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## Solstice AdminSuite 2.3 Installation and Release Notes

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## Solstice AdminSuite 2.3 Product Notes

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This chapter provides the following information for the Solstice™ AdminSuite™ 2.3 product.

- “Solstice AdminSuite 2.3 Overview” on page 1
- “What’s New in the Solstice AdminSuite 2.3 Product” on page 3
- “Documentation” on page 4

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### Solstice AdminSuite 2.3 Overview

The Solstice AdminSuite product is a suite of tools and supporting technologies that makes it possible for system administrators to effectively manage system information in a network environment.

Solstice AdminSuite tools enable an administrator to:

- Manage any local or remote system’s data from the administrator’s system
- Modify system data without root privileges by using a special administration group
- Centralize system data, including printer configuration information, using either the NIS or NIS+ name service
- Monitor software usage on servers and clients

## Solstice AdminSuite 2.3 Tools Overview

The Solstice AdminSuite provides the following Motif<sup>®</sup> graphical user interface tools that can be used on a host running an X Window System<sup>™</sup>, such as the OpenWindows<sup>™</sup> environment:

- Database Manager – Updates network-related system files such as `auto_home`, `ethers`, `netgroup`, and `locale` files
- Group Manager – Creates and manages UNIX<sup>®</sup> groups
- Host Manager – Configures system information and adds server support for diskless, dataless, and AutoClient<sup>™</sup> systems
- Serial Port Manager – Configures serial port software for terminals and modems
- User Account Manager – Creates and manages user accounts
- Printer Manager – Configures print servers and print clients
- Storage Manager – Manages file systems and disks on servers and clients

## Solstice AutoClient 2.1 Licenses

The Solstice AutoClient 2.1 product is available on this CD-ROM; however, you may only use this product if you have purchased licenses. For more information about the Solstice AutoClient 2.1 product, refer to the *Solstice AutoClient 2.1 Installation and Product Notes* provided in PostScript<sup>™</sup> and html formats on this CD-ROM (`/cdrom/solstice_sysmgt_2_3/Manuals`).

## SunSoft Print Client Overview

The SunSoft Print Client software is a complete replacement for the Solaris<sup>™</sup> print software (LP), which requires per-client administration to access remote printers. The SunSoft Print Client software offers the following benefits:

- Centralized Printer Configuration – Uses a name service (NIS or NIS+) to store and retrieve printer configuration information
- Enhanced Local Printer Configuration – Allows users to easily manage local printer configuration information
- Better Performance – Sends print requests directly to the server, instead of being spooled locally

For more information about the SunSoft print client software, refer to the *Solstice AdminSuite Printer Administration Guide*.

# Software Usage Monitoring Overview

Software usage monitoring is a new product offered with the Solstice AdminSuite 2.3 product. Software usage monitoring is a compilation of software programs that enable you to monitor software usage across your network servers and clients.

Tracking software usage enables you to tell which programs are used the most and the least, thus simplifying the system administration of your computer network. For example, some software may be heavily used and need more licenses while other software might not be used at all and could be removed from the computer network.

Using software usage monitoring commands, you can do the following:

- Generate software usage report entries for applications run on servers or clients
- Transfer software usage report entries from the clients to the software usage server
- Print and format software usage report entries

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**Note** - The product specified in the attribute list for the `swu_rpt` command and the `swu_rpt()` function must provide enough information to distinguish one product's usage record from another's usage record.

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## What's New in the Solstice AdminSuite 2.3 Product

The Solstice AdminSuite 2.3 product provides new features described in Table 1-1. To learn more about these features, see the *Solstice AdminSuite 2.3 Administration Guide*.

TABLE 1-1 New Solstice AdminSuite 2.3 Features

Feature	Description
Improved installation script	A new installation script makes it easier for users to install Solstice AdminSuite and AutoClient software. The new script enables you to set up systems to run AdminSuite remotely and also to set up systems to be administered by AdminSuite. The installation script can now also be run as root.
Improved password functionality	Using Group Manager or User Manager, you can now set group and user passwords; in addition, you can now set diskless client's and AutoClient's root password using Host Manager.
Multihomed host alias functionality	Hosts can now have additional IP addresses added to make it a multihomed host; that is, a host that has multiple network interfaces.

**TABLE 1-1** New Solstice AdminSuite 2.3 Features *(continued)*

Feature	Description
JavaStation™ support	Using Host Manager, you can now add JavaStations to your network.
OS services removal support	Host Manager now allows you to remove OS services from an OS server.
High Sierra File Systems support	High Sierra file system mount points can now be managed using Storage Manager.
Script enabler feature	Host Manager and User Manager now have the capability to run scripts that you have created to customize your operations. For example, you may have scripts that you run when you add a user to your system. Using the script feature, you can add a user from User Manager and run the script at the same time by using the Scripts Enabled feature.
AutoClient disk profile documentation	Information about how to setup your AutoClient disk profile has now been included in the <i>Solstice AutoClient 2.1 Administration Guide</i> .

## Documentation

For your convenience, the documentation for the Solstice AdminSuite and AutoClient software has been provided in two formats: HTML and PostScript™. The following sections describe what documents have been provided and where you can find them on the CD-ROM.

### Hypertext Markup Language (HTML) 2.0 Format

Documentation for the Solstice AdminSuite 2.3 product is available in HTML format in the `/cdrom/solstice_sysmgt_2_3/Manuals/html` directory. The following documents are available in HTML format:

- *Solstice AdminSuite 2.3 Installation and Release Notes* – Contains overview, installation procedures, troubleshooting, and known bug lists for the Solstice AdminSuite software and software usage monitoring.

- *Solstice AutoClient 2.1 Installation and Product Notes* – Contains overview, installation procedures, troubleshooting, and known bug lists for the Solstice AutoClient software.
- *Solstice AdminSuite 2.3 Administration Guide* – Contains product overview, task, and reference information for the Solstice AdminSuite software.
- *Solstice AutoClient 2.1 Administration Guide* – Contains the administrative tasks required for the successful operation of the Solstice AutoClient product. It includes information on how to administer AutoClient systems with Host Manager.
- *Solstice AdminSuite Print Administration Guide* - Contains product overview information about the SunSoft Print Client software, task and reference information for setting up and modifying print client software.

To view this documentation, use an HTML 2.0 compliant Web browser such as Netscape Navigator™.

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**Note** - A Web browser is not provided with the Solstice AdminSuite 2.3 product.

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Choose Open File from the File menu in your Web browser and type in the following path.

```
/cdrom/solstice_sysmgt_2_3/Manuals/html/index.html
```

The HTML index page is displayed. Click on the desired product name to view the documentation for that product.

For faster access to the Solstice AdminSuite 2.3 documentation in HTML format, copy the directory where the HTML files are stored to a directory in the local file system, as shown in the example.

```
# cp -r /cdrom/solstice_sysmgt_2_3/Manuals/html /local-path
```

Subsequently, access the HTML index page using the local file system path with your Web browser instead of using the path to the files stored on the CD - ROM.

## PostScript Format

For users who do not have access to browsers, the documentation has been provided in PostScript format. The following files are provided in the /cdrom/solstice\_sysmgt\_2\_3/Manuals/postscript directory.

The PostScript files included on the CD-ROM are:

- Sol\_AS2.3\_Install.ps

*Solstice AdminSuite 2.3 Installation and Product Notes* – Contains overview, installation procedures, troubleshooting, and known bug lists for the Solstice AdminSuite software and software usage monitoring.

- Sol\_AC2.1\_Install.ps

*Solstice AutoClient 2.1 Installation and Product Notes* – Contains overview, installation procedures, troubleshooting, and known bug lists for the Solstice AutoClient software.

- Sol\_AS2.3\_Admin\_Guide.ps

*Solstice AdminSuite 2.3 Administration Guide* – Contains product overview, task, and reference information for the Solstice AdminSuite software.

- Sol\_AC2.1\_Admin\_Guide.ps

*Solstice AutoClient 2.1 Administration Guide* – Contains the administrative tasks required for the successful operation of the Solstice AutoClient product. It includes information on how to administer AutoClient systems with Host Manager.

- Sol\_ASPrint\_Admin\_Guide.ps

*Solstice AdminSuite Print Administration Guide* – Contains product overview information about the SunSoft Print Client software, task and reference information for setting up and modifying print client software.

## Solstice AdminSuite 2.3 Dependencies

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This chapter provides the following information for the Solstice AdminSuite 2.3 product.

- “Supported Platforms” on page 7
- “Supported Operating Systems” on page 8
- “Disk Space Availability” on page 9
- “Required Software Packages” on page 9
- “AdminSuite and Patches” on page 11

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## Supported Platforms

The Solstice AdminSuite 2.3 software can be installed on the standalone or server systems described in Table 2-1.

**TABLE 2-1** Solaris™ OS Releases and Platforms Supported by Solstice AdminSuite 2.3

Solaris OS Release	Platform
Solaris 2.3	SPARC™
Solaris 2.4 and later	SPARC x86

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# Supported Operating Systems

Each operating system has various levels of support with AdminSuite 2.3. The following sections describe the support available with each operating system.

## Solaris 2.4 Systems

Before installing the Solstice AdminSuite 2.3 software on a system running the Solaris 2.3 or Solaris 2.4 release, verify that the NFS `mountd` process is active with the following command.

```
# ps -ef | grep mountd
```

If the `mountd` process is not displayed in the output, start it by using this command.

```
# /usr/lib/nfs/mountd
```

Ensuring that the `mountd` process is running will prevent the installation script from hanging.

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**Note** - Software usage monitoring is supported only on systems running the Solaris 2.4 release or higher.

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## Solaris 2.3 End-of-Support

Support for Solaris 2.3 will be dropped from the next release of AdminSuite and AutoClient. Users running AdminSuite or AutoClient on systems running Solaris 2.3 should plan on upgrading the system to a new release during this transition period.

## 4.x Client Support

If you plan on having 4.x clients and your server is running a version of Solaris later than 2.5.1, you will need to manually install the `SUNWhinst` package that is now included on the Solstice AdminSuite 2.3 CD-ROM.



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## Disk Space Availability

To perform a full installation of the Solstice AdminSuite 2.3 software on a Solstice station manager system, you need 35 Mbytes of free disk space for the spooled software area and an additional 15 Mbytes of disk space for each architecture (SPARC and x86). Type this command to find the amount of empty disk space.

```
% /usr/bin/df -k
Filesystem      kbytes    used   avail capacity  Mounted on
/dev/dsk/c0t2d0s0 905070 239227 575343    30%      /
/dev/dsk/c0t3d0s0 288102 186690  72602    72%    /usr
/proc              0         0         0     0%    /proc
fd                  0         0         0     0%  /dev/fd
/dev/dsk/c0t3d0s1 201583  68385 113048    38%  /export
swap               57840     12   57828     1%    /tmp
```

The `avail` column shows the number kilobytes of available disk space. In this example, the `/export` directory has 113048 Kbytes (approximately 113 Mbytes) free, more than enough to install the Solstice AdminSuite 2.3 software (you can install the software in directory locations other than the `/export` directory).

---

**Note** - A full installation is not required to use the Solstice AdminSuite 2.3 software on each system. You can perform a full installation on one system, and use the installation program to set up other systems to access the Solstice AdminSuite 2.3 software installed on this system.

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## Required Software Packages

### Solstice AdminSuite 2.3

The Solstice AdminSuite 2.3 product verifies that the following software packages are installed on systems running the Solaris 2.5 or later operating environment:

- SUNWadm
- SUNWadmfw
- SUNWsadml
- SUNWmfrun

The `SUNWsadml` and `SUNWmfrun` software packages are automatically installed on systems running the Solaris 2.3, Solaris 2.4, Solaris 2.5, or Solaris 2.5.1 release. For

systems running a version later than 2.5.1, you must go back to the Solaris CD-ROM and install these packages before you can install Solstice AdminSuite 2.3.

## SunSoft Print Client

The SunSoft Print Client software assumes the following Federated Naming Service (FNS) packages are already installed on systems running the Solaris 2.5.1 operating environment.

- SUNWfns
- SUNWfnspr

These packages are automatically installed by the Solstice AdminSuite installation script on systems running the Solaris 2.3, Solaris 2.4, Solaris 2.5 or later release. For systems running a version later than Solaris 2.5.1, you must go back to the Solaris 2.5.1 CD-ROM and install these packages before you can install AdminSuite.

On systems running the Solaris 2.3 and Solaris 2.4 operating environment, the `SUNWlibCf` package must be installed to use the SunSoft Print Client software in the NIS+ name service. Obtain this package from the Solaris media used to originally install the system.

## Removing Previously Installed AdminSuite Software

If you have installed an earlier release of the Solstice AdminSuite software (for example, Solstice AdminSuite 2.2), you must remove the old version prior to installing your new software. Refer to “Removing Previously Installed AdminSuite Software” on page 16 for information about how to remove this software.

## sysadmin Group Membership

To run `admin_install`, you must be a member of the `sysadmin` group (group 14). Additionally, you must belong to the `sysadmin` group on each host you specify during installation. See “Becoming a Member of the `sysadmin` Group” on page 17 for more information.

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# AdminSuite and Patches

Support for automatically patching new diskless and AutoClient clients is now integrated into the AdminSuite and AutoClient tools. A command line interface, `admclientpatch`, is also provided to allow you to patch existing clients with one operation.

A small number of required patches for different releases of Solaris are shipped with the AdminSuite product. The appropriate patches will be applied as you create new clients. You can use the `admclientpatch` command to spool additional patches or you can remove patches from the spool area that you no longer need. However, you should be careful when removing one of the patches that is shipped with Solstice AdminSuite 2.3 since new clients may not work properly if a required patch is missing.

Because patches are now applied automatically when a client is created, there are some additional things to be aware of. If you have existing clients, including dataless clients, that share the OS service with the new client, these existing clients will now also have the patch. You can use the `admclientpatch` command to be sure that all of the diskless and AutoClients also have the patch applied to their root filesystem. For dataless clients, you may need to go to each client and apply the patch to ensure that the dataless root is patched properly to match the shared OS service.

The disconnectable patch will also affect any dataless clients that use CacheFS™ and that share the OS service. The disconnectable patch will need to be applied to the dataless client's root for the client to work properly. The patches can be found in the spool area: `/opt/SUNWadmd/Patches`. The patch that needs to be applied to the dataless client root is shown in Table 2-2.

**TABLE 2-2** Disconnectable Patches

Patch	Number
Solaris 2.5 SPARC	102906-02
Solaris 2.5.1 SPARC	103006-02
Solaris 2.5 i386	102939-02
Solaris 2.5.1 i386	103007-02

## Slower Installations

Because of the integrated patching support that is now in the Host Management tools, adding AutoClients or diskless clients will take longer than in the previous release. This impact is due to the time needed to run `installpatch` for appropriate spooled patches. Once the client is created, there should be no noticeable performance difference from the earlier release.

## Solstice AdminSuite 2.3 Installation Procedures

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This chapter provides the following information for the Solstice AdminSuite 2.3 product.

- “Installation Overview” on page 13
- “Installation Process” on page 14
- “Removing Previously Installed AdminSuite Software” on page 16
- “Becoming a Member of the sysadmin Group” on page 17
- “Installing the Solstice AdminSuite and AutoClient Software” on page 21
- “Installing Software Usage Monitoring Toolkit” on page 31
- “Setting Up Systems to Use AdminSuite” on page 36
- “Troubleshooting” on page 42

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### Installation Overview

The Solstice AdminSuite 2.3 software is installed using the `admin_install` script, found at the root level directory of the CD-ROM. You can use the installation script to install the software on systems in the network, as well as standalone systems. Help is available when you run the script, and the script is designed for you to easily install the Solstice AdminSuite 2.3 product.

The installation script provides the following options:

- Install AdminSuite 2.3 and AutoClient 2.1
- Install SunSoft Print Client (Solaris 2.3 - 2.5.1 only)

- Install Software Usage Monitoring Toolkit
- Set up systems to use AdminSuite and AutoClient

The software products that are available from the main menu are installed in different ways. Some products can be installed on a server and shared with other systems, while other products must be installed directly onto each system and cannot be shared. For example, the SunSoft Print Client product is installed directly onto the file system. The Solstice AdminSuite 2.3 product and software usage monitoring product can be installed on a single system and shared with others systems using the NFS distributed file system.

Though the script uses a self-documenting interface, this section describes the major options used by the script during the installation process.

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**Note** - The `admin_install` installation program cannot be used to install the software on diskless, dataless, or AutoClient system types.

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## Installation Process

The installation process involves a number of tasks, which are listed in Table 3-1. Some of these tasks may or may not be required to be performed, depending upon your system configuration. Review the tasks listed in Table 3-1 and perform them in the order that they are listed. If one task is not required, simply skip to the next task.

**TABLE 3-1** Task Map: Installing the Solstice AdminSuite 2.3 Software

Activity	Description	For Instructions, Go To
Remove Previously Installed Software	Before installing your new Solstice AdminSuite software, you must remove the old version of AdminSuite (AdminSuite2.2 or earlier). Skip this activity if you do not have a previous version of Solstice AdminSuite installed.	"How to Remove Previously Installed AdminSuite Software" on page 16
Become a Member of the sysadmin group	Before you can run the <code>admin_install</code> script, you must be a member of the <code>sysadmin</code> group on each host you wish to install. Skip this activity if you are already a member of the <code>sysadmin</code> group.	<p>"How to Add Users to the sysadmin Group Using NIS+" on page 17</p> <p>"How to Add Users to the sysadmin Group Using NIS" on page 19</p> <p>"How to Add Users to the sysadmin Group Using Local <code>/etc</code> files" on page 20</p>
Install Solstice AdminSuite and AutoClient	Use the <code>admin_install</code> script to install the Solstice AdminSuite 2.3 software on a Solstice file server, administration system, or AdminSuite enabled system.	"Installing the Solstice AdminSuite and AutoClient Software" on page 21
Install SunSoft Print Client	Optional. Install the SunSoft Print Client software only if you are running a version of Solaris 2.3 through 2.5.1.	"Installing the Solstice AdminSuite and AutoClient Software" on page 21
Install the Software Usage Monitoring Toolkit	(Optional) Install software usage monitoring.	<p>"How to Install the Software Usage Monitoring Toolkit" on page 32</p> <p>"How to Set Up the Alias for <code>swusage_host</code>" on page 34</p>

**TABLE 3-1** Task Map: Installing the Solstice AdminSuite 2.3 Software *(continued)*

Activity	Description	For Instructions, Go To
Register Printers With the Name Service	(Optional) Register printers with a name service (NIS or NIS+) without having to individually configure each print client with remote printer information.	<i>Solstice AdminSuite 2.3 Print Administration Guide</i>
Set Up Automounter Support	(Optional) If you selected the automounter mount method during the installation process, you must add entries to the automounter maps that indicate the location of the Solstice AdminSuite 2.3 software.	<p>“How to Add Automount Support by Using NIS+” on page 45</p> <p>“How to Add Automount Support by Using NIS” on page 48</p> <p>“How to Add Automount Support by Using Local <i>/etc</i> Files” on page 52</p>

## Removing Previously Installed AdminSuite Software

Before you can install your new AdminSuite software, you must remove the previously installed AdminSuite software using the following procedure.

### ▼ How to Remove Previously Installed AdminSuite Software

**1. Log in as root on the server running the old AdminSuite software.**

**2. Change directories to the `/cdrom/cdrom0` directory.**

**3. Remove the AdminSuite software using the following command line.**

If you have the AdminSuite 2.2 software on your system, use the following command line. This command is found in the top level of the Solstice CD.

```
# ./rm_admin -v 2.2 -d /opt [-f]
```

In this command,



<code>-v option</code>	Represents the version of AdminSuite you wish to remove.
<code>-d option</code>	Represents the directory in which the AdminSuite software is installed.
<code>-f option</code>	(Optional) Forces the removal of software with no confirmation prompt.

---

**Note** - If you do not specify a version or directory with the `rm_admin` command, by default, the version the command attempts to remove will be the 2.1 version located in the `/export/opt` directory.

---

## Becoming a Member of the sysadmin Group

To install the Solstice AdminSuite 2.3 software, you must be a member of the `sysadmin` group for each host you specify during installation. The following procedures describe how to become a member of the `sysadmin` group for each name service the hosts can use. To learn more about the `sysadmin` group and security in the Solstice AdminSuite product, see the *Solstice AdminSuite 2.3 Administration Guide*.

---

**Note** - You can now install the Solstice AdminSuite and AutoClient software as root on local systems; however, to install the software remotely, you must be a member of the `sysadmin` group.

---

### ▼ How to Add Users to the sysadmin Group Using NIS+

1. Log in to a system in your NIS+ domain as an authorized user with read and write access rights to the group table.
2. Save the group table to a temporary file.

```
$ niscat group.org_dir > /var/tmp/group-file
```

**3. Edit the file, adding the users you want to authorize to install the Solstice AdminSuite 2.3 software.**

The following sample shows users added to the sysadmin entry in the group file.

```
.  
.  
.  
sysadmin::14:user1,user2,user3
```

In this example,

*user1,user2,user3*

Represent the users you are adding to the sysadmin group.

**4. Merge the file with the NIS+ group table.**

```
$ /usr/lib/nis/nisaddent -mv -f /var/tmp/group-file group
```

The results of the merge are displayed.

**5. Remove the temporary file.**

```
$ rm /var/tmp/group-file
```

## Verification of Adding Users to the sysadmin Group Using NIS+

Verify that the user is a member of the sysadmin group by entering the following commands. Perform this step for each user you added to the file.

```
# su - user1  
$ groups  
staff sysadmin  
$ exit
```

## ▼ How to Add Users to the sysadmin Group Using NIS

1. Log in to the NIS master server as root.
2. Edit the `group` file (the default directory location is `/etc`), adding the users you want to authorize to install the Solstice AdminSuite 2.3 software.

The following sample shows users added to the `sysadmin` entry in the `group` file.

```
.  
.   
.   
sysadmin::14:user1,user2,user3
```

In this example,

`user1,user2,user3`

Represent the users you are adding to the `sysadmin` group.

---

**Note** - The directory location of the `group` file is specified in the NIS makefile using the `$DIR` variable. Consult this file if you are uncertain of the location of the `group` file.

---

3. Change directory to the location of the NIS makefile (the default is `/var/yp`) and rebuild the NIS map.

```
# cd /var/yp  
# make group
```

---

**Note** - Depending on the size of the NIS map, it may take several minutes or several hours to update the maps and propagate the changes throughout the network.

---

## Verification of Adding Users to the sysadmin Group Using NIS

Verify that the user is a member of the sysadmin group by entering the following commands. Perform this step for each user you added to the NIS master.

```
# su - user1
$ groups
staff sysadmin
$ exit
```

## ▼ How to Add Users to the sysadmin Group Using Local /etc files

Perform these steps for each system on which you want to use the Solstice AdminSuite 2.3 software.

1. **Log in as root to the system.**
2. **Edit the `/etc/group` file, adding the users you want to authorize to install the Solstice AdminSuite 2.3 software.**

The following sample shows users added to the sysadmin entry in the group file.

```
.
.
.
sysadmin: :14: user1,user2,user3
```

In this example,

`user1,user2,user3`

Represent the users you are adding to the sysadmin group.

## Verification of Adding Users to the sysadmin Group Using Local /etc Files

Verify that the user is a member of the sysadmin group by entering the following commands. Perform this step for each user you added to the system.

```
# su - user1
$ groups
staff sysadmin
$ exit
```

---

## Installing the Solstice AdminSuite and AutoClient Software

The following procedures describe how to install the Solstice AdminSuite and AutoClient software. To learn more about Solstice AdminSuite product, see the *Solstice AdminSuite 2.3 Administration Guide*.

### ▼ How to Install Solstice AdminSuite and AutoClient Software

#### 1. Insert the product CD into your CD-ROM drive.

If your system is not running Volume Management, you must mount the CD with the following commands before accessing it:

```
# mkdir /cdrom
# mount -F hsfs -o ro /dev/dsk/c0t6d0s0 /cdrom
```

#### 2. Log in as a member of the sysadmin group for that system (group 14).

---

**Note** - If you are installing the software on a local system, you do not have to be a member of the sysadmin group; you can install the software as root.

---

#### 3. Verify that you are a member of the sysadmin group.

```
$ groups
```

If the sysadmin group is listed in the output, proceed to the next step. If not, follow the instructions in “Becoming a Member of the sysadmin Group” on page 17.

#### 4. Change directories to the product directory on the CD.

```
$ cd /cdrom/solstice_sysmgt_2_3
```

#### 5. Run the `admin_install` script in the product directory.

Help is available during the installation. The main installation window shown below appears.

```
$ ./admin_install
```

```
Welcome to the Solstice Installation Program ...

To exit the installation process at any time, type 0
and press the Return key.

  1. Install AdminSuite 2.3 and AutoClient 2.1
  2. Install SunSoft Print Client (Solaris 2.3 - 2.5.1 only)
  3. Install Software Usage Monitoring Toolkit
  4. Set up systems to use AdminSuite and AutoClient
  5. Installation Help

Enter the number for one or more choices, separated by a space and
then press the Return key.

[default: 1]>>>
```

#### 6. Enter option number 1 - Install AdminSuite 2.3 and AutoClient 2.1.

The AdminSuite Software Location window shown below appears.

```
AdminSuite Software Location

1. /opt

Choose this option if you intend to support only one architecture
of the software.

2. /export/opt

Choose this option if you need to support multiple architectures
and if you will set up other systems that will NFS mount AdminSuite.

3. Specify location

Choose this option if you intend to set up other systems to NFS mount
AdminSuite but you do not want to install the software in /export/opt.
```

(continued)

#### 4. Installation Help

Type 1, 2, 3, or 4 and press the Return key.

[default: 1]>>>

### 7. Choose one of the following options that will install the software in the appropriate directory.

Option 1: /opt

This installation directory is the recommended directory; with this option, only one architecture can be used with the software. Once this option has been chosen, the following Installation Summary window appears.

```
==== Installation Summary ====

Product(s):      AdminSuite/AutoClient
Install Directory: /opt
Host(s): your_host_name

Start Installation
-----

Do you want to start the installation?
  1. Start installation
  2. Cancel installation

>>>
```

After confirming that the directory and host are correct, enter 1 to continue with the installation. You will see a scrolling list of the log activities. If the installation is successful, the following message will display in your installation window:

```
Successfully installed product: AdminSuite/AutoClient
```

Option 2: /export/opt

This option enables you to support multiple architectures and enables you to set up other systems that use NFS to mount AdminSuite. Once this option is chosen, you have to specify how clients will mount the AdminSuite software. The following window appears.

How will clients mount this software?

1. Systems will use the automounter

Choose this option if you will be configuring the automounter for clients to access the software.

2. Systems will mount via /etc/vfstab file

Choose this option if you will be setting up clients to use the /etc/vfstab to mount the software. A symlink will be made on the file server in /opt to point to the installation directory.

3. Installation Help

Type 1, 2 or 3 and press the Return key.

[default: 1]>>>

a. Choose the desired mount method.

---

**Note** - If you choose Option 1: Systems will use the automounter, this option enables clients to access the AdminSuite software using the automounter mount method. If you choose this method, you will need to add entries indicating the location of the Solstice AdminSuite software to the automounter maps. Refer to Chapter 4, for information about how to configure your automounter maps.

A note appears reminding you that you will have to add entries to your automounter map indicating where AdminSuite is installed. Press the Return key to continue.

---

The following AdminSuite Supported Platforms window appears.

AdminSuite Supported Platforms

1. sparc

Choose this option if you intend to manage systems based on the SPARC platform.

2. i386

Choose this option if you intend to manage systems based on the Intel x86 or Pentium platform.

Enter one or more choices separated by a space and then press the Return key.

(continued)



```
[default: 1]>>>
```

b. Choose the appropriate platform or platforms.

An Installation Summary window appears that looks similar to the following window.

```
==== Installation Summary ====

Product(s):      AdminSuite/AutoClient
Install Directory: /export/opt
Architecture(s) sparc      i386
Mount method Edit client vfstab or User configured automounter
Host(s): your_host_name

Start Installation
-----

Do you want to start the installation?

  1. Start installation
  2. Cancel installation

>>>
```

c. After confirming the information provided in the Installation Summary window, type 1 and press Return to continue with the installation.

You will see a scrolling list of the log activities. If the installation is successful, the following message will display in your installation window:

```
Successfully installed product: AdminSuite/AutoClient
```

#### Option 3: Specify location

This option enables you to specify the location of the AdminSuite software. If you chose this option, you must enter the path where you wish to have the AdminSuite software installed.

---

**Note** - If you install additional software, you must use the location that you specified in this step.

---

a. Enter the full pathname to the directory where you wish to install AdminSuite and then Press Return.

The following window appears.

```
How will clients mount this software?

1. Systems will use the automounter

    Choose this option if you will be configuring the automounter
    for clients to access the software.

2. Systems will mount via /etc/vfstab file

    Choose this option if you will be setting up clients to use
    the /etc/vfstab to mount the software. A symlink will be made
    on the file server in /opt to point to the installation directory.

3. Installation Help

    Type 1, 2 or 3 and press the Return key.

[default: 1]>>>
```

b. Choose the desired mount method.

---

**Note** - If you choose option 1: Systems will use the automounter, this option enables clients to access the AdminSuite software using the automounter mount method. If you choose this method, you will need to add entries indicating the location of the Solstice AdminSuite software to the automounter maps. Refer to Chapter 4, for information about how to configure your automounter maps.

A note appears reminding you that you will have to add entries to your automounter map indicating where AdminSuite is installed. Press the Return key to continue.

---

The following AdminSuite Supported Platforms window appears.

```
AdminSuite Supported Platforms

1. sparc

    Choose this option if you intend to manage systems based
    on the SPARC platform.

2. i386

    Choose this option if you intend to manage systems based
```

(continued)

on the Intel x86 or Pentium platform.

Enter one or more choices separated by a space and then press the Return key.

[default: 1]>>>

c. Choose the appropriate platform or platforms.

An Installation Summary window appears that looks similar to the following window.

```
==== Installation Summary ====

Product(s):      AdminSuite/AutoClient

Install Directory: /export
Architecture(s) sparc      i386

Mount method Edit client vfstab or User configured automounter

Host(s): your_host_name

Start Installation
-----

Do you want to start the installation?

  1. Start installation
  2. Cancel installation

>>>
```

d. Verify the information provided in the Installation Summary window; type 1 and press Return to continue with the installation.

You will see a scrolling list of the log activities. If the installation is successful, the following message will display in your installation window: Successfully installed product: AdminSuite/AutoClient

## 8. Update your shell search path to include the location of the Solstice AdminSuite commands.

If you use the C shell, type:

```
% set path = ( $path /opt/SUNWadm/bin )
% set MANPATH = ( $MANPATH /opt/SUNWadm/man )
```

To permanently affect these changes to your shell search path, edit your `.cshrc` or `.login` startup file.

If you use the Bourne or Korn shell, type:

```
$ PATH = $PATH:/opt/SUNWadm/bin
$ MANPATH = $MANPATH:/opt/SUNWadm/man
```

To permanently affect these changes to your shell search path, edit your `.profile` startup file.

9. **Start the Solstice Launcher (which now contains the Solstice AdminSuite applications).**

```
$ /usr/bin/solstice &
```

---

## Installing SunSoft Print Client

If you are running a version of Solaris 2.3 through 2.5.1, you will need to install updated print client packages. You can do this using the same installation script you use to install the AdminSuite and AutoClient software (`admin_install` script located in the root directory). The following procedure describes how to install the SunSoft print client packages.

If you have already installed SunSoft print client packages with a previous version of AdminSuite (for example, AdminSuite 2.2 or 2.1), you do not need to re-install these print packages.

### ▼ How to Install the SunSoft Print Clients

1. **Insert the product CD into your CD-ROM drive.**

If your system is not running Volume Management, you must mount the CD with the following commands before accessing it:

```
# mkdir /cdrom
# mount -F hsfs -o ro /dev/dsk/c0t6d0s0 /cdrom
```

**2. Log in as a member of the sysadmin group for that system (group 14).**

---

**Note** - If you are installing the software on a local system, you do not have to be a member of the sysadmin group; you can install the software as root.

---

**3. Verify that you are a member of the sysadmin group.**

```
$ groups
```

If the sysadmin group is listed in the output, proceed to the next step. If not, follow the instructions in “Becoming a Member of the sysadmin Group” on page 17.

**4. Change directories to the product directory on the CD.**

```
$ cd /cdrom/solstice_sysmgt_2_3
```

**5. Run the admin\_install script in the product directory.**

Help is available during the installation. The main installation window shown below appears.

```
$ ./admin_install
```

```
Welcome to the Solstice Installation Program ...
```

```
To exit the installation process at any time, type 0
and press the Return key.
```

- 1. Install AdminSuite 2.3 and AutoClient 2.1
- 2. Install SunSoft Print Client (Solaris 2.3 - 2.5.1 only)
- 3. Install Software Usage Monitoring Toolkit
- 4. Set up systems to use AdminSuite and AutoClient
- 5. Installation Help

```
Enter the number for one or more choices, separated by a space and
```

(continued)

```
then press the Return key.
```

```
[default: 1]>>>
```

## 6. Select option number 2 - Install SunSoft Print Client.

The following warning appears:

```
WARNING: Installing the SunSoft Print Client software replaces
the existing Solaris print software (LP) with new print
commands and a new print configuration interface.
```

```
If you upgrade the system to the Solaris 2.4, 2.5 or 2.5.1
```

```
OS Release after installing the SunSoft Print Client software,
you must re-enable the print commands in the /usr/ucb
directory by running the /usr/lib/print/upgrade_fix script.
```

```
Press the Return key to continue or 0 to exit the installation.
>>>
```

## 7. Press the Return key to continue with the installation.

The following menu appears.

```
Printer Configuration
```

```
1. Do not convert local Solaris print (LP) printer configuration
   Choose this option if you plan to maintain printers centrally
   using the NIS or NIS+ name service.
```

```
2. Convert local Solaris print (LP) printer configuration
   Choose this option if you want to access remote printers by
   using local configuration files. The Solaris print (LP)
   configuration data will be used.
```

```
3. Installation Help
```

```
Type 1, 2 or 3 and press the Return key.
```

```
[default: 1]>>>
```

## 8. Choose the desired option.

You will see an Installation Summary window similar to the following.

```
==== Installation Summary ====

Product(s):    SunSoft Print Client software

Host(s): your_host_name

Start Installation
-----

Do you want to start the installation?
  1. Start installation
  2. Cancel installation

>>>
```

## 9. Verify that the information in the Installation Summary is correct; type 1 and press Return to start the installation.

You will see a scrolling summary of the SunSoft print client software installation; if the print client packages were installed correctly, you will see the following message:

```
Successfully installed product: SunSoft Print Client software
```

---

# Installing Software Usage Monitoring Toolkit

The software usage monitoring toolkit enables you to install software usage monitoring on clients or on multiple servers. For instance, you may be running software usage monitoring on multiple servers that share the software usage monitoring software among multiple hosts, or you could run software usage monitoring in a client/server environment. Each of these environments are set up differently; however, regardless of which environment you use software usage monitoring in, it operates basically the same.

---

**Note** - If you have already installed software usage monitoring from a previous release of AdminSuite, you do not need to install it again.

---

The following procedure describes how to install the software usage monitoring toolkit.

## ▼ How to Install the Software Usage Monitoring Toolkit

1. **Log in as a member of the sysadmin group (group 14).**

---

**Note** - If you are installing the software on a local system, you do not have to be a member of the sysadmin group; you can install the software as root.

---

2. **Verify that you are a member of the sysadmin group.**

```
$ groups
```

If the sysadmin group is listed in the output, proceed to the next step. If not, follow the instructions in “Becoming a Member of the sysadmin Group” on page 17.

3. **Change directories to the product directory on the CD.**

```
$ cd /cdrom/solstice_sysmgt_2_3
```

4. **Run the `admin_install` script in the product directory.**

Help is available during the installation.

```
$ ./admin_install
```

The main installation window shown below appears.

```
Welcome to the Solstice Installation Program ...

To exit the installation process at any time, type 0
and press the Return key.

  1. Install AdminSuite 2.3 and AutoClient 2.1
  2. Install SunSoft Print Client (Solaris 2.3 - 2.5.1 only)
  3. Install Software Usage Monitoring Toolkit
```

(continued)



4. Set up systems to use AdminSuite and AutoClient
5. Installation Help

Enter the number for one or more choices, separated by a space and then press the Return key.

[default: 1]>>>

### 5. Choose the option 3: Install Software Usage Monitoring Toolkit.

This option enables you to choose the software usage monitoring system type from the following menu.

Software Usage Monitoring System Type

1. Install Software Usage Monitoring Client
2. Install Software Usage Monitoring Server
3. Installation Help

Enter the number for one or more choices, separated by a space and then press the Return key.

[default: 1]>>>

### 6. Choose option 1 or 2 depending upon the system type (client or server) you wish to install.

You will see an Installation Summary window similar to the following.

==== Installation Summary ====

Product(s): Software Usage Monitoring Client software

Host(s): *lorna*

Start Installation

-----

Do you want to start the installation?

1. Start installation
2. Cancel installation

(continued)

&gt;&gt;&gt;

---

**Note** - For each client you wish to run software usage monitoring on, you will have to run the installation script for each client.

---

7. **Alias the server you wish to be the host server to** `swusage_host`.  
Refer to “How to Set Up the Alias for `swusage_host`” on page 34 for information about how to set the alias `swusage_host` to your server.

## ▼ How to Set Up the Alias for `swusage_host`

1. **Start the Database Manager provided with the Solstice Launcher.**

---

**Note** - See the *Solstice AdminSuite 2.3 Administration Guide* for detailed information about how to use the Database Manager.

---

2. **Select the name service used with your computer network.**  
You can chose NIS, NIS+, or none.
3. **Check that the domain or host name is correct.**  
If not, type the domain or host name you need to access.
4. **Select the Hosts file.**
5. **Click on OK.**  
The Database Manager main window is displayed with the file contents displayed.
6. **Select the host you wish to designate as the** `swusage_host`.
7. **From the Edit pull-down menu, choose Modify.**
8. **In the Database Manager Modify pop-up window, add** `swusage_host` **to the Aliases field.**

**9. Click on OK to save and apply the changes.**

You should see that your addition is now listed in the aliases column for that host.

**10. Verify that the `swusage_host` alias is set correctly.**

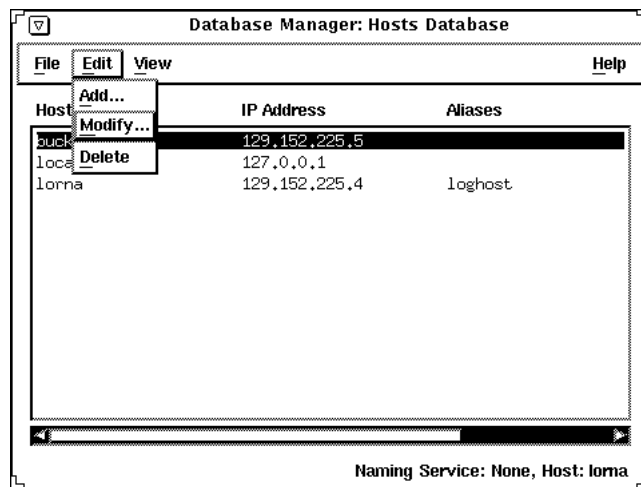
```
$ ping swusage_host
swu_host is alive
```

The `ping` command may produce a different line specifying that a different workstation other than `swusage_host` is alive; for example, the line may read `buck is alive`.

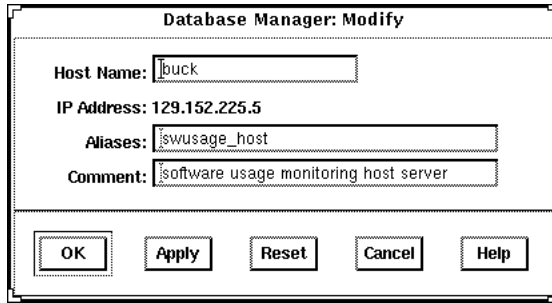
## Example of Using the Database Manager to Set Up the Host Alias for Software Usage Monitoring.

This example shows how to set up the host alias for software usage monitoring using the Solstice Database Manager. In this example, the host alias of `swusage_host` needs to be set to the machine named `buck`.

Within the Database Manager Hosts Database window, select the host `buck` and then choose `Modify` from the `Edit` menu. The `Modify` window is displayed.



Within the `Aliases` field, you would enter the name `swusage_host` to represent the software usage monitoring host server. To apply and save these entries, click on `OK`.



---

## Setting Up Systems to Use AdminSuite

If you wish to run AdminSuite software on a system or wish to administer systems using AdminSuite software, you must initially set these up. You can set up these systems using the installation script you used to install AdminSuite and AutoClient. The following procedure describes how to set up these systems.

### ▼ How to Set Up Systems to Use AdminSuite and AutoClient

**1. Insert the product CD into your CD-ROM drive.**

If your system is not running Volume Management, you must mount the CD with the following commands before accessing it:

```
# mkdir /cdrom
# mount -F hsfs -o ro /dev/dsk/c0t6d0s0 /cdrom
```

**2. Log in as a member of the sysadmin group for that system (group 14).**

---

**Note** - If you are running the installation script on a local system, you do not have to be a member of the sysadmin group; you can run the installation script as root.

---

**3. Verify that you are a member of the sysadmin group.**

```
$ groups
```

If the sysadmin group is listed in the output, proceed to the next step. If not, follow the instructions in “Becoming a Member of the sysadmin Group” on page 17.

#### 4. Change directories to the product directory on the CD.

```
$ cd /cdrom/solstice_sysmgt_2_3
```

#### 5. Run the admin\_install script in the product directory.

Help is available during the installation. The main installation window shown below appears.

```
$ ./admin_install
```

```
Welcome to the Solstice Installation Program ...
```

```
To exit the installation process at any time, type 0
and press the Return key.
```

1. Install AdminSuite 2.3 and AutoClient 2.1
2. Install SunSoft Print Client (Solaris 2.3 - 2.5.1 only)
3. Install Software Usage Monitoring Toolkit
4. Set up systems to use AdminSuite and AutoClient
5. Installation Help

```
Enter the number for one or more choices, separated by a space and
then press the Return key.
```

```
[default: 1]>>>
```

#### 6. Select Option 4 - Set up systems to use AdminSuite and AutoClient.

The following menu appears.

```
Set up systems to use AdminSuite and AutoClient
```

1. Set up systems to run AdminSuite

```
Configure systems to NFS mount AdminSuite from a file server
so that they can run the AdminSuite applications.
```

2. Set up systems to be managed

```
Configure systems to NFS mount AdminSuite from a file server
so that they can be managed by the administration applications.
```

(continued)

### 3. Installation Help

Type 1 or 2 and press the Return key.  
[default: 1]>>>

## 7. Choose one of the following options that will either allow systems to run AdminSuite or be managed by AdminSuite.

Option 1: Set up systems to run AdminSuite

This option enables you to specify the systems you wish to be able to run AdminSuite from the server.

The following menu appears when you choose this option.

How should clients mount AdminSuite?

### 1. Software access will be via the automounter

Choose this option if you want to configure the automounter for systems to access the software.

### 2. Systems will mount via /etc/vfstab file

Choose this option to have this program update each systems /etc/vfstab file to access the software.

### 3. Installation Help

Type 1, 2 or 3 and press the Return key.

[default: 1]>>>

## a. Choose the method in which the clients will mount the AdminSuite software from the server.

Option 1: Software access will be via the automounter

This option enables clients to access the AdminSuite software using the automounter mount method. If you choose this method, you will need to add entries indicating the location of the Solstice AdminSuite software to the automounter maps. Refer to Chapter 4, for information about how to configure your automounter maps.

A note appears reminding you that you will have to add entries to your automounter map indicating where AdminSuite is installed. Press the Return key to continue.

Option 2: Systems will mount via /etc/vfstab file

This option enables clients to access the AdminSuite software using the /etc/vfstab file on the server where AdminSuite is installed. If you choose this method, the following window appears.

```
File Server Name

The File Server is the system already installed with AdminSuite
software that systems will access.

Type the host name of the File Server and press the Return key.

>>>
```

Type the name of the file server that has AdminSuite installed and then press the Return key.

- b. The Systems for Installation menu is now in your window (see the following menu); enter the systems you wish to be able to remotely run AdminSuite.**

```
Systems for Installation

Type the host names of the systems for installation.
List hosts separated by a single space (for example,
hosta hostb hostc) and press the Return key.

You can also specify the path to a file that contains a
list of hostnames (for example, /path/to/file).

[default: your_host_name]>>>
```

An Installation Summary screen appears.

```
==== Installation Summary ====

Product(s): Set up systems to run AdminSuite
Host(s): lorna

Start Installation
-----
Do you want to start the installation?

1. Start installation
```

```
2. Cancel installation
>>>
```

**c. Verify the information on the screen and, if it is correct, enter 1 to start the installation.**

Option 2: Set up systems to be managed

This option enables you to specify the systems you wish to be able to manage using AdminSuite. The following menu appears when you choose this option.

```
How should clients mount AdminSuite?

1. Software access will be via the automounter
   Choose this option if you want to configure the
   automounter for systems to access the software.

2. Systems will mount via /etc/vfstab file

   Choose this option to have this program update each
   systems /etc/vfstab file to access the software.

3. Installation Help

Type 1, 2 or 3 and press the Return key.

[default: 1]>>>
```

**1. Choose the method in which the clients will mount the AdminSuite software from the server.**

Option 1: Software access will be via the automounter

This option enables clients to access the AdminSuite software using the automounter mount method. If you choose this method, you will need to add entries indicating the location of the Solstice AdminSuite software to the automounter maps. Refer to Chapter 4, for information about how to configure your automounter maps. A note appears reminding you that you will have to add entries to your automounter map indicating where AdminSuite is installed. Press the Return key to continue.



Option 2: Systems will mount via /etc/vfstab file

This option enables clients to access the AdminSuite software using the /etc/vfstab file on the server where AdminSuite is installed. If you choose this method, the following window appears.

```
File Server Name  The File Server is the system already installed with AdminSuite software that systems will access. Ty
```

Type the name of the file server that has AdminSuite installed and then press the Return key.

2. The Systems for Installation menu is now in your window (see the following menu); enter the systems you wish to be able to remotely run AdminSuite.

```
Systems for Installation

Type the host names of the systems for installation.
List hosts separated by a single space (for example, hosta hostb hostc)
and press the Return key.
You can also specify the path to a file that contains a list of host
names (for example, /path/to/file).

[default: your_host_name]>>>
```

An Installation Summary screen appears.

```
==== Installation Summary ====

Product(s):  Set up systems to run AdminSuite

Host(s):  lorna

Start Installation
-----

Do you want to start the installation?

  1. Start installation
  2. Cancel installation

>>>
```

3. Verify the information on the screen and, if it is correct, enter 1 to start the installation.

---

# Troubleshooting

This section describes problems that you may encounter when you use the Solstice AdminSuite product. If you run into any of these problems, follow the advice that is provided.

## Running the `admin_install` Script

- If the `admin_install` script hangs, try re-running the script after waiting a few minutes. If the script continues to hang, try running it using another UID in the `sysadmin` group. If this fails, try adding yourself to the `sysadmin` entry in the `/etc/group` file on the system you wish to install.
- If the `admin_install` script (running on system installed with Solaris 2.3 or 2.4 release) hangs after the following message is displayed:

```
Installing Solstice enabling packages ...
```

You can recover by becoming root and using the following commands.

```
# /usr/lib/nfs/mountd
# umount /usr/snadm/classes/tmp_system.2.1
```

## Launching the Solstice AdminSuite

- If you logged in as root and used the `su` command to become a member of group 14, the Solstice AdminSuite software may reject your requests. Log in as a user who is a member of group 14 rather than as root.
- If you attempt to launch the Solstice AdminSuite software on a station manager using the `solstice` command and receive the following error message:

```
Solstice Registry Error [-14]: unable to locate registry
```

There are two possible conditions that can cause this error to arise.

- The administration system was not installed with the software supporting its native platform. Reinstall the Solstice AdminSuite 2.3 software using the `admin_install` script, and add the software for the administration system's platform (for example, SPARC or x86).
- The administration system was inadvertently installed using the automounter managed host mount method, when the `/etc/vfstab` file option should have been selected. Create the following links:

```
# ln -s /basedir/platform/SUNWadm /opt/SUNWadm
# ln -s /basedir/all/SUNWadmd /opt/SUNWadmd
```

In these commands,

<i>basedir</i>	Is the directory where the software is installed.
<i>platform</i>	Is the station manager platform (either <code>sparc</code> or <code>i386</code> ).

## Upgrading to the Solaris 2.4 OS Release

- If you upgrade a system installed with the Solstice AdminSuite 2.3 software and the Solaris 2.3 release to the Solaris 2.4 release, Printer Manager will not function properly. This occurs because an incorrect version of the FNS software is installed.

To correct this problem, you must remove the installed FNS software packages and replace them with correct versions found on the Solaris 2.5 or Solaris 2.5.1 CD.

Remove the FNS software:

```
# pkgrm SUNWfns SUNWfnspr
```

This step assumes that your system is running Volume Management. Insert the Solaris 2.5 or Solaris 2.5.1 CD into your CD-ROM drive, and install the correct version of the FNS software:

```
# pkgadd -d /cdrom/cdrom0/s0/Solaris_2.5 SUNWfns SUNWfnspr
```



## Adding Solstice AdminSuite 2.3 Support to the Automounter

---

This chapter contains these topics:

- “Automounting Overview” on page 45
- “How to Add Automount Support by Using NIS+” on page 45
- “How to Add Automount Support by Using NIS” on page 48
- “How to Add Automount Support by Using Local `/etc` Files” on page 52

---

### Automounting Overview

The Solstice AdminSuite `admin_install` installation script enables you to install administration systems, distributed administration systems using the automounter mount method for software access.

If you selected the automounter mount method, you must add entries indicating the location of the Solstice AdminSuite software to the automounter maps. The procedures for updating the maps are described in this section for each name service type. Perform these steps only after using the installation script to install the AdminSuite and AutoClient software.

#### ▼ How to Add Automount Support by Using NIS+

1. **Log in to the NIS+ domain as an authorized user.**

You must have read and write access to the tables in the NIS+ `org_dir` directory.

2. **Ensure that the `auto_master` table includes an entry for the `auto_direct` automount map.**

```
$ niscat auto_master.org_dir
/net      -hosts  -nosuid
/home     auto_home
/-        auto_direct
```

If the `auto_direct` entry appears in the output, proceed to Step 4 on page 46. If the entry does not appear, go to the next step.

3. **Add the `auto_direct` entry to the `auto_master` table.**

```
$ nistbladm -a key=/- value=auto_direct auto_master.org_dir
```

Verify that the entry has been added to the table.

```
$ niscat auto_master.org_dir
/net      -hosts  -nosuid
/home     auto_home
/-        auto_direct
```

4. **Ensure that the `auto_direct` table exists.**

```
$ nisl auto_direct.org_dir
auto_direct.org_dir.your-domain.
```

If the `auto_direct` table appears in the output, proceed to Step 6 on page 47. If the table does not appear, go to the next step.

5. **Create the `auto_direct` table.**

```
$ nistbladm -D access=og=rmcd,w=r,n= -c automount_map key=S,\
nogw= value=,nogw= auto_direct.org_dir.'nisdefaults -d'
```

Verify that the table has been created.

```
$ nisl auto_direct.org_dir
auto_direct.org_dir.your-domain.
```

Proceed to Step 7 on page 47.

**6. Look for a pre-existing Solstice AdminSuite entry.**

A table entry supporting an earlier version of the Solstice AdminSuite software may be present.

```
$ niscat auto_direct.org_dir | grep SUNWadm
```

If an entry similar to the following appears, proceed to Step 8 on page 48.

```
/opt/SUNWadm server-name: /install-dir/$CPU/SUNWadm
```

In this example,

*server-name* Is the Solstice administration system host name.

*install-dir* Is the path to the Solstice AdminSuite 2.3 software location (usually /export/opt).

If the entry does not appear, go to the next step.

**7. Add the entry designating the location of the Solstice AdminSuite 2.3 software.**

---

**Note** - If you chose an installation location other than the /export/opt directory, be sure to indicate the correct path in this command.

---

```
$ nistbladm -a key=/opt/SUNWadm \
value=server-name:/export/opt/$CPU/SUNWadm \
auto_direct.org_dir.'nisdefaults -d'
```

In this command,

*server-name* Is the Solstice administration system host name.

Verify that the entry has been added to the table.

```
$ niscat auto_direct.org_dir  
/opt/SUNWadm server-name:/export/opt/$CPU/SUNWadm
```

**8. Add the entry designating the location of the Solstice AdminSuite 2.3 data area.**

---

**Note** - If you chose an installation location other than the `/export/opt` directory, be sure to indicate the correct path in this command.

---

```
$ nistbladm -a key=/opt/SUNWadmd \  
value=server-name:/export/opt/all/SUNWadmd \  
auto_direct.org_dir.'nisdefaults -d'
```

In this command,

*server-name* Is the Solstice administration system host name.

Verify that the entry has been added to the table.

```
$ niscat auto_direct.org_dir  
/opt/SUNWadm server-name:/export/opt/$CPU/SUNWadm/opt/SUNWadmd \  
server-name:/export/opt/all/SUNWadmd
```

**9. Log in as root to all Solstice administration systems and AdminSuite enabled systems in the NIS+ name service domain and run the `automount` command.**

```
# /usr/sbin/automount
```

Running this command enables the system to use the new (or updated) automount table.

## ▼ How to Add Automount Support by Using NIS

**1. Log in as root to the NIS master for your name service domain.**



2. **Ensure that the `auto.master` map has an entry for the `auto_direct` automount map.**

```
# ypcat -k auto.master
/net      -hosts  -nosuid
/home     auto_home
/-        auto_direct
```

If the `auto_direct` entry appears in the output, proceed to Step 4 on page 49. If the entry does not appear, go to the next step.

3. **Add the `auto_direct` entry to the `auto.master` map.**
  - a. **Edit the `/etc/auto.master` file and add the following entry.**

```
/-        auto_direct
```

- b. **Rebuild the NIS map.**

This make take several minutes.

```
# cd /var/yp;make auto.master
```

Verify that the entry has been added.

```
# ypcat -k auto.master
/net      -hosts  -nosuid
/home     auto_home
/-        auto_direct
```

4. **Ensure that the `auto_direct` map exists.**

```
# ypcat -k auto_direct
```

If the map is found, proceed to Step 8 on page 48. If the map is not found, go to the next step.

5. **Insert the Solstice AdminSuite 2.3 CD into your CD-ROM drive.**

This step assumes that your system is running Volume Management.

**6. Copy the makefile excerpt to the directory where the NIS maps are stored.**

```
# cp /cdrom/solstice_sysmgt_2_3/Examples/Makefile.direct /var/yp
```

---

**Note** - If the NIS maps are stored in a location other than the `/var/yp` directory, be sure to indicate the correct path in this command.

---

**7. Create the `/etc/auto_direct` file.**

```
# touch /etc/auto_direct
```

Proceed to Step 9 on page 50.

**8. Look for a pre-existing Solstice AdminSuite entry.**

A table entry supporting an earlier version of the Solstice AdminSuite software may be present.

```
# ypcat -k auto_direct | grep SUNWadm
```

If an entry similar to the following appears, proceed to Step 10 on page 51.

```
/opt/SUNWadm server-name: /install-dir/$CPU/SUNWadm
```

In this example,

<i>server-name</i>	Is the Solstice administration system host name.
<i>install-dir</i>	Is the path to the Solstice AdminSuite 2.3 software location (usually <code>/export/opt</code> ).

If the entry does not appear, go to the next step.

**9. Edit the `/etc/auto_direct` file, adding the entry designating the location of the Solstice AdminSuite 2.3 software.**

---

**Note** - If you chose an installation location other than the `/export/opt` directory, be sure to indicate the correct path in this entry.

---

```
/opt/SUNWadm server-name: /export/opt/$CPU/SUNWadm
```

In this entry,

*server-name* Is the Solstice administration system host name.

**10. Edit the `/etc/auto_direct` file, adding the entry designating the location of the Solstice AdminSuite 2.3 data area.**

---

**Note** - If you chose an installation location other than the `/export/opt` directory, be sure to indicate the correct path in this command.

---

```
/opt/SUNWadmd server-name: /export/opt/all/SUNWadmd
```

In this command,

*server-name* Is the Solstice administration system host name.

**11. Specify how to process the files.**

Choose one of the following commands, based on whether the `auto_direct` map is available.

- If the `auto_direct` map was found in Step 4 on page 46, rebuild the NIS map using this command.

```
# cd /var/yp; make auto_direct
```

- If the `auto_direct` map was not found in Step 4 on page 46, rebuild the NIS map using this command.

```
# make -f /var/yp/makefile -f /var/yp/Makefile.direct auto_direct
```

---

**Note** - If the NIS maps are stored in a location other than the `/var/yp` directory, be sure to indicate the correct path in this command.

---

Verify that the entries have been added.

```
# ypcat -k auto_direct
/opt/SUNWadm server-name: /export/opt/$CPU/SUNWadm
/opt/SUNWadmd server-name: /export/opt/all/SUNWadmd
```

12. Log in as root to all Solstice administration systems and AdminSuite enabled systems in the NIS name service and run the `automount` command.

```
# /usr/sbin/automount
```

Running this command enables the system to use the new (or updated) automount map.

## ▼ How to Add Automount Support by Using Local /etc Files

Perform these steps for each system on which you want to use the Solstice AdminSuite 2.3 software.

1. Log in to the Solstice administration system or managed client as root.

2. Ensure that the `auto_direct` entry exists in the `/etc/auto_master` file.

A sample `auto_master` file with the `auto_direct` entry is displayed below.

```
# cat /etc/auto_master
# Master map for automounter
#
/net          -hosts          -nosuid
/home         auto_home
/-           auto_direct
```

If the `auto_direct` entry appears in the output, proceed to Step 4 on page 52. If the entry does not appear, go to the next step.

3. Edit the `/etc/auto_master` file, adding the `auto_direct` entry.

```
/-          auto_direct
```

4. Ensure that the `/etc/auto_direct` file exists.

```
# ls /etc/auto_direct
```

If the file is found, proceed to Step 6 on page 53. If the file is not found, go to the next step.

5. Create the `/etc/auto_direct` file.

```
# touch /etc/auto_direct
```

Proceed to step Step 7 on page 53.

6. Look for a pre-existing Solstice AdminSuite entry.

A table entry supporting an earlier version of the Solstice AdminSuite software may be present.

```
$ cat /etc/auto_direct | grep SUNWadm
```

If an entry similar to the following appears, proceed to Step 8 on page 53.

```
/opt/SUNWadm server-name: /install-dir/$CPU/SUNWadm
```

In this example,

*server-name* Is the Solstice administration system host name.

*install-dir* Is the path to the Solstice AdminSuite 2.3 software location (usually `/export/opt`).

If the entry does not appear, go to the next step.

7. Edit the `/etc/auto_direct` file, adding the entry designating location of the Solstice AdminSuite 2.3 software.

---

**Note** - If you chose an installation location other than the `/export/opt` directory, be sure to indicate the correct path in this entry.

---

```
/opt/SUNWadm server-name: /export/opt/$CPU/SUNWadm
```

In this entry,

*server-name* Is the Solstice administration system host name.

8. Edit the `/etc/auto_direct` file, adding the entry designating the location of the Solstice AdminSuite 2.3 data area.

---

**Note** - If you chose an installation location other than the `/export/opt` directory, be sure to indicate the correct path in this command.

---

```
/opt/SUNWadmd server-name:/export/opt/all/SUNWadmd
```

In this command,

*server-name*                      Is the Solstice administration system host name.

**9. Run the automount command.**

Running this command enables the system to use the new automount map.

```
# /usr/sbin/automount
```