

ForeSight 6100 Element Management System

User Guide

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About this guide

This guide describes installing and configuring the ForeSight 6100 Element Management System (EMS). The ForeSight 6100 enables users to control and monitor a large number of IP-based Patton devices through the use of a graphical user interface (GUI.)

This section describes the following:

- Who should use this guide (see “[Audience](#)”)
- How this document is organized (see “[Structure](#)”)
- Typographical conventions and terms used in this guide (see “[Typographical conventions used in this document](#)” on page 6)

Audience

This guide is intended for the following users who are assumed to be familiar with network management, IP, and SNMP concepts, and managed Patton products:

- Operators
- Installers
- Maintenance technicians

Structure

This guide contains the following chapters:

- Chapter 1, “[ForeSight 6100 EMS overview](#)” on page 7 provides an overview of the ForeSight 6100 EMS.
- Chapter 2, “[ForeSight 6100 EMS installation](#)” on page 13 describes installing the ForeSight 6100 EMS.
- Chapter 3, “[Getting started](#)” on page 17 describes adding a pollable device and adding a container
- Chapter 4, “[File menu reference](#)” on page 25 describe the *File* menu options.
- Chapter 5, “[Edit menu reference](#)” on page 31 describe the *Edit* menu options.
- Chapter 6, “[View menu reference](#)” on page 47 describe the *View* menu options.
- Chapter 7, “[Help menu reference](#)” on page 51 describe the Help menu options.
- Chapter 8, “[Tree structure reference](#)” on page 53 describes the hierarchical view of the managed network.
- Chapter 9, “[Contacting Patton for assistance](#)” on page 65 describes how to contact Patton Electronics for technical support.

For best results, read the contents of this guide before you install the ForeSight 6100 EMS.


Typographical conventions used in this document

This section describes the typographical conventions and terms used in this guide.

General conventions

In this guide we use certain typographical conventions to distinguish elements of commands and examples. In general, the conventions we use conform to those found in IEEE POSIX publications. The procedures described in this manual use the following text conventions:

Table 1. General conventions

Convention	Meaning
Garamond blue type	Indicates a cross-reference hyperlink that points to a figure, graphic, table, or section heading. Clicking on the hyperlink jumps you to the reference. When you have finished reviewing the reference, click on the Go to Previous View button  in the Adobe® Acrobat® Reader toolbar to return to your starting point.
Futura bold type	Commands and keywords are in boldface font.
<i>Futura bold-italic type</i>	Parts of commands, which are related to elements already named by the user, are in boldface italic font.
<i>Italicized Futura type</i>	Variables for which you supply values are in <i>italic</i> font
Futura type	Indicates the names of fields or windows.
Garamond bold type	Indicates the names of command buttons that execute an action.
< >	Angle brackets indicate function and keyboard keys, such as <SHIFT>, <CTRL>, <C>, and so on.

Mouse conventions

The following conventions are used when describing mouse actions:

Table 2. Mouse conventions

Convention	Meaning
Left mouse button	This button refers to the primary or leftmost mouse button (unless you have changed the default configuration).
Right mouse button	This button refers the secondary or rightmost mouse button (unless you have changed the default configuration).
Point	This word means to move the mouse in such a way that the tip of the pointing arrow on the screen ends up resting at the desired location.
Click	Means to quickly press and release the left or right mouse button (as instructed in the procedure). Make sure you do not move the mouse pointer while clicking a mouse button.
Double-click	Means to press and release the same mouse button two times quickly
Drag	This word means to point the arrow and then hold down the left or right mouse button (as instructed in the procedure) as you move the mouse to a new location. When you have moved the mouse pointer to the desired location, you can release the mouse button.

Chapter 1 **ForeSight 6100 EMS overview**

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Introduction

Patton's ForeSight 6100 Element Management System enables users and network operators to control and monitor up to 200 elements (also called *nodes*) through the use of a user-friendly graphical user interface (GUI). The ForeSight 6100 uses a tree-oriented hierarchical display of nested containers which can be easily navigated to access different managed devices. After navigating through the nested containers to find a desired node, a user can drill down and access the device's internal configuration system and manage it there.

For example, [figure 1](#) shows a campus network comprising a Patton Model 3095 DACS, a ForeFront DSL access system (fully loaded with 3096RC blades & 6103 Alarm Card), and a Model 1001R rack system connected to a PC running the ForeSight 6100 EMS.

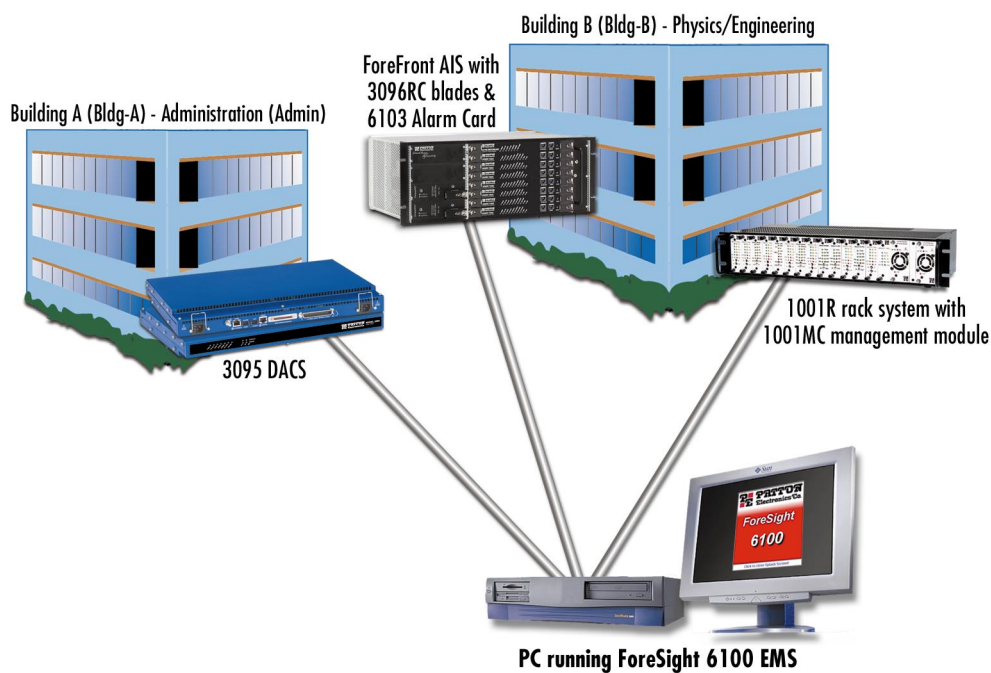


Figure 1. Sample network

The ForeSight 6100 hierarchical display resembles the example shown in [figure 2](#). The *Root*, *Bldg-A*, and *Bldg-B* container groupings make it easy to quickly locate the nodes (*3095-Admin*, *1001MC-Physics*, *3096RC-Engineering-1*, etc.).

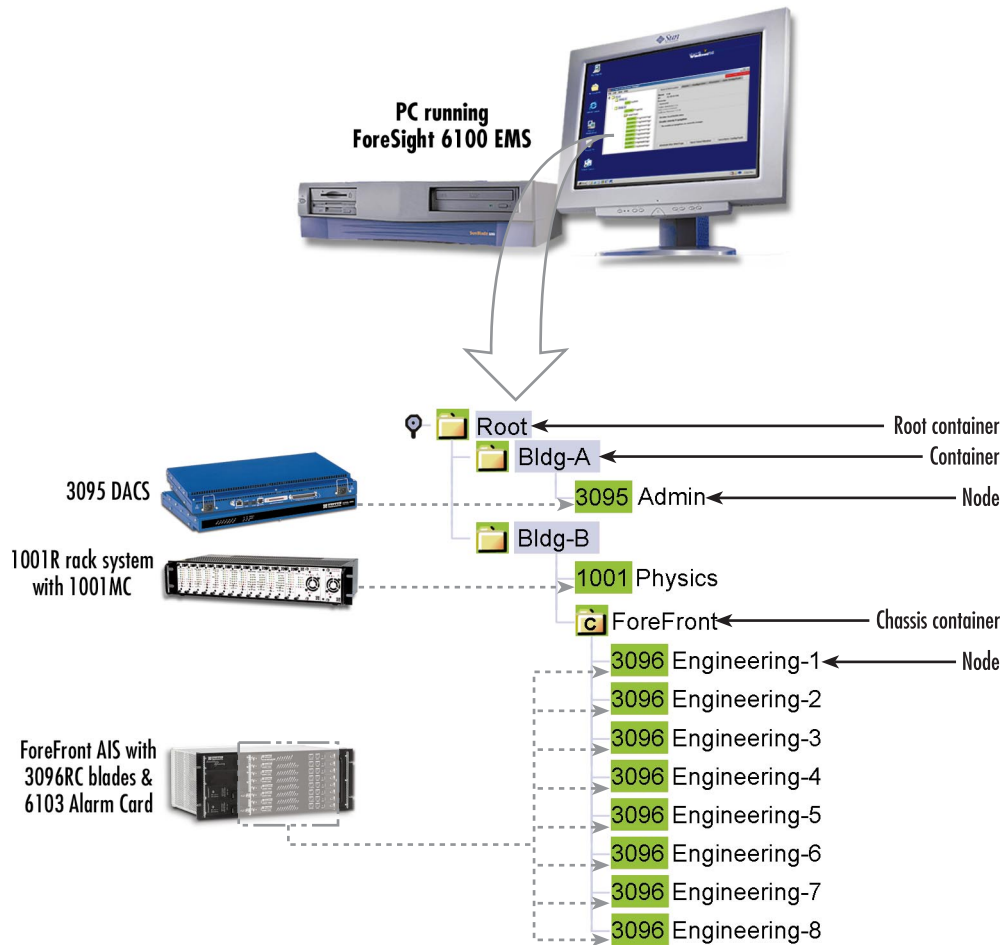


Figure 2. Sample ForeSight 6100 display

Nodes

A node represents a *simple network management protocol* (SNMP)-enabled Patton device (such as a Model 3095 DACS) on the network. Nodes are always created and grouped inside containers.

The ForeSight 6100 EMS polls the nodes for status information and is notified by the nodes when an event occurs. Common events include an element exceeding a preset threshold, an element changing state, or an SNMP agent-generated alert that an event has occurred.

The ForeSight 6100 can indicate node status in a variety of ways—including changing the color of the container's icon or highlighting the node's text label (in [figure 2](#), for instance, the container icons and node labels are all colored green, which signifies that everything is functioning normally).

Individual node management takes place outside of the ForeSight 6100 application by using a web browser or Telnet client. This is done by selecting the desired node from the ForeSight 6100 hierarchical display and

choosing the web page option from a pop-up menu, in which case a web browser launches and displays the node's web page from which it can be managed, or by choosing the Telnet option, which launches the Telnet client application.

Note Because of the wide variety of devices that can be managed by the ForeSight 6100 EMS, this guide does not describe how to configure a node from its web pages or by using a Telnet client. Instead, refer to the documentation that came with each device to learn how to configure it via the web or a Telnet interface (or through the device's console interface, if it is so equipped).

Container types

The ForeSight 6100 uses containers to organize network elements in a way that is easily understood. Containers can hold multiple containers and nodes, as shown in [figure 2](#) on page 9 where the *Bldg-B* container holds the *1001MC* node and the *ForeFront* chassis container (which in turn contains several 3096RC nodes). The ForeSight 6100 uses the following types of containers (see [figure 2](#) on page 9):

- Root container
- Standard container (referred to simply as *container*)
- Chassis container (ForeFront AIS)

The Root container (see [figure 2](#)), the topmost container in the hierarchical tree, always appears when the ForeSight 6100 application is running. There can only be one Root container and it cannot be deleted.

Any container that holds containers is a parent container (the container inside the parent is a child container). Depending on how it is being considered in the hierarchical tree structure at the time, the same container can be a parent or a child. For example, as shown in [figure 2](#) on page 9, the container *Bldg-B* is a child of the *Root* container, but *Bldg-B* is also a parent to the *ForeFront* container. The *Root* container is a parent, and it alone can never be a child because it cannot be placed inside another container.

Containers can be organized as desired, but the most common method is to group them by physical location as shown in [figure 2](#) on page 9. For example, if you were organizing containers based on the university network shown in [figure 1](#) on page 8, you could group them by location as follows:

- Building A (Administration), which contains a Model 3095, would be created under *Root* as container *Bldg-A* containing the Model 3095 node named *Admin*.
- Building B (Physics/Engineering), which contains a 1001 rack in the Physics department and a ForeFront AIS in the Engineering department, would be created under *Root* as container *Bldg-B*. The 1001 rack node would be labeled *Physics*. The 3096RC blades installed in the ForeFront AIS would be shown inside a chassis container and would be labeled *Engineering-1* through *Engineering-8*.

Note The *chassis container* is a type of container that is only used with ForeFront managed nodes (see section “[The Chassis](#)” on page 56).

Compatibility

The Patton ForeSight 6100 EMS can manage up to 200 SNMP-compliant Patton Electronics elements (also called *nodes*) that support ForeSight Management Interface Specification (FMIS) standards. These products currently include:

- **6511RC**—ForeFront AIS Matrix Switch with STM-1/OC-3 trunk interface
- **3125RC**—ForeFront AIS Remote Access Server Blade provides 96 or 120 ports for dial-up access
- **3120**—Remote access server (RAS) provides 30, 60, 96, or 120 ports for dial-up access
- **3096RC**—ForeFront AIS Blade that offers G.SHDSL and T1/E1 WAN ports
- **3095**—Digital Access and Cross-Connect System (DACS) provides 16 mDSL ports at rates up to 2.3 Mbps and T1/E1 WAN ports
- **2616RC**—ForeFront AIS E1/T1 DACS
- **1001MC**—SNMP/HTTP Netlink Management Module for Model 1001 rack rack system

Minimum system requirements

An industry-standard PC is required which meets the following *minimum* specifications:

- Pentium III, 500MHz CPU
- 128 Mbyte RAM
- 35 Mbytes of available disk space for software installation
- Ethernet NIC card
- CD-ROM drive

The following operating systems are supported:

- Windows 98
- Windows NT
- Windows 2000
- Windows XP
- Java 1.4.2 (provided with the ForeSight 6100 EMS)

Chapter 2 **ForeSight 6100 EMS installation**

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Installation instructions

Do the following to install the ForeSight 6100 EMS.

1. Insert the CD into your CD drive
2. The ForeSight 6100 start menu automatically appears (see [figure 3](#)).

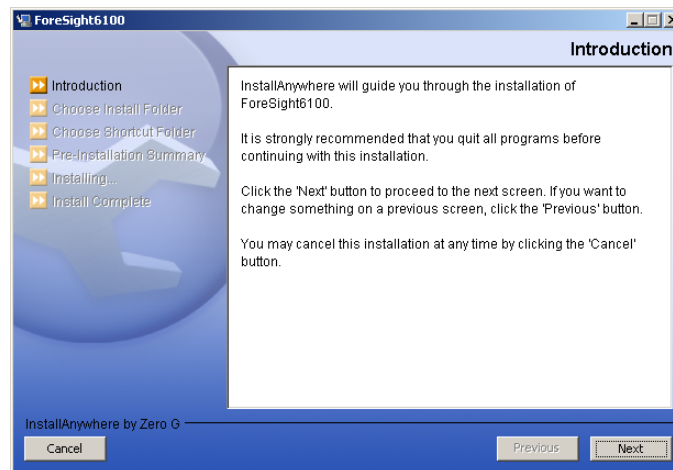


Figure 3. Introduction window

3. Click the **Next** button. Continue installing the application by following the displayed instructions.
4. When the installer finishes installing the ForeSight 6100, go to section [“Registration”](#) on page 15 in this guide for instructions on registering your ForeSight 6100 with Patton Electronics Sales.

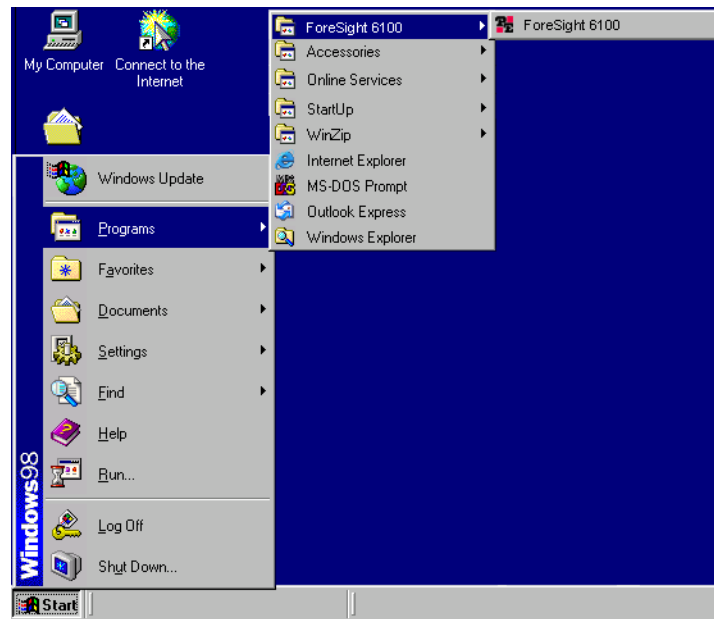


Figure 4. ForeSight 6100 application icon

Registration

To register the ForeSight 6100 EMS, you must obtain a registration file from Patton Electronics Sales by calling +1 (301) 975-1000 or e-mailing sales@patton.com. The Sales Department is available Monday through Friday, from 8:00 A.M. to 5:00 P.M. EST (8:00 to 17:00 UTC-5).

You will need to provide following information to register your copy of the ForeSight 6100 EMS:

- Your company's name
- Your name or the name of the registered user
- IP address of the device onto which the ForeSight 6100 will be installed
- MAC address of the device onto which the ForeSight 6100 will be installed
- Operating system (Windows NT, Windows 2000, etc.)

The registration file will be sent to you via e-mail. When it arrives, save the file to a location where it can be easily found later.

Once you have the registration file, do the following to register the ForeSight 6100:

1. Click on the **Start** button, then Programs > ForeSight 6100 and select ForeSight 6100 (see [figure 4](#)) to run the application.

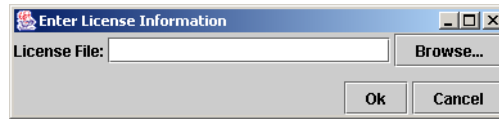


Figure 5. License File window

2. The first time the ForeSight application runs, it will ask the user to specify the location of the registration file (see [figure 5](#)). Click the **Browse** button to find the registration file obtained from Patton Sales.
3. When registration finishes, you will be prompted to restart the ForeSight 6100 application. As the ForeSight 6100 starts (or *boots*), a splash screen (see [figure 6](#)) displays information on operations the EMS is performing. The splash screen can either be hidden by clicking on it or it will automatically close 5 seconds after the ForeSight 6100 finishes booting.



Figure 6. Splash screen

Congratulations, your ForeSight 6100 EMS is ready for use! Go to chapter 3, “[Getting started](#)” on page 17 to begin using the 6100 EMS.

Chapter 3 **Getting started**

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Introduction

This chapter describes:

- Creating containers and nodes on the ForeSight 6100 to represent your network
- Configuring a node through the WWW or a Telnet client.
- Managing events

Creating containers and nodes

The ForeSight 6100 uses a tree-oriented hierarchical display of nested containers that can be easily navigated to access different nodes. Nodes—which are SNMP-enabled devices on the network—are always created inside containers. (Examples of nodes would be the Patton Model 3095 and 3096RC blades in a ForeFront AIS.).

Containers can be organized as desired, but the most common method is to group them by physical location (for instance, in a large network spanning a country, the hierarchical tree could be structured to represent a country, location, city, site, chassis, device, etc.). The same method can be used for smaller networks, such as, for example, if you were organizing containers based on the university network shown in [figure 1](#) on page 8, you could group them by location as follows (see [figure 2](#) on page 9):

- Building A (Administration), which contains a Model 3095RC, would be created under *Root* as container *Bldg-A* containing the Model 3095 node named *Admin*.

Note The Root container—parent for all other containers—is always present and cannot be deleted.

- Building B (Physics/Engineering), which contains a 1001 rack in the Physics department and a ForeFront AIS in the Engineering department, would be created under *Root* as container *Bldg-B*. The 1001 rack node would be a labeled *Physics*. The 3096RC blades installed in the ForeFront AIS would be shown inside a chassis container and would be labeled *Engineering-1* through *Engineering-8* (the chassis container is a type of container that is only used with ForeFront nodes (see section “[The Chassis](#)” on page 56 for details).

Note After a node has been created, the container path for that node is permanent and can only be changed by deleting the node and recreating it in different containers. Therefore, for best results, take a few minutes to work out the desired organization of containers and nodes on paper before creating nodes and containers in the ForeSight 6100.

Adding a container

You will need the following information before creating a container:

- Parent container name (this is the container into which the new container will be added) (see section “[Parent Container](#)” on page 42 for more information)
- Display name (this is the name of the new container as it will appear on the ForeSight 6100 display) (see section “[Display Name](#)” on page 42 for more information)
- Container type (see section “[Type](#)” on page 42 for more information)

Optionally, if you will be providing an icon image, have the image ready in in JPEG or GIF format (see section “[Choose Icon](#)” on page 42 for more information)

In the ForeSight 6100, do the following to add a container:

1. Click *Edit > Add Container* (see [figure 7](#)).



Figure 7. Edit > Add Container

2. Select a parent container (see [figure 8](#))—the new container will be created under this container.

Note When the new container has been created, it will automatically be added to the parent container list as a potential parent for future nodes and containers.

3. Enter a display name (see [figure 8](#)) (this is the name that the ForeSight 6100 displays to the user).
4. Choose a type (see [figure 8](#)).
 - The *Chassis* type is used if it is representing a Patton ForeFront rack system. There is some further configuration that is possible after it is added (see section “[The Chassis](#)” on page 56).
 - The *Container* logically groups nodes and other containers. *Container* should always be selected as the type unless it is representing a Patton ForeFront rack system (in which case the type would be *Chassis*).



Figure 8. Add Container window

5. Select a device icon (see [figure 8](#) on page 19). If the option *Colorize Icon* is selected in the Event Management tab of the preferences dialog then this option will be disabled. In which case, the ForeSight 6100 will automatically manage the icon.

6. Add any comments in the large text area (see [figure 8](#) on page 19).
7. Click the OK button (see [figure 8](#) on page 19) to save the changes.

A container of undefined state has been added under its parent container. The state of the container will be changed when a node is added to it, and the state of that node is acquired.

Adding a node (pollable device)

You will need the following information before creating a node (also referred to as a *pollable device*):

- Parent container name (this is the container into which the new node will be added) (see section “[Parent Container](#)” on page 44 for more information)
- Display name (this is the name of the new node as it will appear on the ForeSight 6100 display) (see section “[Display Name](#)” on page 44 for more information)
- IP address (see section “[IP Address](#)” on page 45 for more information)
- SNMP community string (an SNMP community string is an unencrypted text string that acts as a password used to authenticate messages sent between the ForeSight 6100 and the node). Usually, this string consists of the “read community string” which is the monitor password. Under certain circumstances, however (see section “[Choose Proxy](#)” on page 57), it must be the “write” community string, which is the superuser password.
- Device type (this would be one of the following SNMP-compliant Patton Electronics products that support the ForeSight Management Interface Specification (FMIS) set of standards):
 - 6511RC (ForeFront AIS device)
 - 3125RC (ForeFront AIS device)
 - 3120 RAS
 - 3096RC (ForeFront AIS device)
 - 3095 DACS
 - 2616RC (ForeFront AIS device)
 - 1001MC rack management module

Optionally, if you will be providing an icon image, have the image ready in in JPEG or GIF format (see section “[Choose Icon](#)” on page 45 for more information)

In the ForeSight 6100, do the following to add a pollable device:

1. Click *Edit > Add Node* (see [figure 9](#)).

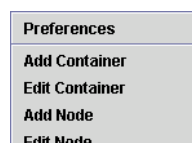


Figure 9. Edit > Add Node

2. Select a parent container (see [figure 10](#)). The new node be created under this container.

3. Enter a display name (see [figure 10](#)) (this is the name that the ForeSight 6100 displays to the user).
4. Enter a community string (see [figure 10](#)). This is usually the “read” community string (see section “[Community String](#)” on page 45), but in certain circumstances .
5. Select a device type (see [figure 10](#)).

Note If the Patton device type is not listed, choose *Unknown*—the ForeSight 6100 will make a best-effort to operate with the device.

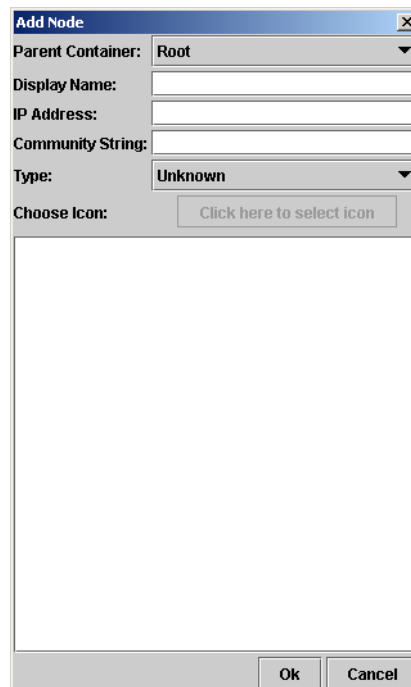


Figure 10. Add Node window

6. If the *Choose Icon:* option (see [figure 10](#)) is enabled, click the menu and select an icon.

Note By default, the option *Colorize Icon* is selected in the *Event Management* tab of the *Preferences* dialog, which means that the ForeSight 6100 manages icons; so you will not be able to select a device icon.

7. Add any comments in the large text area (see [figure 10](#) on page 21).
8. Click the **OK** button (see [figure 10](#) on page 21) to save the changes.

A new node has been added to the tree on the left side of the 6100 with an unknown state. The state of the newly added device will be acquired during the next polling cycle of the State Poller.

Configuring a node through the WWW or Telnet

To configure a node via a web page or Telnet client, do the following:

1. Select the desired node.

2. If you want to configure the node through the WWW, go to step 3. Otherwise, to use a Telenet client to configure the node, right-click the mouse and choose the *Telnet* option. The Telnet client will launch “pre-loaded” with the IP address of the node. Go to step 4.
3. To configure the node through the WWW, right-click the mouse and choose the *Web Page* option. A web browser will launch and display the web page for the selected node.
4. Refer to the refer to the documentation that came with the device for information on configuring it via the web browser or Telnet client.

Managing events

The ForeSight 6100 indicates the status of nodes on the heirarchical tree by changing the text background color of node names and the icon color of parent containers (for example, in [figure 11](#) the green icons and text backgrounds signify that everything is functioning normally).

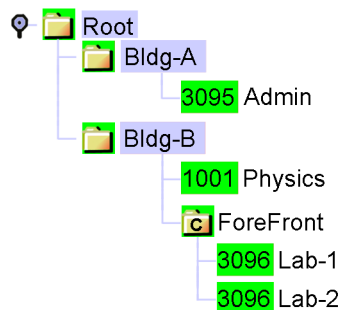


Figure 11. Sample heirarchical tree

When a node changes state, it generates an alarm, then the node sends an SNMP trap message to the 6100 EMS. The 6100 EMS changes the node’s color to red, orange, or yellow (depending upon the severity of the alarm), signifying that a major event has occurred, and also changes the icon color for all parent containers to the same color.

For example, if the Model 3096RC node *Lab-1* experiences a main clock failure, the 6100 EMS changes the icon color and all parent containers to orange upon receiving the SNMP trap for the 3096RC (see [figure 12](#)).

Note When a severe event occurs, the ForeSight 6100 will assign that event color to the node and its parent containers until the event is resolved or a more severe event occurs. If less severe events at the node are also occurring, they will not be shown (i.e., while a major event is in progress on a node, a minor event at the same node will not be displayed).

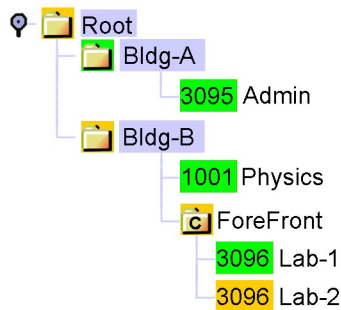


Figure 12. Heirarchical tree showing a major event at node Lab-2

The ForeSight 6100 indicates events by using the colors listed in [table 3](#).

Table 3. Event colors

Event	Icon/text background color
Critical	Red
Major	Orange
Minor	Yellow
Clear (normal operation)	Green
Informational	Blue

When an informational, minor, major, or critical event occurs, the operator should address the problem by first locating the node sending the event messages. The quickest way is by clicking on containers colored at the same level of severity until the node is located, then select the node and click on the *Events* tab in the node's panel to see events that have occurred at the node.

Continuing with the example of the 3096RC node with a failed clock, the events listed would resemble those shown in [figure 13](#). In the figure, node *Lab-2* has sent the major severity event trap message: *Blade: Main Clock Fail: Active*, meaning that the main clock in Lab-2 has failed. In the next event (event 25), Lab-2 sent the trap message: *Box State Change to Major*, which caused the ForeSight 6100 to change Lab-2's label and parent containers colors to orange (see [figure 12](#)).

Severity	Event	Node	IP Address	ACK	OID	Trap Value	Date/Time	Comment
Major State	25	Lab-2	10.10.12.77	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	Box State Change to Major	2004-06-18 15:01:25	
Major	24	Lab-2	10.10.12.77	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	Blade:Main Clock Fail: Active	2004-06-18 15:01:25	

Figure 13. Event table showing events of major severity

Having determined what the problem is, the operator would double-click on the *Blade: Main Clock Fail: Active* error to display the *Event Sub Window* (see [figure 14](#)), check the *ACK* box to show that the problem has been acknowledged, and write a short comment describing what was done about the event (in this case, technical services was called).

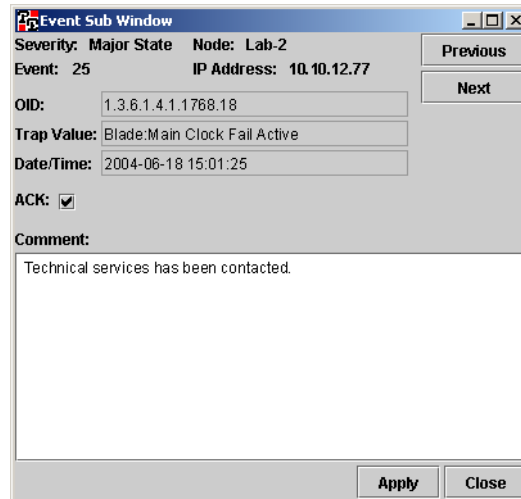


Figure 14. Event Sub Window showing major alarm

Severity	Event	Node	IP Address	ACK	OID	Trap Value	Date/Time	Comment
Clear State	28	Lab-2	10.10.12.77	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	Box State Change to Clear	2004-06-19 15:25:27	
Informational	27	Lab-2	10.10.12.77	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	Blade:Main Clock Fail: Inactive	2004-06-19 15:25:27	
Informational	26	Lab-2	10.10.12.77	<input type="checkbox"/>	Auto-Config Information	Rebooting System	2004-06-19 15:25:10	
Major State	25	Lab-2	10.10.12.77	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	Box State Change to Major	2004-06-18 15:01:25	
Major	24	Lab-2	10.10.12.77	<input checked="" type="checkbox"/>	1.3.6.1.4.1.1768.18	Blade:Main Clock Fail: Active	2004-06-18 15:01:25	Technical services has been c

Figure 15. Event table after problem has been resolved

Technical services repairs the problem by rebooting the node, at which point the node sends a trap message of informational severity (see event 26 in [figure 15](#)) stating that the node is *Rebooting System*. This message is followed by event 27: *Blade: Main Clock Fail: Inactive*, meaning the clock failure has been resolved.

Event 28, *Box State Change to Clear*, clears away the major event condition, so the ForeSight 6100 changes the Lab-2 node's icons and text labels to green, signifying that the node is again operating normally (see [figure 11](#) on page 22).

Chapter 4 **File menu reference**

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Introduction

The following options are available under the *File* menu:

- **Import Firmware Image**—This menu option is used to import firmware images into the ForeSight 6100 EMS for distribution to a selected Patton device on the tree (see [page 26](#) for details)
- **Export Events**—This menu option (see [figure 18](#)) is used to export various event and node items (see [page 27](#) for details)
- **Export All Events**—This menu option displays the default “exports” directory (see [page 30](#) for details)
- **Delete All Events**—This menu item removes all events from the database (see [page 30](#) for details)
- **Exit**—This menu item will exit you from the ForeSight 6100 application (see [page 30](#) for details)



Figure 16. File menu

Import Firmware Image

The *Import Firmware* menu option is used to import firmware images into the ForeSight 6100 EMS for distribution to a selected Patton device on the tree. Firmware image names must be unique and are based on a combination of the node type and version strings (software version number). For example, there can be any number of version “1.1.1” as long as each is for a different node type.

Note The 6100 stores the path to the specified file, not the file itself, so changing the location of the specified file after the 6100 has saved the path to it can cause firmware updates to fail.

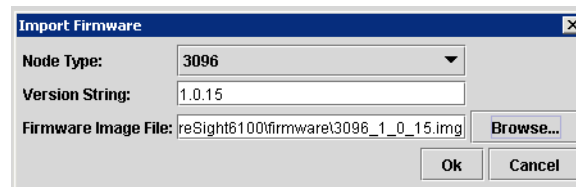


Figure 17. Import Firmware dialog

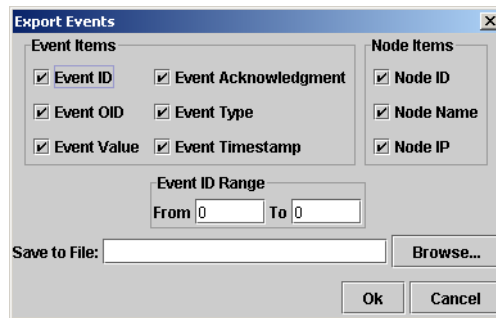


Figure 18. Export Events dialog

Export Events

The *Export Events* dialog (see [figure 18](#)) is used to export a record of event and node items that have occurred on the network. The exported file, data is saved to a comma-separated-values (CSV) format file, so you can reuse the event data in a database or spreadsheet program. As shown in [figure 18](#), the exported data can be customized by selecting just the items of interest. The following sections describe the *Export Events* dialog options.

Event Items

The *Event Items* section of the *Export Events* dialog (see [figure 19](#)) has the following items that determine how much detail about each event is included in the exported file. Checked items are saved to the file.

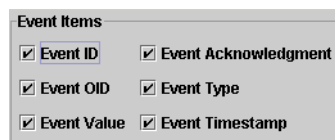


Figure 19. Export Events dialog—Event Items section

Event ID

The unique ID of the event

Event OID

If an event is generated through SNMP, the *Event OID* is the object identifier (OID) assigned to the event. Otherwise, a short text description will be assigned.

Event Value

The reason for the event in text.

Event Acknowledgment

Indication of whether the event was acknowledged by the ForeSight 6100 operator.

Event Type

The severity of the event.

Event Timestamp

The time when the event occurred.

Node Items

The *Node Items* section of the *Export Events* dialog (see [figure 20](#)) has the following items that determine how much detail about a reporting node is included in the exported file. Checked items are saved to the file.

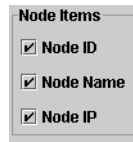


Figure 20. Export Events dialog—Node Items section

Node Name

The name of the node.

Node ID

The unique ID for the node that generated the event (in case there are multiple nodes with the same node name).

Node IP

The IP address of the node.

Event ID Range

The *Event ID Range* section of the *Export Events* dialog (see [figure 21](#)) enables you to choose to export some or all events as determined by the range of event IDs.

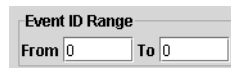


Figure 21. Export Events dialog—Event ID Range section

To export some of the events, (for example all events from 100 to 1000), you would type *100* in the *From* box and *1000* in the *To* box.

A quicker way to specify large ranges of events is to use the 0 (zero). Using a *0* in the *From* box tells the ForeSight 6100 to export all events from 1 up to the number in the *To* box (for example, a range of *From 0 To 1,000* would export events 1–1,000). Using a *0* in the *To* box exports all events starting from the number in the *From* box (for example, if there were 5,000 events stored, a range of *From 1000 To 0* would export events 1,000–5,000). To export all stored events, set a range of *From 0 To 0*.

Save to File/Browse button

The *Save to File* of the *Export Events* dialog (see [figure 22](#)) is where you can type the directory path to where the exported file is to be saved and the file name. The file will be saved as a comma-separated-values (CSV) format file, so you can reuse the event data in other applications.



Figure 22. Export Events dialog—Save to File section

Note In a CSV-formatted file, each line (or row) of data in the file consists of one record, and each field of the record is separated by commas. CSV files can easily be transferred into spreadsheet and database applications.

Note You must include the .csv extension in the file name. If “.csv” is left off the file name it *will not* be automatically added.

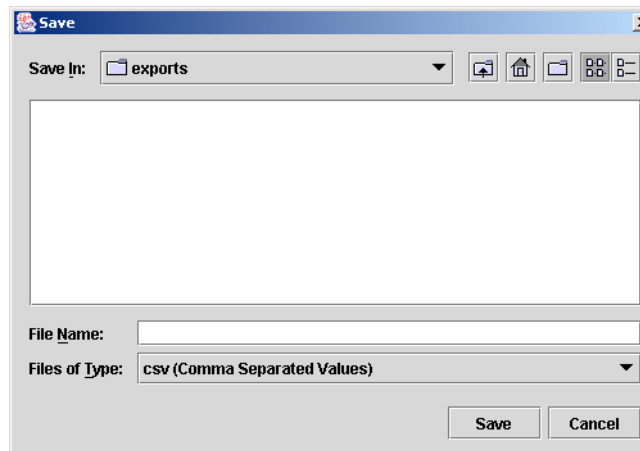


Figure 23. Save dialog

A faster way of specifying the directory path than typing it out is to click on the **Browse** button, which displays the *Save* dialog (see [figure 23](#)). Select the directory where you want the file saved, then type the file name in the *File Name* box. If you are saving a file for the first time, type the name of the new file, or—if you are overwriting an existing file—click on a previously saved file to overwrite.



CAUTION

There will be no warning if you type a file name that is the same as a file name already in the directory; so unless you want to overwrite an existing file, make sure the name you choose isn't in the directory! You will not be able to recover a file overwritten by mistake.

Click the **Save** button to complete the save operation or click the **Cancel** button to cancel without saving.

Export All Events

The *Export All Events* menu item (see [figure 16](#) on page 26) displays the *Save* dialog (see [figure 24](#)) where you can export event data to a comma-separated-values (CSV) format file, so you can reuse the event data in other applications. The *Export All Events* menu option opens a dialog box displaying the contents of the default “exports” directory (<install>/exports). By default, only previously saved CSV files are shown. If you are saving a file for the first time, type the name of the new file, or—if you are overwriting an existing file—click on a previously saved file to overwrite.

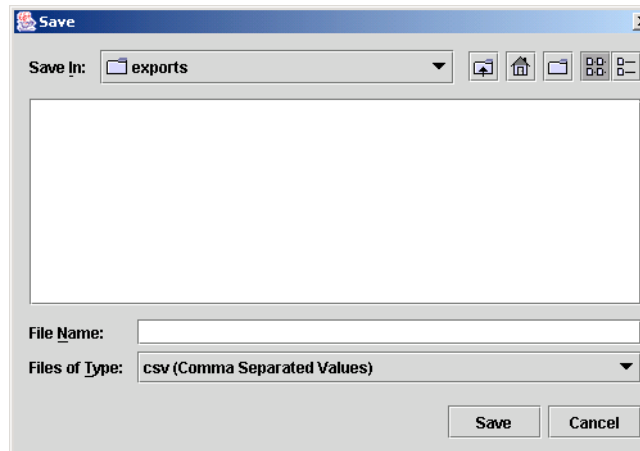


Figure 24. Export All Events dialog



CAUTION

Be careful when selecting a file to overwrite that you select the correct file! There will be no warning when you click the **Save** button to overwrite a file and you will not be able to recover a file overwritten by mistake.

Note In a CSV-formatted file, each line (or row) of data in the file consists of one record, and each field of the record is separated by commas. CSV files can easily be transferred into spreadsheet and database applications.

Note You must include the .csv extension in the file name. If “.csv” is left off the file name it *will not* be automatically added.

Delete All Events

Selecting the *Delete All Events* menu item (see [figure 16](#) on page 26) removes all events from the database.

Exit

Select the *Exit* menu item (see [figure 16](#) on page 26) to exit from the ForeSight 6100 application.

Chapter 5 **Edit menu reference**

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Introduction

The following options are available under the *Edit* menu (see [figure 25](#)):

- **Preferences**—Global options are set through the use of the *Preferences* dialog (see [page 33](#) for details)
- **Add Container**—A container can be added from the *Add Container* dialog (see [page 41](#) for details)
- **Edit Container**—A container can be modified from the *Edit Container* dialog (see [page 43](#) for details)
- **Add Node**—A node can be added from the *Add Node* dialog (see [page 44](#) for details)
- **Edit Node**—A node can be modified from the *Edit Node* dialog (see [page 45](#) for details)
- **Database Manager**—This executes a database manager (see [page 45](#) for details)
- **Start State Polling**—This check box toggle state polling on and off (see [page 45](#) for details)

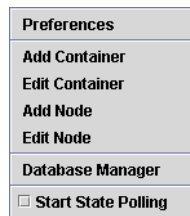


Figure 25. Edit menu

Preference tabs

Global options are set through the use of the *Preferences* dialog (see [figure 26](#)). The *Database Options* tab controls connection to an internal database—these are advanced options and should be changed with great care. The other tabs—*General Options*, *Poller Options*, *Auto-Config Push Options*, *Email Notification*, and *Event Management*—control options that can be edited for operation without adversely impacting operation.

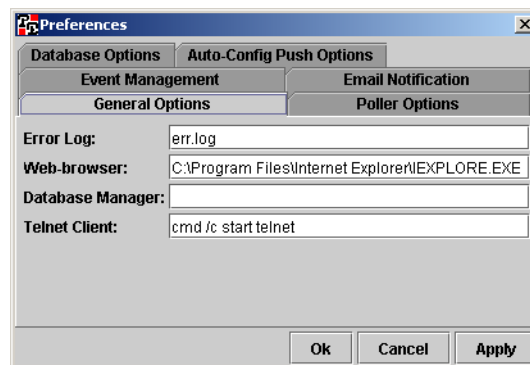


Figure 26. Preferences dialog

General Options

The *General Options* tab (see [figure 26](#)) enables a user to define the *Error Log*, *Web Browser*, *Database Manager*, and the *Telnet Client*.

Error Log

This is the filename that will be used when the ForeSight 6100 saves error messages. In the event of a major error (the ForeSight 6100 application exiting unexpectedly, for example) error messages will be written to the error log file.

Web-browser

This text field contains the file path to the web browser that will be used (for example, in [figure 26](#) on page 33, the path is *C:\Program Files\Internet Explorer\IEXPLORE.EXE*). The default web browser for Windows is *Internet Explorer*.

Database Manager

This text field contains the file path to an external database manager. If the system is using the internal database, no database manager should be defined because as there is no manager for it, other than the 6100 EMS. If no executable is specified here, then *Edit > Database Manager* will do nothing.

Telnet Client

This text field contains the command to launch a Telnet client. The default utility for Telnet is *Telnet Interface*.

Note In Windows 98, the field must be specified as *telnet*. In Windows 2000 and Windows XP, the Telnet Client field must be specified as *cmd/c start telnet* (see [figure 26](#) on page 33).

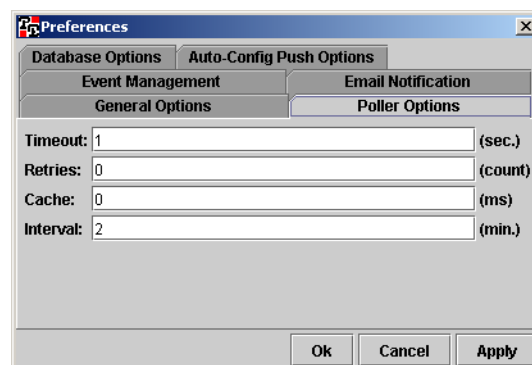


Figure 27. Poller Options dialog

Poller Options

The *Poller Options* tab (see [figure 27](#)) enables the user to configure the following polling parameters:

- **Timeout setting** (see section “[Timeout](#)” on page 35)
- **Retries setting** (see section “[Retries](#)” on page 35)
- **Cache setting** (see section “[Cache](#)” on page 35)

- **Interval setting** (see section “[Interval](#)” on page 35)

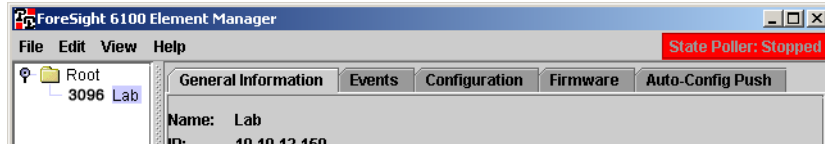





Figure 28. State Poller indicator

Note There is also a State Poller indicator located in the opening screen of the ForeSight 6100 EMS in the top right corner (see [figure 28](#)). State Poller indications are defined in [table 4](#).

Table 4. State Poller indications

State	Action	Color	Icon
Polling	Sending SNMP GET requests	Yellow	
Waiting	Waiting for SNMP GET responses	Green	
Stopped	Doing nothing	Red	

Timeout

This value is the SNMP packets time-to-live (TTL). It is the number of seconds to wait for a packet before considering it dead. Generally a setting of 1 or 2 seconds is appropriate, but for congested networks, higher values are recommended. The range is 1–1000 seconds; the default value is 1 second.

Retries

This value is the number of times for the ForeSight 6100 to retry SNMP polling if a response is not received before timeout. The range is 0–1000 retries; the default value is 0 retries.

Cache

This setting is the number of milliseconds that a valid SNMP response will be cached in memory, which helps prevent network flooding. The range is 0–1000 milliseconds; the default value is 0 milliseconds.

Interval

This setting is the amount of time in minutes that the 6100 EMS will wait between two successive polls to the same box. The range is 0–1000 minutes; the default value is 2 minutes.

Note The value assigned to *Interval* must be a higher number than the result of *Timeout* multiplied by *Retries* values. In other words, $Interval > (Timeout \times Retries)$.

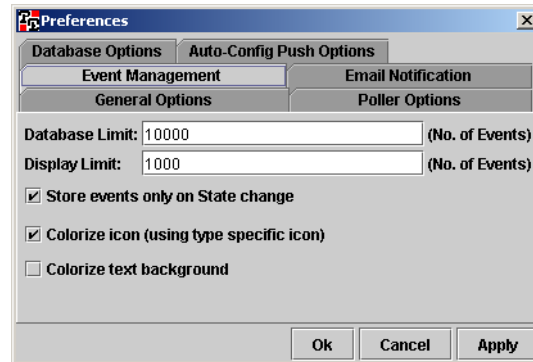


Figure 29. Event Management dialog

Event Management

The *Event Management* dialog (see [figure 29](#)) is for configuring:

- The maximum number of events allowed in the database (see section “[Database Limit](#)”)
- The number of events any single event table will show
- Whether the 6100 EMS will add an event every time a poll returns
- Whether to colorize the icons and text background as indicators of state changes

Database Limit

This option defines the maximum number of events allowed in the database. If more events are recorded after the limit is reached, the oldest events are deleted to make room for new ones. The value *0* means *no limit*. A value of *20,000* is generally sufficient. The default is *10,000*.

Note There is no warning message before old events are overwritten.

Display Limit

This option defines the number of events that any single event table will show. After this limit is reached old events will not be displayed. A value of *0* means *no limit*. A value of *1,000* is generally sufficient. The default is *1,000*.

Store Events Only on State Change

When this option is checked, the 6100 EMS will not add new events every time a poll returns. New events will only be added if there is a state change.

Note This setting only pertains to polled events, all external and internal traps will be saved. Traps from external sources—such as SNMP agent-generated traps—will be stored (including those with no state change). Internally generated ForeSight 6100 administrative traps will also be stored, regardless of whether the *Store Events Only on State Change* option is checked.

Colorized Icon (Using Type Specific Icon)

This option configures the 6100 EMS to colorize the icons to indicate a state change (see [figure 30](#)). Because of the complexity involved in determining state, ForeSight has internally defined icons for every state of every node type (including containers and folders). ForeSight then displays the appropriate icon for each node, based on its current state.



Figure 30. Colorized icons

Note Since a tree can only display one icon per node, the colorized icon takes precedence over the user-defined icon.

Colorized Text Background

When this option is checked, the ForeSight 6100 will colorize the text background based on the state of the network device (see [figure 31](#)). When this is not checked, no background color is used.

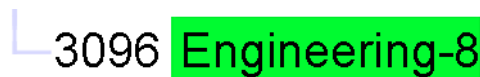


Figure 31. Colorized text background, no colorized icon

Email Notification

Click on the *Email Notification* tab, then the *Enable Email Notification* check box (see [figure 32](#)) to enable the 6100 EMS to send email upon receiving an event.

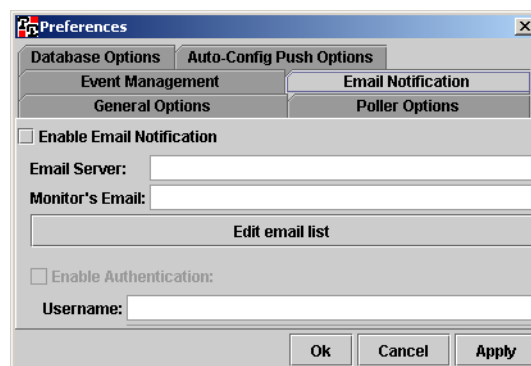


Figure 32. Email Notification dialog

Email Server

This is the URL of the email server to send messages through (for example, *xxxx.yourdomain.com*)

Monitor's Email

This is the email address to place in the “From” section of an email. It is specified just in case email messages are bounced back. If this happens, the bounced messages will be placed in the mailbox for the specified email address. Only one monitor email address can be specified. (for example, *6100@yourdomain.com*)

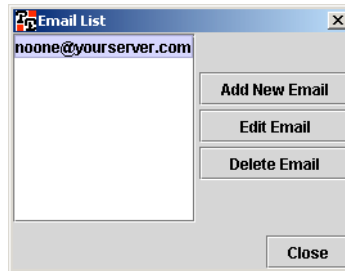


Figure 33. Email List dialog

Edit Email List

Click on the **Edit email list** button to display the Email List dialog box (see [figure 33](#)). This is where email messages that go in the “To” section of an email are specified, there can be multiple addresses. To specify an email, right click the **Add New Email** button. The *Notification Options* window (see [figure 34](#)) will be displayed allowing for the addition of a new email address. The check boxes indicate what kind of events are to be sent to the specified email address. At least one of the check boxes must be checked for the email address to be added to the list.

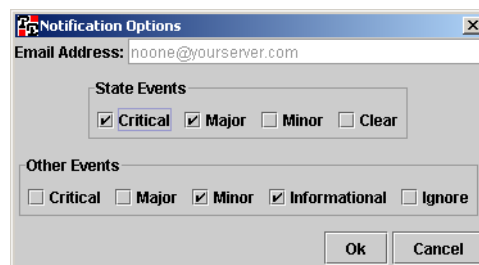


Figure 34. Notification Options dialog

Enable Authentication

If the specified email server requires authentication for sending email messages, click this check box to enable authentication. Also add the required username and password to allow for logging in.

Database Options

This dialog box is where you can change the database configuration if you are going to be using a database other than the one provided with the ForeSight 6100 EMS.



CAUTION

Using a database other than the one provided with the ForeSight 6100 requires advanced knowledge that is beyond the scope of this guide. At a minimum, any replacement database must be Java Data Base Connectivity (JDBC) compliant (JDBC is the standardized database interface for Java).

For more information about JDBC, refer to the frequently asked questions (FAQ) document at:

<http://java.sun.com/products/jdbc/reference/faqs/index.html>

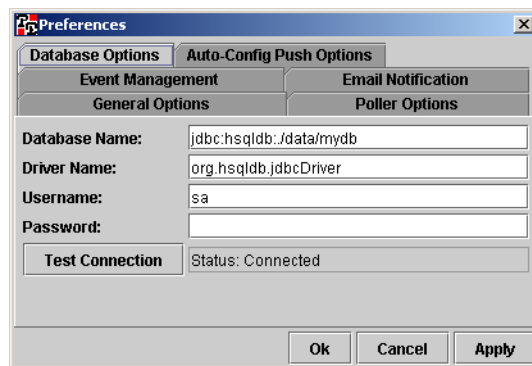


Figure 35. Database Options dialog

Database Name

This is the name of the database that the ForeSight 6100 will be using. The database name syntax is determined by the JDBC driver being used to connect to the database. Consult the documentation that came with the JDBC driver for valid names.

Driver Name

This is the Java standard class-path to the class that contains the driver. The driver *must* adhere to the JDBC standard. Generally a driver class is included with the connecting database, and it *must* exist in the 6100's class path. Since the user is unable to change the classpath, this driver must be a single file under the installed 6100 directory.

Username

This is the JDBC driver-specified username that is used to log on to the database.

Password

This is the password for the user.

Test Connection

This button is used to close the current database connection and open a new connection. The status of the connection is display in the bordered label next to it.

Auto-Config Push (ACP) options

The auto-configuration push (ACP) capability enables the ForeSight 6100 to detect and respond to changes in a node that result from installing the node in a new location or replacing the node. When the ForeSight 6100 detects such changes, ACP can respond by installing (pushing) a new node configuration consistent with the new physical location of the element (one that takes into account that the node is in a different slot in a chassis, for example). ACP can be configured to operate under varying levels of constraint:

- **Automatic Push**—The push operation takes place without user intervention (see section “Automatic Push”)
- **Prompt for Push**—The push operation will take place as soon as the user approves (see section “Prompt for Push”)
- **Prompt User (No Push)**—The ACP function has been disabled, but it will still notify a user that an ACP situation has been detected (see section “Prompt User (No Push)” on page 41)
- **Ignore Push**—ACP is disabled and no notice will be given if an ACP situation occurs (see section “Ignore Push” on page 41)

The *Auto-Config Push Options* tab (see figure 36) tells the ForeSight 6100 how to deal with ACP situations. This only affects what the 6100 does if it senses the need for a push; it will not shut-down the sensing mechanism.

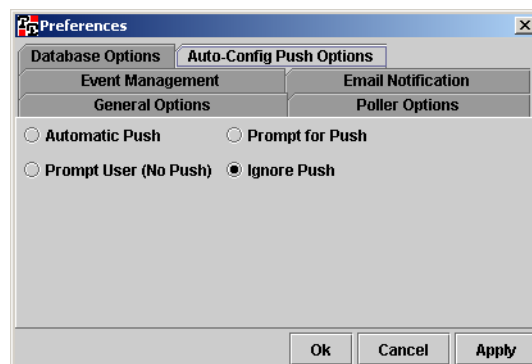


Figure 36. Auto-Config Push Options dialog

Automatic Push

Upon detecting an ACP situation, the ForeSight 6100 will perform a push operation without user approval. Indication messages are stored in the event table for accounting purposes but no other indications will be made.

Prompt for Push

Upon detecting an ACP situation, the ForeSight 6100 will prompt the user for approval before performing a push operation (see figure 37). If the user responds by clicking on the **No** button, the push operation is cancelled.

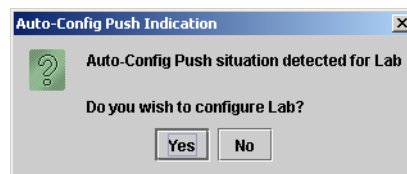


Figure 37. Auto-Config Push indication

Prompt User (No Push)

This setting disables ForeSight 6100's ability to perform a push operation (see [figure 38](#)). It simply notifies a user that an ACP situation has been detected. The user must then take the appropriate steps to install a new configuration on the changed node.



Figure 38. Auto-Config Push Indication

Ignore Push

This setting disables ACP completely. If a situation occurs that would normally have been detected by the ACP function, the ForeSight 6100 user must detect it unaided and then take the appropriate steps to install a new configuration on the changed node.

Add Container

A container can be added from the *Add Container* dialog (see [figure 39](#)) on the *Edit Menu* or by right-clicking a container in the heirarchical tree.



Figure 39. Add container dialog

Parent Container

When a container is created, it will always be inside another container. In other words, the newly created container is a child of the parent container. The *Parent Container* menu is where you choose the parent container of the newly created container.

Note If a container is being added from the right-click menu, this option will be disabled.

Display Name

This is the node name displayed on the management tree view.

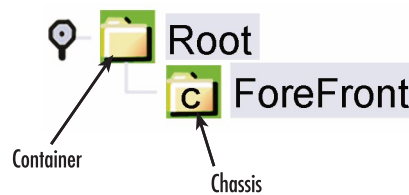


Figure 40. Container types

Type

There are two types of containers available for use (see [figure 40](#)): normal containers, which are capable of holding nodes as well as other containers, and chassis containers. Chassis containers are only assigned to ForeFront chassis because they can control the optional Model 6103 alarm card installed in a ForeFront chassis.

Choose Icon

This button allows the user to select an image to display along with the name on the tree. It can be in either GIF or JPEG format and of any size (16 high x 16 wide or 32 high x 32 wide pixel size is recommended).

Note The image will not be resized, so large or odd-sized images should be avoided. The type specific icon for a container cannot be changed; it is always a folder icon with a colored background. Also, if the tool is using type specific icons this option will be disabled.

Comment

This area is used for adding notes and comments.



Figure 41. Edit Container dialog

Edit Container

The *Edit Container* dialog enables a user to modify a selected container.

Selected Container

This is a drop down box that allows the selection of the proper container to edit. If this dialog is opened through the right-click menu this option will be disabled, and the currently selected container will be selected.

Parent Container

When a container is created, it will always be inside another container. In other words, the newly created container is a child of the parent container. The *Parent Container* menu lets you choose the parent container. If a container is being added from the right-click menu this option will be disabled.

Display Name

This is the container name displayed on the management tree view.

Type

There are two types of containers available for use (see [figure 40](#) on page 42): standard containers that are capable of holding nodes as well as other containers, and chassis containers. Chassis containers are only assigned to ForeFront chassis because they can control the optional Model 6103 alarm card installed in a ForeFront chassis.

Choose Icon

This button allows the user to select an image to display along with the name on the tree. It can be in either GIF or JPEG format and of any size (16 high x 16 wide or 32 high x 32 wide pixel size is recommended).

Note The image will not be resized, so large or odd-sized images should be avoided. The type specific icon for a container cannot be changed; it is always a folder icon with a colored background. Also, if the tool is using type specific icons this option will be disabled.

Comment

This area is used for adding notes and comments.

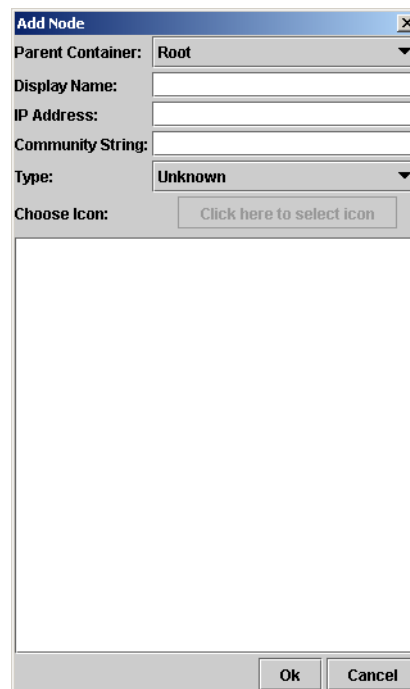


Figure 42. Add Node dialog

Add Node

The *Add Node* dialog (see [figure 42](#)) enables a user to create a node.

Parent Container

When a node is created, it will always be inside a container. The *Parent Container* menu lets you choose the container. If a container is being added from the right-click menu this option will be disabled.

Display Name

This is the node name displayed on the management tree view.

IP Address

This must be a valid IP address and it must be unique.

Note The format of the IP address is not tested when it is added to the database, but later operations will fail if the IP address is not correct.

Community String

This is the SNMP community string for the node. Generally it is the “read” community string which can be the monitor or superuser password.

Type

This drop down determines how the ForeSight treats this node. The only visible effects of this are: the colored icon that will display the node type and the available firmware will be specific to entries for this node’s type.

Choose Icon

This button allows the user to select an image to display along with the name on the tree. It can be in either GIF or JPEG format and of any size (16 high x 16 wide or 32 high x 32 wide pixel size is recommended).

Note The image will not be resized, so large or odd-sized images should be avoided. The type specific icon for a container cannot be changed; it is always a folder icon with a colored background. Also, if the tool is using type specific icons this option will be disabled.

Comment

This area is used for adding notes and comments.

Edit Node

The *Edit Node* dialog enables a user to modify a selected node; its options are the same as the *Add Node* dialog, so refer to section “[Add Node](#)” on page 44 for details.

Database Manager

This executes a database manager (specified in the preferences page). In normal operations (with the embedded database) there is no manager for the database. This option is provided for advanced users using external databases.

Start State Polling

This check box toggles the polling on or off. When checked, polling takes place. The state poller also affects the Polling Indicator.

Chapter 6 **View menu reference**

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Introduction

The following options are available under the *View* menu (see [figure 43](#)):

- **Event Table**—This is the global event table. It displays the newest events from all nodes (see [page 48](#) for details)
- **Refresh Tree**—This menu option causes the entire tree to refresh (including state) (see [page 50](#) for details)
- **Expand All Branches**—This menu option causes all the branches of the tree to expand (see [page 50](#) for details)
- **Collapse All Branches**—This menu option causes all the branches (except the root) to collapse (see [page 50](#) for details)



Figure 43. View Menu

Event Table

This is the global event table. It displays the newest events from all nodes. It can only display as many events as were specified in the preferences page.

Note All tables can be sorted per column by clicking the column header. A reverse sort can be done by <shift>-clicking the column header.

Severity	Event	Node	IP Address	ACK	OID	Trap Value	Date/Time	Comment
Major State	1	Lab	192.168.21...	<input type="checkbox"/>	1.3...	Polled State...	2003-06-2...	

Figure 44. Event Table dialog

The table displays the following information:

- **Severity**—The severity of the event. The different levels of severity are: critical, major, and minor
- **Event**—The unique ID of the event
- **Node**—The node name of the device reporting the event
- **IP Address**—The IP address of the node
- **ACK**—Indicates whether the event was acknowledged (ACK) by the ForeSight 6100 operator. To acknowledge an event, select the desired event in the table, then double-click it to display the *Event Sub Window* (see section “[Event Sub Window](#)” on [page 49](#)).

- **OID**—If an event is generated through SNMP, the *OID* is the object identifier (OID) assigned to the event. Otherwise, a short text description will be assigned
- **Trap Value**—The reason for the event in text
- **Date/Time**—The time when the event occurred
- **Comment**—Displays notes or comments added to the event. To add comments to an event, select the desired event in the table, then double-click it to display the *Event Sub Window* (see section “[Event Sub Window](#)” on page 49)

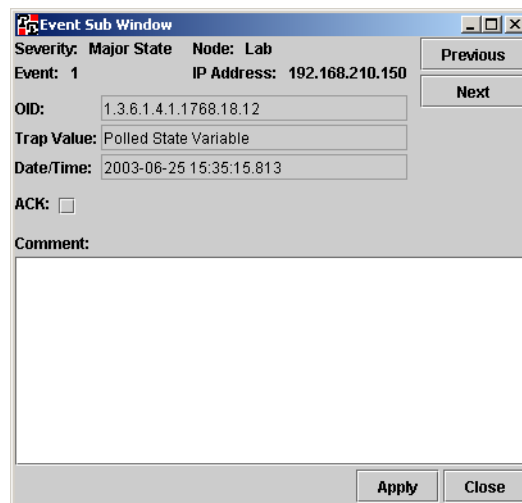


Figure 45. Event Sub Window dialog

Event Sub Window

Double clicking any row on the event table displays the *Event Sub Window* is where you can add comments to an event and acknowledge that you have seen the event (useful when managing events as described in section “[Managing events](#)” on page 22). The *Event Sub Window* displays the following information (see [figure 45](#)):

- **Severity**—The severity of the event. The different levels of severity are: critical, major, and minor
- **Node**—The node name of the device reporting the event
- **Event**—The unique ID of the event
- **IP Address**—The IP address of the node
- **OID**—If an event is generated through SNMP, the *OID* is the object identifier (OID) assigned to the event. Otherwise, a short text description will be assigned
- **Trap Value**—The reason for the event in text
- **Date/Time**—The time when the event occurred
- **ACK**—Checkbox where the ForeSight 6100 operator can acknowledge having seen the event
- **Comment**—This area is used for adding notes and comments

Note The global *Event Sub Window* is the only place where an event's comment can be edited.

To display other events in the event table, click the **Previous** button to display the previous event or the **Next** button to display the next event in the table.

When you are finished with the event in the *Event Sub Window*, click the **Apply** button to save any changes you have made or click the **Close** button to close the window without saving changes.

Refresh Tree

This menu option causes the entire tree to refresh (including state). Also, the state poller is reset to force a poll.

Expand all Branches

This menu option causes all the branches of the tree to expand, displaying all nodes and containers.

Collapse all Branches

This menu option causes all the branches (except for Root and the child containers directly under it) to collapse.

Chapter 7 **Help menu reference**

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Introduction

The following options are available under the *Help* menu (see [figure 46](#)):

- Online access to the Getting Started Guide (see section “[User Manual](#)”)
- Patton Home Page (see section “[Patton Home Page](#)”)
- About (see section “[About](#)”)

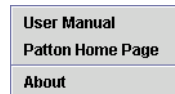


Figure 46. Help Menu

User Manual

Selecting the *User Manual* menu option causes the Getting Started Guide you are currently reading to be displayed online in portable document format (PDF).

Patton Home Page

Selecting the *Patton Home Page* menu option causes a web browser to open and display the Patton Electronics home page at <http://www.patton.com>.

About

Selecting the *About* menu option displays ForeSight 6100 EMS version information.

Chapter 8 **Tree structure reference**

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Introduction

The tree displays a hierarchical view of the managed network. The tree is divided into containers and nodes. The actual tree appearance depends on options selected in the *Preferences* dialog. Figure 47 is an example with the colored icons turned on (see section “Colorized Icon (Using Type Specific Icon)” on page 37), and colored text background turned off (see “Colorized Text Background” on page 37).

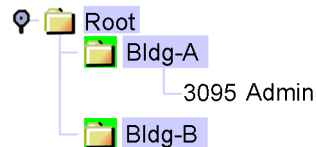


Figure 47. Tree structure

Containers

In the ForeSight 6100 EMS, *containers* are used to group and organize *nodes*. Moreover, the color of the icon or text background for the container indicates the state of the node with the most severe error condition.

For example, figure 48 shows a campus network comprising a Patton Model 3095 DACS, a ForeFront AIS (fully loaded with 3096RC blades), and two 1001R rack systems connected to a PC running the 6100 EMS.

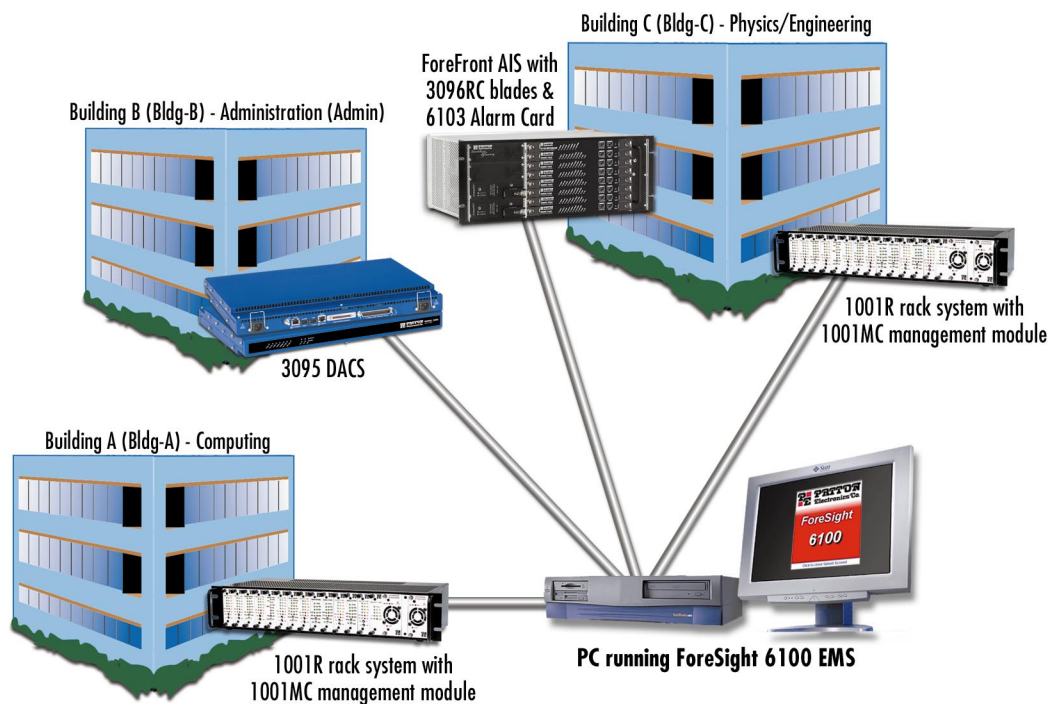


Figure 48. Sample network

An error at one of the ForeFront 3096RC blades in Building C would be displayed on the ForeSight 6100 EMS as shown in [figure 49](#) (assuming that both colorized icons and text background options have been enabled). The *Root*, *Bldg-C*, and *ForeFront* parent containers would be colored red to indicate a problem with a child.

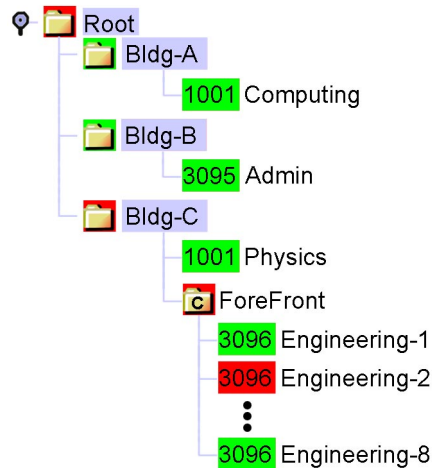


Figure 49. Sample ForeSight 6100 display

Container's right-click menu

The right-click menu of a container displays the following options for manipulating the container.

Edit option

Selecting the Edit option displays the *Edit Container* dialog which enables a user to modify a selected container (see section “[Edit Container](#)” on page 43 for details).

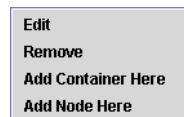


Figure 50. Container context-sensitive menu

Remove option

Remove is used to delete the selected container, as well as its children. Root is the only container that cannot be removed.

Add Container Here option

Selecting the *Add Container Here* option displays the *Add Container* dialog so you can create a container at the current location (see section “[Add Container](#)” on page 41 for more details).

Add Node Here option

Selecting the *Add Node Here* option displays the *Add Node* dialog so you can create a node at the current location (see section “[Add Node](#)” on page 44 for more details).

Container panel

The container panel, labeled *General Information*, provides information on the selected container as well as items that affect the general state of the container.

Name

The name of the container.

Worst child severity

The state of the child with the most severe error state.

Comment

Displays the contents of the comments box entered in the *Add Container* (see section “Comment” on page 42) or *Edit Container* (see section “Comment” on page 44) dialog boxes.

Disable Severity Propagation

Selecting *Disable Severity Propagation* prevents this container from informing its parent container of its current severity. *Re-Enable Propagation on Severity Change* causes *Disable Severity Propagation* to be turned off if the state changes.

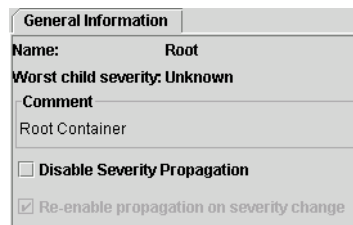


Figure 51. Container’s center panel

The Chassis

A chassis container has added capability to communicate with the Model 6103 alarm card in a ForeFront chassis. Because the alarm card has no IP communication capability, it requires a proxy that will intercept its communications and pass them on to the ForeSight 6100 via IP. Currently, only the Patton Model 3096RC can be used in this proxy role.

Note The ForeSight 6100 makes the assumption that its chassis are set up exactly like their real world counterparts.

Proxy Information

The *Proxy Information* tab (see [figure 52](#)) enables the user to determine which device in the chassis will be used as the alarm card proxy. *Proxy Information* dialog is already configured with a different proxy device, it must be deleted by clicking the **Clear Proxy** button before another can take its place. After a proxy device has been selected, the ForeSight 6100 will automatically configure it to communicate with the alarm card.

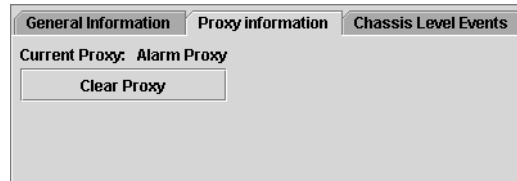


Figure 52. Proxy Information dialog

Choose Proxy

When choosing a proxy, the *Choose Proxy* dialog box (see [figure 53](#)) will be displayed. Only devices capable of communication with the 6103 alarm card will be shown in the list (currently only the Patton Model 3096RC has this capability). There must be at least one Model 3096RC blade in the chassis to act as a proxy for the Model 6103 alarm card.

Note The device chosen as the proxy *must* have as its community string the “write” community string (that is, the superuser password).

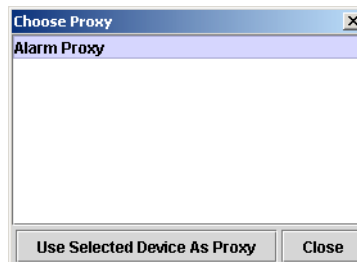


Figure 53. Choose Proxy dialog

Chassis Level Events

A proxy relays events from the 6103 alarm card to the ForeSight 6100. These events originate from the sending 3096RC but are specially formatted to indicate the fact they originate from the alarm card. Any events originating from an alarm card will be displayed on this *Chassis Level Events* tab (see [figure 54](#)). The events table looks identical to all others in the system except that it only displays chassis-level events.

General Information		Proxy information		Chassis Level Events				
Severity	Event	Node	IP Address	ACK	OID	Trap Value	Date/Time	
Major	10	Alarm Proxy	10.10.12.150	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	System: Temperature Fail: Active	2003-07-21 12:10:30	
Critical	9	Alarm Proxy	10.10.12.150	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	System: Alarm Card Fail: Active	2003-07-21 12:10:18	
Informational	3	Alarm Proxy	10.10.12.150	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	System: Alarm Card Fail: Inactive	2003-07-21 12:09:59	
Informational	2	Alarm Proxy	10.10.12.150	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	System: Temperature Fail: Inactive	2003-07-21 12:09:59	
Informational	1	Alarm Proxy	10.10.12.150	<input type="checkbox"/>	1.3.6.1.4.1.1768.18	System: Power Supply Fail: Inactive	2003-07-21 12:09:59	

Figure 54. Chassis Level Events table

The Node

A node is an SNMP-enabled ForeFront Management Interface Specification (FMIS) compliant device (such as a Model 3095 DACS) on the network.

Node's right-click menu

The right-click menu of a node displays the following options for manipulating the node.



Figure 55. Node context-sensitive menu

Edit option

Selecting the Edit option displays the *Edit Node* dialog which enables a user to modify a selected node (see section “[Edit Node](#)” on page 45 for details).

Remove option

Remove is used to delete the selected node.

Web Page option

Selecting the *Web Page* option starts a web browser and causes it display the web page at the IP address of the selected node.

Telnet option

Selecting the *Telnet* option starts a telnet client pointed at the node

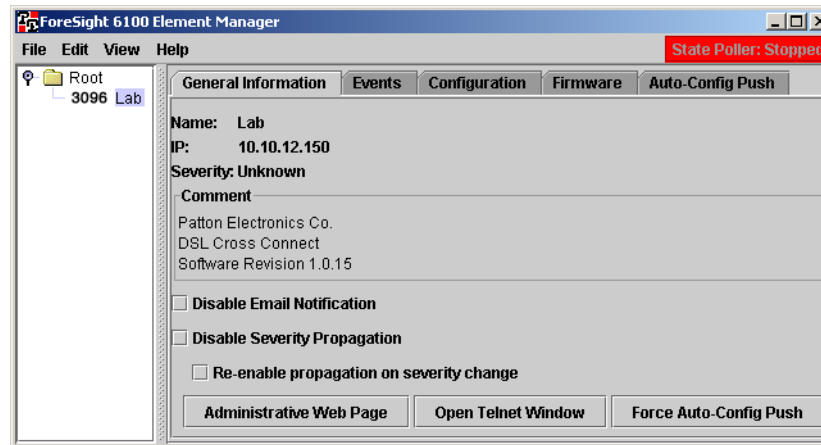


Figure 56. Node center panel

Node panel

The node panel (see [figure 56](#)) contains the following tabs:

- **General information**—Contains general information about the node as well as items that affect the general state of the node (see section [“General Information”](#) for more details)
- **Events**—Displays the events for the selected node (see section [“Events”](#) on page 60 for more details)
- **Configuration**—The configuration of Patton devices is shown on this tab (see [“Configuration”](#) on page 60 for more details)
- **Firmware**—Firmware images for the selected box are listed on this tab (see [“Firmware”](#) on page 61 for details)
- **Auto-Config Push (ACP)**—This tab controls how a specific node deals with ACP situations (see [“Auto-Config Push”](#) on page 62 for details)

General Information

As the name implies, *General Information* is displayed on this page, as well as items that affect the general state of the box. *Disable E-mail Notification* causes the ForeSight 6100 EMS to ignore events generated by this device for purposes of sending e-mails. *Disable Severity Propagation* prevents this node from telling its parent container its current severity. *Re-Enable Propagation on Severity Change* causes the above option to be turned off if the state changes.

The *General Information* dialog includes the following buttons:

- **Administrative Web Page**—Clicking on this button causes a web browser to launch and display the web page for the current node so you can manage the node
- **Open Telnet Window**—Clicking on this button causes the Telnet client to launch “pre-loaded” with the address of the current node so you can manage the node
- **Force Auto-Config Push**—Clicking on this button causes the ForeSight 6100 to check immediately for an ACP condition instead of waiting until the ForeSight 6100 performs a poll of the node

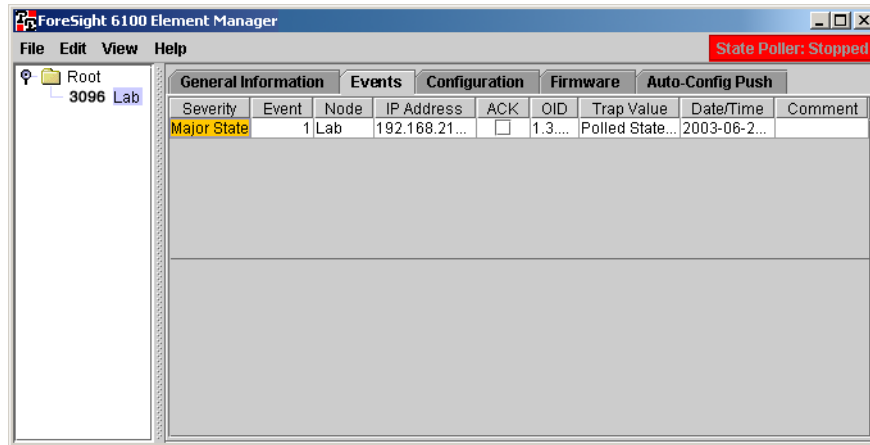


Figure 57. Events dialog

Events

The Events dialog (see [figure 57](#)) displays the newest events from the selected node. It only displays as many events as were specified in the preferences page.

Note The table can be sorted per column by clicking the column header. A reverse sort can be done by <shift>-clicking the column header.

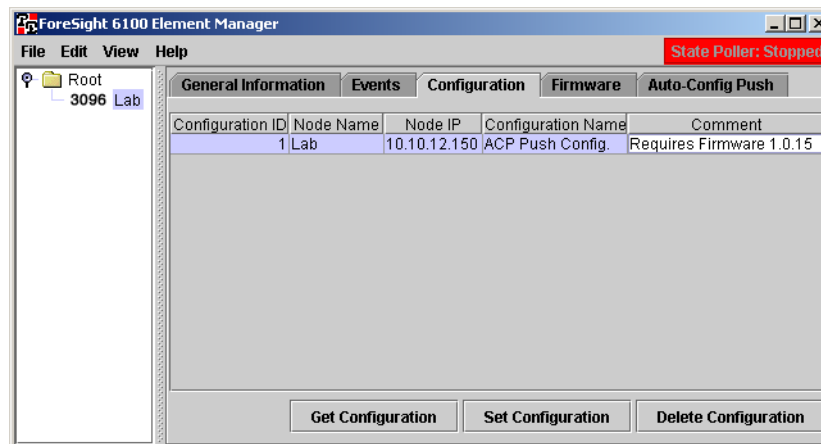


Figure 58. Configuration dialog

Configuration

The Configuration tab is where you can do the following:

- Get a node's configuration information by clicking the **Get Configuration** button. The configuration file is automatically named and stored at the ForeSight 6100. You should do a get configuration for each node in your network because the Auto-Config Push feature requires the stored files so it can automatically configure replacement nodes (see section [“Auto-Config Push”](#) on page 62 for details).
- Assign a configuration to a node by clicking the **Set Configuration** button.

Note Only one operation can be done on a single box at a single time. To that end if either button is clicked both will be disabled until that operation completes.

During a **Get Configuration** or **Set Configuration** operation, a password window will be displayed prompting for a password. This password should be the “write” community string (the superuser password). (This string is not stored internally in any way). A valid configuration will only be returned if the proper write community string is used. If the read community string is used, the ForeSight 6100 EMS will download an invalid configuration. In either case a success message is displayed to the user.

Note Because of the way that HTTP works, the *Set Configuration* will return after the proper opening of a stream, *not* when the file is completely downloaded. Also, during a set request only the topmost selected configuration will be downloaded to the box.

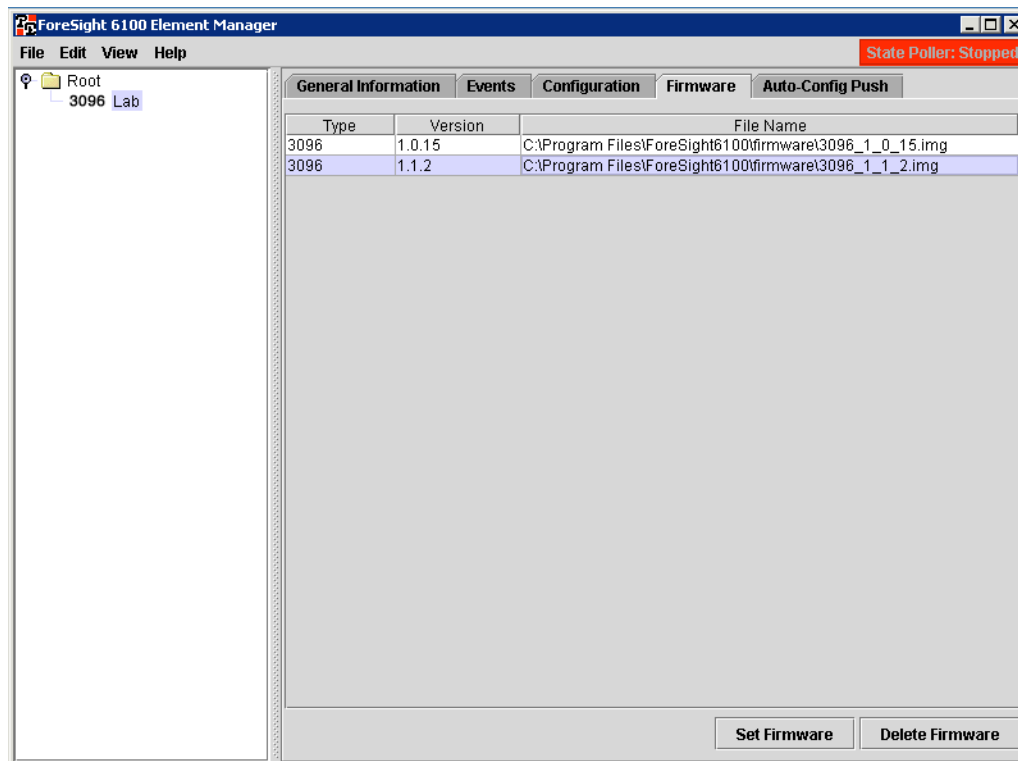


Figure 59. Firmware dialog

Firmware

Firmware images for the selected box are listed on this tab (see [figure 59](#)). Firmware images are stored by node type, so every node of the same type will have the same firmware listing (see section “[Import Firmware Image](#)” on page 26 for details on importing firmware images). From this tab, firmware can be uploaded to the box, but the user will be prompted for authentication.

Note The progress of the upload is not displayed nor is the completion of the upload.

Auto-Config Push

The auto-configuration push (ACP) capability enables the ForeSight 6100 to detect and respond to changes in a node that result from installing the node in a new location or replacing the node. When the ForeSight 6100 detects such changes, ACP can respond by installing (pushing) a new node configuration consistent with the new physical location of the element (one that takes into account that the node is in a different slot in a chassis, for example). ACP can be configured to operate under varying levels of constraint:

- Automatic push (meaning the push operation takes place unconstrained without user intervention)
- Prompt for push (the push operation will take place as soon as the user approves)
- Prompt user (no push) (the ACP capability is disabled so it only notify a user that an ACP situation has been detected)
- Ignore push (ignore ACP situations)

The *Auto-Config Push* tab (see [figure 60](#)) tell the 6100 controls how a specific node deals with ACP situations. It is divided into *Options* section and *Configuration* sections.

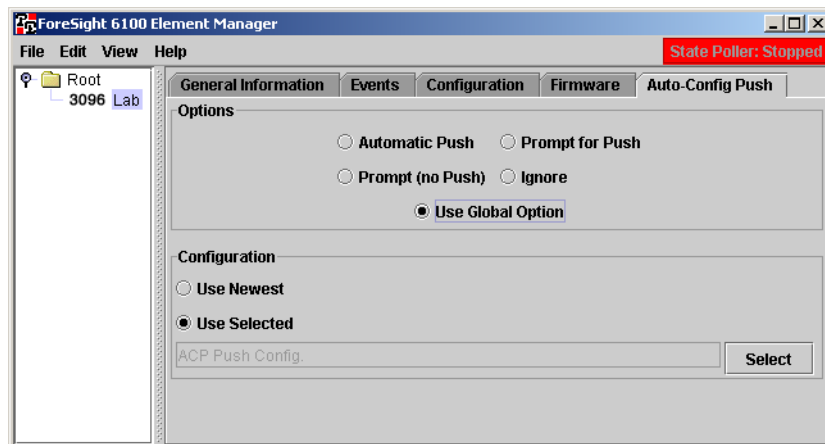


Figure 60. Auto-Config Push dialog

Options. The following options are available:

Note A node-specific ACP setting will override a global ACP setting (see [“Auto-Config Push \(ACP\) options”](#) on page 40 for details about global settings). The default setting is *Use Global Option*.

- **Automatic Push**—Upon detecting an ACP situation, the ForeSight 6100 will perform a push operation without user approval. Indication messages are stored in the event table for accounting purposes but no other indications will be made.
- **Prompt for Push**—Upon detecting an ACP situation, the ForeSight 6100 will prompt the user for approval before performing a push operation. If the user responds by clicking on the **No** button, the push operation is cancelled.

- **Prompt (No Push)**—This setting disables ForeSight 6100’s ability to perform a push operation. It simply notifies a user that an ACP situation has been detected. The user must then take the appropriate steps to install a new configuration on the changed node.
- **Ignore**—This setting disables ACP completely. If a situation occurs that would normally have been detected by the ACP function, the ForeSight 6100 user must detect it unaided and then take the appropriate steps to install a new configuration on the changed node
- **Use Global Option**—When this option is set, the global ACP settings are in effect (see “[Auto-Config Push \(ACP\) options](#)” on page 40 for details about global settings).

Configuration. This defines the configuration that the 6100 should use for an ACP to this device. The default is *to Use Newest*, which will cause the ForeSight 6100 to push the most current configuration file. If no configuration exists for a node, the 6100 EMS will be unable to ACP.

Configurations are downloaded directly from the managed device. Getting, setting, and deleting configurations is done in the *Configuration* tab (see section “[Configuration](#)” on page 60). The ACP configuration selection is driven by the list of stored configuration, which is shown in the *Configuration* tab.

Chapter 9 **Contacting Patton for assistance**

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Introduction

This chapter contains the following information:

- “Contact information”—describes how to contact Patton technical support for assistance.
- “Warranty Service and Returned Merchandise Authorizations (RMAs)”—contains information about the RAS warranty and obtaining a return merchandise authorization (RMA).

Contact information

Patton Electronics offers a wide array of free technical services. If you have questions about any of our other products we recommend you begin your search for answers by using our technical knowledge base. Here, we have gathered together many of the more commonly asked questions and compiled them into a searchable database to help you quickly solve your problems.

- Online support—available at www.patton.com.
- E-mail support—e-mail sent to support@patton.com will be answered within 1 business day
- Telephone support—standard telephone support is available Monday through Friday, from 8:00 A.M. to 5:00 P.M. EST (8:00 to 17:00 UTC-5), Monday through Friday by calling +1 (301) 975-1007

Warranty Service and Returned Merchandise Authorizations (RMAs)

Patton Electronics is an ISO-9001 certified manufacturer and our products are carefully tested before shipment. All of our products are backed by a comprehensive warranty program.

Note If you purchased your equipment from a Patton Electronics reseller, ask your reseller how you should proceed with warranty service. It is often more convenient for you to work with your local reseller to obtain a replacement. Patton services our products no matter how you acquired them.

Warranty coverage

Our products are under warranty to be free from defects, and we will, at our option, repair or replace the product should it fail within one year from the first date of shipment. Our warranty is limited to defects in workmanship or materials, and does not cover customer damage, lightning or power surge damage, abuse, or unauthorized modification.

Out-of-warranty service

Patton services what we sell, no matter how you acquired it, including malfunctioning products that are no longer under warranty. Our products have a flat fee for repairs. Units damaged by lightning or elephants may require replacement.

Returns for credit

Customer satisfaction is important to us, therefore any product may be returned with authorization within 30 days from the shipment date for a full credit of the purchase price. If you have ordered the wrong equipment or you are dissatisfied in any way, please contact us to request an RMA number to accept your return. Patton is not responsible for equipment returned without a Return Authorization.

Return for credit policy

- Less than 30 days: No Charge. Your credit will be issued upon receipt and inspection of the equipment.
- 30 to 120 days: We will add a 20% restocking charge (crediting your account with 80% of the purchase price).
- Over 120 days: Products will be accepted for repairs only.

RMA numbers

RMA numbers are required for all product returns. You can obtain an RMA by doing one of the following:

- Completing a request on the RMA Request page in the *Support* section at www.patton.com
- By calling +1 (301) 975-1000 and speaking to a Technical Support Engineer
- By sending an e-mail to returns@patton.com

All returned units must have the RMA number clearly visible on the outside of the shipping container. Please use the original packing material that the device came in or pack the unit securely to avoid damage during shipping.

Shipping instructions

The RMA number should be clearly visible on the address label. Our shipping address is as follows:

Patton Electronics Company

RMA#: xxxx

7622 Rickenbacker Dr.

Gaithersburg, MD 20879-4773 USA

Patton will ship the equipment back to you in the same manner you ship it to us. Patton will pay the return shipping costs.

