop-down list.
- Step 7** Click OK.

Creating a Backup Schedule

JetVision enables you to schedule a backup operation on a predefined interval. Once a schedule is defined, the configuration is automatically backed up to the specified destination.

To schedule a backup interval:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click the CPX-1000 icon you want to schedule a task.
- Step 3** Select `CPXBackUpManager` from the Services Menu. The CPX Backup Manager window appears (Figure 15-7).

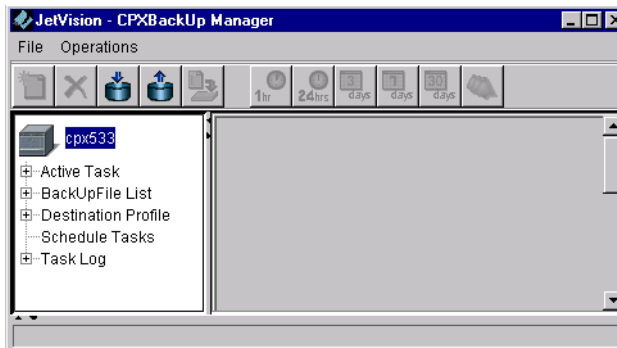


Figure 15-7. CPX Backup Manager

- Step 4** Click **Schedule Tasks**. The **Introduction to the Scheduled Task Wizard (1st of 6)** screen appears (Figure 15–8).



Figure 15–8. Scheduled Task Wizard–Introduction

- Step 5** Click **Next**. The **Scheduled Task Wizard** screen appears (Figure 15–9).

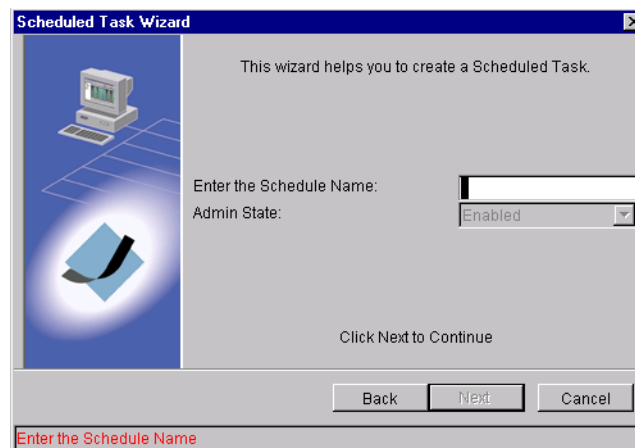


Figure 15–9. Scheduled Task Wizard–Name

- Step 6** Type the name of this task in the name field. (The name has no restriction of number of characters; however, you cannot place space between characters.)



Notes

The name must be unique for every CPX-1000. No CPX-1000 can share the same name.

The **Next** button is enabled when the schedule name is entered.

Step 7

Click **Next**. The Scheduled Task Wizard — Interval screen appears (Figure 15–10).



Figure 15–10. Scheduled Task Wizard–Interval

Step 8

Select the interval, then click **Next**. The Scheduled Task Wizard — Location screen appears (Figure 15–11).

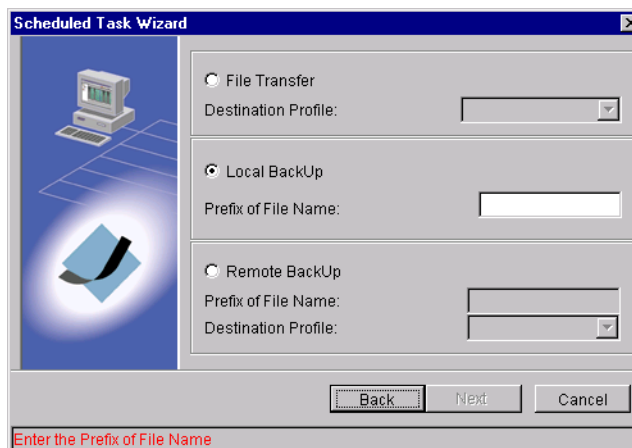


Figure 15–11. Scheduled Task Wizard–Location

- Step 9** Select one of the following backup location.
- Select the destination profile from the drop-down list (enabled when File Transfer is selected).
 - Local Backup (default): type the prefix of the file name in the name field.
 - Type the prefix of the file name in the name field and select the destination profile from the drop-down list (enabled when Remote Backup is selected).
- Step 10** Click **Next**. The Scheduled Task Wizard — Time screen appears (Figure 15–12).

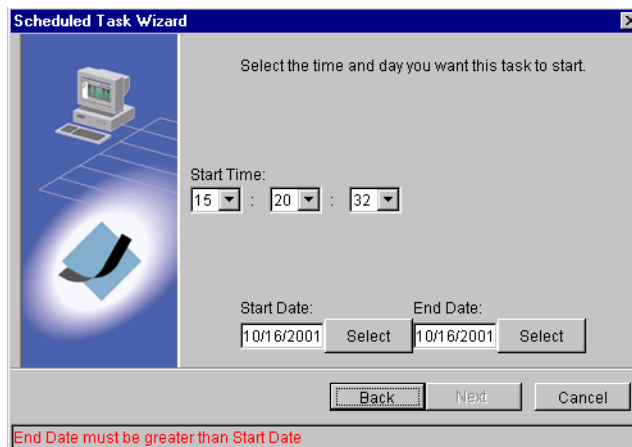


Figure 15–12. Scheduled Task Wizard–Time

- Step 11** Select the starting time and date as well as the end date from the drop-down lists. Or, click **Select** to choose the dates. The Schedule Summary appears (Figure 15–13).

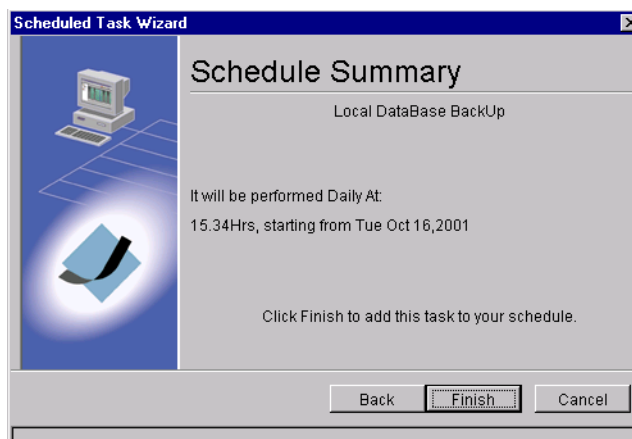


Figure 15–13. Scheduled Task Wizard–Summary

Step 12 Review the summary.

- If the scheduled data is correct, click **Finish**. The scheduled task is started and active from the 1st effective date, and listed on the CPX Backup Manager window.
- If any of parameters are incorrect, click **Back** until you reach the screen in question and correct the parameters, then proceed from that point forward.

Disabling a Backup Schedule

To disable a backup schedule:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click the CPX-1000 icon you want to disable a scheduled task.
- Step 3** Select CPXBackUpManager from the Services Menu. The CPX Backup Manager window appears (Figure 15-14).

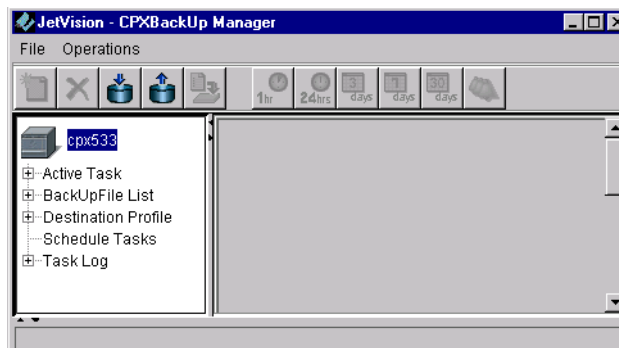


Figure 15-14. CPX Backup Manager

- Step 4** Click **Schedule Tasks**. A list of scheduled tasks appears on the right panel (Figure 15-15).

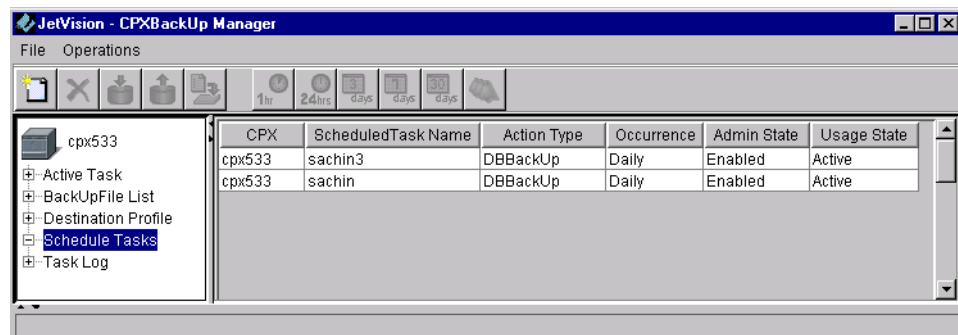


Figure 15-15. CPX Backup Manager with Scheduled Tasks Displayed

- Step 5** Click the scheduled task you want to stop, disable the admin state by selecting `Disable` from the Operations menu.



Note

You cannot disable a backup operation when it is in progress. The disabled schedule takes effect from the next schedule.

- Step 6** Right-click the scheduled task you want to disable, and select `Stop Schedule`. A dialog box appears, asking if you want to disable the selected scheduled task.

- Step 7** Click `Yes`.

Enabling a Backup Schedule

After a backup schedule have been disabled, you need to enable it to resume its operation. To enable a schedule:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click the CPX-1000 icon you want to enable a scheduled task.
- Step 4** Select `CPXBackUpManager` from the Services Menu. The CPX Backup Manager window appears (Figure 15–16).

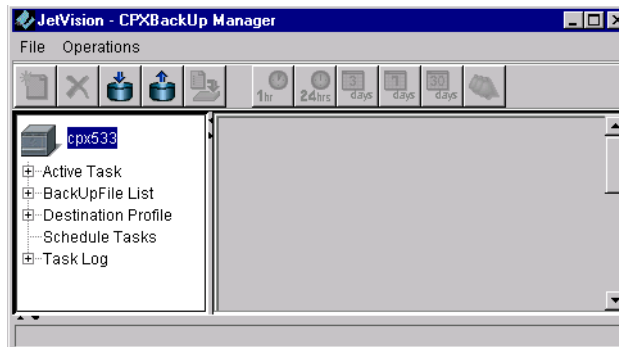


Figure 15–16. CPX Backup Manager

- Step 5** Click **Schedule Tasks**. A list of scheduled tasks appears on the right panel (Figure 15–17).

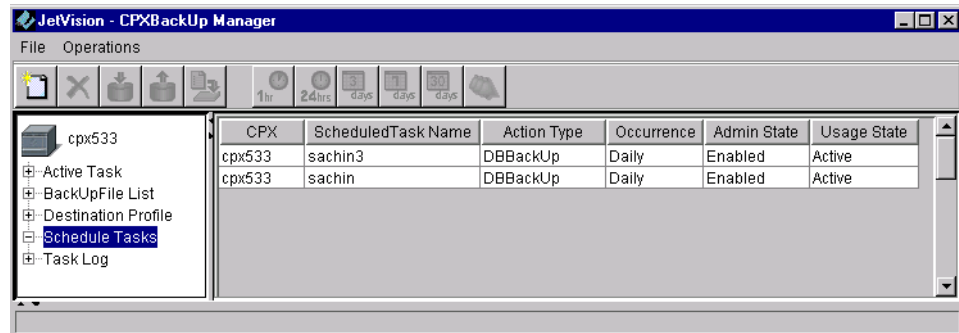


Figure 15–17. CPX Backup Manager with Scheduled Tasks Displayed

- Step 6** Right-click the scheduled task you want to enable, and select **Start Schedule**. A dialog box appears, asking if you want to enable the selected scheduled task.
- Step 7** Click **Yes**.



Note

You can start a scheduled task only when the admin state of the intended scheduled task is disabled. The **Start Schedule** option is disabled if the scheduled task is already in the start state.

Modifying a Backup Schedule

To modify a backup schedule:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click the CPX-1000 icon you want to schedule a task.

- Step 3** Select CPXBackUpManager from the Services Menu. The CPX Backup Manager window appears (Figure 15–18).

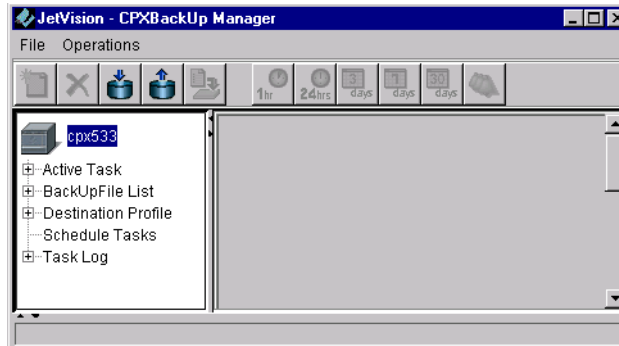


Figure 15–18. CPX Backup Manager

- Step 4** Click *Schedule Tasks*. A list of scheduled tasks appears on the right panel (Figure 15–19).

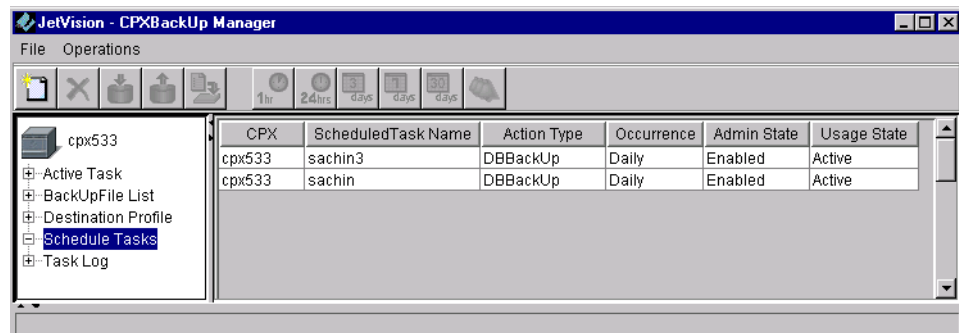


Figure 15–19. CPX Backup Manager with Scheduled Tasks Displayed

- Step 5** Right-click the scheduled task you want to modify, and select *Modify Schedule* from the pop-up menu.

– Or –

Click the scheduled task you want to modify, and select *Modify Schedule* from the *Operations* menu.

The Scheduled Task Wizard (1st of 6) screen appears.

- Step 6** Refer to *Creating a Backup Schedule* on page 15-8 to modify any information.

Deleting a Backup Schedule

To delete a backup schedule:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click the CPX-1000 icon you want to delete a scheduled task.
- Step 3** Select CPXBackUpManager from the Services Menu. The CPX Backup Manager window appears (Figure 15–20).

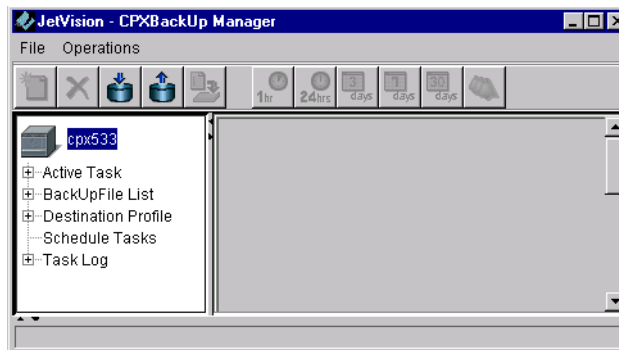


Figure 15–20. CPX Backup Manager

- Step 4** Click Schedule Tasks. A list of scheduled tasks appears on the right panel (Figure 15–21).

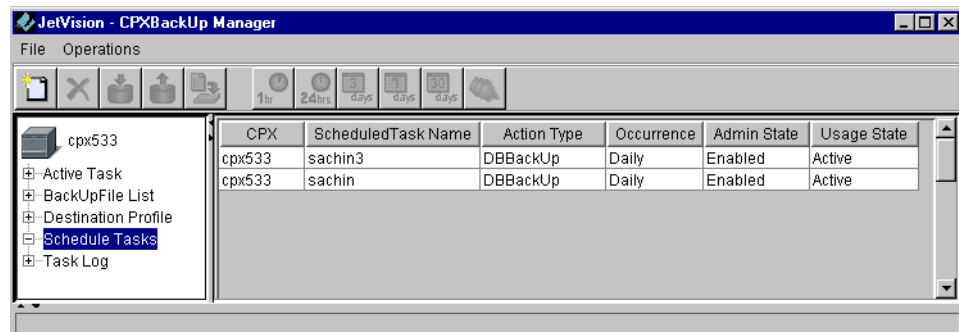


Figure 15–21. CPX Backup Manager with Scheduled Tasks Displayed

- Step 5** Right-click the scheduled task you want to delete, and select **Stop Schedule** from the pop-up menu. A dialog box appears, asking if you want to stop the selected scheduled task.
- Step 6** Click **Yes**.
- Step 7** Right-click the scheduled task you want to delete, and select **Delete Schedule** from the pop-up menu.
- Or –
- Click the scheduled task you want to delete, and select **Delete Schedule** from the **Operations** menu.
- A dialog box appears, asking if you want to delete the selected scheduled task.
- Step 8** Click **Yes**.

Reviewing Active Tasks

When the backup are being executed, you can view the progress status.

To review the active tasks:

- Step 1** Locate the CPX-1000 by clicking the group icon from the **Tree View** where the CPX-1000 resides.
- Step 2** Select **CPXBackUpManager** from the **Services Menu**. The **CPX Backup Manager** window appears (Figure 15–22).

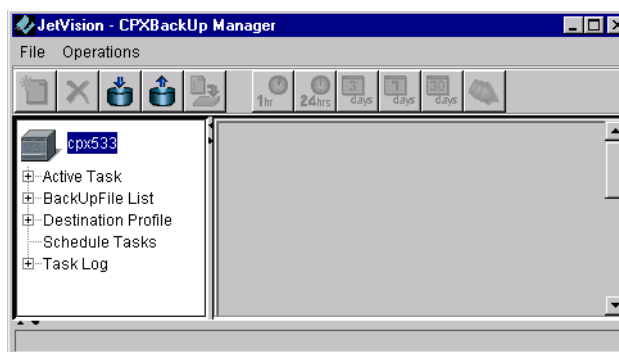


Figure 15–22. CPX Backup Manager

- Step 3** Click **Active Tasks**. The right panel shows the status of the current task being performed (Figure 15–23).

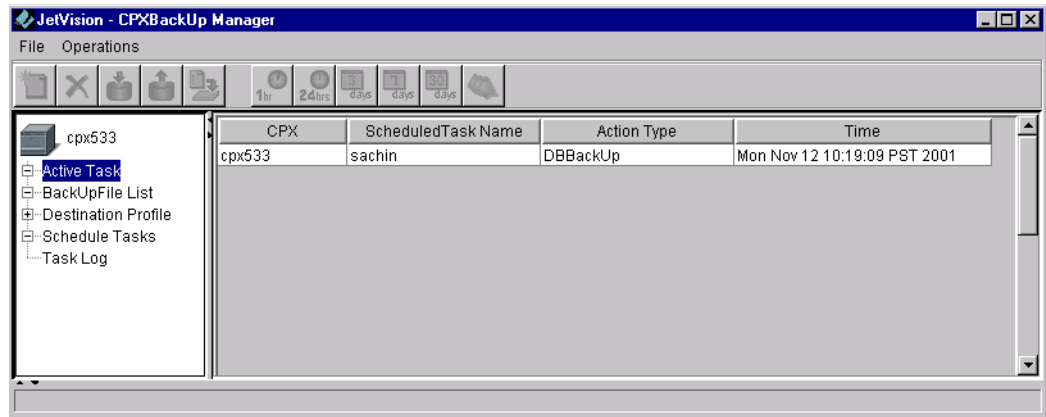


Figure 15–23. Active Task List

Reviewing Backup Files

To review the backup file location:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Select CPXBackupManager from the Services Menu. The CPX Backup Manager window appears (Figure 15–22 on page 15-17).
- Step 3** Click **BackUpFileList**. The right panel shows a list of files that have been backed up (Figure 15–24).

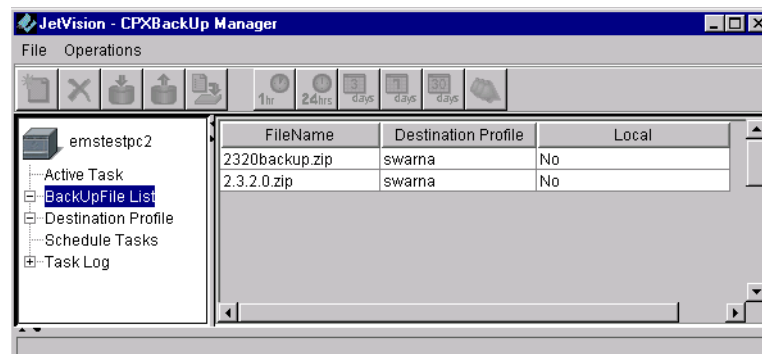


Figure 15–24. Back Up File List

Restoring CPX Configuration

You can restore the configuration file on a CPX-1000 if you lose or change it. Unless specified, the files are restored to the local disk. Refer to Performing a File Transfer on page 15-21 to send files to a remote location.

To restore a CPX-1000 configuration file:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Select CPXBackUpManager from the Services Menu. The CPX Backup Manager window appears (Figure 15-25).

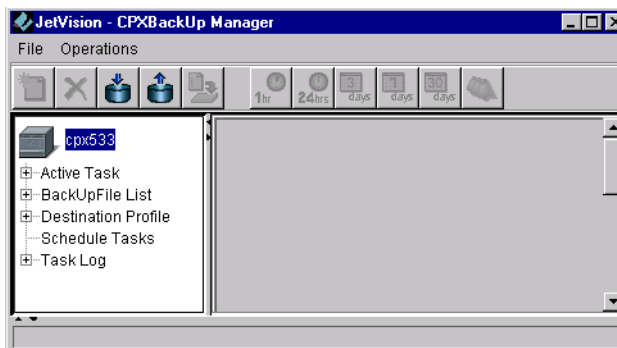


Figure 15-25. CPX Backup Manager

- Step 3** Click BackUpFileList. The right panel shows a list of files that have been backed up (Figure 15-26).

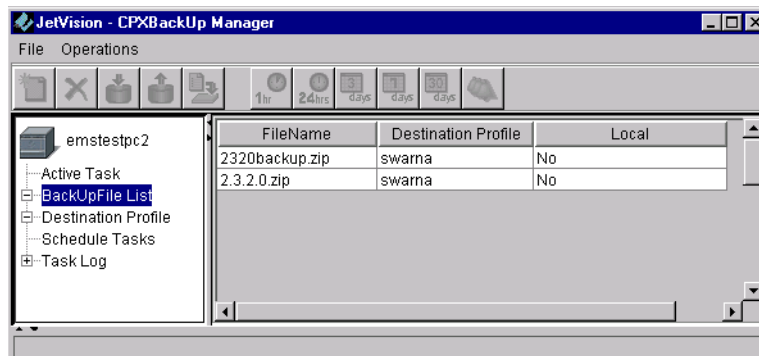


Figure 15-26. Back Up File List

Step 4 Right-click the file you want to restore, and select **Restore CPX Configuration** from the pop-up menu.

– Or –

Click the file you want to restore, and select **Restore CPX Configuration** from the **Operations** menu.

– Or –

Click the  from the toolbar.

The **Restore CPX Configuration** window appears (Figure 15–27)

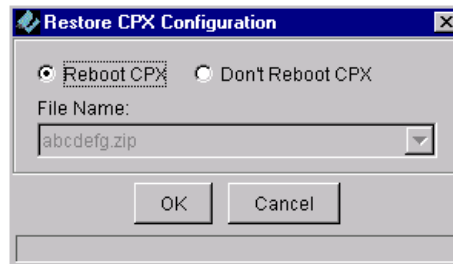


Figure 15–27. Restore CPX Configuration



Warning

Restoring CPX-1000 configuration requires rebooting the MP card, which interrupts service.

Step 5 Select the reboot option, then click **OK**.

- Reboot CPX starts the rebooting process.
- Don't Reboot CPX means that you will reboot the CPX-1000 manually at a later time (Rebooting the CPX-1000 on page 15-23).



Note

Make sure to reboot, or the configuration files will not be restored.

Performing a File Transfer

JetVision enables you to send the backup files to any remote locations so long they are included in the destination profile.

To perform a file transfer:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Select CPXBackUpManager from the Services Menu. The CPX Backup Manager window appears (Figure 15–28).

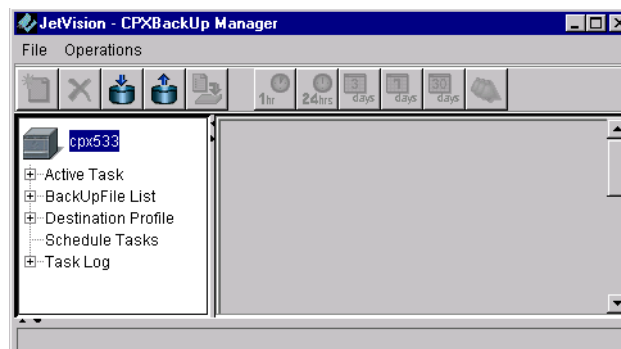


Figure 15–28. CPX Backup Manager

- Step 3** Click BackUpFileList. The right panel shows a list of files that have been backed up (Figure 15–29).

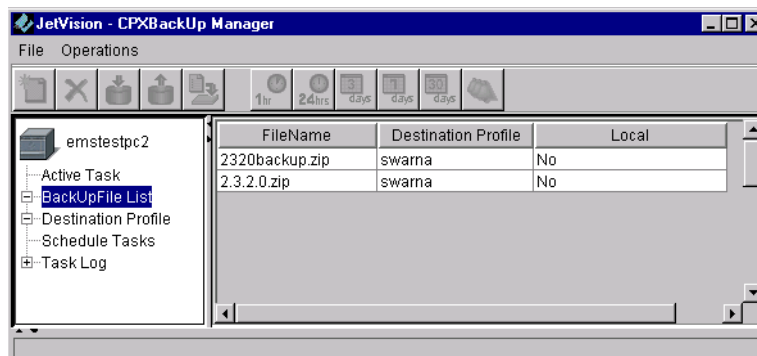


Figure 15–29. Back Up File List

Step 4 Right-click the file you want to restore, and select **File Transfer** from the pop-up menu.

– Or –

Click the file you want to restore, and select **File Transfer** from the Operations menu.

– Or –

Click  from the toolbar.

The File Transfer window appears (Figure 15–30)

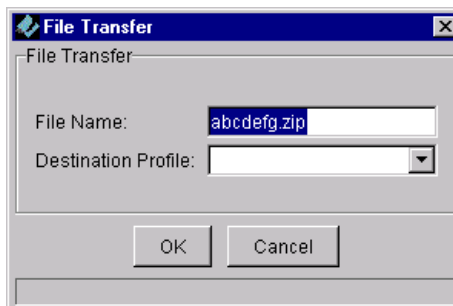


Figure 15–30. File Transfer

Step 5 Select a profile from the Destination Profile drop-down list.

Step 6 Click OK.



Note

You do not need to select the destination profile when restoring file from the FTP server to local machine. The destination profile associated to the selected file is automatically displayed.

Rebooting the CPX-1000




Voice/Data Interruption

When rebooting the CPX-1000, all cards power down gracefully. Calls are dropped immediately.

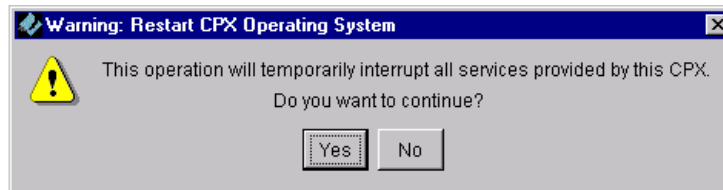
To reboot the CPX-1000:

Step 1

Click the  icon from the Tree View.

Step 2

Select Reboot from the Services menu. The following dialog box appears, asking if you want to continue.



Step 3

Click Yes.

Rebooting the MP or CP Card

You can reboot either the MP card or the standby CP card. Before rebooting the standby CP card, put it to the Locked state (Changing CP Card States on page 15-27).



Warning

Rebooting the MP card interrupts service.

To reboot the MP or CP card:

- Step 1** Click a CPX-1000 from the Tree View and expand the tree by clicking the + sign.
- Step 2** Click the Shelf icon associated with the CPX-1000.
- Step 3** Click either the MP or CP card icon from the Tree or Shelf views.
- Step 4** Select Reboot from the Services menu. A prompt appears, asking if you want to continue.
- Step 5** Click Yes to reboot.

Resynchronizing a CPX-1000


Depending on the size of the CPX-1000 managed domain, resynchronizing might take a few minutes.

To resynchronize a CPX-1000:

- Step 1** Click a CPX-1000 icon in the Tree view.
- Step 2** Select Resynch CPX from the Administration menu. A prompt appears, asking if you want to resynchronize the CPX-1000.
- Step 3** Click Yes to resynchronize the CPX-1000.



Note

An out-of-sync icon  and a gray-out CPX-1000 image appear in the Map View during initialization. When the initialization process completes, the icon disappears and the color of the CPX-1000 returns to gray.

Setting the CPX-1000 Internal Clock

To set the time and date:

- Step 1** Click a CPX-1000 from the Tree view, and expand the tree by clicking the + sign.
- Step 2** Click the Shelf icon associated with the CPX-1000, and click the MP card.
- Step 3** Select `Time Configuration` from the Services menu. The Set CPX Time window appears (Figure 15-31).

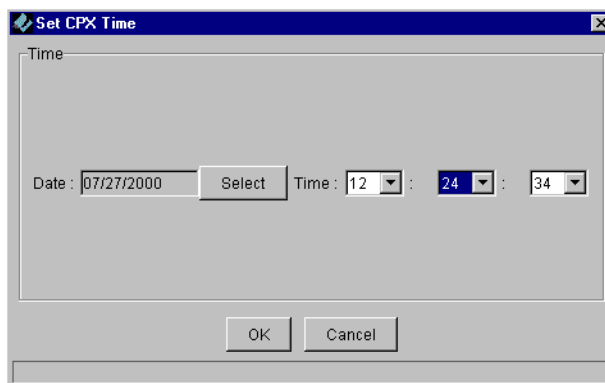


Figure 15-31. Set CPX Time Window

- Step 4** Click `Select`. The Calendar window appears (Figure 15-32).

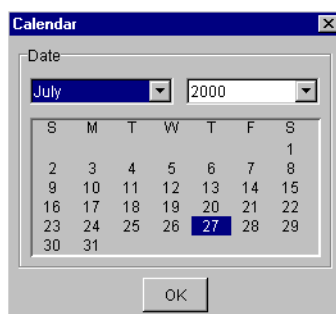


Figure 15-32. Calendar Window

- Step 5** Select the current month and year from the appropriate drop-down lists.
- Step 6** Select the current day by clicking the date in the calendar.
- Step 7** Click `OK` to return to the Set CPX Time window.

- Step 8** Set the time from the appropriate hour, minute, and seconds drop-down lists.
- Step 9** Click OK to set the time and date.

Switching

When a forced switchover is performed, call control is transferred to the standby CP card, regardless of call progress. Calls being set up are dropped during a forced switchover (Performing a CP Switchover on page 15-29).

Ensuring Redundancy

To ensure redundancy on the CPX-1000, both CP cards need to be inserted in their assigned slots. Figure 15-33 shows the slot assignments of CPX-1000 cards. The color shown indicates the states of the cards: green for active and blue for standby. The two CP and an MP cards are located in fixed slots assignment. The primary CP occupies slot 7 with its corresponding primary HSC card in slot 10. The secondary CP occupies slot 9 with its corresponding secondary HSC card in slot 8. The MP card occupies slot 6.

For a description of individual cards, refer to *CPX-1000 Voice Services Platform Introduction and Technical Description*.

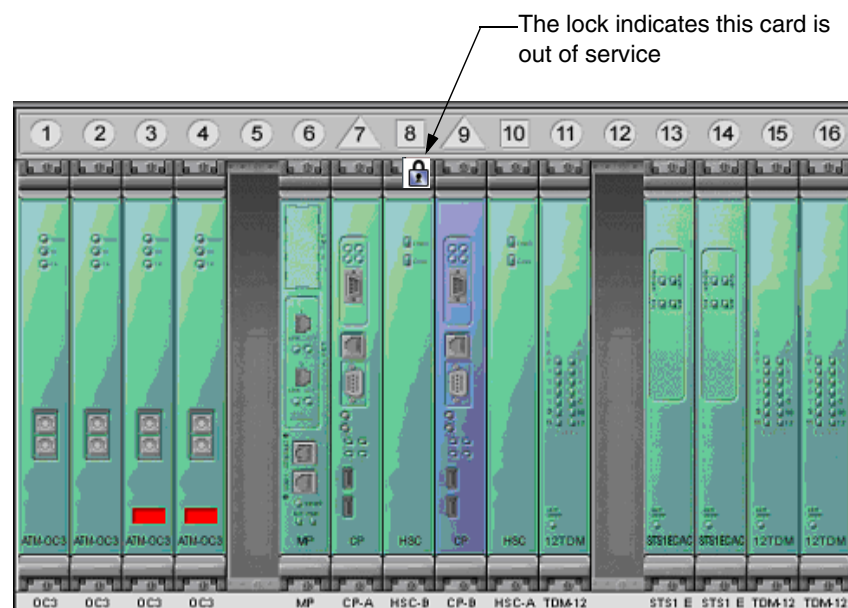


Figure 15-33. Shelf View

Changing CP Card States

A card is locked when a lock icon appears on the card just below the slot number.

To change the CP cards administrative states:

- Step 1** Click a CPX-1000 from the Tree View and expand the tree by clicking the + sign.
- Step 2** Click the Shelf icon associated with the CPX-1000.
- Step 3** Right-click the desired card in the Tree or Shelf views and select Card Configuration. The Card Configuration window similar to Figure 15-34 appears, displaying the read-only information.



Figure 15-34. Card Configuration Window – Configuration Tab

- Step 4** Select **Status**. The **Status** tab similar to Figure 15–35 appears, displaying the current service state of the card.

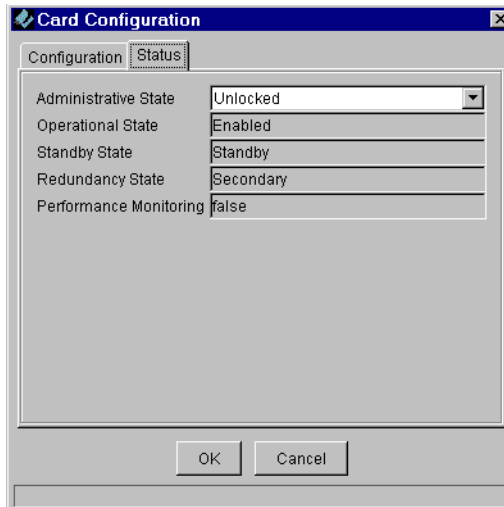


Figure 15–35. Card Configuration Window—Status Tab



Notes

The Performance Monitoring field (true or false) indicates whether the statistics are available for that card: True indicates statistics are available.

The Administrative state is only displayed if it can be modified.

The Operational state is set to Enabled when the card is discovered.

- Step 5** Select the service state from the Administrative State drop-down list. Your options are Locked or Unlocked.
- Step 6** Click **OK**. A prompt appears asking if you want to change the state.
- Step 7** Click **Yes**.

Performing a CP Switchover

Before performing a switchover on a CP card, make sure that the following conditions are present:

- two CP cards are inserted in their assigned slots
- there are no alarms on either CP card
- the states of CP cards if switching from CP-A to CP-B:

States	CP-A	CP-B
	Active	Standby
Administrative	Unlocked	Unlocked
Operational	Enabled	Enabled
Primary	Primary	Secondary

- the states of CP cards if switching from CP-B to CP-A:

States	CP-B	CP-A
	Active	Standby
Administrative	Unlocked	Unlocked
Operational	Enabled	Enabled
Primary	Secondary	Primary



Voice/Data Interruption

Calls being set up during a forced switchover are dropped.

To perform a switchover:

- Step 1** Ensure that the standby CP card is “unlocked” (Changing CP Card States on page 15-27).
- Step 2** Select the active card.

- Step 3** Click the active CP card in the Tree or Shelf views and select *Switchover* from the Configuration menu.
- Or –
- Right-click the active CP card in the Tree or Shelf views and select *Switchover* from the pop-up menu.
- A prompt appears, asking if you want to continue the operation.
- Step 4** Click *Yes* to perform the switchover.
- Step 5** Observe the colors of the cards. The previously active card becomes the standby card and the previously standby card is now the active card.

Hot Swapping

Hot swapping lets you remove and replace cards without shutting down and reconfiguring the CPX-1000. JetVision supports hot swapping on all cards.

- To hot swap a MP card, go to page 15-30
- To hot swap CP and HSC cards, go to page 15-31
- To hot swap line cards, go to page 15-32

Hot Swapping MP Card



Note

Arrange uninterruptible voice communications between yourself and a counterpart who will physically remove and replace the card.

To hot swap the MP card:

- Step 1** Back up the current CPX-1000 database (Performing an On-demand Backup on page 15-7).
- Step 2** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 3** Click the Shelf icon associated with the CPX-1000.

- Step 4** Click the MP card from the Tree or Shelf views and select **Remove Resources** from the Configuration menu.
- Or –
- Right-click the MP card from the Tree or Shelf views and select **Remove Resources** from the pop-up menu.
- A prompt appears, asking if you want to remove all resources associated with the card.
- Step 5** Click **Yes**. The card is removed from the Tree and Shelf views.
- Step 6** Instruct your counterpart to physically remove and replace the MP card.
- Step 7** Confirm the MP card reinsertion from your counterpart.
- Step 8** Restore the CPX-1000 configuration (Restoring CPX Configuration on page 15-19).

Hot Swapping CP and HSC Cards

HSC cards are paired with CP cards. After the HSC card is replaced, pairing with the CP card is automatically restored.

To hot swap CP and HSC cards:

- Step 1** Click a CPX-1000 from the Tree View and expand the tree by clicking the + sign.
- Step 2** Click the Shelf icon associated with the CPX-1000.
- Step 3** Click the CP card icon from the Tree or Shelf view.
- If hot swapping an active CP or HSC card, continue with Step 4.
 - If hot swapping a standby CP or HSC card, continue with Step 5.
- Step 4** Switch to place the active card in standby (Performing a CP Switchover on page 15-29).
- Step 5** Place the CP card to the Locked state (Changing CP Card States on page 15-27).
- Step 6** Select **Remove Resources** from the Configuration menu. A prompt appears, asking if you want to remove all resources associated with the card.
- Step 7** Click **Yes**. The card is removed from the Tree and Shelf views.

- Step 8** Instruct your counterpart to physically remove and replace the CP or HSC card.
- Step 9** Confirm the card reinsertion from your counterpart. (Continue with Step 10 if this is a standby CP or HSC card.)
- Step 10** Place the CP card to the Unlocked state (Changing CP Card States on page 15-27).

Hot Swapping Line Cards

Line cards include:

- ATM (OC-3 and DS-3)
- TDM-12T1
- STS-1

To hot swap a line card:

- Step 1** Click a CPX-1000 from the Tree View and expand the tree by clicking the + sign.
- Step 2** Click the Shelf icon associated with the CPX-1000.
- Step 3** Click a line card that you want to hot swap from the Tree or Shelf views.
- Step 4** Place the selected line card to the Locked state (Changing CP Card States on page 15-27).
- Step 5** Select **Remove Resources** from the Configuration menu. A prompt appears, asking if you want to remove all resources associated with the card.
- Step 6** Click **Yes**. The card is removed from the Tree and Shelf views.
- Step 7** Instruct your counterpart to physically remove and replace the line card.

Once the card is replaced, it is automatically “unlocked,” and all resources for that card are restored. The card reappears in the Tree and Shelf views.

Performing Loop Back Test



A loop back test is a diagnostics tool to test the inbound traffic. You can perform loop back test on T-1 and STS-1 cards.

Voice/Data Interruption

Calls are dropped during the loop back test. Perform this test during low traffic period.

To perform the loop back test:

- Step 1** Click a CPX-1000 from the Tree View and expand the tree by clicking the + sign.
- Step 2** Click the Shelf icon associated with the CPX-1000 and expand the tree by clicking the + sign.
- Step 3** Right-click the desired port icon and select *Configure*. The Port Configuration window similar to Figure 15–36 appears.

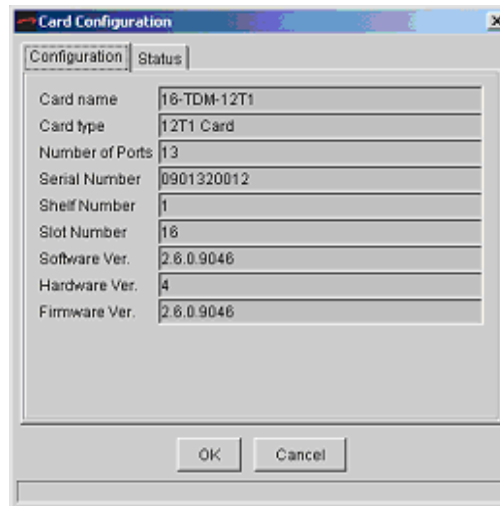


Figure 15–36. Port Configuration

Step 4 Click **Status**. The **Status** tab appears (Figure 15–37).

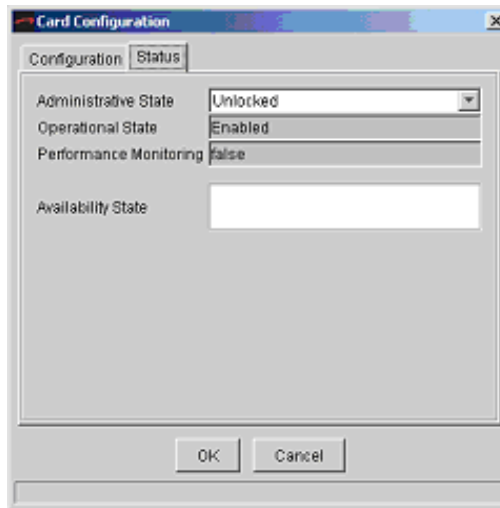


Figure 15–37. Port Configuration—Status Tab

- Step 5** Select **Lock** from the **Administrative state** drop-down list.
- Step 6** Select **Near End Line Loop** from the **Loopback Mode** drop-down list.
- Step 7** Place the card to the **Unlocked** state when the test is completed.

Tracing STS-1 Path

To trace an STS-1 path:

- Step 1** Click to expand the PSTN PG icon by clicking the + sign.
- Step 2** Click the desired Protection Group on the Tree View and select Path Trace from the Configuration menu.

– Or –

Right-click the desired Protection Group on the Tree View and select Path Trace.

The Path Trace window appears (Figure 15–38).

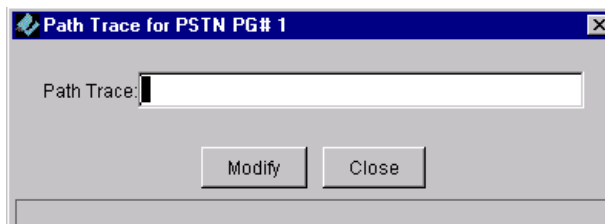


Figure 15–38. Path Trace Window

- Step 3** Type a character string of up to 62 characters in the Path Trace field.
- Step 4** Click Modify.

CPX-1000 Management States

Before performing service-affecting operation, such as hot software upgrade, and to avoid the unnecessary alarms, you can place the CPX-1000 in the “unmanaged” state. After the operation, you can then place the CPX-1000 in the “managed” state.

- Unmanaged means that the CPX-1000 is temporarily disconnected (i.e., taken offline).
- Managed means that putting the CPX-1000 back online and resuming its live operations (JetVision continues to receive alarms for that CPX-1000).




Note

While in the Unmanaged state (offline), you still can view configuration on cards and ports.

Changing to the Unmanaged State

To change the CPX-1000 to the unmanaged state:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click a CPX-1000 to which you want to place to the Unmanaged state.
- Step 4** Select Unmanaged CPX from the Administration menu.
- Step 5** Observe the Map View. The CPX-1000 is now offline, indicated by the gray-out image and a lock icon  next to the image.

Changing to the Managed State

To change the CPX-1000 to the managed state:

- Step 1** Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.
- Step 2** Click a CPX-1000 and expand the tree.
- Step 3** Click a CPX-1000 to which you want to place to the Managed state.
- Step 4** Select Managed CPX from the Administration menu.
- Step 5** Observe the Map View. The color of the CPX-1000 returns to its original gray, and the lock icon disappears.


Downloading IAD Software

JetVision provides bulk download capabilities for downloading software to multiple IADs of the same type.


To download IAD software:

- Step 1** Click a CPX-1000 from the Tree View and expand the tree by clicking the + sign.
- Step 2** Click a CPX-1000 icon in the Tree view.
- Step 3** Select IAD Manager from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select IAD Manager.

– Or –

Click  on the toolbar.

The IAD Configuration Manager window appears (Figure 15–39).

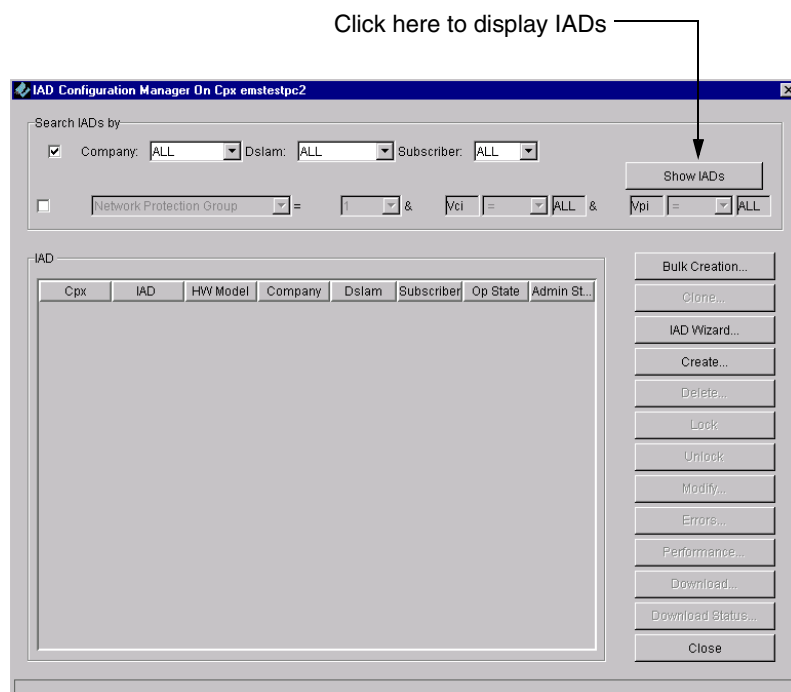


Figure 15–39. IAD Configuration Manager Window

Step 4 Click **Show IADs**. A list of available IADs appears (Figure 15–40).

Number of IADs retrieved

Cpx	IAD	HW Model	Company	Dslam	Subscri...	Op State	Admin S...
emstestpc2	1	Unknown	Jetstream	wiz_4po...	vci32	Disabled	Provisio...
emstestpc2	2	Unknown	Jets	reg_4po...	vci33	Disabled	Provisio...
emstestpc2	3	Unknown				Disabled	Provisio...
emstestpc2	4	iad-801	Jetstream			Enabled	Provisio...
emstestpc2	5	Unknown				Disabled	Provisio...
emstestpc2	6	Unknown				Disabled	Locked
emstestpc2	7	Unknown				Disabled	Locked
emstestpc2	8	Unknown				Disabled	Locked
emstestpc2	9	Unknown				Disabled	Locked
emstestpc2	10	Unknown				Disabled	Locked
emstestpc2	11	Unknown				Disabled	Locked
emstestpc2	12	Unknown				Disabled	Locked
emstestpc2	13	Unknown				Disabled	Locked
emstestpc2	14	Unknown				Disabled	Locked
emstestpc2	15	Unknown				Disabled	Locked
emstestpc2	16	Unknown				Disabled	Locked
emstestpc2	17	Unknown				Disabled	Locked
emstestpc2	18	Unknown				Disabled	Locked
emstestpc2	19	Unknown				Disabled	Locked
emstestpc2	20	Unknown				Disabled	Locked

1129 IADs retrieved

Figure 15–40. IAD Configuration Manager Window with IADs Shown

Step 5 Select IADs to which you want to upgrade the software. Ensure that the operational state of the IADs you select is Enabled and the administrative state is Unlocked (refer to Chapter 7, IAD Provisioning, for more information).



Notes

To select multiple IADs, hold down the **Shift** or **Ctrl** key while making your selections. Using the **Shift** key lets you make your selections in contiguous order; the **Ctrl** key lets you select IADs in a random order.

The IAD model number and current code version must be identical before performing a download.

- Step 6** Click **Download**. The IAD Software Download window appears (Figure 15–41), displaying the IADs packages and versions.

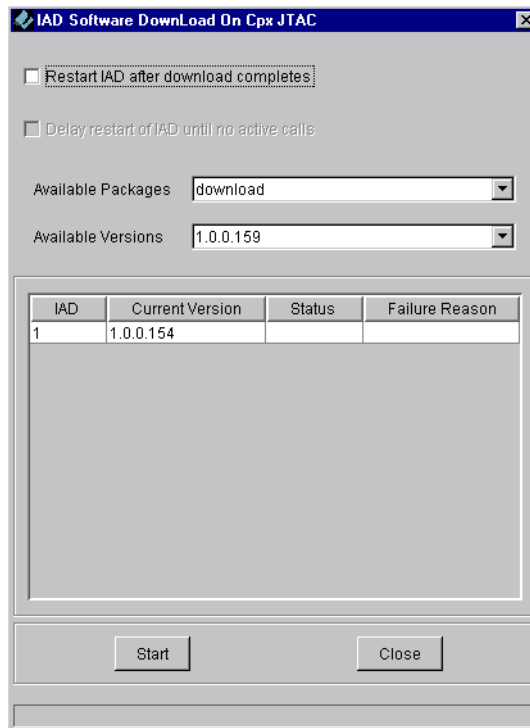


Figure 15–41. IAD Software Download Window

- Step 7** Select the **Restart IAD after download completes** checkbox.
- Step 8** Select the **Delay restart of IAD until no active calls** checkbox. (This option is dependent upon the option in Step 7 being selected.)
- Step 9** Select the package you want to download from the **Available Packages** drop-down list. (The packages are IAD dependant. These four packages are download, config, kernel, and asic.)



Note

You can download the packages in any order sequence; however, you can download only one package at a time.

Step 10 Select the version associated with the package from the Available Versions drop-down list.

Step 11 Click Start to begin the download. The operational status, Waiting, is displayed in the Status column.

When completed, The operation status is displayed as shown in Figure 15–42. Or if the operation fails, the reason is listed in the Failure Reason column.

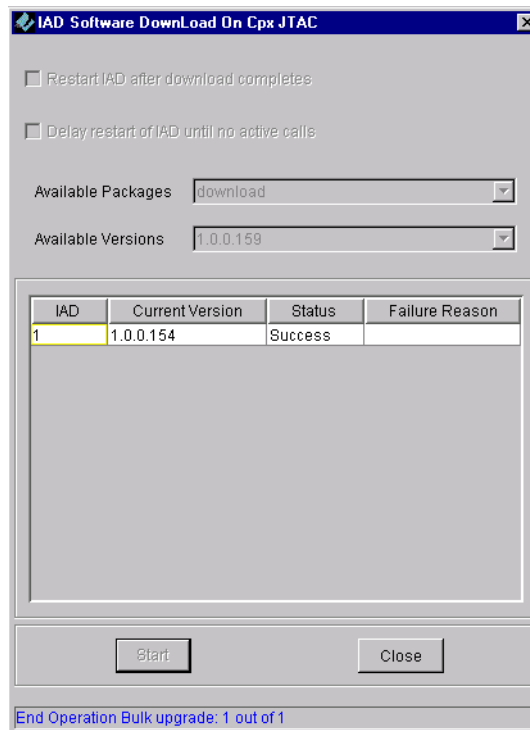


Figure 15–42. IAD Software Download Window with Status Displayed

Step 12 Click Close to return to the IAD Configuration Manager window.

Automated IAD Software Download



To enable support for IAD Auto Download, you must enable the Download Status for both the JetVision Server and the CPX.

Notes

Before you use the Automated IAD Software Download tool, you must use the CPX IAD Firmware Loader (located on the CPX Installer CD) to load the IAD software into the correct directory on the MP. For further information, see the *Jetstream CPX-1000 Voice Services Platform Installation and Operation* manual.

To enable or disable this feature for the JetVision Server, follow these steps.

- Step 1** Select Configure Global IAD Auto Download from the Services menu.
- Step 2** Select Enable or Disable.
- Step 3** Click OK.

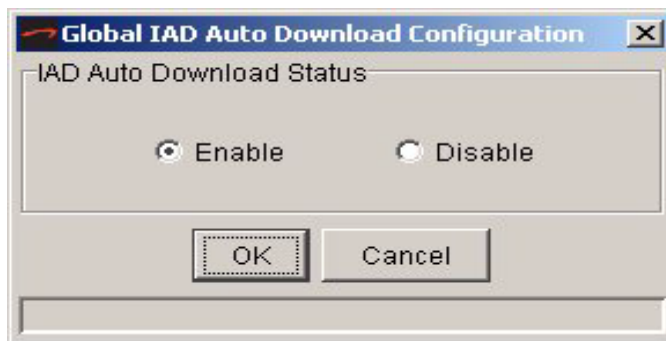


Figure 15-43. Global IAD Auto Download Status Screen

To enable or disable this feature for a CPX, follow these steps:

- Step 1** Click the desired CPX-1000 icon from the Tree View.
- Step 2** Select Configure from the Configuration menu.

Step 3 Select the IAD Auto Download tab.

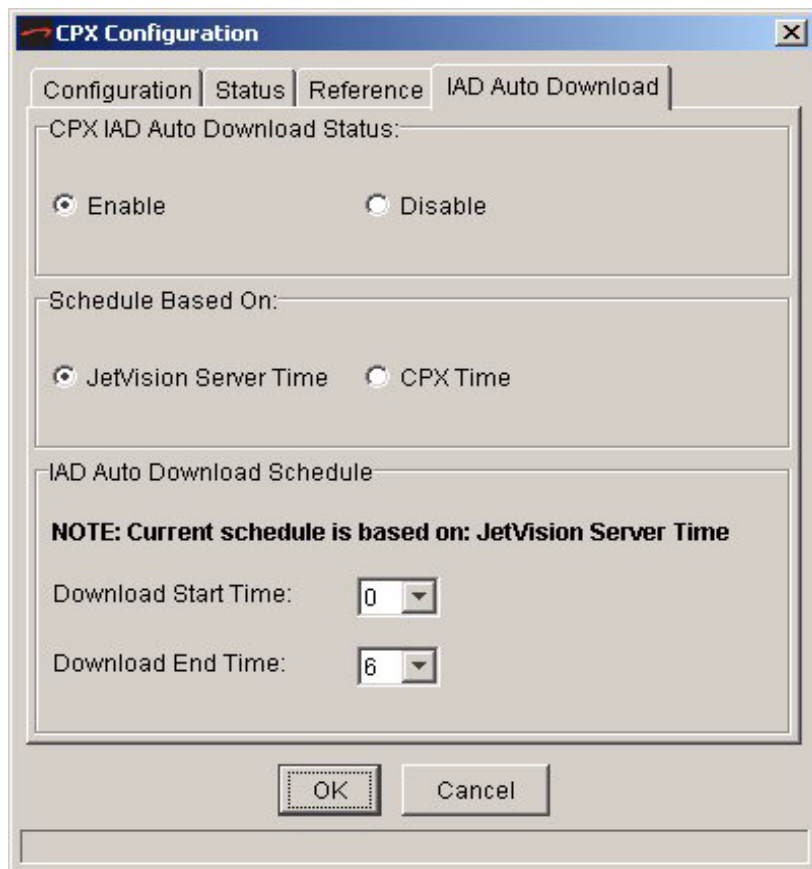


Figure 15-44. CPX IAD Auto Download Configuration Status

Step 4 In the CPX IAD Auto Download Status section select Enable or Disable.

Step 5 Choose which system to base the IAD Auto Download Schedule on. You can choose to have the schedule time based on the CPX-1000 or the JetVision Server time.

Step 6 Configure the start and stop time to have the download occur.

- Choose the Download Start Time: (0:00 - 23:00)
- Choose the Download End Time: (0:00 - 23:00)



Notes

Download start and end times cannot be the same.

Step 7 Click OK.

Configuring the IAD Auto Download Profiles

To configure the IAD Auto Download Profiles:

Step 1 Click the desired CPX-1000 icon from the Tree View.

Step 2 2.Select Configure IAD Download Versions from the Services menu.

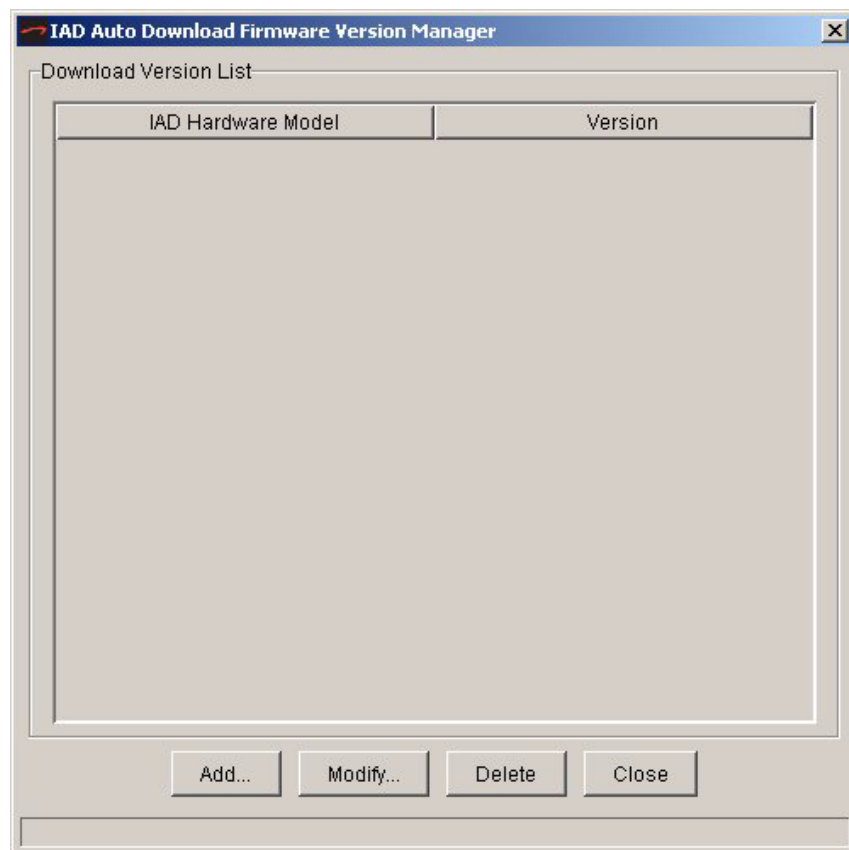


Figure 15-45. IAD Auto Download Firmware Version Manager

Step 3 Select an action button from the bottom of the dialog.

Add

To create an IAD Auto Download Profile:

- Step 1** Click on the Add button.
- Step 2** The following dialog appears:

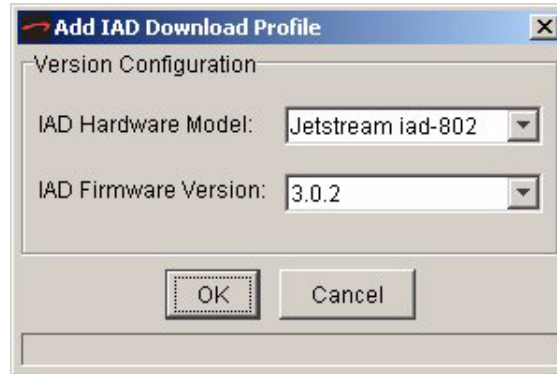


Figure 15-46. Add IAD Download Profile

- Step 3** Select the IAD model. A list of IAD firmware present on the CPX for this IAD model appears.
- Step 4** Choose the IAD Firmware Version you want to associate with this IAD model.
- Step 5** Click OK.

Modify

To modify an existing IAD Auto Download Profile:

- Step 1** Select the IAD download profile you wish to modify and click on the Modify button.
- Step 2** The following dialog appears:

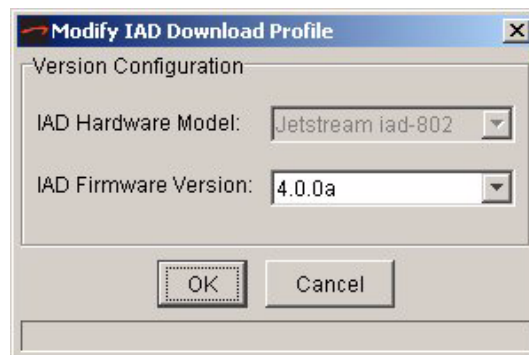


Figure 15-47. Modify IAD Download Profile

- Step 3** Choose a different IAD Firmware Version to be associated with this IAD model. (The IAD Hardware Model cannot be changed from this dialog.)

Delete

To remove an IAD Auto Download Profile associated with a CPX:

- Step 1** Select the IAD Auto Download Profile you wish to remove, and Click Delete.

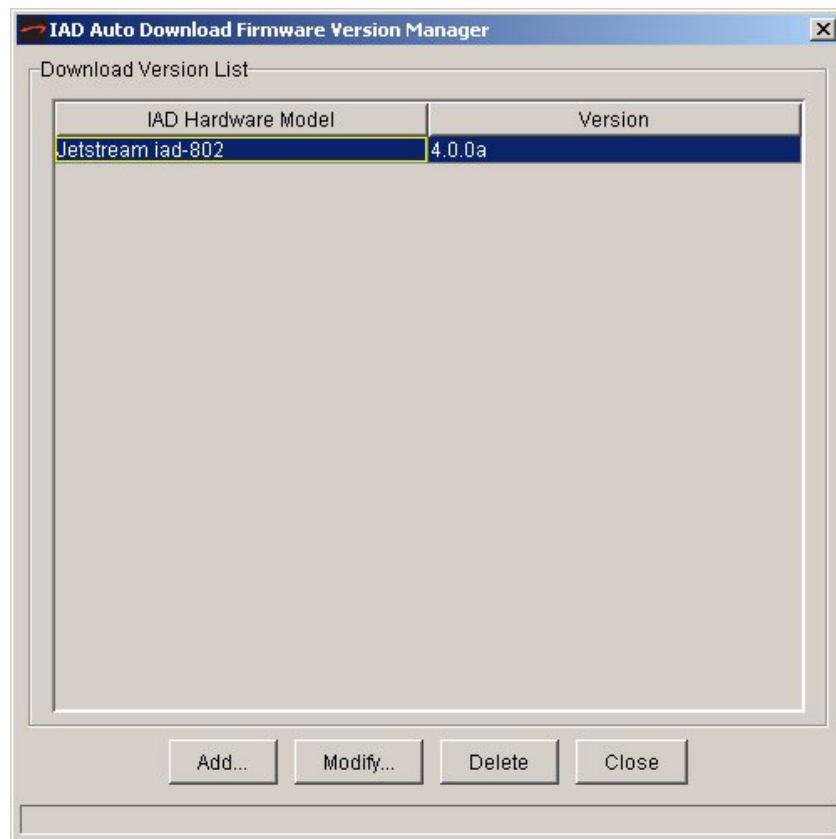


Figure 15-48. Delete IAD Download Profile

Close

Click on the Close button to close the IAD Auto Download Profile Manager dialog.


Remote Restarting of IADs

JetVision allows remote restarting of IADs.


To remote restart an IAD:

- Step 1** Click a CPX-1000 from the Tree View and expand the tree by clicking the + sign.
- Step 2** Click a CPX-1000 icon in the Tree view.
- Step 3** Select IAD Manager from the Configuration menu.

– Or –

Right-click  on the Tree View or Map View and select IAD Manager.

– Or –

Click  on the toolbar.

The IAD Configuration Manager window appears (Figure 15–39).

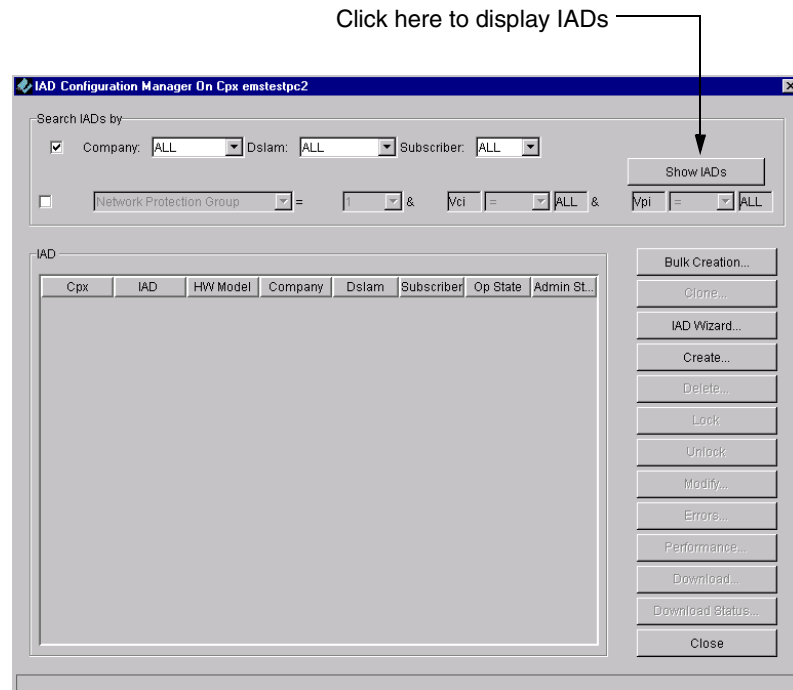


Figure 15–49. IAD Configuration Manager Window

Step 4 Click **Show IADs**. A list of available IADs appears (Figure 15–50).

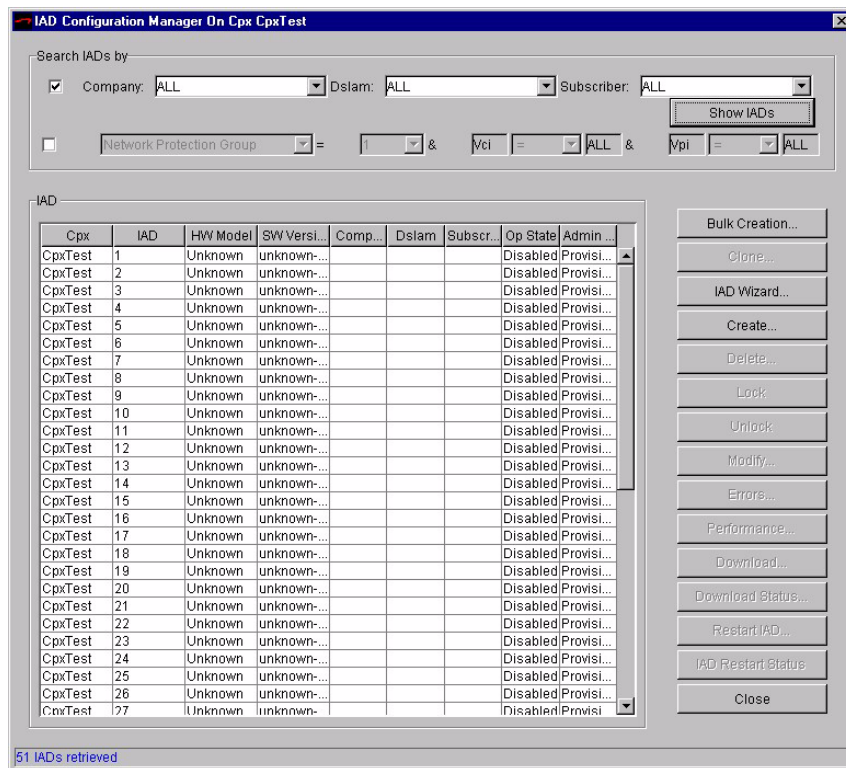


Figure 15–50. IAD Configuration Manager Window with IADs Shown

Step 5 Select the IAD you would like to restart.



Notes

To select multiple IADs, hold down the **Shift** or **Ctrl** key while making your selections. Using the **Shift** key lets you make your selections in contiguous order; the **Ctrl** key lets you select IADs in a random order.

- Step 6** Click the Restart IAD button. The Restart IAD dialog box appears (Figure 15–51).

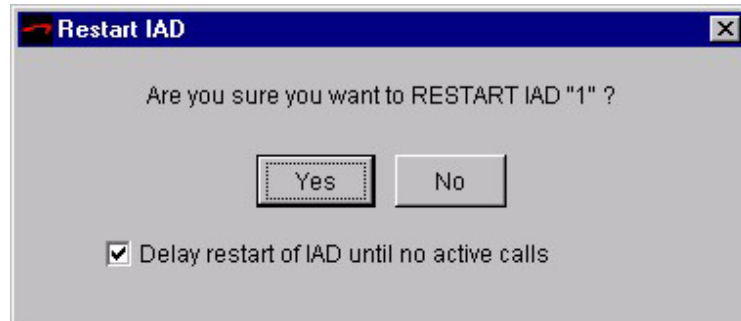


Figure 15–51. Restart IAD Dialog Box

- Step 7** Select Yes.



Notes

To immediately reboot the IAD, you must deselect Delay restart until no active calls.

- Step 8** Click IAD Restart Status. The IAD Restart Status pop-up window displays the current IAD restart status (Figure 15–52).

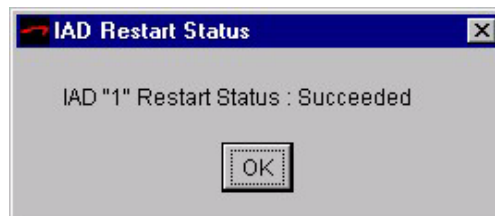


Figure 15–52. IAD Restart Status

Increasing the Historical Data Buffer

Two methods are used to increase the buffer size; each with its advantage and drawback (Table 15–1).



Note

With the following procedures, we recommend that you have working experience with Oracle, UNIX, and/or Windows.

Table 15–1. Increased Historical Buffer Methods Summary

Methods	Advantage	Drawbacks
Keeping the same data file and control file contents but increasing the size of data file	Cold backup not required	Historical data not preserved; need to export data before operations.
Adding another data file to existing tablespace	Preserve data	Changes in the control file; you need to save a control file and perform a complete cold backup before operations.

Keeping the Same Data File

To increase the historical buffer size:

- Step 1** Use InfoCenter to stop JetVision Server service (Chapter 17, InfoCenter Services).
- Step 2** Back up the Oracle historical data (Chapter 17, InfoCenter Services).
- Step 3** Create an sql file (e.g., recreate.sql) similar to Figure 15–53 for Windows or Figure 15–54 for Solaris.



Note

The sample files show the historical buffer capacity is increased to 250 MB.

- Step 4** Save the sql file to the appropriate directory.
 - For Solaris: /tmp/recreate.sql
 - For Windows: c:\temp\recreate.sql
- Step 5** Type the following entry:
 - For Solaris:


```
#su - oracle
$cd /tmp
$svrmgrl
svrmgrl>@recreate
```
 - For Windows:


```
C:\temp>svrmgrl
svrmgrl>@recreate
```
- Step 6** Save and back up the *control.trc* file to the appropriate directory.
 - For Solaris: /opt/control.trc
 - For Windows: c:\temp\control.trc

```

connect internal/oracle;

alter tablespace JSDBLOG_TS offline;
drop tablespace JSDBLOG_TS INCLUDING CONTENTS;

CREATE TABLESPACE JSDBLOG_TS
  DATAFILE 'd: \orant\database\logjet2.dat' SIZE 25M reuse autoextend
on next 5M maxsize 250M
  DEFAULT STORAGE (INITIAL 200K NEXT 100K
                   MINEXTENTS 1 MAXEXTENTS 999
                   PCTINCREASE 10)
  ONLINE;

alter database backup controlfile to 'c:\temp\control.trc';
alter database backup controlfile to TRACE;

connect jsdbuser/jsdbuser;
CREATE TABLE "JSDBUSER".EVENTLOG
  (KEY VARCHAR2(200) NOT NULL,
  LO_TIME NUMBER NULL,
  ST_EVENT VARCHAR2(2000) NULL,
  PRIMARY KEY (KEY))
  STORAGE ( INITIAL 200K NEXT 100K MINEXTENTS 1
           MAXEXTENTS 999 ) TABLESPACE "JSDBLOG_TS";
CREATE TABLE "JSDBUSER".OMACTIONEVENT
  (KEY VARCHAR2(200) NOT NULL,
  ST_RDN VARCHAR2(2000) NULL,
  ST_TIME VARCHAR2(2000) NULL,
  ST_USERID VARCHAR2(2000) NULL,
  ST_OPERATION VARCHAR2(2000) NULL,
  PRIMARY KEY (KEY))
  STORAGE ( INITIAL 200K NEXT 100K MINEXTENTS 1
           MAXEXTENTS 999 ) TABLESPACE "JSDBLOG_TS";
CREATE TABLE "JSDBUSER".historyalarms
  (KEY VARCHAR2(200) NOT NULL,
  LO_TIMESTAMP NUMBER,
  ST_SOURCE VARCHAR2(2000),
  IN_SEVERITY NUMBER,
  IN_SEQUENCEID NUMBER,
  ST_DESCRIPTION VARCHAR2(2000),
  IN_ID NUMBER,
  BO_SERVICEAFFECTING VARCHAR2(6),
  ST_EXTRADATA VARCHAR2(2000),
  PRIMARY KEY (KEY))
  STORAGE ( INITIAL 200K NEXT 100K MINEXTENTS 1
           MAXEXTENTS 999 ) TABLESPACE "JSDBLOG_TS";

```

Figure 15-53. Sample File for Increased Data File Size (Windows)

```

connect internal/oracle;

alter tablespace JSDBLOG_TS offline;
drop tablespace JSDBLOG_TS INCLUDING CONTENTS;

CREATE TABLESPACE JSDBLOG_TS
  DATAFILE '/opt/jetstream/ora_unix/oracle/oradata/jet2/logjet2.dat'
  SIZE 25M reuse autoextend on
  next 5M maxsize 250M
  DEFAULT STORAGE (INITIAL 200K NEXT 100K
                   MINEXTENTS 1 MAXEXTENTS 999
                   PCTINCREASE 10)
  ONLINE;

alter database backup controlfile to '/opt/control.trc';
alter database backup controlfile to TRACE;

connect jsdbuser/jsdbuser;
CREATE TABLE "JSDBUSER".EVENTLOG
  (KEY VARCHAR2(200) NOT NULL,
  LO_TIME NUMBER NULL,
  ST_EVENT VARCHAR2(2000) NULL,
  PRIMARY KEY (KEY))
  STORAGE ( INITIAL 200K NEXT 100K MINEXTENTS 1
  MAXEXTENTS 999 ) TABLESPACE "JSDBLOG_TS";
CREATE TABLE "JSDBUSER".OMACTIONEVENT
  (KEY VARCHAR2(200) NOT NULL,
  ST_RDN VARCHAR2(2000) NULL,
  ST_TIME VARCHAR2(2000) NULL,
  ST_USERID VARCHAR2(2000) NULL,
  ST_OPERATION VARCHAR2(2000) NULL,
  PRIMARY KEY (KEY))
  STORAGE ( INITIAL 200K NEXT 100K MINEXTENTS 1
  MAXEXTENTS 999 ) TABLESPACE "JSDBLOG_TS";
CREATE TABLE "JSDBUSER".historyalarms
  (KEY VARCHAR2(200) NOT NULL,
  LO_TIMESTAMP NUMBER,
  ST_SOURCE VARCHAR2(2000),
  IN_SEVERITY NUMBER,
  IN_SEQUENCEID NUMBER,
  ST_DESCRIPTION VARCHAR2(2000),
  IN_ID NUMBER,
  BO_SERVICEAFFECTING VARCHAR2(6),
  ST_EXTRADATA VARCHAR2(2000),
  PRIMARY KEY(KEY))
  STORAGE ( INITIAL 200K NEXT 100K MINEXTENTS 1
  MAXEXTENTS 999 ) TABLESPACE "JSDBLOG_TS";

```

Figure 15-54. Sample File for Increased Data File Size (Solaris)

Adding Extra Data File



Important

Before continuing with this procedure, make sure to perform a cold backup, i.e., shut down database and copy the database file from OS to a storage medium, such as a tape.

To increase the historical buffer size:

- Step 1** Stop JetVision Server service by using InfoCenter (Chapter 17, InfoCenter Services).
- Step 2** Back up the Oracle historical data (Chapter 17, InfoCenter Services).
- Step 3** Create an sql file (e.g., incr.sql) similar to Figure 15–55 for Windows or Figure 15–56 for Solaris.



Note

The sample files show that 150 MB is added to the existing historical buffer.

- Step 4** Save the sql file to the appropriate directory.
- For Solaris: /tmp/incr.sql
 - For Windows: c:\temp\incr.sql
- Step 5** Type the following entry:
- For Solaris:

```
#su - oracle
$cd /tmp
$svrmgrl
svrmgrl>@incr
```
 - For Windows:

```
C:\temp>svrmgrl
Svrmgrl>@incr
```

```
connect internal/oracle;

alter tablespace JSDBLOG_TS
  add datafile 'c:\orant\database\log2add.dat' size 150M ;

alter database backup controlfile to 'c:\temp\control.trc';
alter database backup controlfile to TRACE;
```

Figure 15-55. Sample File for Adding Data File (Windows)

```
connect internal/oracle;

alter tablespace JSDBLOG_TS
  add datafile '/opt/jetstream/ora_unix/oracle/oradata/jet2/
log2add.dat' size 150M ;

alter database backup controlfile to '/tmp/control.trc';
alter database backup controlfile to TRACE;
```

Figure 15-56. Sample File for Adding Data File (Solaris)

Integrated Monitoring

This chapter provides instructions to perform the following tasks:

- Launching Integrated Monitor (page 16-2)
- Interpreting Integrated Monitor information (page 16-2)
- Refreshing Integrated Monitor (page 16-5)

Integrated Monitor serves as an “indicator panel” for a CPX-1000. The Integrated Monitor consists of three sections, showing the status of:

- GR-303 EOC and TMC links for each Interface Group
- Network Protection Group and PSTN Protection Group
- CPX-1000 connection

Integrated Monitoring is not supported for the T1 CAS Interface Group.

Table 16–1 lists the monitoring operations of each entity. Entirely passive, Integrated Monitor does not provide control over the CPX-1000 or associated managed domain. Rather, it provides an “at a glance” real-time view of the health of a CPX-1000 and its associated managed domain.

Table 16-1. Integrated Monitor Operation

Entities	Monitoring...
GR-303 Interface Groups	<ul style="list-style-type: none"> ■ It provides the physical mapping of the TMC/EOC/TMCPSPS/EOCPSPS with the DS1 # to an IG (i.e., T1 IG) and the physical port to logical channel (i.e., STS IG). The Lock symbol indicates that the particular channel is down as it has been locked. ■ the operational state of each TMC and EOC (i.e., Up or Down) ■ the operational state for the PPS of the TMC and EOC (i.e., Up or Down) ■ the standby state of each TMC and EOC (i.e., active or standby) ■ the redundancy state of each TMC and EOC (i.e., primary or secondary)
Protection Groups (Network and PSTN)	<ul style="list-style-type: none"> ■ the operational state of the Protection Groups (i.e., Up or Down) ■ the standby state of the Protection Groups (i.e., active or standby) ■ the redundancy state of the Protection Groups (i.e., primary or secondary)
CPX-1000	<ul style="list-style-type: none"> ■ the connection status of each entity

Launching Integrated Monitor

Integrated Monitor uses colors as visual cues to indicate the different states of each entity. Refer to Chapter 17, InfoCenter Services, to customize colors of your preference.

To launch the Integrated Monitor:

Step 1

Ensure the service of JetVision Server is started (Chapter 17, InfoCenter Services).



Note

The Integrated Monitor will not run if the JetVision service is not running.

Step 2

Locate the CPX-1000 by clicking the group icon from the Tree View where the CPX-1000 resides.

Step 3 Click the desired CPX-1000, and select Integrated Monitoring from the Configuration menu.

– Or –

Right-click the desired CPX-1000, and select Integrated Monitoring from the pop-up menu.

The Integrated Monitor view similar to Figure 16–1 opens in a separate window.

Click here to refresh

Click here to close.

The lock indicates the Admin state.

IG#	IG Type	TMC PRI	TMC SEC	TMC PRI-PPS	TMC SEC-PPS	EOC PRI	EOC SEC	EOC PRI-PPS	EOC SEC-PPS
1	T1	1(2,1)	2(2,2)			1(2,1)	2(2,2)		
2	T1	1(2,4)	2(2,5)			1(2,4)	2(2,5)		
3	T1	1(2,6)	2(2,7)			1(2,6)	2(2,7)		
4	T1	1(2,8)	2(3,8)			1(2,8)	2(3,8)		
5	T1	1(3,2)	2(3,3)			1(3,2)	2(3,3)		
6	T1	1(3,4)	2(3,1)			1(3,4)	2(3,1)		
7	T1	1(3,5)	2(3,6)			1(3,5)	2(3,6)		

NPG#	PRI	SEC
1	1(4,1)	
2	1(3,1)	
3		
4		

PPG#	PRI	SEC
1	(4,1)	(11,1)
2		
3		
4		
5		
6		

	Active	Standby	Admin Lock		x	y	z
Enabled	x(y,z)	x(y,z)	🔒	For IG	DS1#	Card#/PPG#	Port#/Chan#
Disabled	x(y,z)	x(y,z)		For PG	N.A.	Card#	Port#

Connected to CPX... Last updated at 2002-01-04 11:03:50

Figure 16-1. Integrated Monitoring View



Note

Place your cursor over the entity to display the tool tip information.

Interpreting Integrated Monitor Data

The active links are bordered by yellow lines and the status area is displayed in white when the status cannot be retrieved for an entity. The entity is displayed in x(y, z) format (Table 16–2).

Table 16–3 describes the meaning of different states.

Table 16–2.CPX-1000 Connection Status Parameters


Parameter	Interface Group	Network Protection Group	PSTN Protection Group
X	Indicating the DS1 number.	Not applicable	Not applicable
Y	Indicating the card number on which the DS1 is provisioned.	Indicating the card number to which the Network link is connected.	Indicating the card number to which the STS-1 link is connected.
Z	Indicating the port/channel* number to which the DS1 is connected.	Indicating the port number of the Network link.	Indicating the port number of the STS-1 link.

* channel is a logical identifier in a STS-1 link.

Table 16-3. Integrated Monitor Color Indicators

Entities	Active State	Standby State	Connection State
Interface Groups	Operational state: Up Standby state: Active The CPX-1000 is transmitting/receiving EOC/TMC messages from the Class 5 switch on this link.	Operational state: Up Standby state: Standby The CPX-1000 is transmitting/receiving EOC/TMC messages from the Class 5 switch on this link if the active link fails.	Operational state: Down Standby state: Active/Standby The CPX-1000 is not transmitting/receiving EOC/TMC messages from the Class 5 switch on this link.
Network Protection Group	Operational state: Up Standby state: Active The network link is functioning.	Operational state: Up Standby state: Standby The network link is up but kept as standby to the active link.	Operational state: Down Standby state: Active/Standby The network link is down.
PSTN Protection Group	Operational state: Up Standby state: Active The provisioned link is functioning.	Operational state: Up Standby state: Standby The provisioned link is up but kept as standby to the active link.	Operational state: Down Standby state: Active/Standby The provisioned link is down.

Refreshing Integrated Monitoring

JetVision retrieves and updates the status at regular interval. If Integrated Monitor and the CPX-1000 become unsynchronized, click  on the Integrated Monitor toolbar to retrieve and display the latest status information.

InfoCenter Services

This chapter describes InfoCenter—a diagnostic utility that monitors the status of JetVision and related services. You use InfoCenter to perform the following tasks:

- Starting InfoCenter on Windows (page 17-2)
- Starting InfoCenter on Solaris (page 17-2)
- Starting and stopping JetVision and its related services (page 17-7)
- Backing up Oracle database (page 17-8)
- Restoring Oracle database (page 17-10)
- Adjusting the size of historical data (page 17-11)
- Adding the geographical network map (page 17-13)
- Changing Data Collector Server values (page 17-14)
- Customizing colors on Integrated Monitor (page 17-14)

Starting InfoCenter from Windows

To start InfoCenter from a Windows computer, double-click the JetVision InfoCenter icon on your computer's desktop, or open a command window and type:

```
c:\Jetstream\common\InfoCenter_2.5\bin\
startinfocenter.bat
```

The JetVision InfoCenter main window appears (Figure 17-1).

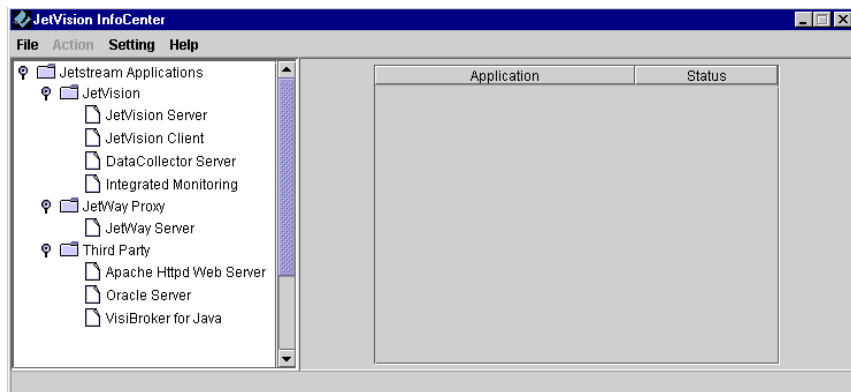


Figure 17-1. InfoCenter Main Window



Note

Depending on the application installed on your workstation, your InfoCenter might appear different from Figure 17-1. For example, if you don't have JetWay installed, the JetWay Proxy will not be displayed.

Starting InfoCenter from Solaris

To start InfoCenter from a Solaris computer, open a console window, go to the InfoCenter directory, and invoke the *startinfocenter.sh* command. For example:

```
cd /opt/jetstream/common/InfoCenter_v25/bin
./startinfocenter.sh
```

The JetVision InfoCenter main window similar to the one in Figure 17-1 appears.

Using InfoCenter

JetVision InfoCenter is a diagnostic utility that monitors the status of JetVision and related services. You can start and/or stop services from InfoCenter. You can use InfoCenter to refresh the application and change the application property settings of:

- JetVision Server
- JetVision Client
- Database Monitor
- Data Collector Server
- Integrated Monitoring
- JetWay Server
- Third-party software

Table 17-1 describes the property settings of each application.

Table 17-1. Application Property Settings Description

Applications	Property Settings	Description
JetVision Server	JetVision Server ID	This field shows the current JetVision Server ID, which you can change.
	Oracle Connection String	This read-only field shows the Oracle connection string.
	DB Stats Gathering Time	This field controls the time frequency that the database monitor gathers database statistics. The default is 10,800,000 ms (180 mins).
	DB Size Check Timer	This field controls the time frequency that the database monitor checks whether the historical data and performance management data need to be purged. The default is 86,400,000 ms (24 hrs).
	Log DB Size	This field specifies the size of the historical database is expressed in megabytes. The size of historical data buffer is specified during installation. Refer to Chapter 15, Maintenance, to increase the buffer size.

Table 17-1. Application Property Settings Description (Continued)

Applications	Property Settings	Description
JetVision Server (continued)	Upper Log DB Size Limit	This field sets the historical data buffer upper limit and is expressed as a % (the default is 90%). When the threshold exceeds the size specified (i.e., 90% of the historical buffer size), the alarms are truncated to the low threshold. No alarms are generated.
	Lower Log DB Size Limit	This field is expressed as a % (the default is 70). When the threshold goes below the size specified, the alarms are purged in a First in, First Out manner.
	PM DB Size	<p>This field specifies the size of the database of historical performance management and is expressed in megabytes.</p> <p>The size of database buffer is specified during installation. The default values are:</p> <ul style="list-style-type: none"> ■ small network (<15 CPX-1000) ■ medium network (15–30 CPX -1000) ■ large network (30–50 CPX-1000)
	Upper PM DB Limit	<p>Refer to Changing the Data Collector Server Values to increase the database buffer.</p> <p>This field sets the database buffer upper limit and is expressed as a % (the default is 80%). When the threshold exceeds the size specified (i.e., 80% of the historical buffer size), the alarms are truncated to the low threshold.</p>
	Lower PM DB Limit	<p>Refer to Changing the Data Collector Server Values to change the upper limit.</p> <p>This field is expressed as a % (the default is 70). When the threshold goes below the size specified, the alarms are purged in a First in, First Out manner.</p> <p>Refer to Changing the Data Collector Server Values to change the lower limit.</p>

Table 17-1. Application Property Settings Description (Continued)

Applications	Property Settings	Description
JetVision Server (continued)	Filter Duration	This field specifies the time frequency (e.g., to poll the historical performance management statistics. The changes made in InfoCenter reflect on the historical PM filter window. Refer to Changing the Data Collector Server Values to change the filter duration.
	Register Type	This field specifies how much data (e.g., 15 minutes) to poll the historical performance management statistics. The changes made in InfoCenter reflect on the historical PM filter window. Refer to Changing the Data Collector Server Values to change the register type.
	Network Background Bitmap	Use this field to change a different network map background. Refer to Customizing Colors on Integrated Monitor for instructions.
JetVision Client	JetVision Server ID	Use this field to change the Server ID that binds the JetVision Client.
	Web Browser Path	Use this field to change the path of the Web browser.
DataCollector Server	JetVision Server ID	This field shows the current JetVision Server ID.
Integrated Monitoring	Color for different operational states	Use these fields to customize colors for the Integrated Monitor. Refer to Customizing Colors on Integrated Monitor for instructions.
JetWay Server	JetVision Server ID	This field shows the ID of the current JetVision Server to which you are connecting.
	JetWay Server ID	This field shows the ID of the JetWay Server.
	JetVision Server Hostname	Use this field to change the Server ID that binds the JetVision Client.

Table 17-1. Application Property Settings Description (Continued)

Applications	Property Settings	Description
Apache Web Server	Web Httpd Port	Use this field to change the port number.
	Document Path	This read-only field shows the path to the Apache Web server.
Oracle Server	Oracle SID	This read-only field shows the ID of Oracle server.
	Oracle User ID	This read-only field shows the ID of Oracle user.
VisiBroker for Java	Not applicable	

Setting a Refresh Time

When starting and/or stopping JetVision related services and applications outside of InfoCenter, you need to refresh the Oracle database to update the changes. By default, InfoCenter refreshes every 60 minutes.

To change the default time interval:

Step 1

Select **Configure Refresh Rate** from the Setting menu. The **Polling Time Interval** window appears (Figure 17-2).

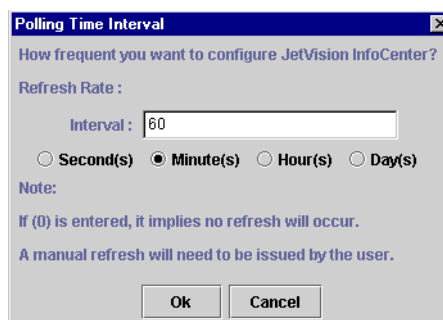


Figure 17-2. Polling Time Interval Window

Step 2

Delete the previous refresh rate in the Interval field.

Step 3

Type a new value, and select a polling interval.

Step 4

Click OK.

Checking Services

To check the state of each service, click **Jetstream Applications** at the main window. The right panel displays the state of each service (Figure 17-3).

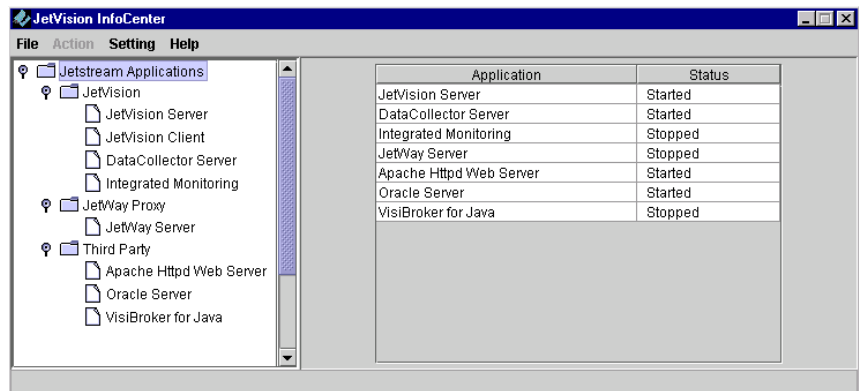


Figure 17-3. Main Window with Service State Displayed

Starting and Stopping Services

You can use InfoCenter to start and stop services of

- JetVision Server
- DataCollector Server
- Integrated Monitoring
- JetWay Server
- Third-party software

To start or stop service:

Step 1

Select a JetVision service that you want to start or stop (Figure 17-4).

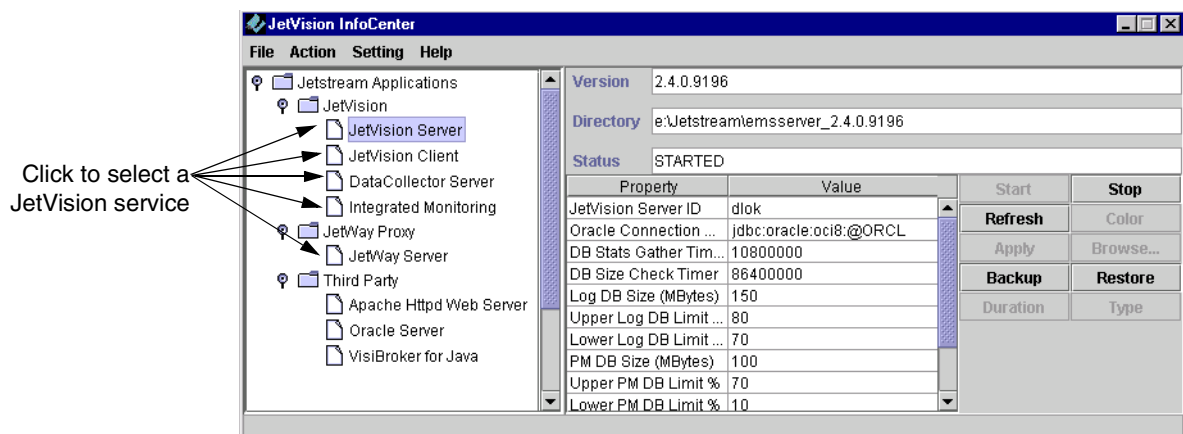


Figure 17-4. Selecting a JetVision Service

Step 2 Click an operation button (Start or stop). A prompt appears, asking if you want to perform the service.



Note

When stopping JetVision Server, you will need to enter your login ID and password before the stopping process starts.

Step 3 Click Yes. After the service completes, the operation appears in the Status field.

Backing Up Oracle Database

This section provides instruction for backing up Oracle database. Besides the Oracle database, the backup data also includes JetVision user information and CPX IP addresses and logons. To back up the CPX-1000 configuration files, refer to Chapter 15, Maintenance.

Since InfoCenter can be launched with either JetVision Client or JetVision Server, the location of the backup/restore database depends on where both the JetVision Server and Client are installed and which server to which the client binds. For example,

- Both JetVision client and server are installed on the same machine, and the client binds to the server on the same machine. In this case, the database is backed up to or restored from the server installed on the same machine.
- Both JetVision client and server are installed on the same machine, but the client binds to a server on different machine. In this case, the database is backed up to or restored from the local server and not the server to which the client binds.



Note

You will be unable to perform the backup/restore operation when only JetVision Client is installed on one machine, and it binds to a JetVision Server on a different machine.

To back up Oracle database:

Step 1

Select JetVision Server from the JetVision InfoCenter window (Figure 17-5).

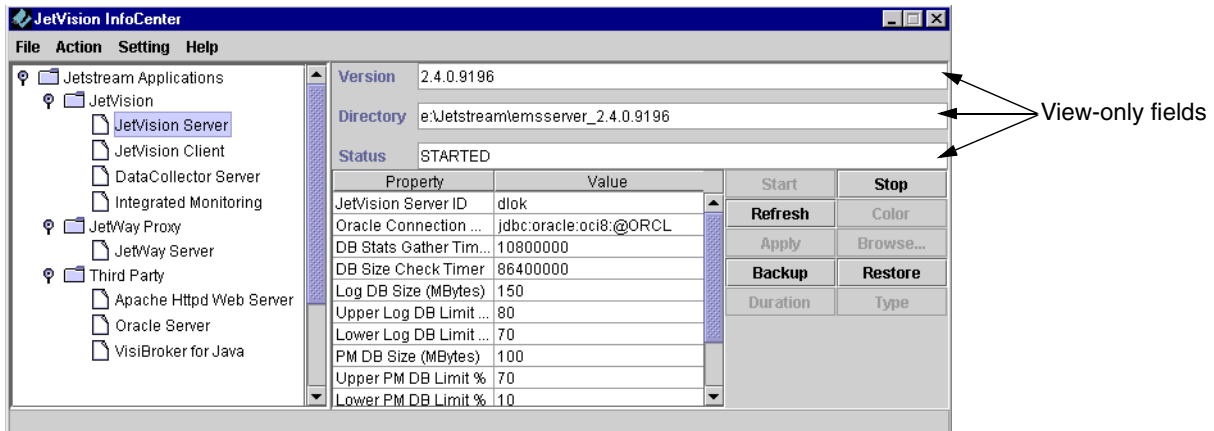


Figure 17-5. JetVision InfoCenter Window

Step 2

Click Backup. The Backup window appears, displaying the backup file name and default directory path (Figure 17-6).

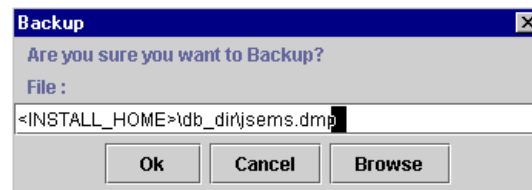


Figure 17-6. Backup Window

Step 3

Click OK if you want to back up the server data to the default directory, or click Browse to navigate to a different directory.

Step 4

Click OK to complete the operation.

Restoring Oracle Database

To restore Oracle database:

- Step 1** Select JetVision Server from the JetVision InfoCenter window (Figure 17-5 on page 17-9).
- Step 2** Click **Stop** to stop the service of JetVision server (Starting and Stopping Services on page 17-7).
- Step 3.** Click **Restore**. The Restore window appears, listing the last backup file name and its location (Figure 17-7).

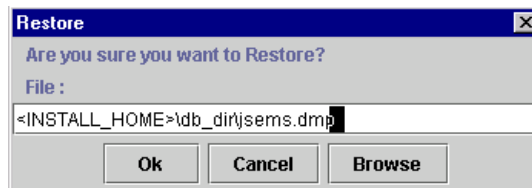


Figure 17-7. Restore Window

- Step 4** Click **OK** if you want to restore the server data to the default directory, or click **Browse** to navigate to a different directory.



Note

Refer to Backing Up Oracle Database on page 17-8 for restored database location.

- Step 5** Click **OK** to return to the JetVision InfoCenter window.
- Step 6** Click **Start** to start the service of JetVision server (Starting and Stopping Services on page 17-7).

Adjusting the Thresholds of Historical Data

JetVision lets you adjust the size of historical data stored in the database by setting the following following DbMonitor properties:

- Log DB Size
- Upper Log DB Limit
- Lower Log DB Limit
- Upper PM DB Limit
- Lower PM DB Limit

To adjust the size of the history data:

Step 1

Start JetVision InfoCenter. The JetVision InfoCenter main window appears (Figure 17–8).

Click here to display the property settings

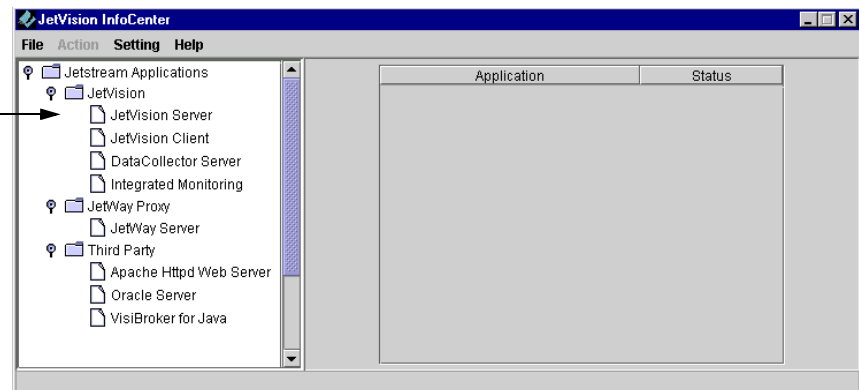


Figure 17–8. InfoCenter Main Window

Step 2

Click **JetVision Server** and its view-only status and property settings display on the right panel (Figure 17-9).

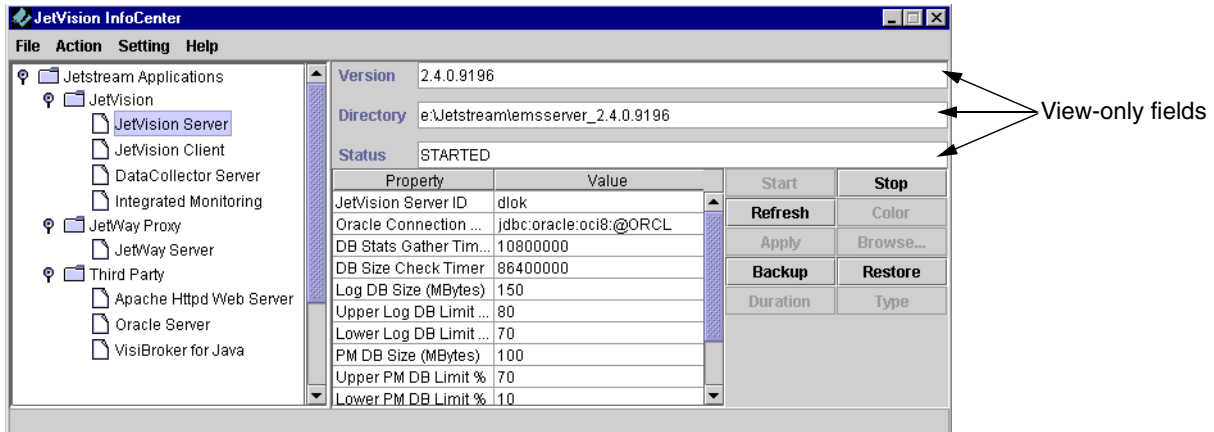


Figure 17-9. JetVision InfoCenter Window with Property Settings Displayed

Step 3

Click the following fields and adjust their values, as necessary:

- Log DB Size
- Upper Log DB Limit
- Lower Log DB Limit
- Upper PM DB Limit
- Lower PM DB Limit

Changing the Geographic Map

JetVision InfoCenter lets you change the geographic map image that is displayed in the JetVision Server Main window.

Geographic image files can be stored in any network or local directory. When changing the image, InfoCenter copies the image file from its original location to InfoCenter's default directory:

```
Jetstream/emsserver_2.5.X/images
```



Notes

JetVision provides only one geographic map image file. If you want to display an image of your geographic area, use image files from a third-party vendor.

JetVision supports only GIF or JPEG formats. The BMP format is not supported.

To change the geographic image:

- Step 1** Launch JetVision InfoCenter. The JetVision InfoCenter main window appears (Figure 17–8 on page 17-11).
- Step 2** Click **JetVision Server** and its view-only status and property settings display on the right side (Figure 17–10).

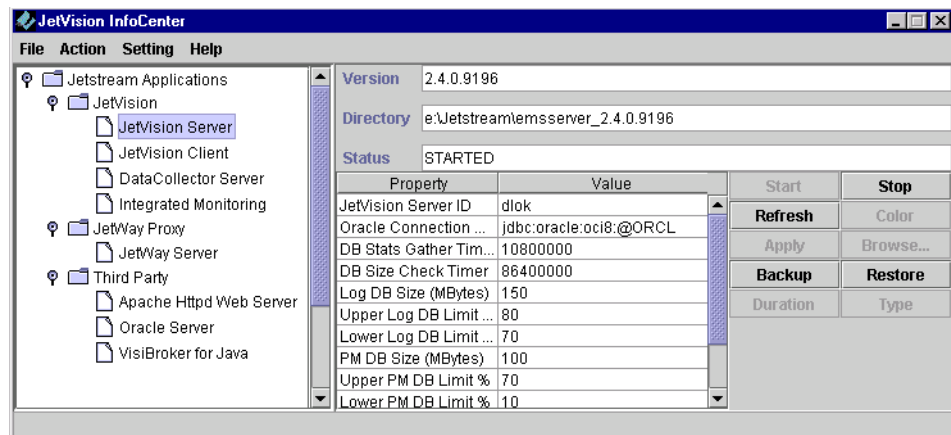


Figure 17–10. Background Image Selection in JetVision InfoCenter Window

- Step 3** Click **Background Image** then click **Browse**. The **Choose a File** window appears (Figure 17–11).



Figure 17–11. Choose a File Window

- Step 4** Navigate to the directory where the new image file is located, and select the image file name from the list.
- Step 5** Click **Open**. InfoCenter copies the new image file to its default directory.
- Step 6** Click **Apply**.
- Step 7** Click **Yes** to continue. The new image file name appears in the **Background Image** property value field in InfoCenter.

Changing the Data Collector Server Values

The Data Collector Server maintains the buffer size of the historical performance management on MP and CP cards, as well as on the DS1 lines and paths. You can specify how much database to keep before they are purged. You can also specify how much and how frequent to poll historical performance management statistics. Refer to Table 17–1 on page 17-3 for a description of each field.

To change the property values of Data Collector Server:

Step 1

Launch JetVision InfoCenter. The JetVision InfoCenter main window appears (Figure 17-12).

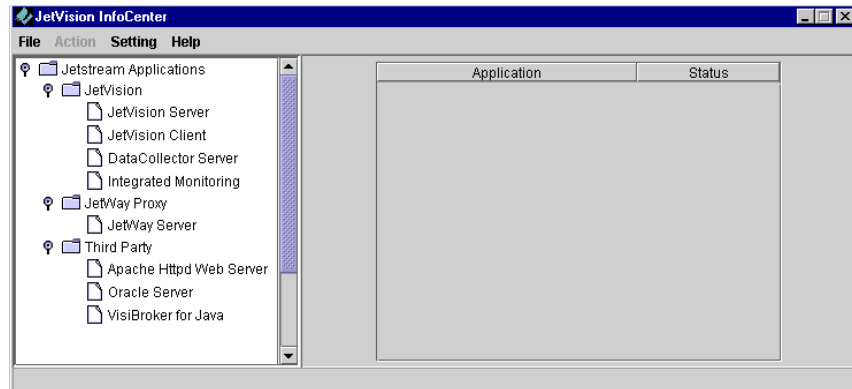


Figure 17-12. InfoCenter Main Window

Step 2

Verify and ensure the service of JetVision Server is started (Starting and Stopping Services on page 17-7).



Note

The Data Collector server will not run if the PM history console window is closed and/or the service of JetVision Server is stopped.

Step 3

Click **JetVision Server**. The right panel displays the Data Collector Server property (Figure 17-13).

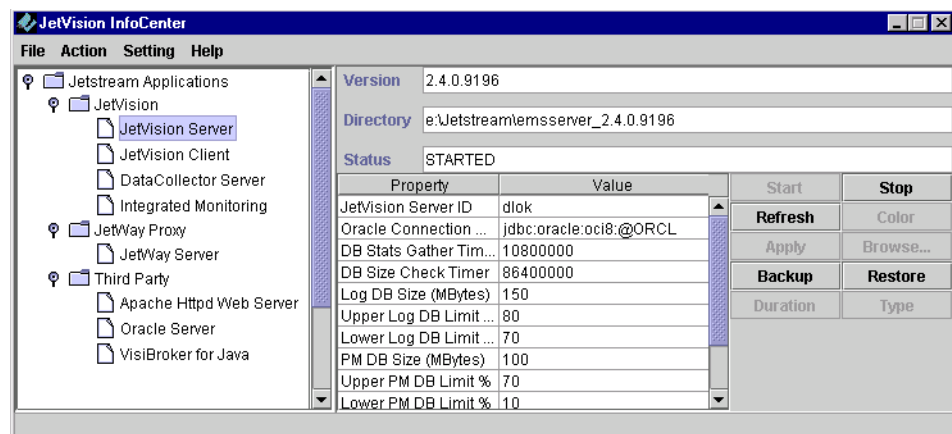


Figure 17-13. JetVision InfoCenter Window with Property Settings Displayed

Step 4

Place the cursor inside the desired Value field and type the new value.

**Note**

When changing values in the Filter Duration and Register Type properties, you can click the **Duration** and **Type** buttons, respectively, to display the selection. The changes made in Filter Duration and Register Type reflect on the historical PM filter window.

Customizing Colors on Integrated Monitor

Step 1

By default, Intergrated Monitor uses four colors to indicate the states of each entity: green, blue, gray, and yellow. You can customize the color settings to represent each state.

To customize Integrated Monitor colors:

Launch JetVision InfoCenter. The JetVision InfoCenter main window appears (Figure 17-14).

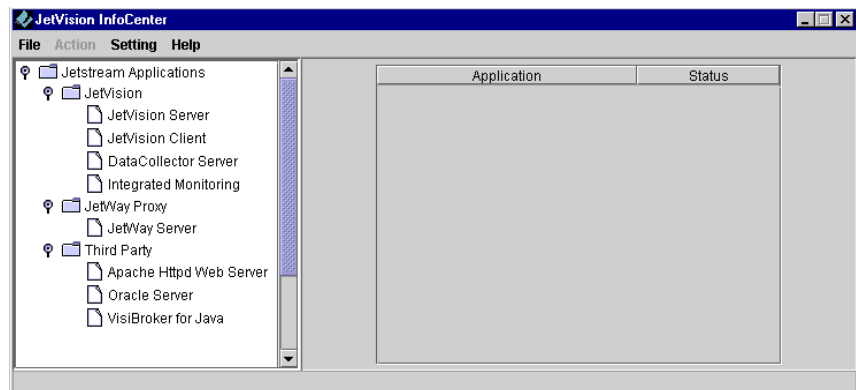


Figure 17-14. InfoCenter Main Window

Step 2

Verify and ensure the service of JetVision Server is started (Starting and Stopping Services on page 17-7).

**Note**

The Integrated Monitor will not run if the PM history console window is closed and/or the service of JetVision Server is stopped.

- Step 3** Click **Integrated Monitoring**. The right panel displays the **Integrated Monitoring** property (Figure 17-15).

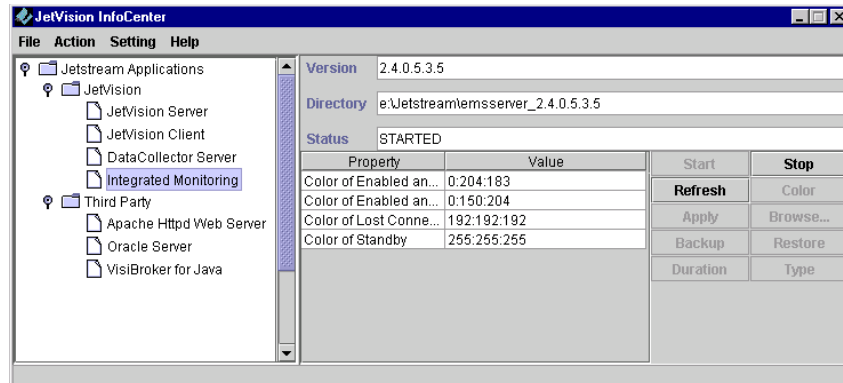


Figure 17-15. Integrated Monitoring Property

- Step 4** Click **Refresh** to enable the coloring operation.
- Step 5** Select the **Integrated Monitoring** operational state to which you want to change color, then click **Color**. The **Choose Color** window appears (Figure 17-16).

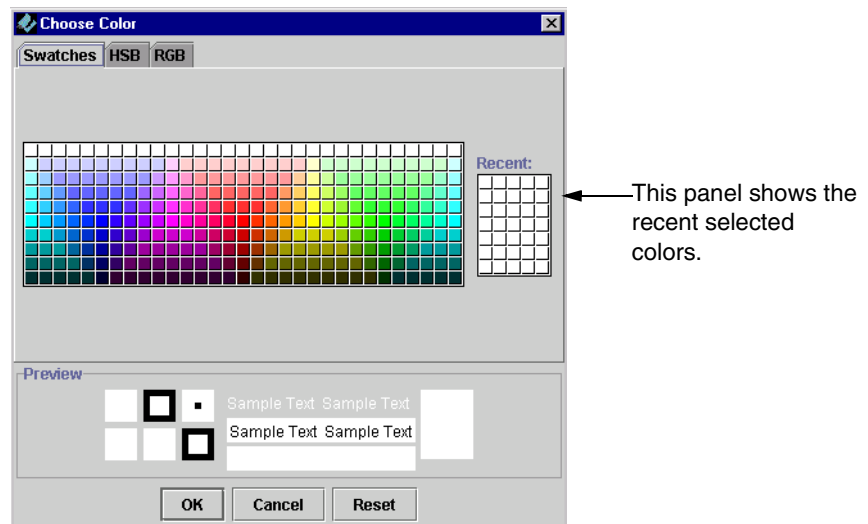


Figure 17-16. Choose Color Window

- Step 6** Select the color from one of the following:
- Swatches: the color appears on the right panel and preview area.
 - HSB: the Hue-Saturation-Brightness is an alternative to RGB for specifying colors. HSB ranges from 0.0 to 1.0.
 - RGB: represents the primary colors: red (R), green (G), and blue (B). Type numbers between 0–255 in each field.
- Step 7** Click **OK** to return to the main window.
- Step 8** Click **Apply** to set the color selection.
- Step 9** Repeat Step 5 through Step 8 to customize color on another state.

Jetutil Diagnostics

Jetutil is a utility tool that is automatically installed with the JetVision server. You can run jetutil anytime to help with system diagnostics. Jetutil enables you to check the following:

- Operating system information (i.e., memory, disk space, etc.)
- Individual services (i.e., Apache and Oracle)
- JetVision Database (i.e., Oracle version, schema structure, etc.)
- Oracle error messages
- System health check
- System requirement (perform this check before installing JetVision)

While most checks are on individual services, system health check provides the comprehensive check on the whole system. When in doubt as to which service to check, perform a system health check.

Although the operation between Windows and Solaris platforms is similar, but they are not identical.

- For Windows environment, go to page 18-2
- For Solaris environment, go to page 18-7

Windows Environment

To access jetutil from Windows:

- Step 1** Go to the drive where the JetVision application is installed, and locate the *jetutil* folder (under Common).
- Step 2** Expand the jetutil folder and click bin to display the content.
- Step 3** Double-click `startjetutil.bat`. A console window appears, displaying the menu selection (Figure 18-1).

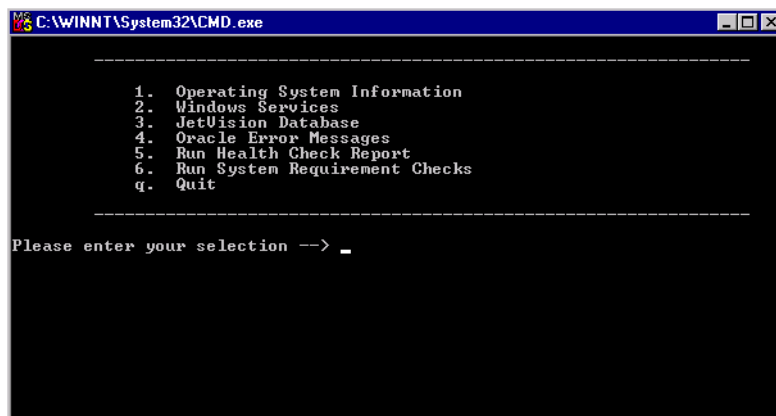


Figure 18-1. Jetutil Main Menu

From this menu, you can perform the following checks:

- Operating system information (page 18-3)
- Windows services (page 18-4)
- JetVision database (page 18-5)
- Oracle error messages (page 18-6)
- Health check report (page 18-6)

Checking Operating System Information

To check operating system information,

Step 1

Type *1* at the main menu to select Operating System Information, then press <Enter>. The operating submenu appears (Figure 18-2).

```
-----  
      b. Back to Main Menu  
      11. OS Uersion  
      12. Physical Memory  
      13. Uirtual Memory  
      14. Disk Space  
      q.  Quit  
-----  
Please enter your selection -->
```

Figure 18-2. Operating System Submenu



Note

Jetutil displays only the current operating system information, it does not display the operating system requirement.

Step 2

Type a number that corresponds to your intended check. The console displays the result of your selection.

Step 3

Press any key to return to the main menu.

Step 4

Type *q*, then press <Enter> to quit. Or repeat Step 2 to continue with system check.

Checking Windows Services

To check Windows Services,

- Step 1** Type *2* at the main menu to select `Windows Services`, then press `<Enter>`. The Windows Services submenu appears (Figure 18-3).



```
-----  
    b.  Back to Main Menu  
    21. Start Services  
    22. Stop Services  
    23. Check Service Status  
    q.  Quit  
-----  
Please enter your selection -->
```

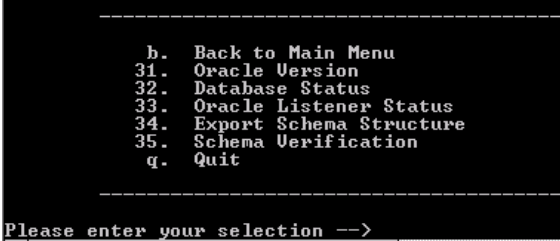
Figure 18-3. Windows Services Submenu

- Step 2** Type *23* to select `Check Service Status`, then press `<Enter>`. The console displays the status of services.
- Step 3** Press any key to return to the main menu.
- If any services are down, type *21* to start the services. Contact JTAC if services do not start.
 - If all services are up and JetVision Server does not, type *5* at the main menu to run a set of diagnostic operations and save it to a file. Send that file to JTAC.
- Step 4** Type *q*, then press `<Enter>` to quit. Or type a number to continue with another service check.

Checking JetVision Database

To check JetVision database,

- Step 1** Type 3 at the main menu to select JetVision Database, then press <Enter>. The JetVision Database submenu appears (Figure 18-3).



```
-----  
    b. Back to Main Menu  
    31. Oracle Version  
    32. Database Status  
    33. Oracle Listener Status  
    34. Export Schema Structure  
    35. Schema Verification  
    q. Quit  
-----  
Please enter your selection -->
```

Figure 18-4. JetVision Database Submenu

- Step 2** Type a number that corresponds to your intended check. The console displays the result of your selection.
- Step 3** Press any key to return to the main menu.
- Step 4** Type *q*, then press <Enter> to quit. Or repeat Step 2 to continue with database check.

Understanding Oracle Error Messages

To understand Oracle error messages,

- Step 1** Locate the Logs folder. For example,
- ```
c: /Jetstream/emsserver_2.5/logs
```
- Step 2** Write down the ORA-XXXX exception number, where XXXX is the number.
- Step 3** Start jetutil (page 18-2).
- Step 4** Type *4* at the main menu to select `JetVision Database`, then press `<Enter>`. You are prompted to enter the Oracle error number (from Step 2).
- Step 5** Enter the number, and press `<Enter>`. The error statement appears.



### Note

Call JTAC if you need help to understand the error messages. Make sure to write down the messages and their associated numbers.

- Step 6** Press any key to return to the main menu.
- Step 7** Type *q*, then press `<Enter>` to quit.

## Running Health Check Report

To run a health check report,

- Step 1** Type *5* at the main menu to select `Run Health Check Report`, then press `<Enter>`. You are prompted to enter a file name.
- Step 2** Type the location to where the report will be written and file name for the report, then press `<Enter>`. You are prompted to enter the database connection string. Jetutil displays the result and the location to where the report is written.



### Note

If you did not enter the file location, the report will be written to the default folder (i.e., `jetutil/Common/bin`)

- Step 3** Press any key to return to the main menu.
- Step 4** Type *q*, then press `<Enter>` to quit.

## Solaris Environment

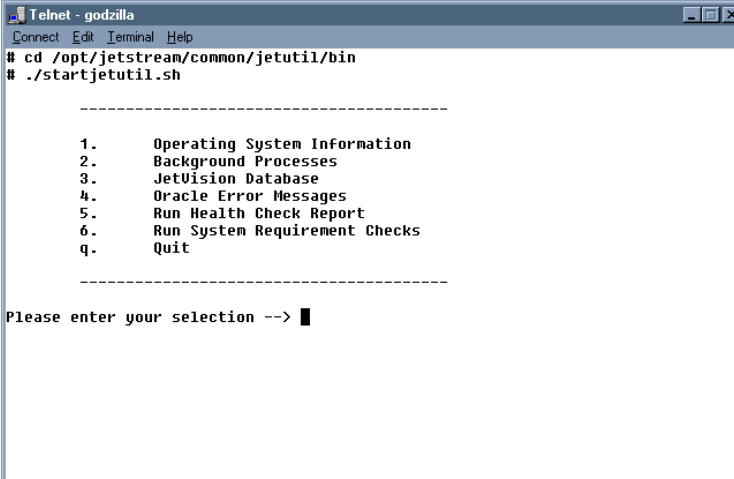
### Step 1

To check background processes:

Use the appropriate UNIX shell command to start the utility. For example:

```
cd /opt/jetstream/common/jetutil/bin
./startjetutil.sh
```

A console window appears, displaying the menu selection (Figure 18–5).



```
Telnet - godzilla
Connect Edit Terminal Help
cd /opt/jetstream/common/jetutil/bin
./startjetutil.sh

1. Operating System Information
2. Background Processes
3. JetVision Database
4. Oracle Error Messages
5. Run Health Check Report
6. Run System Requirement Checks
q. Quit

Please enter your selection --> █
```

**Figure 18-5. Jetutil Main Menu**

From this menu, you can perform the following checks:

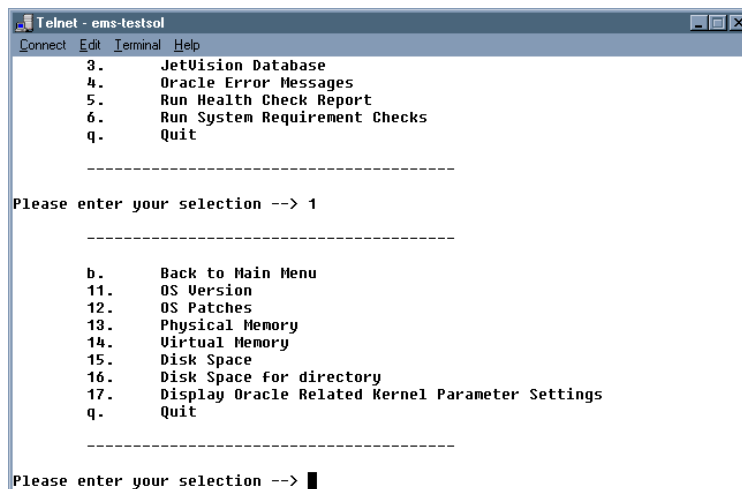
- Operating system information (page 18-8)
- Background Processes (page 18-9)
- JetVision database (page 18-10)
- Oracle error messages (page 18-11)
- Health check report (page 18-11)

## Checking Operating System Information

To check operating system information,

### Step 1

Type *1* at the main menu to select Operating System Information, then press <Enter>. The operating submenu appears (Figure 18–6).



```
Telnet - ems-testsol
Connect Edit Terminal Help
3. JetVision Database
4. Oracle Error Messages
5. Run Health Check Report
6. Run System Requirement Checks
q. Quit

Please enter your selection --> 1

b. Back to Main Menu
11. OS Version
12. OS Patches
13. Physical Memory
14. Virtual Memory
15. Disk Space
16. Disk Space for directory
17. Display Oracle Related Kernel Parameter Settings
q. Quit

Please enter your selection --> █
```

**Figure 18–6. Operating System Submenu**



### Note

Jetutil displays only the current operating system information, it does not display the operating system requirement.

### Step 2

Type a number that corresponds to your intended check. The console displays the result of your selection.

### Step 3

Press any key to return to the main menu.

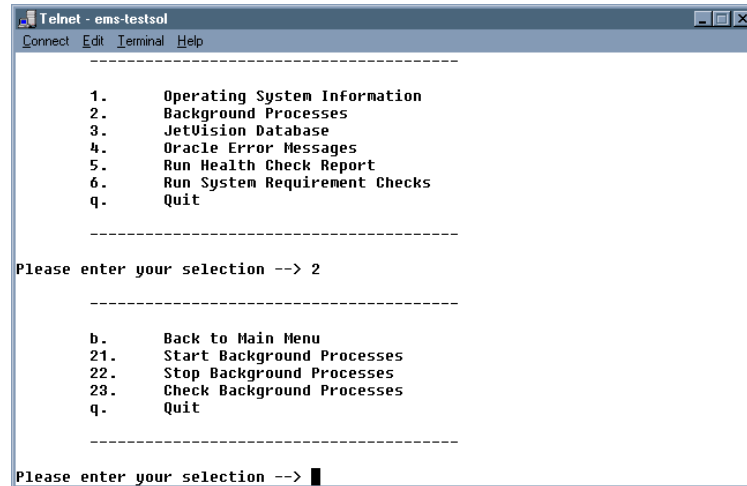
### Step 4

Type *q*, then press <Enter> to quit. Or repeat Step 2 to continue with system check.

## Checking Background Processes

To check background processes,

- Step 1** Type *2* at the main menu to select *Background Processes*, then press *<Enter>*. The menu selection appears (Figure 18-7).



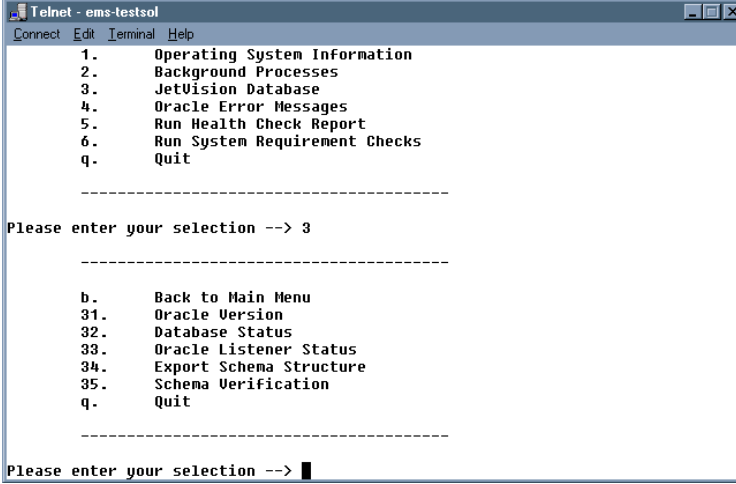
**Figure 18-7. Background Processes Menu**

- Step 2** Type *23* to select *Check Background Processes*, then press *<Enter>*. The console displays the status of services.
- Step 3** Press any key to return to the main menu.
- If any services are down, type *21* to start the services. Contact JTAC if services do not start.
  - If all services are up and JetVision Server does not, type *5* at the main menu to run a set of diagnostic operations and save it to a file. Send that file to JTAC.
- Step 4** Type *q*, then press *<Enter>* to quit. Or type a number to continue with another service check.

## Checking JetVision Database

To check JetVision database,

- Step 1** Type 3 at the main menu to select JetVision Database, then press <Enter>. The JetVision Database submenu appears (Figure 18–8).



```
Telnet - ems-testsol
Connect Edit Terminal Help
1. Operating System Information
2. Background Processes
3. JetVision Database
4. Oracle Error Messages
5. Run Health Check Report
6. Run System Requirement Checks
q. Quit

Please enter your selection --> 3

b. Back to Main Menu
31. Oracle Version
32. Database Status
33. Oracle Listener Status
34. Export Schema Structure
35. Schema Verification
q. Quit

Please enter your selection --> █
```

**Figure 18–8. JetVision Database Submenu**

- Step 2** Type a number that corresponds to your intended check. The console displays the result of your selection.
- Step 3** Press any key to return to the main menu.
- Step 4** Type *q*, then press <Enter> to quit. Or repeat Step 2 to continue with database check.



## Understanding Oracle Error Messages

To understand Oracle error messages,

- Step 1** Locate the Logs directory. For example,
- ```
/opt/Jetstream/emsserver_v25/Logs
```
- Step 2** Write down the ORA-XXXX exception number, where XXXX is the number.
- Step 3** Start jetutil (page 18-7).
- Step 4** Type *4* at the main menu to select `JetVision Database`, then press `<Enter>`. You are prompted to enter the Oracle error number (from Step 2).
- Step 5** Enter the number, and press `<Enter>`. The error statement appears.



Note

Call JTAC if you need help to understand the error messages. Make sure to write down the messages and their associated numbers.

- Step 6** Press any key to return to the main menu.
- Step 7** Type *q*, then press `<Enter>` to quit.

Running Health Check Report

To run a health check report,

- Step 1** Type *5* at the main menu to select `Run Health Check Report`, then press `<Enter>`. You are prompted to enter a file name.
- Step 2** Type the location to where the report will be written and file name for the report, then press `<Enter>`. You are prompted to enter the database connection string. Jetutil displays the result and the location to where the report is written.



Note

If you did not enter the file location, the report will be written to the default folder (i.e., `jetutil/Common/bin`)

- Step 3** Press any key to return to the main menu.
- Step 4** Type *q*, then press `<Enter>` to quit.

JetVision Menu Map

The following menu map provides a linear, hierarchical overview of the tasks and subtasks associated with JetVision.

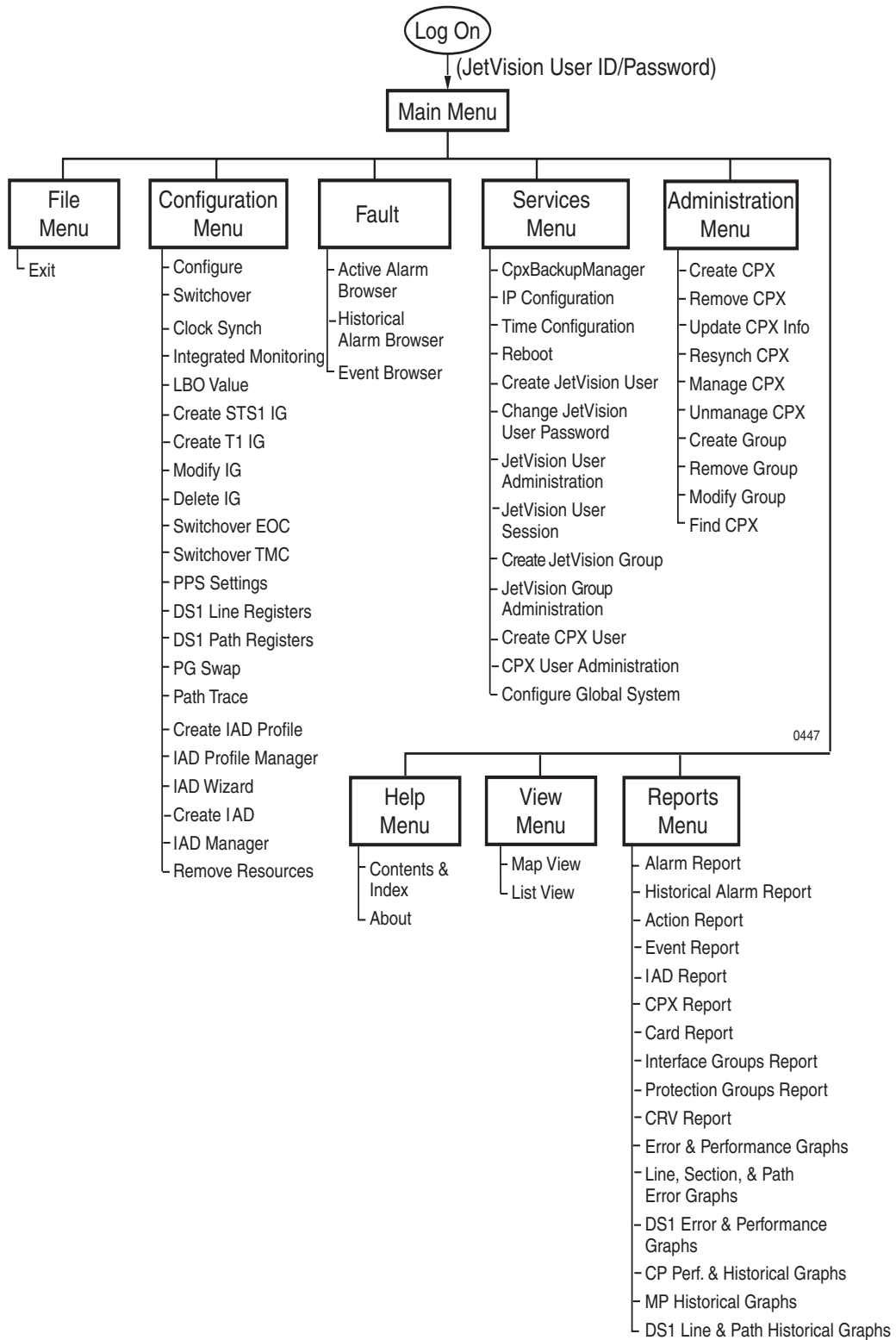


Figure A-1. JetVision Menu Map

Statistics Descriptions

Table B-1 and Table B-2 describe JetVision error and performance statistics.

Table B-1. Error Statistics Definitions

Error Statistics	Description
CPX Statistics	
Assembly errors	Number of Assembly errors
Blocked incalls	Number of Blocked incalls
Blocked outcalls	Number of Blocked outcalls
CRC errors	Number of CRC errors
IADs Down	Number of IADs down
Non echo calls	Number of echo calls
Rejected compress calls	Number of compress calls rejected
Uncompressed calls	Number of uncompressed calls
Unsuccessful calls insufficient bandwidth	Number of unsuccessful calls due to insufficient bandwidth
Interface Group Statistics	
CCS PPS to Primary	Number of CCS PPS messages sent to the Primary channel
CCS PPS to Secondary	Number of CCS PPS messages sent to the Secondary channel
EOC PPS To Primary	Number of EOC PPS messages sent to the Primary channel
EOC PPS to Secondary	Number of EOC PPS messages sent to the Secondary channel
Timer timeouts	Timer timeouts

Table B-1. Error Statistics Definitions (Continued)

Error Statistics	Description
DS-1 Port Statistics	
Alarm Indication Signal Seconds—last 15 minutes	Number of one-second intervals with one or more incoming AIS signals detected in the last 15 minutes
Bipolar Violations—last 15 minutes	Number of Bipolar Violations in the last 15 minutes
Controlled Slip Seconds—last 15 minutes	Number of Controlled Slips Seconds in the last 15 minutes
Controlled Slips—last 15 minutes	Number of Controlled Slips in the last 15 minutes
Degraded Minutes—last 15 minutes	Number of Degraded Minutes in the last 15 minutes
Errored Seconds—last 15 minutes	Number of one-second intervals with at least one line condition in the last 15 minutes
Excessive Zeroes—last 15 minutes	Number of Excessive Zeroes in the last 15 minutes
Line Coding Violations—last 15 minutes	Number of times the received DS1 signal contained a bipolar violation (BPV) or an excessive number of zeroes (EXZ)
Line Errored Seconds—last 15 minutes	Number of one-second intervals with a least one line code violation
Out Of Frame Seconds—last 15 minutes	Number of Out Of Frame Seconds in the last 15 minutes
Severely Errored Framing Seconds—last 15 minutes	Number of one-second intervals containing one or more severely errored framing (SEF) events in the last 15 minutes
Severely Errored Seconds—last 15 minutes	Number of one-second intervals with 15 or more line code violations, as well as when the device receives an incoming OOF or AIS signal in the last 15 minutes
Unavailable Seconds—last 15 minutes	Number of one-second intervals during which the service is unavailable, determined by a transmission failure condition in the last 15 minutes

Table B-1. Error Statistics Definitions (Continued)

Error Statistics	Description
ATM DS-3	
Far end alarm indication	Number of far-end-alarm indications.
Far end receive failure	Number of far-end-receive failures
Loss of cell delineation	Number of cell delineation losses.
Loss of frame	No incoming frame is detected by the received end.
Loss of signal	No incoming signal is detected by the received end.
Out of cell delineation	Number of out-of-cell delineations.
Red count	Number of red counts.
ATM OC-3	
AAL1 byte CRC errors	Number of AAL1 CRC errors
AAL1 byte parity errors	Number of AAL1 byte parity errors
AAL1 byte seq errors	Number of AAL1 byte sequence number errors
Cells rcvd in FIFO	Number of cells received in Rx FIFO
Clock generation failures	Number of times the clock generation module failed
Correctable errors	Number of single bit errors in the UNIX header (cell passed)
Counter rollover	Number of miscellaneous counter rollover events
OAM line AIS	Number of times OAM alarm Line AIS required service
OAM line RDI	Number of times OAM alarm Line RDI required service
OAM path AIS	Number of times OAM alarm Path AIS required service
Overflow errors	Number of overflow errors
Overflow counter rollover	Number of overflow counter rollover events
Pointer byte parity errors	Number of pointer byte parity errors
Pointer byte range errors	Number of pointer byte out of range errors
Physical service	Number of times physical required service
Ref cells loss	Number of timing reference cells lost
Ref cells out of sync	Number of times reference cells went out of sync
Rx Utopia FIFO overrun	Number of FIFO overruns
Rx Utopia overrun	Number of Rx Utopia module overruns
SONET loss signal	Number of times SONET alarm Loss of Signal required service

Table B-1. Error Statistics Definitions (Continued)

Error Statistics	Description
SONET loss frame	Number of times SONET alarm Loss of Frame required service
SONET loss pointers	Number of times SONET alarm Path Loss of Pointer required service
TDM master clocks absent	Number of times TDM clock became absent
Tx FIFO overrun	Number of overruns on Tx FIFO
Tx bandwidth errors	Number of Tx bandwidth errors
Uncorrectable errors	Number of multi-bit errors in the UNIX header cell (cell dropped)
Underrun counter rollover	Number of underrun counter rollover events
Underrun errors	Number of underrun errors
IAD Subscribers Statistics	
Assembly errors	Number of Assembly errors
Blocked incalls	Number of Blocked incalls
Blocked outcalls	Number of Blocked outcalls
CRC errors	Number of CRC errors
Ctrl cells rcvd	Number of Cells received
Ctrl cells sent	Number of Cells sent
I-Frames retrans	Number of I-Frames retrans
Invalid frames	Number of Invalid frames
MDL Error A	Unsolicited S Frame (F=1)
MDL Error B	Unsolicited DM (F=1)
MDL Error C	Unsolicited VA (F=1)
MDL Error D	Unsolicited VA (F=0)
MDL Error E	Unsolicited DM (F=0)
MDL Error F	Peer Re-established
MDL Error G	SABME retrans limit
MDL Error H	DISC retrans limit
MDL Error I	Enquiry retrans limit
MDL Error J	N(R) error
MDL Error K	FRMR received

Table B-1. Error Statistics Definitions (Continued)

Error Statistics	Description
MDL Error L	Undefined frame received
MDL Error M	I field not permitted
MDL Error N	Frame size error
MDL Error O	N201 error
OutOfSeq I-Frames	Number of OutOfSeq I-Frames
IADs Port	
Blocked incalls	Number of Blocked incalls
Blocked outcalls	Number of Blocked outcalls
PSTN Protection Group	
Coding Violations—Path	Number of times the received DS1 signal contained a bipolar violation (BPV) or an excessive number of zeroes (EXZ)
Errored Seconds—Path	Number of one-second intervals with at least one line condition occurred
Severely Errored Seconds—Path	Number of one-second intervals with 15 or more line code violations, as well as when the device receives an incoming OOF or AIS signal occurred
Unavailable Seconds—Path	Number of one-second intervals during which the service is unavailable, determined by a transmission failure condition occurred
STS-1 Ports	
Coding Violations—Line	Number of times the received DS1 signal contained a bipolar violation (BPV) or an excessive number of zeroes (EXZ)
Errored Seconds—Line	Number of one-second intervals with at least one line condition occurred
Severely Errored Seconds—Line	Number of one-second intervals with 15 or more line code violations, as well as when the device receives an incoming OOF or AIS signal occurred
Command Violations—Line	Number of one-second intervals during which the service is unavailable, determined by a transmission failure condition occurred
Coding Violations—Section	Number of times the received DS1 signal contained a bipolar violation (BPV) or an excessive number of zeroes (EXZ)

Table B-1. Error Statistics Definitions (Continued)

Error Statistics	Description
Errored Seconds—Section	Number of one-second intervals with at least one line condition occurred
Severely Errored Frame seconds—Section	Number of one-second intervals containing one or more severely errored framing (SEF) events occurred
Severely Errored seconds—Section	Number of one-second intervals with 15 or more line code violations, as well as when the device receives an incoming OOF or AIS signal occurred

Table B-2. Performance Statistics Definitions

Performance Statistics	Description
CPX Statistics	
Active calls	Number of active calls
Active compress calls	Number of active compress calls
Ctrl cells rcvd	Number of Ctrl cells received
Ctrl cells sent	Number of Ctrl cells sent
Cumulative compress calls	Number of cumulative compress calls
Cumulative outcalls	Number of cumulative outgoing calls
IADs Provisioned	Number of IADs provisioned
IADs Up	Number of IADs up
Peak calls	Number of peak calls
CP Card	
Percent CPU used	Percentage of CPU usage
Percent flash used	Percentage of flash memory used
Percent memory used	Percentage of physical memory used
Interface Group Statistics	
CCS PPS msgs rcvd	Number of CCS PPS messages received
CCS PPS msgs sent	Number of CCS PPS messages sent
CCS msgs rcvd	Number of CCS messages received
CCS msgs sent	Number of CCS messages sent
EOC PPS msgs rcvd	Number of EOC PPS messages received
EOC PPS msgs sent	Number of EOC PPS messages sent
EOC msgs rcvd	Number of EOC messages received
EOC msgs sent	Number of EOC messages sent

Table B-2. Performance Statistics Definitions (Continued)

Performance Statistics	Description
Port Statistics	
DS0s In Use	How many DS0s (channels) on a DS1 (T1 lines) are currently active (a call is in progress)
IADs Statistics	
Active calls	Number of active calls
Active compress calls	Number of active compress calls
Cells rcvd	Number of cells received
Cells sent	Number of cells sent
Ctrl cells rcvd	Number of Ctrl cells received
Ctrl cells sent	Number of Ctrl cells sent
Cumulative calls	Number of cumulative calls
Cumulative compress calls	Number of cumulative compress calls
Frames rcvd	Number of Frames received
Frames sent	Number of Frames sent
I-Frames rcvd	Number of I-Frames received
I-Frames sent	Number of I-Frames sent
Peak calls	Number of peak calls
IADs Port	
Active calls	Number of active calls
Peak calls	Number of peak calls
Cumulative calls	Number of cumulative calls
Network Protection Groups	
Automatic switches	Number of switchovers invoked by the CPX-1000
Manual switches	Number of switchovers invoked by users
Switches to primary	Number of switchovers invoked by the Primary member
Switches to secondary	Number of switchovers invoked by the Secondary member

Table B-2. Performance Statistics Definitions (Continued)

Performance Statistics	Description
MP Card	
Available physical memory (MB)	Available RAM expressed in megabyte
CPU usage (percent)	CPU usage expressed in percentage
Disk size (MB)	Total hard disk space expressed in megabyte
Disk usage (MB)	Hard disk space usage expressed in megabyte
Disk usage (percent)	Hard disk space usage expressed in percentage
Free disk space (MB)	Available hard disk space expressed in megabyte
Page size (MB)	Total page size expressed in megabyte
Free page size (MB)	Available page size expressed in megabyte
Page usage (MB)	Page size usage expressed in megabyte
Page usage (percent)	Page size usage expressed in percentage
Physical memory (MB)	Total RAM expressed in megabyte
Physical memory usage (MB)	RAM usage expressed in megabyte
Physical memory usage (percent)	RAM usage expressed in percentage
ATM Port Statistics	
Cells rcvd	Number of cells received
Cells sent	Number of cells sent
Cells rcvd by PHY	Number of cells received by physical device
Cells sent by PHY	Number of cells sent by physical device
Cells rcvd in FIFO	Number of cells in FIFO
Counter rollover	Number of miscellaneous counter rollover events
Interrupt count	Total number of interrupts coming from any source
Open Rx Chans	Number of open Rx channels
Open Rx Inactive Chans	Number of open Rx inactive channels
Open Rx VCs	Number of open Rx VCs
Open Tx Chans	Number of open Tx channels
Open Tx Inactive Chans	Number of open Tx inactive channels
Open Tx VCs	Number of open Tx VCs
Physical service	Number of times physical service required

Alarm Summary

Table C-1 provides a summary of JetVision alarms.



Note

The CPX-1000 database alarm can be cleared only by Paradyne. Call Technical Support Center (TSC) at 1-800-870-2221 (U.S. and Canada) or 1-727-530-2340 (worldwide) to clear the CPX-1000 database alarm.

Table C-1. JetVision Alarm Summary

Affected Element	Alarm Message	Description	Severity	Triggered by
CPX-1000	General system alarm	Indicates general system alarm.	Major	CORE
	CPX is down	Indicates CME lost connection to all CPs.	Critical	CME
	Error in <detailed description> <to from> database	Indicates error in database during startup and initialization.	Major	CME

Table C-1. JetVision Alarm Summary (Continued)

Affected Element	Alarm Message	Description	Severity	Triggered by
CP card	Lost connection to a CP	Indicates lost connection to CP.	Major	CME
	CP lost heartbeat to peer	Indicates CP lost heartbeat to peer CP.	Major	CORE
	CP found the peer CP faulty	Indicates CP found the peer CP faulty.	Major	CORE
	CP detected that the peer CP has been removed	Indicates CP has detected the removal of peer CP.	Major	CORE
IAD	IAD <name> unknown alarm	Indicates the IAD has not been initialized or recognized.	Major	CORE
	Lost link with IAD <name>	Indicates a lost link with the IAD.	Major	CORE
	Provisioned ports <ID> are greater than the reported ports <ID>	Indicates the number of provisioned ports is greater than the number of reported ports.	Major	CME
	Voice Quality Alarm	VQA is triggered whenever ATM overruns and underruns exceed predefined thresholds	Minor	CORE
IAD Ports	IAD <name> port <ID> alarm	Indicates the IAD port has not been initialized or recognized.	Major	CORE

Table C-1. JetVision Alarm Summary (Continued)

Affected Element	Alarm Message	Description	Severity	Triggered by
ATM Ports	<card type> <slot ID> <port ID> — Lost ATM connection	Indicates lost ATM connection between the ATM card and ATM port.	Critical	CORE
	<card type> <slot ID> <port ID> — No adapter is driving the TDM master clock	Indicates no adapter is driving the TDM master clock between the ATM card and ATM port.	Critical	CORE
	<card type> <slot ID> <port ID> — ATM adaptive recovery scheme alarm	Indicates an ATM adaptive recovery scheme alarm between the ATM card and ATM port.	Critical	CORE
	<card type> <slot ID> <port ID> — SONET lost signal	Indicates SONET lost signal between the ATM card and ATM port.	Critical	CORE
	<card type> <slot ID> <port ID> — SONET lost frame	Indicates SONET lost frame between the ATM card and ATM port.	Critical	CORE
	<card type> <slot ID> <port ID> — SONET path lost pointer	Indicates SONET path lost pointer between the ATM card and ATM port.	Critical	CORE
	<card type> <slot ID> <port ID> — OAM Line AIS alarm	Indicates OAM Line AIS alarm between the ATM card and ATM port.	Critical	CORE
ATM Ports	<card type> <slot ID> <port ID> — OAM Path AIS alarm	Indicates OAM Path AIS alarm between the ATM card and ATM port.	Critical	CORE
	<card type> <slot ID> <port ID> — OAM Line RDI alarm	Indicates OAM Line RDI alarm between the ATM card and ATM port.	Critical	CORE
	<card type> <slot ID> <port ID> — Unknown alarm	Indicates the ATM card/port has not been initialized or recognized.	Critical	CORE

Table C-1. JetVision Alarm Summary (Continued)

Affected Element	Alarm Message	Description	Severity	Triggered by
T1 Interface Group	Alarm	Indicates the Interface Group has not been initialized or recognized.	Major	CORE
	Card <slot ID> missing	Indicates a TDM-T1 card is missing during startup verification against card information from discovery.	Major	CME
	Card <slot ID> <port ID> missing	Indicates a T1 port is missing during startup verification against card information from discovery.	Major	CORE
	CCS active link down	Indicates the active Control Channel Signaling (CCS) link is down.	Major	CORE
	CCS backup link down	Indicates the backup Control Channel Signaling (CCS) link is down.	Major	CORE
	EOC active link down	Indicates the active Embedded Operations Channel (EOC) link is down.	Major	CORE
	EOC backup link down	Indicates the backup Embedded Operations Channel (EOC) link is down.	Major	CORE

Table C-1. JetVision Alarm Summary (Continued)

Affected Element	Alarm Message	Description	Severity	Triggered by
T1 Interface Group	<Link ID> — Unknown alarm	Indicates the Interface Group link has not been initialized or recognized.	Major	CORE
	CCS Primary link down	Indicates the primary Control Channel Signaling (CCS) link is down.	Major	CORE
	CCS Secondary link down	Indicates the secondary Control Channel Signaling (CCS) link is down.	Major	CORE
	CCS PPS Primary link down	Indicates the primary Control Channel Signaling (CCS) and Path Protection Signaling (PPS) links are down.	Major	CORE
	CCS PPS Secondary link down	Indicates the secondary Control Channel Signaling (CCS) and Path Protection Signaling (PPS) links are down.	Major	CORE
	EOC Primary link down	Indicates the primary Embedded Operations Channel (EOC) link is down.	Major	CORE
	EOC Secondary link down	Indicates the secondary Embedded Operations Channel (EOC) link is down.	Major	CORE
	EOC PPS Primary link down	Indicates the primary Embedded Operations Channel (EOC) and Path Protection Signaling (PPS) links are down.	Major	CORE
	EOC PPS Secondary link down	Indicates the secondary Embedded Operations Channel (EOC) and Path Protection Signaling (PPS) links are down.	Major	CORE

Table C-1. JetVision Alarm Summary (Continued)

Affected Element	Alarm Message	Description	Severity	Triggered by
DS1 Ports	<DS1 ID> — Lost frame sync — Red alarm	Indicates the T1 has lost sync with the host. (The remote end displays a yellow alarm.)	Major	CORE
	<DS1 ID> — Received remote alarm indication — Yellow alarm	Indicates a Remote Alarm Indication (RAI) signal is being received on the line. The remote end displays a red alarm; which means the remote end cannot synchronize with the signal originating from the T1 card.	Major	CORE
	<DS1 ID> — Received remote alarm signal — Blue alarm	Indicates an Alarm Indication Signal (AIS) is being received. This means the remote end has lost connection with its data source or is in a test mode and is transmitting all 1s (AIS) instead.	Major	CORE
	<DS1 ID> — Software error in DS0 read. Please call Technical Support	Indicates an attempt to read data from a T1 card has failed.	Major	CORE
	<DS1 ID> — Unknown alarm	Indicates the DS1 has not been initialized or recognized.	Major	CORE
	Protection Group	The <Card Shelf ID> <Card ID> does not exist	Indicates the card does not exist during startup verification against card information from discovery.	Critical
The <Port Shelf ID> <Card ID> <Port ID> does not exist		Indicates the port does not exist during startup verification against card information from discovery.	Critical	CME

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