Sun Control Station

Administrator Manual

Sun Microsystems, Inc.
www.sun.com

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Preface

This user manual explains the functions and features available under the Station Settings and Adminstration menu items of the Sun Control Station. The user of this document should be the person administering the Sun Control Station software.

For information on the individual control modules, refer to the user manuals for each control module. See "Related Documentation" on page viii.

How This Book Is Organized

This user manual contains the following chapters and appendix:

- Chapter 1 introduces the Sun Control Station software and provides some general information.
- Chapter 2 explains the functions available under the Station Settings menu item on the left side of the user interface (UI).
- Chapter 3 explains the functions available under the Administration menu item on the left side of the UI.
- Appendix A contains the third-party licenses for technologies and software used in this product.

Related Documentation

The documents listed below include the Software Installation guide for the Sun Control Station, and the documentation related to the individual control modules.

Application	Title	Part Number
Software Installation	*Software Installation*	817-3604-11
Control Module	*AllStart Module*	817-3605-11
Control Module	*Health Monitoring Module*	817-3607-11
Control Module	*Inventory Module*	817-3608-10
Control Module	*Lights Out Management Module*	817-3609-10
Control Module	*Performance Module*	817-3610-10
Control Module	*Software Management Module*	817-3611-11
Release Notes	*Release Notes*	817-4128-12

Accessing Sun Documentation

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Sun Control Station—Administrator Manual, part number 817-3603-11

CHAPTER 1

Introduction

The Sun™ Control Station is a software package that allows administrators to take control of their hosts: tracking and applying software updates, deploying new services, monitoring the health and performance of hosts. More than just a typical "systems" management device, the Sun Control Station is a platform that will help you in the "life-cycle" management of your hosts, from initial setup through eventual redeployment at the end of useful life. As an added benefit, customers can continue to use third-party or homegrown software in conjunction with the Sun Control Station.

The Sun Control Station consists of two parts: a core framework that is the engine for executing control modules, and the built-in control modules themselves. These control modules can come from Sun Microsystems, Inc., from third-party vendors or from your own in-house design team. The Sun Control Station ships with five pre-installed modules: Performance Monitoring, Inventory, Software Management, Health Monitoring and Lights Out Management (LOM).

Through the Sun Control Station, you can fully control the distribution of software payloads, offering customized and tailor-made services to downstream and end-user customers. Service Providers can offer unique payloads, data or software monitoring services. By leveraging the Sun BlueLinQ technology, all available software updates and patches can be accessed and distributed to your managed hosts, as designated by the Administrator. Custom-built and third-party software can also be distributed. Furthermore, software packages can be "published" so that BlueLinQ-enabled clients—including other Sun Control Stations—can view and download these packages.

The Sun Control Station can manage the following Sun servers and Sun Cobalt™ server appliances. At the time of printing, this list was complete.

Note – For managed hosts other than Sun Cobalt server appliances, you may first need to install and enable the control-station agent on the host.

Refer to the PDF *Software Installation* for instructions on installing and enabling the agent.

- Sun LX50 servers, all languages
- Sun Fire™ V60x servers and Sun Fire V65x servers
- Netra™ T1 servers (Solaris™ Operating System 8 and Solaris OS 9)
- Netra X1 servers (Solaris OS 8 and Solaris OS 9)
- Netra T1120-1125 servers (Solaris OS 8 and Solaris OS 9)
- Ultra™ 1 servers (Solaris OS 8 and Solaris OS 9)
- Ultra 2 servers (Solaris OS 8 and Solaris OS 9)
- Ultra 5-10 servers (Solaris OS 8 and Solaris OS 9)
- Ultra 80 servers (Solaris OS 8 and Solaris OS 9)
- any x86-based server running the following operating systems (OSs):
  - Red Hat 7.2
  - Red Hat 7.3
  - Red Hat 8.0
  - Red Hat 9.0
  - Red Hat Enterprise Linux AS 2.1
  - Red Hat Enterprise Linux ES 2.1
  - Red Hat Enterprise Linux WS 2.1
- Sun Cobalt RaQ 550 server appliances, English and Japanese
- Sun Cobalt RaQ XTR server appliances, English and Japanese
- Sun Cobalt CacheRaQ™ 4 server appliances, English
- Sun Cobalt Qube 3 appliances, all versions (English, Japanese, multilingual)

Services on the Sun Control Station

Here is a sample of what you can do with the Sun Control Station:

- **Inventory Management.** You can obtain detailed information on the hardware components installed in a managed host.
- **Software Management.** The Administrator can keep systems current using the version-tracking feature for software patches and updates. You can also deploy custom software or data.

- **Local Software Repository.** In conjunction with Software Management, you can use the local software repository to “publish” software package files and allow the Administrator or end users of various hosts to install available package files as desired or needed. You can configure your Sun Control Station to view “published” package files and share package files with other BlueLinQ-enabled servers.
- **OS Installation.** The AllStart control module integrates both Kickstart (a Red Hat feature) and AutoYaST (a SuSE feature) technologies to provide a quick and unified method of installing and customizing Linux-based systems. The control module provides a common user interface for creating software payloads, defining client profiles, and monitoring and validating system installations and updates.
- **Health and Performance Monitoring.** These control modules provide system alerts and the metrics of the basic operations of the hosts, allowing you to pinpoint potential causes of failure.
- **Lights Out Management (LOM).** The LOM control module allows you to perform certain management functions remotely on hosts that are compliant with the Intelligent Platform Management Interface (IPMI) version 1.5, such as powering on or off a host, and viewing current System Event Log (SEL) information from a a host.

These services can be used within an extranet or an intranet environment, or across the Internet.

General information

Task Progress dialog

When you launch a task (for example, when creating a backup file for the Sun Control Station or adding a control module), a Task Progress dialog appears in the user interface (UI). This dialog has a Status field indicating the current status of the task and a progress bar. When the progress bar displays 100%, the task has completed.

See FIGURE 1-1 for a sample.

If you want to perform another task in the UI while the current task is underway, you can put the Task Progress dialog in the background. Simply click the button labelled Run Task In Background below the progress bar.

To return to the Task Progress dialog, select Administration > Tasks on the left. The Task table appears. If the task is still underway, a status message is displayed in the Duration column. Click on the *progress-bar* icon in this column to re-display the Task Progress dialog for this task.

Once the task is complete and the progress bar displays 100%, two buttons appear below the Task Progress dialog: Done and View Events.

- To view the list of events associated with the task just completed, click View Events. The Events For <Task> table appears. If you then click the *up-arrow* icon in the top-right corner, the Tasks table appears.
- To return to the previous screen, click Done.

FIGURE 1-1 Sample Shot of a Task Progress dialog

Schedule

The Schedule feature (also referred to as the Scheduler) allows you to schedule a task or tasks to be performed at a later time.

Many of the tasks on the Sun Control Station can be scheduled. In this case, a button labelled Schedule appears in the table or selector window of the final step.

The Scheduler works in the same way for any task:

1. **Fill in the necessary fields for the task.**
2. **Click Schedule.**

   The Schedule Settings For <Task> appears; see FIGURE 1-2 for a sample.
3. **Configure the schedule settings.**

   The following settings are available for any scheduled task:

   - Run Date And Time: Enter the date on which you want the task to run, in the format: `MM/DD/YYYY hh:mm`.

     You can also click the *calendar* icon next to this field. A separate browser window opens. Choose the date and time for the scheduled task. Hit the Enter (or Return) key on your keyboard. The date and time now appear in the field.
   - Email Address (Optional): Enter an email address of the person who will be notified when the task runs.
   - Notify When Starting: Enable the check box to notify the person when the task is starting.
   - Notify When Finished: Enable the check box to notify the person when the task has completed.
4. **For some functions, you can set the frequency of the task with a pull-down menu above the table (for example, hourly or daily).**
5. **Click Cancel or Save.**

   If you click Cancel, the scheduled task is not saved. The Scheduled Tasks table appears, but without the task you just cancelled.

   If you click Save, the scheduled task is added to the list of scheduled tasks. The Scheduled Tasks table appears with the new task.
6. **In this table, you can view details for, modify or delete a scheduled task.**

   To view the details of a scheduled task, click the *magnifying-glass* icon.

   To modify a scheduled task, click the *pencil* icon.

   To delete a scheduled task, click the *delete* icon.

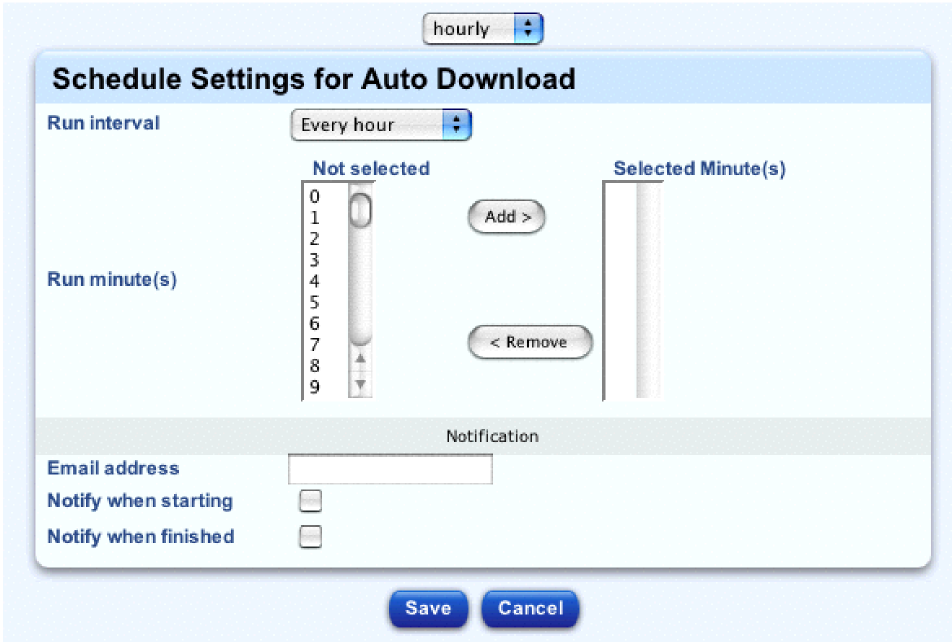


FIGURE 1-2 Sample of a Scheduler table

Online documentation

To access the PDF file for a user manual, click on the *Online Documentation* icon in the top-right corner. A separate browser window opens displaying a list of PDF files available. Click the link for a PDF file; you can open the PDF file in the browser window or save it to your personal computer.

If you have installed third-party software on the Sun Control Station, the relevant documentation is also available here.

Icons

There are two icons in the top-right corner of the UI:

- Online Documentation
- Logout

Online Documentation

You can access the user manuals in PDF format from the UI.

Logout

You Click the *Logout* icon to log out of the system.

Resetting the Administrator Password

Note – This procedure only resets the Administrator password for logging in to the Sun Control Station UI.

To reset manually the Administrator password for logging in to the UI:

1. **`ssh` in to the control station.**
2. **If you are not currently `root`, become `root`.**

   ```
   su -
   ```

3. **Generate an encrypted password for the user name *admin* and password *admin*.**

   ```
   /usr/bin/htpasswd -n -s -b admin  admin
   ```

   ```
   admin:{SHA}0DPiKuNIrrVmD8IUCuw1hQxNqZc=
   ```

4. **Copy the entire string following `admin:{SHA}`.**

   ```
   0DPiKuNIrrVmD8IUCuw1hQxNqZc=
   ```

5. **Paste this string into the password attribute for the user tag in the following file.**

   ```
   /var/tomcat4/webapps/sdui/WEB-INF/database.xml
   ```

6. **Stop and then restart `tomcat`.**

   ```
   dtomcat4 stop
   ```

   ```
   dtomcat4 start
   ```

   You can now log in to the control station UI as the user name *admin* with the password *admin*.

   To change the Administrator password through the UI, see "Password" on page 22.

CHAPTER **2**

Station Settings

This chapter describes the station settings on the server running the Sun™ Control Station software. The Administrator, with the user name *admin*, has full control of the control station. The Administrator can:

- view Active Monitoring information
- perform maintenance functions (backup and restore)
- view the system-information page
- register the Sun Control Station software
- change the Administrator password

Note – In most of the short procedures in this chapter, the first step is to click the Station Settings tab in the left menu bar and the second step is to click on a selection from the a sub-menu item.

To reduce the number of steps in each procedure, the menu commands are grouped together and shown in Initial Caps. Right-angle brackets separate the individual items.

For example, select Station Settings > Backups means to click the Station Settings tab in the left menu bar and then click the Backups sub-menu item.

Station Settings menu

The following bullet items represent the fully expanded menu on the left side of Station Settings screen. These are the functions and services that the Administrator can manage from this screen. They are explained in this chapter.

- Active Monitoring (see “Active Monitoring” on page 10)
- Settings (see “Settings” on page 15)
- Backups (see “Backups” on page 16)
- Information (see “Information” on page 21)
- Password (see “Password” on page 22)

Active Monitoring

Status Alerts

Active Monitoring is a `cron` job that runs on the system every 10 minutes to update the status of the services and system components.

If one of the services or system components monitored by Active Monitoring changes to a yellow or red status, a Status message (“Check Alerts”) appears in the left menu bar with an icon below it.

When you click the icon, the Active Monitoring status tables appear.

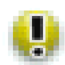
If an email address for receiving Active Monitoring alerts has been entered under Settings, an email is sent to that address; see “Settings” on page 15.

Status Colors

The status of each service or hardware component is indicated by a colored circle and icon—grey with dotted line, green with checkmark, yellow with exclamation mark or red with X mark—beside each item. The colors have the following significance:

Grey with dotted line—No information is available, or the service or the monitoring feature is not enabled on the host.

Green with checkmark—The service or component is functioning normally.



Yellow with exclamation mark—There is moderate use on the host or a component is recovering.

Red with X—There is heavy use on the host or a failure.

Thresholds

The thresholds for the Active-Monitoring alarms for are as follows:

- CPU Yellow Alarm: Enter the threshold at which a yellow alarm is generated. This value represents the average load of the CPU. The default value is 3.
- CPU Red Alarm: Enter the threshold at which a red alarm is generated. This value represents the average load of the CPU. The default value is 6.
- Disk Yellow Alarm: Enter the threshold at which a yellow alarm is generated. This value represents a percentage of hard-disk-drive usage. The default value is 80.

  For example, a value of 80 means that a yellow alarm is generated when the 80% of the capacity of the hard disk drive is used.
- Disk Red Alarm: Enter the threshold at which a red alarm is generated. This value represents a percentage of hard-disk-drive usage. The default value is 90.

  For example, a value of 90 means that a red alarm is generated when the 90% of the capacity of the hard disk drive is used.
- Memory Yellow Alarm: Enter the threshold at which a yellow alarm is generated. This value represents a percentage of memory usage. The default value is 50.

  For example, a value of 50 means that a yellow alarm is generated when the 50% of the memory is in use.
- Memory Red Alarm: Enter the threshold at which a red alarm is generated. This value represents a percentage of memory usage. The default value is 75.

  For example, a value of 75 means that a red alarm is generated when the 75% of the memory is in use.

Verifying Disk Usage and Removing Alarm Condition

You are likely to receive a yellow or red alarm for hard-disk-drive usage if you select to download automatically any available package files from a BlueLinQ server. For more information, see "BlueLinQ Server Settings" in the PDF *Software Management Module*.

You can log in to the control station and verify the disk usage. The Active Monitoring `cron` job verifies only the root, `/var` and `/home` directories.

To remove the alarm condition from the UI, clean up the files in your partition(s) and then update the Active Monitoring information.

1. **`ssh` in to the Sun Control Station server.**

2. **Become the `root` user.**

   `su -`

3. **Run the following command to check the root, /var and /home partitions.**

   `df / /var /home`

   The information for each partition is displayed:

   - Filesystem
   - 1k-blocks
   - Used
   - Available
   - Use %
   - Mounted on

   If the value for "Use %" is higher than the threshold value, an alarm is generated.

4. **Clean up the files in your partitions.**

5. **In the control station UI, select Station Settings > Active Monitoring.**

   The Active Monitoring status tables appear.

6. **Click Update Now above the tables to begin updating the system and service status information immediately.**

   The status should return to normal (green circle with checkmark).

Active Monitoring Information

To view the Active Monitoring information for the server on which the Sun Control Station software is running:

1. **Select Station Settings > Active Monitoring.**

   The Active Monitoring status tables appear; see FIGURE 2-1.

   - The Base System Components table displays information on the CPU, Disk and Memory.
   - The Base Services table displays information on the various services that are running on that particular server, for example, FTP server, telnet server, Email server or DNS server. These items can vary depending on the type of server you are viewing.
   - The Other System Services table displays information on third-party or customized services that the administrator has added to a server.

2. **You can click Update Now above the tables to begin updating system and service status information immediately.**

   This may take as long as several minutes and proceeds in the background.

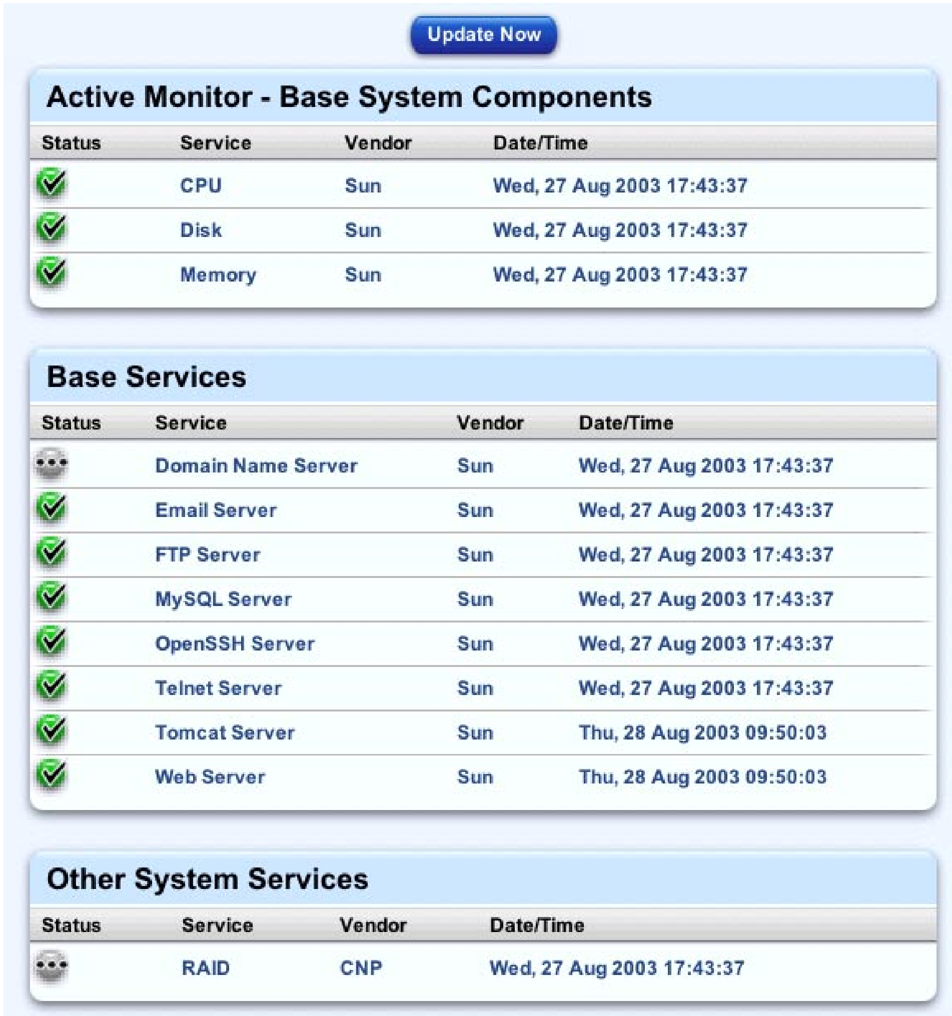


FIGURE 2-1 Active Monitoring Status tables

Settings

You can configure the settings for an HTTP or FTP proxy server, and the number of days to retain tasks and events. You can also enter an email address that will receive Active Monitoring alerts.

Each of these settings is optional.

To configure the settings:

1. **Select Station Settings > Settings.**

   The Settings table appears; see FIGURE 2-2.

2. **Configure the following settings.**

   - HTTP proxy server: Enter an IP address or fully qualified domain name.
   - FTP proxy server.: Enter an IP address or fully qualified domain name.
   - Days to keep tasks and events: The default value is five (5) days.
   - Active Monitor notification email: Enter an email address in the format `xxxx@yyyy.zzz`. The default value is `root@localhost`.

3. **Click Save.**

FIGURE 2-2 Settings table

Backups

The Backup Administration table allows you to back up and restore a Sun Control Station.

Backup

You can perform both scheduled backups and manual backups on the Sun Control Station.

You can back up your control station using either Windows File Sharing (SMB) or Network File Sharing (NFS). You can also save the backup file to the local server but this is not recommended: if the hard disk drive fails, you will lose the backup files along with the rest of the server data.

The backup file name uses the following format:

`bk_YYYYMMDD_hhmm.scs`

where `YYYYMMDD_hhmm` represents the Year Month Day Hour Minute.

For example, the file name `bk_20030426_1745.scs` indicates that the backup was created at 17:45 on April 26, 2003.

Note – For a Scheduled Backup, ensure that the target location is available and has enough disk space to hold the backup archive. Failure to do this may result in zero-length or truncated archives.

Creating a backup

To create a backup of the data on the Sun Control Station:

1. **Select Station Settings > Backups.**

   The Backup Administration table appears; see FIGURE 2-3.

2. **Enter a path in the field Backup File Path.**

   The default path is `/scs/backups` on the the local server.

   We recommend that you not back up to the local server; you should back up to a different server.

   You can mount an external filesystem to which to write the backup file (either a Windows File Sharing (SMB) server or Network File Sharing [NFS] server).

Note – You must have write permissions for this path.

---

3. **Click Create Backup Now.**

   The Task Progress dialog appears.

Note – You can also schedule the creation of a backup file. For more information, see "Schedule" on page 5.

FIGURE 2-3 Backup Administration table

Modifying a scheduled backup

To modify the settings for a scheduled backup task:

1. **Select Administration > Schedule.**

   The Schedule Administration table appears.

2. **Click the *pencil* icon next to the backup task that you want to modify.**

   The Scheduled Settings For Create Backup table appears, showing the details about the backup job.

3. **Modify the settings.**

4. **Click Cancel to return without saving the changes or click Save to save the changes.**

   The Scheduled Settings For Create Backup table appears.

Deleting a scheduled backup

To delete a scheduled backup task:

1. **Select Administration > Schedule.**

   The Schedule Administration table appears.

2. **Click the *delete* icon next to the backup task that you want to delete.**

   A confirmation dialog verifies the deletion.

3. **Click Remove Schedule.**

   The Schedule Administration table appears, with the scheduled backup task removed.

Restore

Note – Ensure that you maintain up-to-date backup files. Any modifications made to the server since creating the backup file from which you are restoring the server will be lost.

When a backup task runs, it creates a new file in the location specified in the Backup File Path field in the Backup Administration table; see "Creating a backup" on page 17. The file name is the time and date at which the backup was started and has the form: Year Month Day Hour Minute. For example, the file name `bk_20030426_1745.scs` indicates that the backup was run at 17:45 on April 26, 2003.

To restore your Sun Control Station, you first prepare the backup file for the restore operation. You then log out of the control station UI and run a command-line script to restore the data to your server.

Note – You can perform the Prepare Restore step at anytime in advance of running the script.

---

1. **Select Station Settings > Backups.**

   The Backup Administration table appears.

2. **Click Restore From Backup... above the table.**

   The Restore Administration table appears; see FIGURE 2-4.

3. **Click the radio button for the method by which to specify the location of the backup file:**
   - Upload: Click Choose File to locate the backup file.
   - `/scs/backups`: If you have a backup file in this directory on the Sun Control Station, you can use the pull-down menu to choose the backup file.

4. **To cancel this restore, click Cancel below the table.**

5. **To restore this backup file, click Prepare Restore below the table.**

   The Task Progress dialog appears. Once completed, a dialog box confirms that the restore script is ready to be run.

Note – At this point, you have not yet begun to restore the data. This occurs when you run the restore script.

---

6. **Log out of the control station UI.**

7. `ssh` **in to the server.**

8. **Become the** `root` **user.**

   `su root`

9. **From the directory** `/root`**, run the restore.sh script.**

   `/root/restore.sh`

   A number of messages display in the terminal window. The final message is "All Done".

10. **Log back in to the control station UI and verify that the restore operation was successful.**

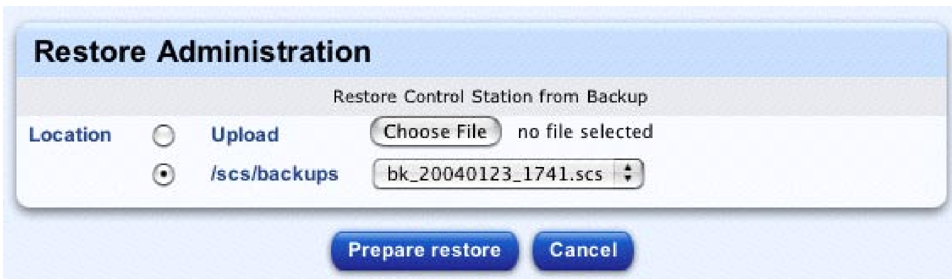


FIGURE 2-4 Restore Administration table

Disaster recovery

To restore your Sun Control Station to a known state after a disaster:

1. **Restore the server to a factory-fresh state with the CD-ROMs for your operating system.**

2. **Re-install the Sun Control Station software on your server.**

   You can now use a backup file to restore the control-station information to the server.

3. **In the Sun Control Station UI, select Station Settings > Backups.**

   The Backup Administration table appears.

4. **Follow the restore process as described in "Restore" on page 19.**

Information

To view information about your Sun Control Station, select Station Settings > Information. The System Information table appears and contains the following information:

- the product name
- the product build number
- the serial number of the product

Below the System Information table are two buttons: Register Now and Sun Microsystems, Inc. Web Site.

- Click Register Now to register your Sun Control Station software.
- Click Sun Microsystems, Inc. Web Site to go to

`http://www.sun.com/hardware/serverappliances/`

Registering the Sun Control Station software

To register your Sun Control Station software:

1. **Select Station Settings > Information.**

   The System Information table appears.

2. **Click Register Now below the table.**

   The Registration Information table appears; see FIGURE 2-5.

3. **Fill in the following information.**

   - First name
   - Last name
   - Organization
   - Country
   - Job function
   - Telephone number
   - Email address

4. **Click Send.**

   The System Information table re-appears.

FIGURE 2-5 Registration Information table

Password

To change the password for the Administrator:

1. **Select Station Settings > Password.**

   The Administrator Password table appears; see FIGURE 2-6.

2. **Modify the password.**

   Enter the password twice for confirmation.

   For more information on choosing a password, see "Password guidelines" on page 23.

3. **Click Change Password.**

   The system saves the configuration, refreshes the screen and displays the message "Password changed successfully".

FIGURE 2-6 Administrator Password table

Password guidelines

Use the following guidelines when choosing a password:

1. Use between three and sixteen alphanumeric characters. The valid characters include: a-z A-Z 0-9 % ! @ $ ^ & * - _ = \ | . , / ? ; : +

2. Use both upper- and lower-case letters.

Note – A password is case-sensitive.

---

3. Do not use a proper name.

4. Do not use a word found in a dictionary.

5. Do not use a date.

6. Do not use a UNIX® command word.

7. Do not use a string of consecutive keys on a keyboard (for example, “qwerty”).

CHAPTER 3

Administration Functions

This chapter describes the Administration functions. The Administrator can:

- add or remove managed hosts
- create groups of managed hosts
- view tasks and events
- install and administer the control modules
- schedule a task or tasks to be performed at a certain time

Note – In most of the short procedures in this chapter, the first step is to click the Administration in the left menu bar and the second step is to click on a sub-menu item.

To reduce the number of steps in each procedure, the menu commands are grouped together and shown in Initial Caps. Right-angle brackets separate the individual items.

For example, select Administration > Tasks means to click the click Administration in the left menu bar and then click the Task sub-menu item.

The Sun Control Station ships with six pre-installed modules:

- Software Management
- Health Monitoring
- Performance Monitoring
- AllStart
- Lights Out Management (LOM)
- Inventory

Each module is explained in detail in its own PDF document, available online through the UI or on the software CD. For more information, see “Online Documentation” on page 7.

Selector window

A number of functions in the Sun Control Station use a selector window. This section describes the selector.

In the selector window, depending on the control module that you are using, you select the managed hosts upon which to perform various tasks, for example:

- remove or modify a host(s)
- add a host(s) to a group
- remove a host(s) from a group
- view software package information
- publish, install or download software packages
- update performance or inventory information for a host

There are two options in the top frame of the selector:

- Select All: This option allows you to select all of the managed hosts in the list for that task.
- Deselect All: This option allows you to de-select all of the selected hosts.

To select a host or hosts on which to perform a task, click on the items in the list or click Select All at the top. You can also select all hosts within a group by clicking on the group name.

A single selected item is highlighted in blue; if a single host within a group is selected, the group name is highlighted in grey. If all hosts within a group are selected, the group name is highlighted in dark blue.

To de-select a host or hosts, click on the highlighted host or click Deselect All at the top. You can also de-select all the hosts within a group by clicking on the group name.

Once you have selected the host(s), click the button at the bottom for the task that you want to perform. In the top right corner, the selector displays the number of hosts selected (for example, 3 of 10 items).

Administration menu

Note – The control modules also appear in the menu on the left side of the Control Modules screen.

For more information on an individual control module, refer to the relevant document.

The functions and services available to the Administrator for managing the hosts, modules and tasks are grouped together under the menu item labelled Administration. These functions and services are explained in this chapter.

- Hosts
- Modules
- Groups
- Tasks
- Schedule

Tasks and events

Operations performed on the Sun Control Station are called tasks and events.

A *task* is an executed operation that has a determined start and end point, such as adding a host or uploading a control module. A task is invoked by a user.

Invoking a task generates one or more events. An *event* is a notification message providing information on one part of a task. A task can comprise several events. An event is generated by the control station or by an agent on a managed host.

You will find that, as a matter of convenience, you can perform a given task from different locations in the Sun Control Station UI. For example, you can create a group of hosts from the Managed Hosts table, as well as from the Administration > Groups menu item on the left. The Schedule option appears on a number of different screens or you can launch it from the Administration > Schedule menu item. As well, you can launch control-module tasks from the Managed Hosts table, rather than having to select that particular module from the menu on the left.

Run Task In Background

When there is a Task Progress dialog on the screen (for example, when adding a host or updating the Inventory information), you can put this dialog in the background. Simply click Run Task In Background below the dialog. You can then move to another task in the UI while this task continues to run.

To return to the Task Progress dialog, select Administration > Tasks. The Task table appears. If the task is still underway, a status message is displayed in the Duration column. Click on the *progress bar* icon in this column to re-display the Task Progress dialog for this task.

Schedule

The Schedule feature (also referred to as the Scheduler) allows you to schedule a task or tasks to be performed at a later time.

If a task can be scheduled by the Sun Control Station, a button labelled Schedule appears in the table or selector window.

Some of the tasks that you can schedule include: update information in the Appliance Inventory or Performance modules; install a new control module; add a new host(s) (individually or from a file).

For more information on Schedule, see “Schedule” on page 5.

Hosts

The Hosts menu item allows you, as the Administrator, to add, remove or modify hosts to be managed by the Sun Control Station. You can also create groups of managed hosts, administer the control modules on the control station, view scheduled tasks or schedule new tasks, and view tasks and events that have occurred on the control station.

Viewing the managed hosts

To view the hosts that are currently managed by the control station, select Administration > Hosts. The Managed Hosts table appears in the selector window; see FIGURE 3-1.

Adding hosts

You can add a host to the Sun Control Station in two ways:

- add a single host
- import a file containing a list of hosts

Note – For managed hosts other than Sun Cobalt server appliances, you may first need to install and enable the control-station agent on the host.

Refer to the PDF *Software Installation* for instructions on installing and enabling the agent.

Adding a single host

To add a single host:

1. **Select Administration > Hosts.**

   The Managed Hosts table appears in the selector window; see FIGURE 3-1 for an example.

2. **Click Add in the bottom right corner of the Managed Hosts table.**

   The Add Host table appears; see FIGURE 3-2.

3. **Configure the following settings:**

   - IP Address or Host Name: Enter the IP address or the fully qualified domain name of the host.

Note – The host name of the host that you enter must be resolvable by a Domain Name System (DNS) server that your Sun Control Station accesses.

- User Name: Enter the user name of the Administrator of the host.

Note – Sun servers (such as the Sun LX50 server) do not have a user *admin*. You can do one of two things:

a) create a user *admin* on the server before importing it, or
b) enter the user name *root* and the password for *root*

- Password: Enter the password of the Administrator of the host.
- Email Address (Optional): Enter the email address of the contact person for the host.

- Description (Optional): Enter a description of the host. For example, “Server in Joe’s office”.
- Install All Possible Modules: Enable this check box to have the control station install all control modules that this host is eligible to receive.

4. **Click Add Host.**

   The Task Progress dialog appears.

Note – You can also schedule the addition of the host(s) for a later time. For more information, see “Schedule” on page 5.

FIGURE 3-1 Sample of a Managed Hosts table

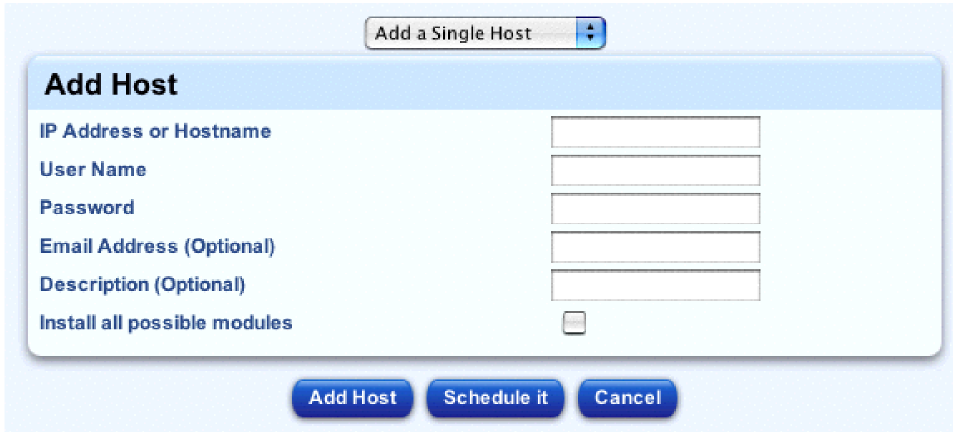


FIGURE 3-2 Add A Single Host table

Importing a list of hosts

For more information on creating the list of hosts, see “Creating a list of hosts” on page 32.

To add a list of hosts from a file:

1. **Select Administration > Hosts.**

   The Managed Hosts table appears in the selector window.

2. **Click Add in the bottom right corner of the Managed Hosts table.**

   The Add Host table appears; see FIGURE 3-2.

3. **From the pull-down menu above the table, select Add Hosts From A File.**

   The Add Hosts From A File table appears; see FIGURE 3-3.

4. **Click Choose File or Browse... to locate the file.**

5. **Enable the check box Install All Possible Modules if you want the control station to install all control modules that these hosts are eligible to receive.**

6. **Click Add Hosts.**

   The Task Progress dialog appears.

Note – You can also schedule the addition of a list of hosts for a later time. For more information, see “Schedule” on page 5.

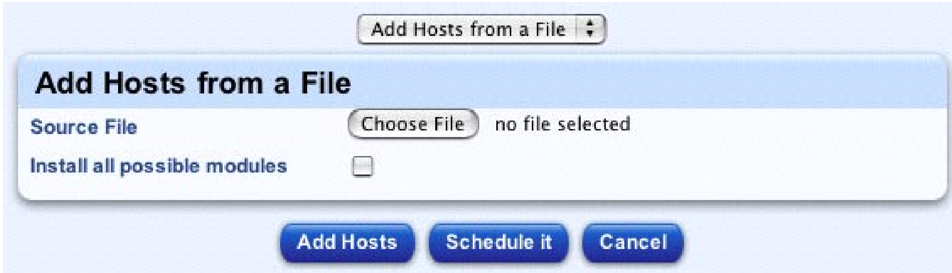


FIGURE 3-3 Add Hosts From A File table

Creating a list of hosts

You can create a file containing a list of hosts, and then import this file into the Sun Control Station.

The first step in importing a list of hosts is to generate a text file in the required format. The order of the data fields is the following (enter the data on one continuous line):

```
<hostname_or_IP_address>|<username>|<admin_password>|
<email_address>|<description>
```

The following criteria explain the structure of the file.

1. Include the following data for each host

    a. host name or IP address of the host

Note – The host name of the host that you enter must be resolvable by a Domain Name System (DNS) server that your Sun Control Station accesses.

If you have not specified a DNS server, you must import the host by IP address.

---

    b. user name for the Administrator

Note – Sun servers (such as the Sun LX50 server) do not have a user *admin*. You can do one of two things:

a) create a user *admin* on the server before importing it, or
b) enter the user name *root* and the password for *root*

---

c. Administrator password

d. an email address for notifications (optional)

e. a description of the host (optional)

2. Use one line for each host in the file.
3. Separate the data fields with the "|" character. Do not insert a space before or after the "|" character. You can use commas or tabs in the data string.
4. You must terminate each field with a "|" character, even if you leave the field blank. This does not apply to the final field.
5. The control station does not verify that an email address is valid.
6. Save the file in plain-text format.

Example file

An example file with seven hosts might look like this:

```
raq4|admin|abc123||
raq3|admin|abc123|joe@asdfg.com
10.9.32.100|admin|abc123||
10.9.32.111|admin|abc123|joe@asdfg.com
10.9.32.114|admin|abc123|joe@asdfg.com|Sun Cobalt Qube 3 at home
10.9.32.115|admin|abc123||x86 RH7.3 server on top shelf
10.9.32.116|admin|abc123||Sun Fire V60x in my office
10.9.32.117|root|abc123|joe@asdfg.com|Ultra 80 in hardware lab
```

Modifying a host

You can modify the email address for notifications or the description of a host.

To modify a managed host(s):

1. **Select Administration > Hosts.**

   The Managed Hosts table appears in the selector window.

2. **In the selector, click to highlight the host(s) you want to modify. You can also click Select All at the top to choose all hosts in the list.**
3. **Click Modify in the bottom right corner.**

   The Modify Host table appears.

4. **You can modify the following settings:**
   - Email Address (Optional): Enter the email address of the contact person for this host.
   - Description (Optional): Enter a description of this host. For example, "Sun LX50 server in Room 2321".
5. **To cancel the task and return to the previous list, click Cancel.**
6. **To proceed with the task, click Save.**

   The Managed Hosts table appears displaying the modified information.

Creating a group

To create a group of managed host(s) from the Managed Hosts table:

1. **Select Administration > Hosts.**

   The Managed Hosts table appears in the selector window.
2. **In the selector, click to highlight the host(s) you want to include in the new group. You can also click Select All at the top to choose all hosts in the list:**
3. **Click Group in the bottom right corner.**

   The Create A New Group table appears; see FIGURE 3-4.
4. **Configure the follow settings:**
   - Group Name: Enter the name of the group.
   - Description (Optional): Enter the description for the group (up to 255 character).
5. **To cancel the task and return to the Managed Hosts table, click Cancel.**
6. **To proceed with the task, click Save.**

   The Groups table appears with the new group.

   In the Groups table, you can view details for, modify or delete the group. You can also add or remove hosts to or from the group. For more information, see "Groups" on page 46.

FIGURE 3-4 Create A New Group table

Viewing a report for installed control modules

You can view a report on the installed control modules for a host(s) selected in the Managed Hosts table.

In the resulting table, you can launch control-module tasks for a given host without having to select that control module from the menu on the left.

To view the installed-modules report for a host(s):

1. **Select Administration > Hosts.**

   The Managed Hosts table appears in the selector window.

2. **In the selector, click to highlight the host(s) for which you want to run a control-module task. You can also click Select All at the top to choose all hosts in the list:**

3. **Click Modules at the bottom.**

   The Control Module Installation Report For Hosts table appears; a sample table appears in FIGURE 3-5.

   This table displays the host(s) that you selected and the following information:

   - Host Name: The host name or IP address of the host.
   - Class: The class of the host (if available).
   - Eligible: The number of control modules for which this host is eligible (some control modules apply only to a certain class of host).
   - Installed: The number of control modules installed on the host.

- Failed: The number of control modules that failed to install on the host.
- Actions: Click on an icon in this column to perform an action, including:
  - *Magnifying glass* icon: This action displays another table showing the control modules for which the host is eligible, the version and vendor of the module, the status of that module (installed or not installed) and another Action column; see FIGURE 3-6.

    If the client-side components of a module are installed on the host, you can remove these components by clicking on the *minus* icon in the Action column; If the client-side components are not installed, you can install these components by clicking on the *plus* icon.

    For more information, see "Installing client-side components to selected hosts" on page 42 and "Removing client-side components from selected hosts" on page 43.
  - *Inventory* icon: This action displays the inventory information for the host, including IP address and host name, system memory, CPU, network interface cards (NICs) and more.
  - *Performance* icon: This action displays the performance information for the host, including IP address and host name, memory usage, filesystem usage and more.

4. **Click the *up-arrow* icon in the top right corner to return to the Managed Hosts table.**

Control Module Installation Report for Hosts

Host name	Class	Eligible	Installed	Failed	Action
10.6.75.170	Netra T1120-1125 [S9]	4	4	0	
10.6.75.171	Netra T1120-1125 [S8]	4	4	0	
10.6.75.165	Ultra 5-10 [S9]	4	4	0	

FIGURE 3-5 Sample of a Control Module Installation report

Control Modules for which 10.6.75.165 is eligible

Name	Version	Vendor	Status	Action
health	2.0-22	Sun Microsystems, Inc.	Installed	
inventory	2.0-17	Sun Microsystems, Inc.	Installed	
performance	2.0-13	Sun Microsystems, Inc.	Installed	
swmgmt	2.0-18	Sun Microsystems, Inc.	Installed	

FIGURE 3-6 Eligible Control Modules For <Host> table

Removing a host

To remove a managed host(s):

1. **Select Administration > Hosts.**

   The Managed Hosts table appears in the selector window.

2. **In the selector, click to highlight the host(s) you want to remove. You can also click Select All at the top to choose all hosts in the list:**

3. **Click Remove at the bottom.**

   A confirmation table appears, asking you to confirm the removal of the selected host(s).

4. **To cancel the task and return to the selector, click Cancel.**

5. **To proceed with the task, click Remove Host.**

   The Task Progress dialog appears.

Modules

To view the control modules installed on the Sun Control Station, select Administration > Modules. The Control Modules table appears; see FIGURE 3-7 for a sample table.

In this table, you can add the client-side components of the control module to a host or remove them from a host, view the details on a particular control module, or remove the control module from the Sun Control Station (along with the client-side components from all hosts).

Control Modules table

The Installed Control Modules table has seven columns:

- Name: the name of the control module
- Version: the version number of the control module
- Vendor: the vendor of the control module
- Eligible: the number of hosts that are eligible for this control module
- Installed: the number of hosts on which this control module is installed
- Failed: the number of hosts on which this control module failed to install.
- Actions: to add or remove the client-side components of the control module to or from a host, view the details for a module or to delete a module from the control station

FIGURE 3-7 Control Modules table

You can sort the list of control modules according to the name of the module, the version number, the vendor, the number of hosts that are eligible for the module, or the number of hosts on which the module successfully installed or failed to install, in ascending or descending order.

Ascending order means from lowest value to the highest value (a–z or 1–9). Descending order means from highest value to the lowest value (z–a or 9–1). By default, the Control Modules table is sorted by module name in ascending order.

In the heading of the column which has been sorted, a *triangle* icon points down (ascending order) or up (descending order).

Adding a control module

When you add a control module to the control station, a menu item for this new module appears in the list on the left side of the UI.

To add a control module:

1. **Select Administration > Modules.**

   The Control Modules table appears.

2. **Click Add Module at the bottom of the table.**

   The Add Module table appears; see FIGURE 3-8.

3. **Click one of the radio buttons and enter the location from which the control module package is obtained.**

   - Enter a URL beginning with `http://` or `ftp://` to download the control module from a location on the Internet.
   - Click Choose File to locate the control module.

4. **Enable the check box Install On All Eligible Hosts if you want to install, in this same procedure, the client-side components on all eligible hosts.**

   If you do not want to, you can select at a later time the hosts on which to install the module components.

5. **Click Install Now.**

   The Task Progress dialog appears.

Note – You can also schedule the installation of a new control module for a later time. For more information, see "Schedule" on page 5.

Note – If the newly added control module does not appear in the menu on the left, refresh your browser window.

If there is documentation available for this module, it is added to the list of online documentation. For more information, see "Online Documentation" on page 7.

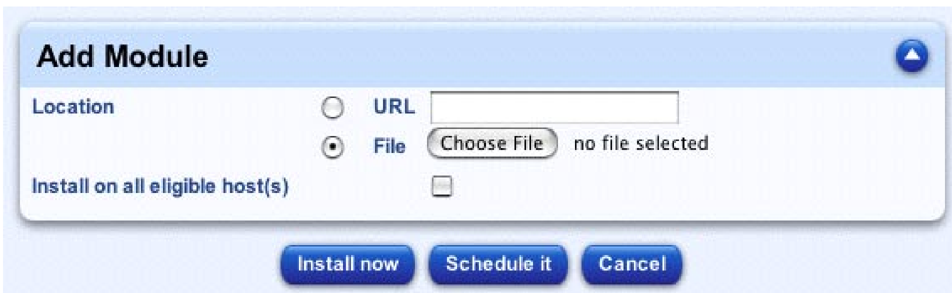


FIGURE 3-8 Add Module table

Viewing details for a control module

To view the details for a control module:

1. **Select Administration > Modules.**

   The Control Modules table appears.

2. **Locate in the list the module for which you want to view the details.**

3. **Click the *magnifying glass* icon in the Actions column.**

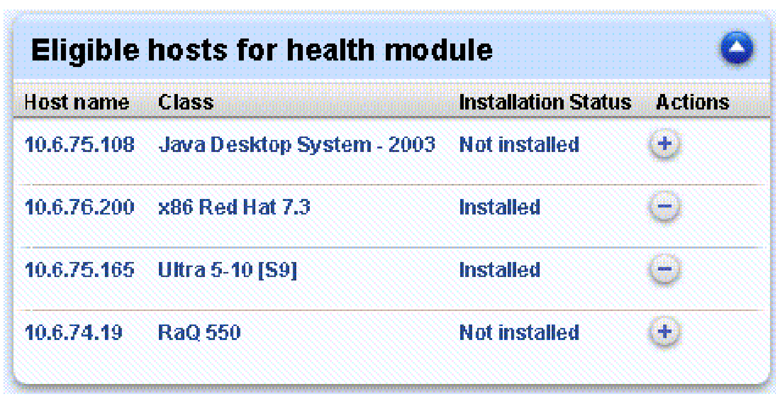
   The Eligible Hosts For <Control Module> table appears; see FIGURE 3-9.

   The table shows the IP address or host name of the host(s) on which the module has been installed, the class of host and the installation status of the module for each host.

   If the client-side components of a module are installed on the host, you can remove these components by clicking on the *minus* icon in the Actions column; If the client-side components are not installed, you can install these components by clicking on the *plus* icon.

   For more information, see "Installing client-side components to selected hosts" on page 42 and "Removing client-side components from selected hosts" on page 43.

4. **Click the *up-arrow* icon in the top right corner to return to the Control Modules table.**



Eligible hosts for health module

Host name	Class	Installation Status	Actions
10.6.75.108	Java Desktop System - 2003	Not installed	+
10.6.76.200	x86 Red Hat 7.3	Installed	−
10.6.75.165	Ultra 5-10 [S9]	Installed	−
10.6.74.19	RaQ 550	Not installed	+

FIGURE 3-9 Eligible Hosts For <Control Module> table

Installing client-side components to selected hosts

If you have added a control module but not installed the client-side components on the eligible hosts, you can install the client-side components to selected hosts.

You can install the client-side components to a single host or a number of hosts:

1. **Select Administration > Modules.**

   The Control Modules table appears.

2. **Locate in the list the module for which you want to install the client-side components.**

   If there are eligible hosts that do not have the module, the *plus* icon is active in the Actions column.

▼ *To install the client-side components on more than one host*

3. **Click the *plus* icon.**

   The eligible hosts appear in the selector window; see FIGURE 3-9.

4. **In the selector, click to highlight the host(s) on which you want to install the client-side components. You can also click Select All at the top to choose all hosts in the list.**

5. **Click Install Now at the bottom.**

   The Task Progress dialog appears.

Note – You can also schedule the installation of the client-side components for a later time. For more information, see “Schedule” on page 5.

▼ *To install the client-side components on a single host*

6. **If you click the *magnifying glass* icon, the Eligible Hosts For <Control Module> table appears.**

7. **Click the *plus* icon next to the host on which you want to install the client-side components for the module.**

   The Task Progress dialog appears.

Removing client-side components from selected hosts

You can remove the client-side components from a single host or from a number of hosts.

1. **Select Administration > Modules.**

   The Control Modules table appears.

2. **Locate in the list the module for which you want to remove the client-side components.**

   If there are eligible host(s) that have the module, the *minus* icon **is active in the Actions column.**

▼ *To remove the client-side components from more than one host*

3. **Click the *minus* icon.**

   The eligible hosts appear in the selector window; see FIGURE 3-9.

4. **In the selector, click to highlight the host(s) from which you want to remove the client-side components. You can also click Select All at the top to choose all hosts in the list:**

5. **Click Uninstall Now at the bottom.**

   The Task Progress dialog appears.

Note – You can also schedule the removal of the client-side components for a later time. For more information, see “Schedule” on page 5.

▼ *To remove the client-side components from a single host*

6. **If you click the *magnifying glass* icon, the Eligible Hosts For <Control Module> table appears.**

7. **Click the *minus* icon next to the host from which you want to remove the client-side components for the module.**

   The Task Progress dialog appears.

Re-trying a failed installation

The client-side components of a control module may not always install successfully on a host and this is indicated in the Control Modules table. The number of hosts on which the install task failed appears in the Failed column. You can view a list of these hosts and try to install the components again.

To try to install the client-side components again:

1. **Select Administration > Modules.**

   The Control Modules table appears.

2. **Locate in the list the module for which you want to view the failed-installation report.**

3. **Click the *exclamation-mark* icon in the Actions column.**

   The hosts on which the client-side components failed to install appear in the selector window.

4. **In the selector, click to highlight the host(s) on which you want to try to install again the client-side components. You can also click Select All at the top to choose all hosts in the list:**

5. **Click Retry Now in the bottom right corner.**

   The Task Progress dialog appears.

Note – You can also schedule the re-installation of client-side components for a later time. For more information, see “Schedule” on page 5.

Removing a control module

Note – If you remove one of the five pre-installed control modules (for example, Health Monitoring), you cannot re-install it later from the Sun Control Station (the modules are not stored on the control station).

See “Administration Functions” on page 25 for the list of the pre-installed control modules.

If you have the Sun Control Station 2.0 CD-ROM, you can find the control modules in the directory `/MAPPS`.

To add the module to the control station; see “Adding a control module” on page 39.

To remove a control module:

1. **Select Administration > Modules.**

   The Control Modules table appears.

2. **Locate in the list the control module that you want to remove.**

3. **Click the *delete* icon in the Actions column.**

   The Confirm Removal Of Control Module table appears, asking you to confirm the removal.

4. **Click Remove Module.**

   The Control Modules table appears with the updated information.

   This removal task removes all server-side components from the Sun Control Station and, if the managed host is accessible, all client-side components from the host(s) on which the module was installed.

Groups

You can group together a number of hosts under a single group name. Groups can help you manage your hosts according to, for example, geographical location or class of host.

Groups table

The Groups table has four columns; FIGURE 3-10 shows an example of the table.

- Name
- Description
- Hosts
- Actions

FIGURE 3-10 Groups table

You can sort the list of groups according to the name of the group, the description of the group or the number of hosts in a group, in ascending or descending order.

Ascending order means from lowest value to the highest value (a–z or 1–9). Descending order means from highest value to the lowest value (z–a or 9–1). By default, the List Groups table is sorted by group name in ascending order.

In the heading of the column which has been sorted, a *triangle* icon points down (ascending order) or up (descending order).

Action column

Once a group is created, you can perform various operations on that group. These operations are found in the Actions column of the List Groups table and are explained further along in this section.

- Modify a group
- View details of a group
- Add a host(s) to a group
- Remove a host(s) from a group
- Remove a group

Adding a group

To create a group of managed hosts:

1. **Select Administration > Groups.**

   The Groups table appears.

2. **Click Create Group at the bottom of the table.**

   The Create A New Group table appears; see FIGURE 3-11.

3. **Fill in the following fields:**

   - Group Name: Enter a name for the group.
   - Description (Optional): Enter a short description for this group. The description can contain up to 255 characters.
   - Choose Hosts To Add: Enable this check box if you want to add hosts to the group in this same procedure.

4. **Click Save.**

   If you did not click the check box Choose Hosts To Add, the Groups table appears with the new group; the new group contains no hosts.

   If you did click the check box Choose Hosts To Add, the selector appears, displaying the list of managed hosts.

5. **In the selector, click to highlight the host(s) you want to add to the group. You can also click Select All at the top to choose all hosts in the list.**

6. **Click Add in the bottom right corner.**

   The Groups table appears with the new group added. The groups are sorted by group name in ascending order.

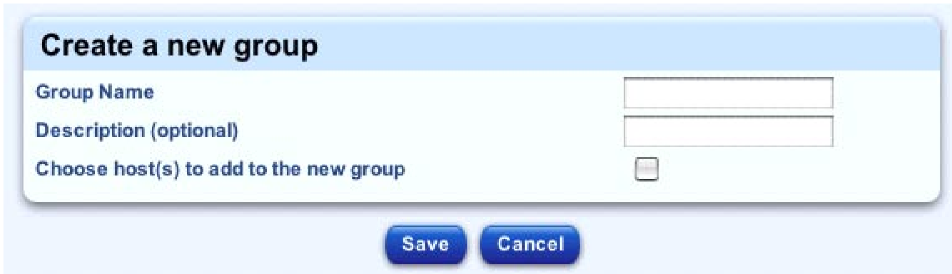


FIGURE 3-11 Create A New Group table

Modifying a group

You can change the name or the description for a group.

To modify a group:

1. **Select Administration > Groups.**

   The Groups table appears.

2. **Locate in the list the group that you want to modify.**

3. **Click the *pencil* icon in the Action column.**

   The Modify Group table appears.

4. **You can modify the group name or the description of the group. The Description field is optional.**

5. **Click Save.**

   The Groups table appears with the modified information.

Viewing details of a group

You can see which hosts belong to a given group.

To view the details for a group:

1. **Select Administration > Groups.**

   The Groups table appears.

2. **Locate in the list the group for which you want to view the details.**

3. **Click the *magnifying glass* icon in the Action column.**

   The selector appears, displaying the list of managed hosts within that group.

   You can perform tasks from the Actions column.

4. **To return to the list of groups, click the *up-arrow* icon in the top-right corner.**

   The Groups table appears.

Adding a host to a group

You can add a host or hosts to an existing group.

To add a host(s):

1. **Select Administration > Groups.**

   The Groups table appears.

2. **Locate in the list the group to which you want to add a host.**

3. **Click the *plus* icon in the Actions column.**

   The selector appears, displaying the list of managed hosts on the Sun Control Station.

4. **In the selector, click to highlight the host(s) you want to add to the group. You can also click Select All at the top to choose all hosts in the list.**

   You can select a host in another group to add to the current group. The host will then appear as a member of both groups.

5. **Click Add in the bottom right corner.**

   The Groups table appears with the updated information. The groups are sorted by group name in ascending order.

Removing a host from a group

You can remove a host or hosts from an existing group.

To remove a host(s):

1. **Select Administration > Groups.**

   The Groups table appears.

2. **Locate in the list the group from which you want to delete a host.**

3. **Click the *minus* icon in the Actions column.**

   The selector appears, displaying the list of managed hosts that belong to the group.

4. **In the selector, click to highlight the host(s) you want to remove from the group. You can also click Select All at the top to choose all hosts in the list.**

5. **Click Remove in the bottom right corner.**

   The Groups table appears with the updated information. The groups are sorted by group name in ascending order.

Removing a group

You can remove an existing group.

Note – Removing a group does not remove the managed hosts in that group from the Sun Control Station.

To remove a host(s), see "Removing a host" on page 37.

To remove a group:

1. **Select Administration > Groups.**

   The Groups table appears.

2. **Locate in the list the group that you want to remove.**

3. **Click the *delete* icon in the Actions column.**

   The Confirm Group Removal table appears, asking you to confirm the removal.

4. **Click Remove Group.**

   The Groups table appears with the updated information.

Tasks

For an explanation of tasks and events on the Sun Control Station, see "Tasks and events" on page 27.

Tasks table

The Tasks table has five columns; FIGURE 3-12 shows an example of the table.

Note – If there are more than 10 entries in the Tasks table, the table lists the first 10 entries. There are buttons at the bottom of the table with which to choose different ranges of entries.

To view the Tasks table:

● **Select Administration > Tasks.**

The Tasks table appears. The columns are:

- Status: the status of the task:
  - Green with checkmark: Completed successfully
  - Yellow with exclamation mark: Completed with warnings
  - Red with X: Failed
- Name: the string name of the functional component that created the task
- Start Date/Time: the date and time that the task started
- Duration: indicates how long a task took to complete (shown in the format *hh:mm:ss*) or how far a task has progressed (in percentage)
- Actions: Clicking the *magnifying glass* icon allows you to see the individual events associated with a task. A new table appears listing the events. Click the *up-arrow* icon in the top-right corner to return to the Tasks table.

You can sort the list of tasks according to the name of the task, the start date/time of the task, or the duration of the task, in ascending or descending order.

Ascending order means from lowest value to the highest value (a–z or 1–9). Descending order means from highest value to the lowest value (z–a or 9–1). By default, the Tasks table is sorted by start date and time in ascending order.

In the heading of the column which has been sorted, a *triangle* icon points down (ascending order) or up (descending order).

Tasks

Current Items: 1-10 Total Items: 68

	Name	Start Date / Time ▲	Duration	Actions
✔	Status Polling	2003-09-05 10:01:01.0	00:04:13	
!	Updating Health Monitor Settings on Managed Host(s)	2003-09-05 09:48:12.0	00:02:35	
✔	Install module on hosts	2003-09-05 09:44:44.0	00:00:09	
!	Updating Health Monitor Settings on Managed Host(s)	2003-09-05 09:36:17.0	00:03:42	
✔	Status Polling	2003-09-05 08:01:01.0	00:05:32	
✔	Status Polling	2003-09-05 06:01:00.0	00:05:26	
✔	Status Polling	2003-09-05 04:01:00.0	00:05:24	
✔	Cleanup	2003-09-05 03:14:00.0	00:00:10	
✔	Status Polling	2003-09-05 02:01:00.0	00:05:18	
✔	Status Polling	2003-09-05 00:01:00.0	00:05:29	

1-10 11-20 21-30 Next >>

FIGURE 3-12 Sample of a Tasks table

Events table

You can view a list of the events generated for a given task in the system.

FIGURE 3-13 shows an example of the table.

Note – If there are more than 10 entries in the Events table, the table lists the first 10 entries. There are buttons at the bottom of the table with which to choose different ranges of entries.

To view the Events tables:

1. **Select Administration >Tasks.**

   The Tasks table appears. The columns are:

2. **To view the events for a particular task, click the *magnifying glass* icon in the Actions column.**

   The Events For <Task> table appears. The columns are:

   - Status: the status of the task:
     - Green with checkmark: Completed successfully
     - Yellow with exclamation mark: Completed with warnings
     - Red with X: Failed
   - Message: a message describing the event
   - Start Date/Time: the date and time that the event took place

   You can sort the list of tasks according to the message or the start date/time of the event.

   Ascending order means from lowest value to the highest value (a–z or 1–9). Descending order means from highest value to the lowest value (z–a or 9–1). By default, the Tasks table is sorted by start date and time in ascending order.

   In the heading of the column which has been sorted, a *triangle* icon points down (ascending order) or up (descending order).

3. **Click the *up-arrow* icon in the top-right corner to return to the Tasks table.**

   The Tasks table appears.

FIGURE 3-13 Sample of an Events table

Schedule

For an explanation of the Schedule feature, see “Schedule” on page 5.

To view the Schedule table, select Administration > Schedule. See FIGURE 3-14 for a sample table.

The Schedule table has four columns:

- Name: the name of the scheduled task
- Type: how often the scheduled task runs
- Settings: the time and date on which the scheduled task runs
- Actions: to view the details for a scheduled task, modify the settings for a scheduled task or delete a scheduled task.

  For certain tasks, you can also use the *plus* icon or the *minus* icon to add or remove hosts to or from the scheduled task.

FIGURE 3-14 Schedule table

You can sort the list of scheduled tasks according to the name of the task, the type of task or the settings for the task, in ascending or descending order.

Ascending order means from lowest value to the highest value (a–z or 1–9). Descending order means from highest value to the lowest value (z–a or 9–1). By default, the Scheduled Tasks table is sorted by module name in ascending order.

In the heading of the column which has been sorted, a *triangle* icon points down (ascending order) or up (descending order).

Cleanup

Cleanup is a built-in scheduled task that allows you to clean up the list of tasks and events retained by the Sun Control Station. The Cleanup task runs once per day.

Note – You cannot delete the Cleanup task from the table and you cannot disable it.

To configure the Cleanup task:

1. **Select Administration > Schedule.**

   The Schedule table appears.

2. **In the Action column, next to the Cleanup task, click the *pencil* icon.**

   The Schedule Settings For Cleanup table appears.

3. **Configure the following settings:**

   - Run Time: the time of day that the cleanup task runs. The system deletes all tasks and events that are 14 days old.

     The format is *hh:mm* (24-hour format).

   - Email Address (Optional): Enter an email address of the person who will be notified when the Cleanup task runs.
   - Notify When Starting: Enable the check box to notify the person when the Cleanup task is starting.
   - Notify When Finished: Enable the check box to notify the person when the Cleanup task has completed.

4. **Click Save.**

   The Schedule table appears with the updated settings.

Viewing the details of a scheduled task

To view the details of a scheduled task:

1. **Select Administration > Schedule.**

   The Schedule table appears.

2. **Click the *magnifying glass* icon next the task for which you want to see the details.**

   The Tasks table appears. For more information on this table, see “Tasks table” on page 51.

3. **Click the *up-arrow* icon in the top-right corner to return to the Scheduled Tasks table.**

Modifying a scheduled task

To modify the settings for a scheduled task:

1. **Select Administration > Schedule.**

   The Schedule table appears.

2. **Click the *pencil* icon next to the task you want to modify.**

   The Schedule Settings for <Task> table appears.

3. **Modify the settings.**

4. **Click Save.**

   The Schedule table appears with the updated settings for that task.

Deleting a scheduled task

To delete a scheduled task:

1. **Select Administration > Schedule.**

   The Schedule table appears.

2. **Click the *delete* icon next to the task that you want to delete.**

   A confirmation table appears, asking you to confirm the removal of the scheduled task.

3. **To cancel the task and return to the selector, click Cancel.**

4. **To proceed, click Remove Schedule.**

   The Schedule table appears, with the scheduled task removed from the table.

APPENDIX **A**

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