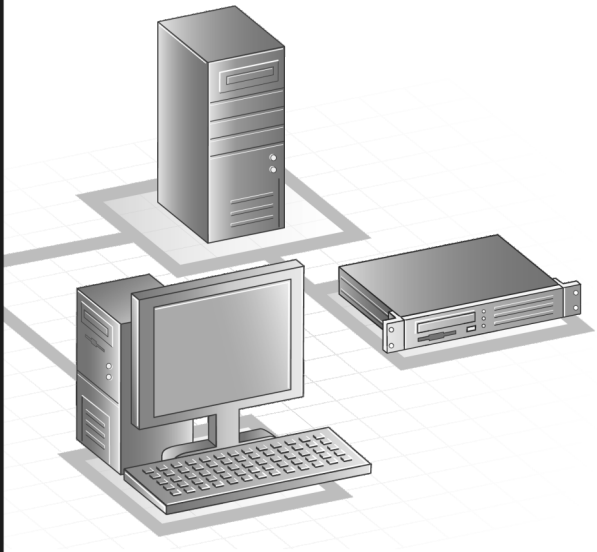




# INSTALLATION AND USER'S GUIDE

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## ADAPTEC STORAGE EXAMINER



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- Before contacting Technical Support, you need your unique 12-digit TSID number. The TSID number identifies your product and support status.
- The TSID number is included on two white, bar-coded labels, like the example below.



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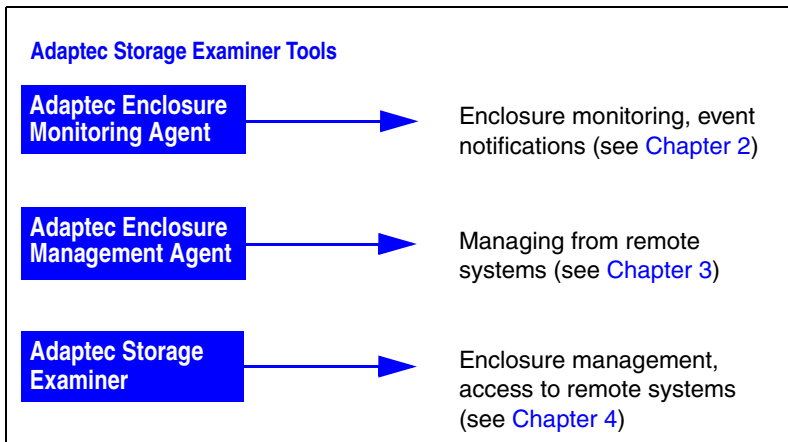


## Installing and Navigating Adaptec Storage Examiner

### In this Chapter...

<i>Installing the Adaptec Storage Examiner Software Suite</i>	1-2
<i>Navigating the Software</i>	1-4

Adaptec Storage Examiner is a suite of software tools that allows system administrators to install, manage, and monitor JBOD storage enclosures attached to a host system.



For more information about this release of Adaptec Storage Examiner, refer to the README file on the Adaptec External Storage Resources & Applications (ESRA) CD included in the kit.

# Installing the Adaptec Storage Examiner Software Suite



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**Note:** If a previous version of Adaptec Storage Examiner is already installed on your system then it must be removed before installing this version.

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You must be a user with administrative/root privileges to complete the installation. To install Adaptec Storage Examiner, follow the instructions for your operating system:

- To install on Microsoft® Windows®, see [page 1-2](#).
- To install on Linux operating system, see [page 1-3](#).
- To install on Sun™ Solaris™ operating system, see [page 1-3](#).



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**Note:** For information about operating system support, refer to the README file on the ESRA CD included in the kit, or check the Adaptec Support Knowledgebase at [ask.adaptec.com](http://ask.adaptec.com).

---

## Installing on Windows

To install Adaptec Storage Examiner on Windows systems:

- 1 Power on your computer.
- 2 Insert the ESRA CD into the CD-ROM drive.  
The Adaptec External Storage Resources & Applications (ESRA) menu opens.
- 3 In the Management Software list, click **Windows** under Adaptec Storage Examiner.
- 4 In file download dialog box, click **Open**.
- 5 Follow the on-screen instructions to complete the installation.

## **Installing on Linux**

Adaptec Storage Examiner is distributed in RedHat Package Manager (RPM) format for Linux.

To install Adaptec Storage Examiner on a Linux system, use this command:

```
# rpm -ihv /mnt/cdrom/linux/ASE-2.1-<bb>.i386.rpm
```

where <bb> is the build number.

A package called ASE is installed into /usr/local/ASE.

## **Uninstalling on Linux**

To uninstall Adaptec Storage Examiner, use this command:

```
# rpm -e ASE
```

## **Installing on Solaris**

Adaptec Storage Examiner is distributed in package format for Solaris. To install Adaptec Storage Examiner on a Solaris system, use this command:

```
# pkgadd -d /cdrom/ase_v21_<bb>/solaris/ASE-2.1-<bb>.pkg
```

where <bb> is the build number.

A package called ASE is installed by default to /usr/local/ASE. You can select a different installation folder, if required.

Depending on how the installation media was mounted, the names of the folders and files on it may appear in ISO format (8.3). In this case, the installation command above must be adjusted accordingly.

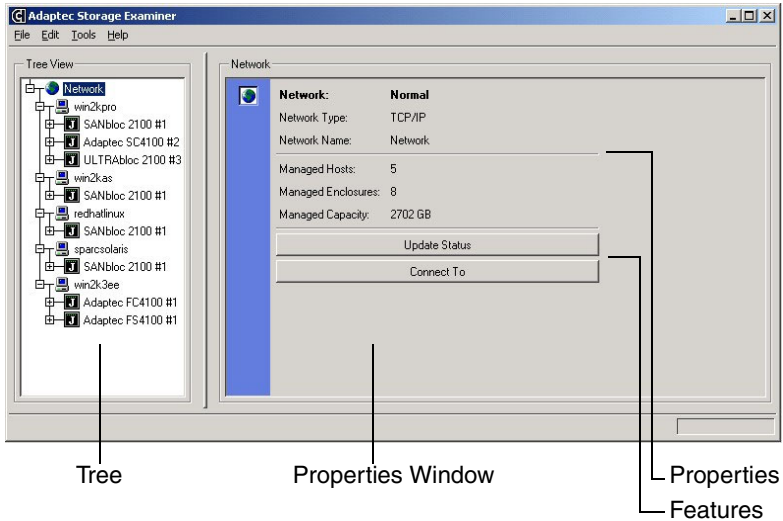
## **Uninstalling on Solaris**

To uninstall Adaptec Storage Examiner, use this command:

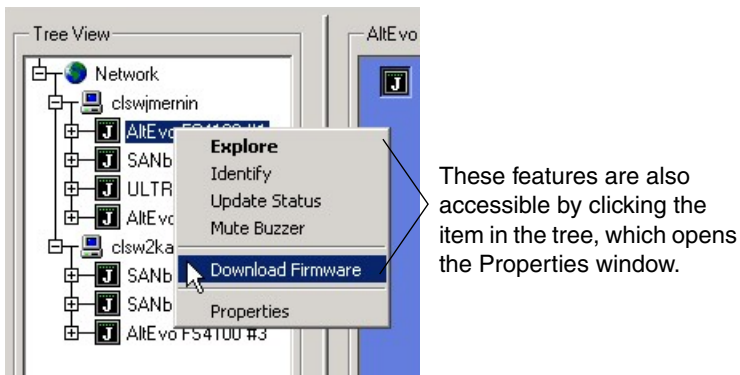
```
# pkgrm ASE
```

## Navigating the Software

The main Adaptec Storage Examiner screen is divided into two parts—the tree on the left, and a Properties window on the right. In the Properties window, you can view the properties of the item currently selected in the tree and change them to suit your specific needs.



You can access the properties and features of any item by right-clicking that item in the tree.



Alternately, access the Properties window by clicking an item in the tree.

# Using the Adaptec Enclosure Monitoring Agent

## In this Chapter...

<i>Using the Monitoring Agent on Windows</i>	2-2
<i>Using the Monitoring Agent on Unix</i>	2-3
<i>Viewing and Changing the Monitoring Agent Properties</i>	2-4
<i>Disabling the Monitoring Agent</i>	2-10

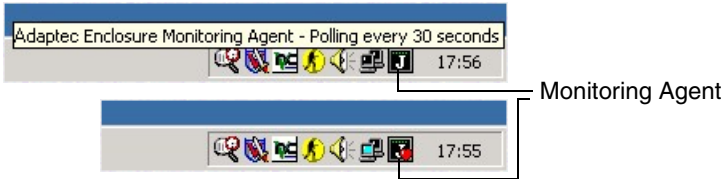
The Adaptec Enclosure Monitoring Agent (Monitoring Agent) runs in the background, and monitors the attached enclosures for faults, temperature changes, and other events.

You can configure the Monitoring Agent to report events as required, by email, event log, SNMP, local file, console, or script.

## Using the Monitoring Agent on Windows

The Monitoring Agent runs as a service on Windows systems, and is automatically installed and launched as part of the product installation.

When the Monitoring Agent is running, its status is represented by a special icon in the system tray.



By default, the Monitoring Agent is configured to run automatically at system boot. You can change the start-up setting to Manual in the Windows Services Control Panel.

You can control the Monitoring Agent from two places:

- From the Windows **Start** menu, select **Programs, Adaptec Storage Examiner, Management Agent**.
- From the Windows Services Control Panel.

## Configuring the Monitoring Agent on Windows

You can configure the Monitoring Agent three ways:

- Double-click the **Monitoring Agent** icon on the system tray.
- Right-click the **Monitoring Agent** icon on the system tray, then select **Properties**.
- From the Windows **Start** menu, select **Programs, Adaptec Storage Examiner, Monitoring Agent, Configure**.

## Using the Monitoring Agent on Unix

The Monitoring Agent runs as a daemon called aseMonitor on Unix, and can be controlled by a script called aseMon. It is started automatically during Adaptec Storage Examiner installation.

To control this daemon on your Unix system, use these commands:

```
# cd /usr/local/ASE/bin
# ./aseMon start
```

The aseMon script can be used to stop, restart, and configure the daemon, and view its current run status.

The Monitoring Agent is configured to run automatically at system boot and stop automatically when the system shuts down. You can change these default settings by removing or modifying these files:

Operating System	Start-up	Shutdown
Solaris	/etc/rc2.d/S99ase	/etc/rcS.d/K99ase
Redhat Linux	/etc/rc.d/rc5.d/S99ase	/etc/rc.d/rc1/d/K99ase
SuSE Linux	/etc/init.d/rc5.d/S99ase	/etc/init.d/rc5.d/K99ase



**Note:** Removing these files will affect the operation of the Adaptec Enclosure Management Agent. (See [page 3-2](#).)

## Configuring the Monitoring Agent on Unix

To configure the Monitoring Agent, run these commands:

```
# cd /usr/local/ASE/bin
# ./aseMon configure
```

## Viewing and Changing the Monitoring Agent Properties

When you configure the Monitoring Agent (see [page 2-2](#) for Windows instructions or [page 2-3](#) for Unix instructions), the Properties panel opens. (See the Figure on [page 2-4](#).)

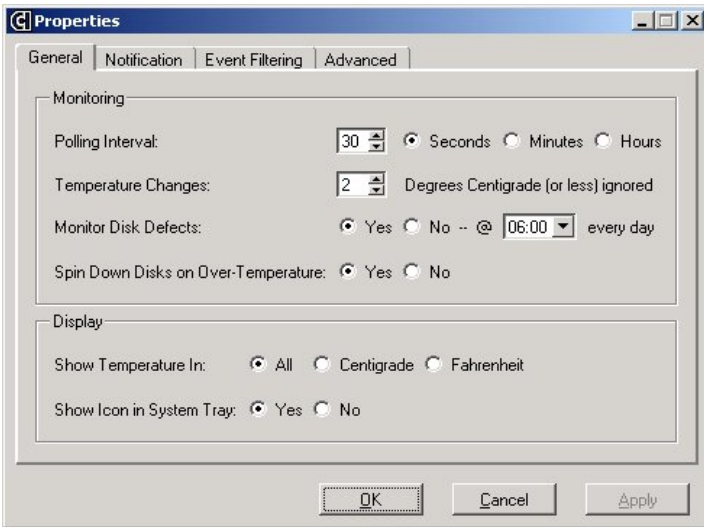
The Properties panel has four tabs of information, described in the rest of this section:

- **General**—View or change the monitoring settings. (See below.)
- **Notification**—View or change the event notification settings. (See [page 2-6](#).)
- **Event Filtering**—View or change the settings that control which types of events cause which type of notifications. (See [page 2-8](#).)
- **Advanced**—View or change advanced settings. (See [page 2-9](#).)

Any configuration changes you make are applied at the next poll.

### About the General Tab

In the Properties panel, click the **General** tab (shown in the next figure) to view or change general properties and settings.





- **Polling Interval**—Specifies the number of seconds/minutes/hours between each hardware status update (poll). The recommended minimum value is 5 seconds; the recommended maximum value is 24 hours.
- **Temperature Changes**—Specifies the number of degrees Centigrade by which a temperature sensor must change before a suitable event is generated. This setting allows temperature fluctuations to be filtered out of the monitoring process.
- **Monitor Disk Defects**—Specifies whether the agent should check the disk drives in each enclosure for defects. When this setting is enabled, the Monitoring Agent checks the grown defects of each disk drive once per day, at the specified time. If the number of grown defects is greater than the size of the disk in GB, a Warning event is generated.
- **Spin Down Disk on Over-Temperature**—Specifies whether the agent should attempt to spin down all of the disk drives in a given enclosure if the temperature within that enclosure exceeds its Critical Threshold.



**Note:** This feature is intended to protect data on the disk drives if the enclosure temperature rises above a safe operating level.

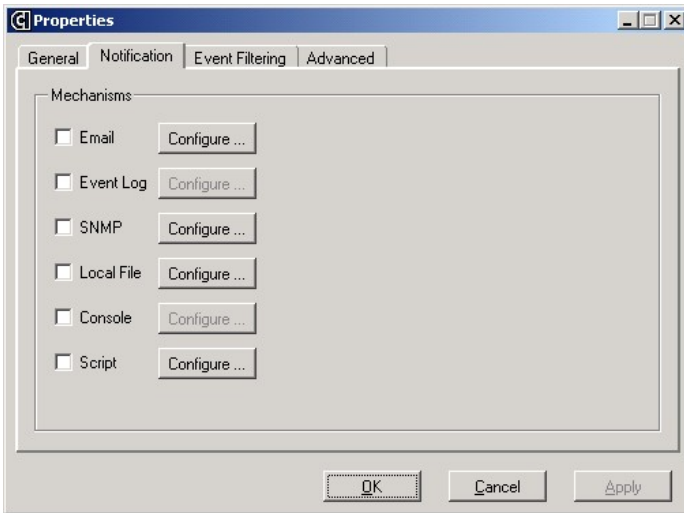
If this occurs, you should be able to use Adaptec Storage Examiner to spin the disk drives back up again after the temperature has returned to normal. However, for some Fibre Channel enclosures, it may be necessary to cycle the power of the enclosure to spin up the disk drives.

---

- **Show Temperature In**—Specifies temperature scale: degrees Centigrade, Fahrenheit, or both.
- **Show Icon in System Tray**—(*Windows systems only*) Controls whether the Monitoring Agent status icon appears in the system tray.

## About the Notification Tab

In the Properties panel, click the **Notification** tab (shown in the next Figure) to view or change how event notifications are sent.



- **Email**—When this setting is enabled, an email message is sent to one or more Internet email addresses whenever an appropriate event occurs.

If you enable email notifications, enter this information, as required:

- The name or address of an SMTP-compatible email server on the network. Anonymous SMTP access must be enabled on this server.
- A list of Internet email addresses (and associated event severities) that will receive an email when an event occurs. (Events with differing severities can be sent to different email addresses.)



---

**Note:** Event Filtering can override email notification settings. See [page 2-8](#) for more information.

---

- The name of a text file on the local system to be included in the body of each email message. This setting is optional.

- A reply-to address. If you don't specify an address, the Monitoring Agent automatically generates one based on the name of the host system.
- A reply-to name. If you don't specify a name, the Monitoring Agent automatically generates one.
- **Event Log**—When this setting is enabled, an event log entry is generated whenever an appropriate event occurs.

On Windows systems, all events are logged to the Application section of the event log and can be viewed using the Event Viewer application.

On Unix systems, all events will be sent to the daemon message facility of the syslog daemon. These levels should be used:

Severity	Syslog Level	Syslogd.conf
Information	LOG_INFO	daemon.info
Warning	LOG_WARNING	daemon.warn
Critical	LOG_CRIT	daemon.crit

- **SNMP**—When this setting is enabled, an SNMP Trap message is sent to an SNMP Management Station whenever an appropriate event occurs.

If you enable SNMP notifications, enter this information, as required:

- The IP addresses or host name addresses of the SNMP management stations on the network that are listening for SNMP traps on the set trap port (see the next bullet point.)
- The trap port number on which the SNMP traps should be sent. By default, the trap port number is set to 162.
- The SNMP version to use when the trap is being sent. *SNMP v1* (default setting) and *SNMP v2* are both supported.
- The community string to be used when sending the trap. By default, the community string is set to *public*.

- **Local File**—When this setting is enabled, information is appended to a file on the local system whenever an appropriate event occurs.

If you enable Local File notifications, enter the filename and path of the file.

- **Console**—When this setting is enabled, a message is sent to the console of the system where the Monitoring Agent is running whenever an appropriate event occurs.

On Windows systems, console notifications create a modal dialog box which appear at the system console, even if no users are logged in.

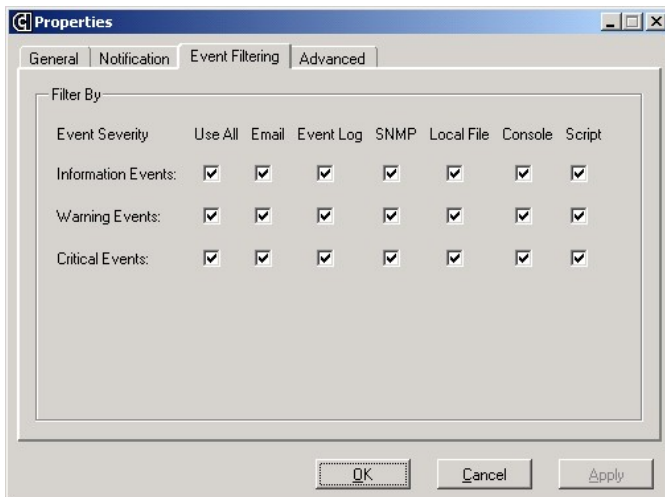
On Unix systems, console notifications generate messages which are sent to /dev/console.

- **Script**—When this setting is enabled, a program is executed on the local system whenever appropriate event occurs. This program includes a string containing the details of the event.

If you enable this setting, you must also enter the name and path (or script name) of the executable program on the local system.

## About the Event Filtering Tab

In the Properties panel, click the **Event Filtering** tab (shown in the next Figure) to view or change how you are notified about events of different severities.



You can choose to receive different types of notifications for each of the three event severity levels (Information, Warning, and Critical.) See [About the Notification Tab on page 2-6](#) for more information about event notifications.



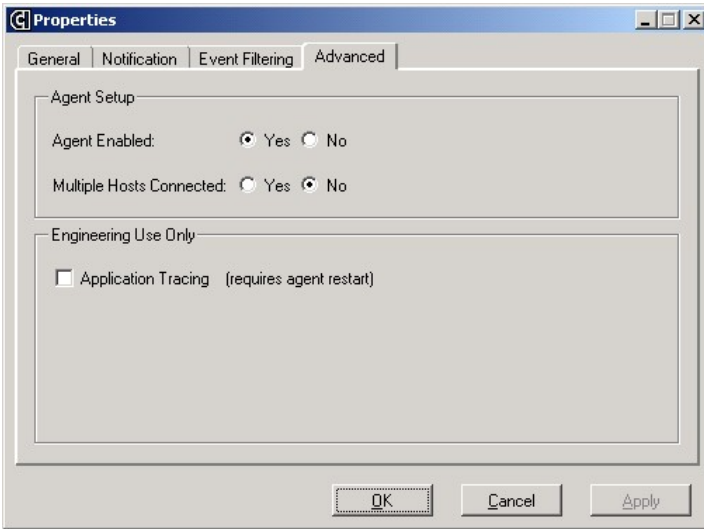
---

**Note:** The settings on the Event Filtering tab override the settings on the Notification tab. Be sure not to create conflicting settings that may disable critical event notifications.

---

## About the Advanced Tab

In the Properties panel, click the **Advanced** tab (shown in the next Figure) to view or change three other settings.



- **Agent Enabled**—When this setting is enabled, a normal enclosure status update is completed at each poll interval. When this setting is disabled, the enclosure status update does not occur. (See [Disabling the Monitoring Agent on page 2-10](#) for more information.)

- **Multiple Hosts Connected**—Specifies the amount of data that is read from the attached enclosures during each status update.

Select **No** for this setting to increase performance if only one host system is connected to the enclosures being monitored. (Short SES reads will take place during each status update.)

Select **Yes** for this setting if multiple host systems are connected to the enclosures being monitored.



**Note:** If multiple host systems are connected to the enclosures and you select **No** for this setting, only one of the attached hosts will detect status changes.

---

- **Application Tracing**—This option is used to help field engineers and Adaptec Technical Support correct problems with the software. If you require assistance with Adaptec Storage Examiner, you may be asked to enable this option; otherwise, Application Tracing should remain disabled.

## Disabling the Monitoring Agent

You can dynamically configure the monitoring agent to not communicate with the attached hardware at scheduled status update times. You might want to do this when other applications require exclusive access to system bandwidth.

There are three ways to disable the monitoring agent:

- Open the **Properties** panel, select the **Advanced** tab, and set **Enable Agent** to **No**. Then, apply the changes.
- In Adaptec Storage Examiner, select **View**, then select **Options**. Click inside the **Disable Adaptec Enclosure Monitoring Agent** check box so that a check mark appears, then apply the changes.

- On the system where the agent is running, perform the procedure provided for your operating system (manually or automatically from another application).

- **Windows Users**



**Note:** This option is intended for Advanced users *only*. Adaptec *highly recommends* that only expert Windows users attempt to update the Windows registry.

---

Change this registry value to a positive, nonzero number:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Adaptec\Adaptec Storage Examiner\SuspendESPoll

The value will be used as the new polling interval for the agent and will determine how often the agent will check to see if it has been re-enabled.

- **Unix Users**

Create this file on your system. Please note that the filename is case-sensitive:


/tmp/espoll.suspend

This file does not need any special contents. The *existence* of the file causes the agent to be disabled. The new polling interval is 10 seconds.

# Using the Adaptec Enclosure Management Agent

## In this Chapter...

<i>Using the Management Agent on Windows</i>	3-2
<i>Using the Management Agent on Unix</i>	3-2
<i>Configuring the Management Agent</i>	3-3



The Adaptec Enclosure Management Agent (Management Agent) runs in the background and allows the attached enclosures to be managed by a remote system running Adaptec Storage Examiner.

Except during startup, the Management Agent does not communicate with the attached enclosure unless instructed to by a client system.

To use the Management Agent, follow the instructions provided for your operating system.



## Using the Management Agent on Windows

The Management Agent runs as a service on Windows systems, and is automatically installed and launched as part of the Adaptec Storage Examiner installation.

By default, the Management Agent is configured to run automatically at system boot. You can change the start-up setting to Manual in the Windows Control Panel.

You can control the Agent from two places:

- From the Windows **Start** menu, select **Programs, Adaptec Storage Examiner, Management Agent**.
- From the Windows Services Control Panel.

## Using the Management Agent on Unix

The Management Agent runs as a daemon called aseManager on Unix, and can be controlled by a script called aseMgr. It is started automatically during Adaptec Storage Examiner installation.

To control this daemon on your Unix system, use these commands:

```
# cd /usr/local/ASE/bin
# ./aseMgr start
```

The aseMgr script can be used to start, stop, and restart the daemon, and view its current run status.

The Management Agent is configured to run automatically at system boot and stop automatically when the system shuts down. You can change these default settings by removing or modifying these files:

Operating System	Start-up	Shutdown
Solaris	/etc/rc2.d/S99ase	/etc/rcS.d/K99ase
Redhat Linux	/etc/rc.d/rc5.d/S99ase	/etc/rc.d/rc1.d/K99ase
SuSE Linux	/etc/init.d/rc5.d/S99ase	/etc/init.d/rc5.d/K99ase



**Note:** Removing these files will affect the operation of the Adaptec Enclosure Monitoring Agent. (See [page 2-3](#).)

## **Configuring the Management Agent**

Configure the Management Agent in the configuration graphical user interface (GUI) of the system where it is installed. See [Configuring Adaptec Storage Examiner on page 4-6](#) for more information.

# Using Adaptec Storage Examiner

## In this Chapter...

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<i>Opening Adaptec Storage Examiner in Unix</i>	4-2
<i>Updating Storage Enclosure Status</i>	4-2
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<i>Identifying Enclosure Components</i>	4-4
<i>Muting Storage Enclosure Buzzers</i>	4-5
<i>Connecting to a Remote Host</i>	4-5
<i>Configuring Adaptec Storage Examiner</i>	4-6

You can use Adaptec Storage Examiner to perform basic enclosure management functions.

## Opening Adaptec Storage Examiner in Windows

To open Adaptec Storage Examiner on Windows systems:

From the Windows **Start** menu, select **Programs, Adaptec Storage Examiner, Adaptec Storage Examiner**.

## Opening Adaptec Storage Examiner in Unix

To open Adaptec Storage Examiner on Unix systems, use this commands:

```
# cd /usr/local/ASE/bin  
# ./ase
```

Ensure that the `DISPLAY` environment variable is set appropriately. For example, a typical setting is `localhost:0.0`.

## Updating Storage Enclosure Status

You can update the status of a single enclosure, all storage enclosures attached to a host, or all storage enclosures attached to every host in the network.

To update the status of a storage enclosure:

- 1 Open **Adaptec Storage Examiner**.
- 2 In the tree, right-click on the enclosure you want to update.
- 3 Select **Update Status**.

To update the status of every storage enclosure attached to a host:

- 1 Open **Adaptec Storage Examiner**.
- 2 In the tree, right-click on the host you want to update.
- 3 Select **Update Status**.

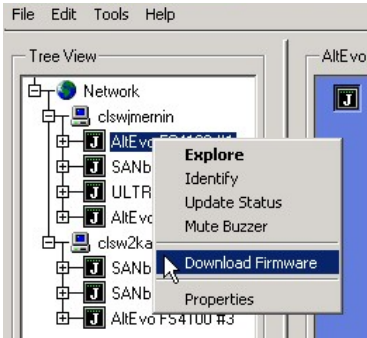
To update the status of the storage enclosures attached to every host in the network:

- 1 Open **Adaptec Storage Examiner**.
- 2 In the tree, right-click on the network node.
- 3 Select **Update Status**.

You can also access this function by pressing **Ctrl-U**.

## Downloading Enclosure Firmware

When downloading firmware to Enclosure Services Modules, right-click the enclosure in the tree, then select **Download Firmware**, as shown in the next Figure. This ensures that each module within the selected enclosure will be upgraded.



If the modules being upgraded already contain the firmware being downloaded, a message appears stating that the download completed successfully.

If this happens, click on the **Firmware Download** tab and set Force Download to **Yes**, then try downloading the firmware again.

The Monitoring Agent will automatically be disabled for the duration of the download.

Some types of option cards (I/O modules) support firmware download. Right-click on the option card in the tree and select **Download Firmware** from the menu. If the Download Firmware option is disabled, the option card does not contain any downloadable firmware.

To download firmware to other components (for example, disk drives), use the **asFirmware** command-line utility, located in the **bin** directory where Adaptec Storage Examiner was installed.

## Identifying Enclosure Components

You can identify an enclosure or an individual disk drive, power supply, or cooling fan within an enclosure.

To identify an enclosure:

- 1 Open **Adaptec Storage Examiner**.
- 2 In the tree, right-click on the enclosure to be identified.
- 3 Select **Identify**.

The enclosure identifies itself by flashing the lights on each of the disk drive slots.

- 4 Repeat [Step 2](#) and [Step 3](#) to stop the identification once the enclosure has been identified.

To identify an individual component within an enclosure:

- 1 Open **Adaptec Storage Examiner**.
- 2 In the tree, right-click on the component to be identified.
- 3 Select **Identify**.

The component identifies itself by flashing a unique LED pattern.

- 4 Repeat [Step 2](#) and [Step 3](#) to stop the identification once the enclosure component has been identified.



**Note:** When identifying an enclosure or component, Adaptec Storage Examiner may use the predicted failure LED pattern for that enclosure or component. Predicted failure LED patterns may be easier to see in an active system, have the highest priority over all other patterns, and do not stop by themselves after 30 seconds (like some other LED patterns).

---

## Muting Storage Enclosure Buzzers

You can mute the buzzer on either a single enclosure or all enclosures attached to the local host system.

To mute the buzzer on a storage enclosure attached to the local host system:

- 1 Open **Adaptec Storage Examiner**.
- 2 Right-click the enclosure in the tree.
- 3 Select **Mute Buzzer**.

To mute the buzzers in all storage enclosures attached to the local host system:

- 1 Open **Adaptec Storage Examiner**.
- 2 Click **File**.
- 3 Select **Mute Local Buzzers**.

You can also access this function by pressing **Ctrl-M**.



**Note:** This menu option will have no affect if there are no locally attached storage enclosures.

---

## Connecting to a Remote Host

To connect to a remote host and manage the storage enclosures attached to that host:

- 1 Open **Adaptec Storage Examiner**.
- 2 Click **File**.
- 3 Select **Connect To**.

You can also access this function by pressing **Ctrl-H**.

## Configuring Adaptec Storage Examiner

You can view and change the configuration settings for Adaptec Storage Examiner in the Options panel.

To open the Options panel:

- 1 In the menu bar, click **Tools**.
- 2 Click **Options**.

The Options menu has three tabs of configuration information:

- General tab. (See [page 4-6](#).)
- Firmware Download tab. (See [page 4-7](#).)
- Client/Server tab. (See [page 4-7](#).)

### About the General Tab

These configuration settings appear on the General tab:

- **Confirm Program Exit**—Allows you to specify whether you are prompted for confirmation before you exit the application.
- **Confirm Status Update Operations**—Allows you to specify whether you are prompted for confirmation before you begin status update operations.
- **Display Warning When No Local Enclosures Found**—Specifies whether a warning appears at startup if no enclosures are found on the local system.

Disable this setting if the system is functioning mainly as a client system.

- **Disable Monitoring Agent**—Specifies whether the Monitoring Agent is enabled or disabled. (See [page 2-10](#) for more information.)
- **Show Temperature In**—Specifies temperature scale: degrees Centigrade, Fahrenheit, or both.



## About the Firmware Download Tab

These configuration settings appear on the Firmware Download tab:

- **Block Size**—Specifies the number of bytes in each block of data sent during a firmware download.
- **Block Delay**—Specifies the delay (in milliseconds) between each block of data sent during a firmware download. A delay is necessary to allow the module being reprogrammed enough time to program each block of data.
- **Firmware Location**—Allows you to specify where firmware images are kept. Adaptec Storage Examiner will automatically look in that location when starting a firmware download.

There is also a **Force Download** option that specifies whether firmware should be forcefully downloaded to modules that already contain the same version of firmware.

## About the Client/Server Tab

The Management Agent (see [Chapter 3](#)) of this system is configured from the Client/Server tab of the Options panel.


These configuration settings appear on the Client/Server tab:

- **Port Number**—Specifies the port number that remote clients must use to connect to the Management Agent.
- **Authentication Required**—Specifies whether clients connecting from a remote location have to authenticate themselves in order to manage the storage enclosures attached to this system.
- **Force Remote Poll Upon Connection**—Specifies whether a full hardware update occurs on all enclosures attached to a server system each time this client connects to that server.

# Accessing Remote Hosts with Adaptec Storage Examiner

## In this Chapter...

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<i>Disconnecting From a Remote Host</i>	5-3
<i>Disconnecting From a Remote Host</i>	5-3



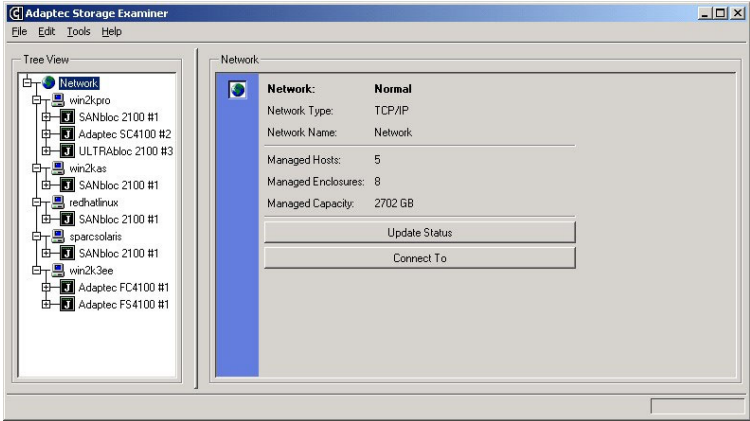
Adaptec Storage Examiner allows you to manage storage enclosures at remote locations.

Using the Adaptec Storage Examiner application, you can connect to a remote system and carry out such enclosure management tasks as spinning up and spinning down disk drives, muting buzzers, and configuring the Monitoring Agent on the remote system.

## Connecting to a Remote Host

To connect to a remote host:

- 1 Open Adaptec Storage Examiner.
- 2 In the tree, click **Network**.



- 3 In the Properties window, click **Connect To**.
- 4 Enter the IP address or host name address of the remote system, then click **OK**.

If the remote system is configured to request authentication, a login dialog box appears. Continue with [Step 5](#). (If no authentication is requested, your connection is made and you can begin working on the remote system.)

- 5 Enter a user name, password, and domain (*Windows only*) that have Administrative or Super-user privileges on the remote system, as described for your operating system:
  - For Windows systems, the user name, password, and domain must be members of the local Administrators group on the remote host.

- For Unix systems, the user name and password must be a member of the **root** or **adm** group on the remote host.



**Note:** Adaptec Storage Examiner relies on the use of crypt password encryption by the server system. If the password for the specified user name is not stored using crypt encryption, connections from remote clients may be refused. Some Linux systems use PAM to manage user passwords. PAM uses md5 encryption and could restrict user authentication on some systems. For work-around instructions in this situation, see [Appendix A](#).

---

Once you are authenticated, data from the remote host is obtained and appears on-screen as if it were stored locally.

## Disconnecting From a Remote Host

To disconnect from a remote host:

- 1 In the Host node in the tree, right-click the host to be disconnected.
- 2 Select **Disconnect**.

The host is disconnected.

## Remote Host Limitations

These functions are not available:

- Firmware downloads must be done locally; new firmware can't be downloaded to a device at a remote location.
- You can't restart agents on a remote host.



# Linux Encryption Work-around

This work-around is for Linux systems that use PAM to manage user passwords.

To work around this problem, change the type of password encryption used for the user by following these instructions:

1 Become a super-user (su -).

2 Edit the PAM password configuration file:

```
# vi /etc/pam.d/system-auth
```

3 Locate the line containing the text below:

```
Password **** /lib/security/pam_XXXX.so nullok  
use_authtok md5 shadow
```

4 Change **md5** to **crypt**, then save the file.

5 Change or reassign the password of the user.

The password is stored using crypt encryption, which should resolve any Adaptec Storage Examiner login problems.


6 If required, change the configuration file back to normal.

# B

## Supporting RAID Systems

### In this Appendix

<i>Enabling Enclosure Support for RAID Systems on Windows</i>	B-2
<i>Enabling Enclosure Support for RAID Systems on Unix</i>	B-2
<i>Managing RAID Systems</i>	B-2



Although Adaptec Storage Examiner is intended for use on JBOD enclosures only, it does contain limited support for some RAID systems on which the RAID controller can be bypassed and the enclosures within the RAID system managed or monitored as if the RAID controller were not there. Currently, only SANbloc FC2500 products are supported.

Enclosure support for RAID systems is normally disabled, but you can enable it by following the instructions for your operating system.

## Enabling Enclosure Support for RAID Systems on Windows

Create a file called `jbod.raid` in the directory referenced by the TEMP environment variable and restart the software.



---

**Note:** Because the Monitoring Agent (see [Chapter 2](#)) and the Management Agent (see [Chapter 3](#)) run as services on Windows, their TEMP environment variable will be the SYSTEM TEMP variable and not the one belonging to the logged-on user. Therefore, the `jbod.raid` file must be placed in the directory referenced by the SYSTEM TEMP variable for the agents to detect the RAID system(s). This directory is usually `WINNT\Temp`.

Also, the directory referenced by the TEMP variable of the logged-on user must be used so that the Configuration GUI detects the RAID system(s). This directory is usually `\Documents and Settings\<user>\Local Settings\Temp`.

---

## Enabling Enclosure Support for RAID Systems on Unix

Create a file called `jbod.raid` in the `/tmp` directory and restart the software. The name of the file is case-sensitive.

## Managing RAID Systems

Adaptec Storage Examiner supports the management of storage enclosures only—it does *not* support the management of *RAID systems*. To manage RAID systems, use one of these Spheras storage management products:

- Spheras Storage Director
- Spheras RAIDWatch

Refer to the Adaptec Web site at [www.adaptec.com](http://www.adaptec.com) for more information about RAID system management tools.

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