



Solaris Easy Access Server 3.0 Installation Guide

Sun Microsystems, Inc.
901 San Antonio Road
Palo Alto, CA 94303
U.S.A.

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Preface

The *Solaris Easy Access Server 3.0 Installation Guide* provides you with information and instructions for installing and configuring the products consolidated in Solaris™ Easy Access Server 3.0 (SEAS). It is available in HTML format on the SEAS product CD. On the SEAS documentation CD it is available as an AnswerBook2™ document, and as a PostScript™ and PDF file.

Who Should Use This Book

This guide is for system administrators responsible for installing and managing the Solaris Easy Access Server products.

How This Book is Organized

Chapter 1 provides a summary description of the products consolidated in SEAS.

Chapter 2 provides information on pre-installation tasks and product updates.

Chapter 3 describes the installation process of the SEAS.

Chapter 4 describes the installation of the SEAS documentation set.

Chapter 5 helps you through any of the post-installation tasks, including licensing.

Chapter 6 provides configuration information for the SEAS.

Chapter 7 provides troubleshooting information pertaining to installation.

Chapter 8 provides details for installing and uninstalling SEAS using the Solaris Registry.

Appendix A lists the individual SEAS packages that can be installed using the `pkgadd` command.

Appendix B charts the compatibility among the SEAS.

Related Books

See “The SEAS Documentation” on page 27 for a complete list of books that are supplied with Solaris Easy Access Server.

Ordering Sun Documents

The Sun Software Shop stocks select manuals from Sun Microsystems, Inc. You can purchase individual printed manuals and AnswerBook2™ CDs.

For a list of documents and how to order them, visit the Software Shop at <http://www.sun.com/software/shop/>.

Accessing Sun Documentation Online

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What Typographic Conventions Mean

The following table describes the typographic changes used in this book.

TABLE P-1 Typographic Conventions

Typeface or Symbol	Meaning	Example
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name%</code> you have mail.
AaBbCc123	What you type, contrasted with on-screen computer output	<code>machine_name%</code> su Password:
<i>AaBbCc123</i>	Command-line placeholder: replace with a real name or value	To delete a file, type rm <i>filename</i> .
<i>AaBbCc123</i>	Book titles, new words, or terms, or words to be emphasized.	Read Chapter 6 in <i>User's Guide</i> . These are called <i>class</i> options. You must be <i>root</i> to do this.

Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

Shell	Prompt
C shell prompt	<code>machine_name%</code>
C shell superuser prompt	<code>machine_name%</code>
Bourne shell and Korn shell prompt	<code>\$</code>
Borne shell and Korn shell superuser prompt	<code>#</code>

Introducing SEAS 3.0

Solaris Easy Access Server 3.0 (SEAS) is a consolidation of separately released products to provide a complete set of application services, such as file, print, email, directory, and Web services, designed to integrate PC networks with Solaris. All of these components are managed by the Solaris Management Console (SMC). SEAS extends the Solaris operating environment by including networking software that connects PC networks to Solaris and software that makes it easier for administrators familiar with PC systems to manage Solaris.

The Solaris Web Start Wizard™ makes it easy to install and administer Solaris software and deliver reliable services to configure your network.

This chapter briefly describes the following.

- “What’s New in SEAS” on page 1
- “Description of SEAS Products” on page 2
- “Products Not In SEAS” on page 4

What’s New in SEAS

The following summarizes the new features included in the SEAS 3.0 release.

- Solaris Web Start for an easy installation.
- Solaris Web Start Wizards™ for setup and administration of native Solaris and Java™ applications.
- Solaris Management Console™ (SMC) to simplify configuring and administering Solaris servers.
- Java management applications for Solaris management of users, groups, network information, file systems, and serial ports.

- User-friendly, Java-based graphical interface for print management functions.
- PC desktop client to server connections without changing the client's desktop. This includes connecting a Windows NT server to a Solaris server.
- Configuration wizards for the following: Basic Routing, Change Root Password, DNS Client Configuration, DNS Server Configuration, and Network Configuration Shutdown.
- Sun Enterprise Authentication Mechanism (SEAM), a client/server architecture that offers strong user authentication, as well as data integrity and privacy, for providing secure transactions over networks.

Description of SEAS Products

Solaris Easy Access Server is a consolidation of the individual products described in the following table..

TABLE 1-1 SEAS 3.0 Products

Product	Product Description
Solstice™ AdminSuite™ 3.0	A software product that enables you to perform user and host management tasks.
Solstice™ DiskSuite™ 4.2	A software product that enables you to manage large numbers of disks, and the data on those disks, to increase storage capacity and data availability.
Solstice PPP 3.0.1	A communications protocol providing extended Internet connectivity for Solaris and Microsoft Windows systems. With Point-to-Point Protocol (PPP), a Solaris system acts as an Internet router and supports all IP applications transparently over both leased lines and dial-up connections.
Solstice Internet Mail Server™ 2.0 (SIMS)	An advanced mail solution for Solaris workgroups, providing open Internet mail based on standards such as IMAP4, POP3, SMTP, and MIME. It supports disconnected computing for mobile or remote users.
Solaris Management Console™ 1.0 (SMC)	A Java-based management tool for the administration of Solaris servers.
SMC Configuration Wizards	Configuration wizards for routing, changing the root password, DNS client and DNS server configurations, and network configuration shutdown.

TABLE 1-1 SEAS 3.0 Products *(continued)*

Product	Product Description
Sun Directory Services 3.2 (SDS)	A software product providing a comprehensive and flexible directory and naming service. It includes a state-of-the-art LDAP v3 server that interfaces with all LDAP v3-compliant directory clients on the market, a NIS server that integrates seamlessly into an existing NIS environment, and a RADIUS server that offers authentication facilities for remote users.
Sun WebServer™ 2.1	A highly scalable, high performance Web server for accessing, managing, and distributing information over the Internet, with web-based administration and advanced security.
Sun™ Enterprise Authentication Mechanism™ 1.0 (SEAM)	A client/server architecture that provides secure transactions over networks. In addition to strong authentication, it provides data privacy and integrity, as well as single sign-on capabilities. SEAM is based on the Kerberos V5 network authentication protocol.
Netscape Communicator™ 4.5 Standard Edition	A group of related tools for working and communicating over the Internet. These tools include: Netscape Navigator™ (to find and view information on the Web), Netscape Messenger (to send and receive email, and participate in newsgroups and discussion groups), and Netscape Composer (to create and publish Web pages).
Solaris™ PC NetLink 1.1 (PC Netlink or SunLink Server)	PC NetLink software implements Microsoft Windows NT network services in the Solaris operating environment. PC NetLink enables a Solaris server to act as a file and print server and as a domain controller to a variety of clients in a heterogeneous networked environment.
J.D.K. 1.1.7	The Sun Java Development Kit for developers who write Java applets and applications.
Solaris™ Print Manager 1.0	A Java application that provides printing administration for Solaris printing. It consists of a Java-based graphical interface, a library of routines that are the interface between the client and the server, and a set of classes to perform the tasks requested by the users.
WBEM/CIM SDK 1.0	Web-based enterprise management software consisting of software development tools for creating standards-based management applications.
AnswerBook2™	Sun's online documentation system. It uses a Web browser interface that lets you view and print a variety of Solaris Answerbook™ book collections and man pages.

Products Not In SEAS

The following products are no longer part of the Solaris Easy Access Server 3.0 consolidation.

- SunScreen™ SKIP
- Solstice NFS™ Client
- Java™ IDL
- Solstice™ AutoClient™.
- Solaris Data Backup Utility

These products can be ordered separately. Contact your local Sun Microsystems sales office for availability and pricing.

Patches Integrated in SEAS

The following patches, required by Sun WebServer 2.1, have been integrated. They are automatically installed, if needed, by the Sun WebServer 2.1 Webstart Wizard in SEAS 3.0.

- 105181-06 (SPARC™), 105182-06 (i386). A kernel update patch that resolves a potential kernel thread issue that can occur on a host running a heavily used web server.
- 105390-02 (SPARC™), 10606-02 (i386). This patch provides man pages for the commands added by the SunOS™ 5.6 sgml patch.
- 106123-04 (SPARC™), 106124-04 (i386). This patch enhances the Solaris 2.6 man command to make it compatible with the Sun WebServer man pages.

Preparing Your SEAS Installation

This chapter describes the system requirements, and how to prepare for installing the Solaris Easy Access Server 3.0 (SEAS) products.

- “Hardware and Software Requirements” on page 5
- “Performing Pre-Installation Product Upgrades” on page 10
- “Increasing Disk Space” on page 7

Hardware and Software Requirements

The following lists the system requirements necessary for you to install SEAS and the SEAS clients.

- A CD-ROM drive attached to the system where you plan to install the SEAS products.
- The system on which you install the SEAS products must run the Solaris 2.6 or Solaris 7 operating environment. Many of the products also run on earlier versions of the Solaris environment (as mentioned in their online product documentation) but this capability is not supported as part of SEAS.
- PCs running Windows 95, Windows 98, or Windows NT for installing SEAS client software.

TABLE 2-1 System Requirements of SEAS 3.0

SEAS 3.0 Product	Default Installation Path	Requirements
AdminSuite 3.0	/opt	7.0 MB diskspace.
DiskSuite 4.2	/usr/opt	20.6 MB disk space and at least two drives. If DiskSuite is already installed, see the section on Upgrading DiskSuite in this chapter.
PC NetLink 1.1	/opt	78.0 MB disk space. PC NetLink 1.1 is only supported on Solaris 2.6 and 2.7 on the SPARC and only 2.7 on Intel platforms. Ensure that no other program that uses a NetBIOS stack is running on the Solaris-based computer on which you will install PC NetLink. You will, however, have no problem with the NetWare or Apple functionality in TotalNET.
	/var/opt	Minimum: 15 MB disk space. Recommended: 100 MB.
Sun Enterprise Authentication Mechanism 1.0	/ The default location for the KDC database is /var	3 MB in / 16 MB in /usr 144 KB in /etc. You must allow a minimum of 50 MB in B in /var for the KDC database on all KDC servers.
Netscape Communicator 4.5	/opt	21.5 MB. For each additional local language: 10 MB. Documentation: 300 KB
Solstice PPP 3.0.1	/opt	1.4MB disk space. An X Windows manager to provide a graphical user interface. There is also a command-line version of this utility.

TABLE 2-1 System Requirements of SEAS 3.0 (continued)

SEAS 3.0 Product	Default Installation Path	Requirements
Solstice Internet Mail Server 2.0	/opt	1.7 MB disk space. A fully installed and configured Sendmail program.
Solaris Print Manager 1.0	/usr/sadm	2.6 MB disk space.
Sun Directory Services 3.2	/opt The default location for the directory database is /var.	24.9 MB disk space in /opt, 2.0 MB in /var, and 0.4 MB in /etc. You must allow enough disk space for the database. 1,000 entries require approximately 1.5 MB of disk space, 64 MB of RAM and 128 MB of swap. A Java-compatible browser. Recommended: HotJava 1.0.2.
Sun WebServer 2.1	/usr	Software: 11.3 MB and 2.0 MB disk space for documents and log files. Memory: 64 MB minimum, 96 MB is recommended. Requires JDK 1.1.6 or compatible version.
Solaris Management Console 1.0 (includes configuration wizards)	/usr/sadm	8.6 MB disk space.
J.D.K. 1.1.7	/usr	31.5 MB
WBEM/CIM SDK 1.0	/opt/SUNWconn	28.6 MB

Increasing Disk Space

Although the Web Start Wizard™ checks the available disk space based on your installation selections, make sure you have sufficient disk space available before installing the SEAS products. Use Table 2-2 to determine your disk space needs. Note that disk space and memory requirements are approximate and may vary.

TABLE 2-2 Disk Space Requirements by Directory

Directory	Total Required Disk Space (in megabytes)
/	3
/usr/opt	20.6
/opt	130.3
/opt/SUNWconn	28.6
/usr/adm	2.6
/usr/sadm	8.6
/usr	60.8
/etc	0.6
/var	52.0 + 1.5 per 1,000 directory entries
/var/opt	15
Minimum Total disk space	323.6

Determining Current Disk Space Usage

When you suspect not having sufficient disk space in the directories in which SEAS product files are installed, you may find the following commands useful in determining the current disk space usage.

The Display Filesystem Statistics command: `df -k`

The Report on Disk Usage command: `du directory`

Display Filesystem Statistics: `df -k directory`

The command `df -k directory` displays the used and available disk space for each of the mounted file systems. The example indicates that 101061 kilobytes are available in `/opt`

For example: `df -k /opt` could display something like the following:

Filesystem	kbytes	used	avail	capacity	Mounted on
/dev/dsk/c0t0d0s5	123455	10049	101061	10%	/opt

Report on Disk Usage: `du` *directory*

The command `du` *directory* reports the amount of disk space used by all files and subdirectories underneath one or more specified directories, listed on a per subdirectory basis. Disk usage is reported in blocks. The numbers on the left indicate the number of blocks of disk space occupied by the directory. In our example, the `/opt/SUNWlts` directory occupies 18456 blocks of disk space.

For example: `du /opt` could display something like the following:

```
18456  /opt/SUNWlts
2      /opt/SUNWleo/include
4      /opt/SUNWleo
```

Removing Unwanted Applications

SEAS products can be uninstalled using one of the following:

- The Product Registry. See “Uninstalling Using the Product Registry” on page 9 for more information.
- The `jre` command. See “Uninstalling Using the `jre` Command” on page 10 for more information.
- The `pkgrm` command. “Uninstalling Using the `pkgrm` Command” on page 10 for more information.

Uninstalling Using the Product Registry

Use the Solaris Product Registry to uninstall applications you no longer need or use to free necessary disk space. See “Uninstalling Products From the Registry” on page 53 for step-by-step instructions. You find the name of the uninstaller program in the right panel of the Product Registry after selecting the application to be removed in the left panel.

Uninstalling Using the `jre` Command

To remove a SEAS application using the `jre` command, you can run the uninstaller from the application.

For example, to remove Solstice DiskSuite, you would type the following command at the superuser system prompt:

```
jre ---cp /var/sadm/prod/com.sun.DiskSuite/607900099
uninstall_DiskSuite_4.2.class
```

Uninstalling Using the `pkgrm` Command

You must be logged in as root and you must know the name of the packages that make up the application. For example, to remove Sun Directory Services, which consists of the packages `SUNWlicsw`, `SUNWlit`, `SUNWsdsc`, and `SUNWsdsc`, using the `pkgrm` command, you would type the following command:

```
pkgrm SUNWlicsw SUNWlit SUNWsdsc SUNWsdsc
```

To find the name of the application packages, use the command `pkginfo | grep application_name`. Then use the `pkgrm` command as indicated above.

Performing Pre-Installation Product Upgrades

The following SEAS products require specific pre-installation upgrades.

- “Upgrading DiskSuite 4.2” on page 10
- “Upgrading Sun Directory Services 3.1” on page 11

Upgrading DiskSuite 4.2

Upgrading DiskSuite 4.2 is complex. You should carefully read the entire *Solstice DiskSuite 4.2 Installation and Product Notes*, paying particular attention to the following sections.

- “General Information” in *Solstice DiskSuite 4.2 Installation and Product Notes*

- “Upgrading Systems Running Earlier Versions of DiskSuite” in *Solstice DiskSuite 4.2 Installation and Product Notes*
- “Converting to Solstice DiskSuite 4.2” in *Solstice DiskSuite 4.2 Installation and Product Notes*

Upgrading Sun Directory Services 3.1

When you installed SEAS 2.0, you received Sun Directory Services 3.1 and patch 106621-02. With SEAS 3.0, you receive a newer version of Sun Directory Services 3.1 which requires patch 106621-05. Installing the newer version of Sun Directory Services packaged with SEAS 3.0 does not automatically install patch 106621-05. This causes Sun Directory Services to run very slowly.

If you would like to upgrade from Sun Directory Services 3.1 in SEAS 2.0 to Sun Directory Services 3.1 in SEAS 3.0, you have the following two options:

- Uninstall your Sun Directory Services patch 106621-02 for SPARC™, and 106622-02 for Intel, before installing Sun Directory Services 3.1.
- Install Sun Directory Services 3.1, and after this is completed, uninstall patch 106621-02 for SPARC™ and 106622-02 for Intel, and then install patch 106621-05 SPARC™ and 106622-05 for Intel, which are located on your SEAS 3.0 product CD.

Upgrading PC NetLink 1.1 When TotalNET Access Server 5.2 Is Already Installed

When TotalNET Access Server 5.2 (TAS) is installed, and up and running at the time you install PC NetLink, the installer program forces you to exit the installation without completing it.

Refer to the *PC NetLink 1.1 Release Notes* on the SEAS 3.0 product CD for step-by-step instructions to stop the TAS 5.2 NetBEUI to enable the PC NetLink installation.

Installing the SEAS 3.0 Products

This chapter contains instructions for installing SEAS. For information on product licenses and obtaining extra licenses, see section “Ordering Additional Licenses” on page 37.

- “Installing SEAS with the Installation Wizard” on page 13 guides you in installing SEAS using Solaris Web Start.
- “Performing Client Software Installations” on page 18 provides instructions for installing the client portions of several SEAS products on PCs running on the Microsoft Windows 95, Windows 98, and Windows NT 4.0 platforms.
- “Alternative Installation Methods” on page 24 and “Installing SEAS Products Without Web Start” on page 25 provide information on alternative methods for installing SEAS.

Note - Before installing SEAS, carefully read Chapter 2 and this chapter to ensure that all installation requirements, including pre-install product updates, have been met and that you have collected the information you may need to supply during the installation.

Installing SEAS with the Installation Wizard

The easiest way to install the SEAS products is to use the Solaris Web Start Wizard™, available on the product CD. You need the root password to proceed with a Web Start installation. When you have completed the installation of SEAS, see the sections listed below for further instructions.

- If you want to manage any system using the SEAS Management Console (SMC) from a Solaris system other than the server, you must install the client portion of the SMC on a client system. See “Installing the SMC Client” on page 19 for step-by-step instructions.
- If you want to perform user and host management tasks from the AdminSuite console on a PC running Windows NT or Windows 95, you must install the client portion on the PC. See “Installing the AdminSuite Client” on page 20 for step-by-step instructions.
- To learn if the products you have installed have any recommended or required post-installation patches, see the patches section in the *SEAS 3.0 Release Notes*.
- If you choose to install Solaris Enterprise Authentication Mechanism 1.0 (SEAM) and JDK 1.1.7, you will need to reboot your system after installing SEAS.

Note - When you install the SMC with SEAS, you will be able to launch any of the SEAS products and special configuration wizards. If you do not install the SMC during the SEAS installation and change your mind during the current installation, you must first complete the current installation, restart the SEAS Web Start installation wizard, and then choose Custom installation which will give you the option to select the SMC.

Follow these steps to install the SEAS products using the Solaris Web Start Wizard.

▼ How to Install SEAS with the Installation Wizard

Note - If you plan to install Sun Directory Services, be prepared to enter a Sun Directory Services administration password.
If you plan to install AdminSuite, be prepared to enter the user name of a primary administrator.

- 1. Insert the SEAS product CD in the CD-ROM drive.**
A File Manager window opens, listing folders and files included on the CD.
- 2. Double-click the `README.html` file to display installation guidelines and access to online versions of this installation guide.**
- 3. Double-click the `installer` file to open the Web Start installation window.**
If an Action: Run window opens, click OK to continue. An Installer Console window opens and displays installation events and the location of installation log files.

- 4. If prompted, enter the system's root password and click Log in.**

The Web Start Welcome screen opens.

- 5. Click Next in the Welcome screen and choose either Default or Custom Installation.**

A default installation installs all the SEAS products.

Click Next to move to the next page or Previous to return to the previous page.

The Web Start Wizard detects any previous versions of the selected products and automatically sets the installation option to "No install" which you can override.

- 6. Verify that the selected products will be installed in the desired directories.**

The Web Start Wizard displays the directories in which the selected products will be installed. If you do not have sufficient disk space, the wizard informs you of which directory has insufficient space. Your immediate option is to install fewer products now. Alternatively, you can free up disk space and continue the installation. Display the README for guidelines on determining and freeing up disk space.

- 7. At the end of the installation, a message indicates the success or failure to install any of the products.**

See "Examining Log Files" on page 18 for information on locating and examining the installation log files. See also Chapter 7 for more troubleshooting information.

- 8. (Optional) Install the SEAS documentation set.**

See Chapter 4 for step-by-step instructions.

- 9. (Optional) Install the client portions on PCs running the Microsoft Windows 95, Windows 98, and Windows NT 4.0 platforms.**

See "Performing Client Software Installations" on page 18 for step-by-step instructions.

If you chose to install SEAM 1.0 and JDK 1.1.7, you will be prompted to reboot your system. See "Restarting or Rebooting the System After Installation" on page 16 for step-by-step instructions.

▼ How to Install SEAS Over the Network

- 1. Open the File Manager window.**
- 2. From the File menu, select Go To.**

3. Enter the path where the SEAS files have been copied to.

For example: `/net/bigmountain/files1/SEAS3`

4. Double-click the `installer` file to open the Web Start installation window.

5. Follow the on-screen installation instructions.

See also “How to Install SEAS with the Installation Wizard” on page 14 for further instructions.

For instructions on installing SEAS client software on PCs, see “Installing SEAS Clients Over Your Network” on page 19.

Restarting or Rebooting the System After Installation

At the end of the SEAS installation, you may be prompted to reboot if you installed SEAM 1.0 or JDK 1.1.7. When you choose to reboot now, the system closes all open files and then reboots the system automatically. If you choose to reboot later, use one of the following rebooting procedures. The rebooting commands are typed at the `ok` SPARC system PROM prompt. If the PROM prompt is `>`, type `n` to display `ok`. You must be root to execute a reboot. If necessary, in a terminal window at the system prompt, type `su` and then enter the root password.

▼ How to Reboot the System in Multi-User State

1. In a terminal window, type the following command:

```
halt
```

2. At the `ok` prompt, type the following command:

```
boot
```

3. Log in as usual.

▼ How to Reboot the System in Single-User State

1. In a terminal window, type the following command:

```
halt
```

2. At the ok prompt, type the following command:

```
boot -s
```

The system responds with the following message:

```
INIT: SINGLE USER MODE
Type Ctrl-D to proceed with normal start-up,
(or give root password for system maintenance)
```

3. If you want to reboot in multi-user mode, press Ctrl-D.
4. Type the root password and press Return.

Starting Applications From the SMC

If you installed the Solaris Management Console (SMC), the Web Start installation wizard adds the SMC icon in the following places:

- The Applications Manager window
- In the `sys_admin` folder, accessible from the Applications Manager window
- On the Tools menu, accessible by right-clicking on the desktop and selecting the Tools option

After launching the SMC, the Solaris Management Console window opens. The default display shows the available application folders in the left window pane. Double-click a folder to reveal the applications in the right window pane.

To start an application, double-click its icon in the right window pane.

Examining Log Files

Installation and uninstallation process information is recorded in log files.

There is a log file for SEAS and for each individual product consolidated under SEAS. The SEAS installation log file

`Solaris_Easy_Access_Server_3.0_CD_install.XMMDDHHMM` provides feedback on the installation of the SEAS packages. The individual product log files provide information on the installation of the individual products.

Use your favorite text editor to read the SEAS log files.

Installation Log Files

Consult the individual installation log files located in `/var/sadm/install/logs/`.

The installation log files follow this naming convention:

`product_name_install.BMMDDHHMM`. For example:

`DiskSuite_4.2_install.B12210145` points to the DiskSuite log file pertaining to an installation that took place on December 21 at 1:45PM..

Uninstallation Log Files

The uninstallation log files are located with the installation log files. The uninstallation log files follow this naming convention:

`product_name_uninstall.BMMDDHHMM`. For example:

`DiskSuite_4.2_uninstall.B12210245` points to the DiskSuite log file pertaining to an uninstallation that took place on December 21 at 2:45PM.

Performing Client Software Installations

A number of SEAS products provide client software that can be installed on PCs running Microsoft Windows 95, Windows 98, and Windows NT 4.0. Instructions for such client installations are provided for the following SEAS products:

- “Installing the SMC Client” on page 19
- “Installing the AdminSuite Client” on page 20
- “Installing the Solaris PC NetLink Client” on page 21
- “Installing Supplemental Netscape Language Packages” on page 24

- “Installing the WBEM SDK” on page 22

Installing SEAS Clients Over Your Network

When the contents of the SEAS software has been copied to a Solaris server, you can perform SEAS client installations over your network rather than from the SEAS product CD.

▼ How To Install SEAS Clients over Your Network

1. **On the PC desktop, double-click Network Neighborhood.**
2. **Select the server on which the SEAS software is available.**
3. **Find the folder that contains the Installer icon.**
4. **Double-click the Installer icon to start the installation wizard.**

Installing the SMC Client

The SMC Client is that portion of the SEAS software that enables you to bring up the Solaris Management Console for managing the SEAS products from a system other than the server.

The Solaris server and client portions of the SMC are installed when you install SEAS with Web Start. However, you must install the client portion on all the systems, other than the server, from which you want to run the SMC. These systems include Solaris systems and PCs running Windows 95, Windows 98, and Windows NT 4.0.

▼ How to Install the SMC Client

1. **Launch a Web browser.**
2. **Point to port 898 on the server on which you installed the SMC server software.**
If you installed the SMC Server software on a network-available machine named wyoming, for example, point to the URL: `http://wyoming:898`.
The SMC server site opens with links to the SMC requirements and procedures, including instructions for downloading and installing SMC client software.

3. Read the Installation Requirements.

4. Click Download Procedure to download the software and install the SMC Client software.

When you have completed the SMC client installation, refer to the *Solaris Easy Access Server 3.0 Release Notes* to find out if any of the products you have installed have recommended or required patches.

Installing the AdminSuite Client

The AdminSuite Client is that portion of the AdminSuite 3.0 software that enables you to bring up the AdminSuite console on a PC running Microsoft Windows NT 4.0 or Windows 95 and Windows 98. The AdminSuite Client enables you to perform user and host management tasks, such as add users and groups, manage NIS and NIS+ domains, and so forth.

You can install the AdminSuite Client from a CD-ROM or over the network. Before starting the AdminSuite Client installation, you need to know the name of the AdminSuite server as you will be prompted for it. Currently, the AdminSuite Client will not run from the CD-ROM directly. It must be installed so that various property files can be created and adjusted.

▼ How to Install the AdminSuite Client

1. **On the PC, open Explorer.**
2. **Locate the `Setup.exe` file for AdminSuite on the SEAS product CD.**
3. **Double-click the `Setup.exe` file to launch the installation.**
4. **If necessary, add `..\bin\admapp.bat` file to your Windows Startup menu.**

▼ How to Run the AdminSuite Console

1. **If necessary, run the `..\bin\admapp.bat` file.**
2. **Type the name of the AdminSuite server, an existing user name and password, and press Return.**

Installing the Solaris PC NetLink Client

There are two ways to install the PC NetLink Client software: over the network and from the SEAS product CD.

▼ How to Install the Solaris PC NetLink Client over the Network

When installing the Solaris PC NetLink Client software over the network, the Solaris PC NetLink server software must be installed on a server and the client PC must be authenticated in the Solaris PC NetLink server domain. The client computer must be on the same subnetwork as the server, or you must use WINS.

1. **Double-click Network Neighborhood on the PC desktop.**
2. **Select the server on which PC NetLink has been installed.**
3. **Open the Tools folder and follow the instructions in the `readme_en.txt` file.**

▼ How to Install the Solaris PC NetLink Client from the Product CD

1. **Insert the SEAS product CD in the PC's CD-ROM drive and, when the splash screen opens, click on the PC NetLink icon.**
2. **Click Next, and then click Yes to accept the terms of the software license agreement**
3. **Click Next to accept the default installation path.**
The default path is `C:\...\SUNW\SunLink Server Manager`. To specify an alternative installation path, click Browse and select the desired folder.
Once the installation path is selected, the installation starts, and you will be prompted to either restart the PC immediately (default) or later.
4. **To restart the PC later, select No and then click Finish.**
Restarting the PC updates the Windows Registry with data pertaining to the PC NetLink software.

Installing the WBEM SDK

WBEM SDK installs the components needed to write WBEM-compliant management applications and providers that run on the Java platform on Microsoft Windows 95, Windows 98, and Windows NT 4.0. This software cannot be used to write providers for Microsoft's Win32 operating system. These components consist of the following: CIM Workshop, Client API, Provider API, Sample Client Programs, Sample Provider Programs, user documentation, the *WBEM on Sun Developer's Guide*, Javadoc for Client and Provider API.

If you install WBEM under a default SEAS installation using the installation wizard, WBEM will display a screen requesting the Sun Directory Services (SDS) administrator's account password. Typing the password at this screen is optional. Click Next to bypass the password screen. If the SDS administrative account password is not set during the installation of WBEM as part of a SEAS installation, you must run the `wbemconfig` script to start SDS and configure your WBEM environment.

If you install WBEM under a default SEAS installation using the `install ---nodisplay` command in a terminal window, the password screen is not shown.

▼ How to Install the WBEM SDK

1. Place the SEAS Product CD in your CD-ROM drive.

The Welcome window opens.

2. Click the WBEM SDK for Java icon, and then click Next.

The Choose Destination Location dialog box opens. The dialog prompts you that the WBEM SDK for Java and corresponding documentation will be installed in the following path: `C:/Program Files/SUNWconn`.

3. Click Next to continue. Otherwise, if you want to select a different path in which to install WBEM SDK for Java, then click Browse and select the path. Then click Next.

The Select Components dialog box opens.

4. Ensure that a check mark appears in the check box beside the name of the WBEM SDK for Java and Documentation to install each of these components. Click Next.

The Select Program Folders dialog box opens. The dialog shows the default folder, Accessories, in which the WBEM SDK will be contained.

5. Click Next to display the WBEM SDK for Java in the Accessories folder. Otherwise, click a different folder in the Existing Folders field, then click Next.

The WBEM SDK is installed. The Setup Complete dialogbox opens.

- 6. Click Finish to complete the installation.**

Uninstalling the WBEM SDK

In the Microsoft Windows environment, you can uninstall the WBEM SDK in the Add/Remove Programs Properties dialog box.

▼ How to Uninstall the WBEM SDK in Microsoft Windows

- 1. Click Start->Settings->Control Panel.**

The Control Panel window opens.

- 2. Double-click the Add/Remove Programs icon.**

The Add/Remove Programs Properties dialog box opens. Ensure that the Install/Uninstall tab is selected.

- 3. In the list of applications in the lower half of the Add/Remove Programs Properties dialog box, select WBEM SDK. Click Add/Remove.**

- 4. In the Confirm File Deletion dialog box, click Yes.**

The Remove Programs From Your Computer dialog box opens. It alerts you about folders that were not deleted as part of the uninstallation process. Click Details to view the following folders that were not deleted:

- C:\Program Files\SUNWconn\wbem\bin
- C:\Program Files\SUNWconn\wbem
- C:\Program Files\SUNWconn\
- C:\Program Files\wbemcore
- C:\Program Files\wbemsdk

After you remove both the Sun WBEM SDK and Solaris WBEM Services, the LDAP schema and data files remain installed. You can remove these files, and the subdirectories that contain them, from the path /opt/SUNWconn/ldap. However, if you remove the LDAP data, you may encounter errors in other applications that require the data. Also, if you remove the LDAP data, you will need to re-install it if you decide to re-install the Sun WBEM SDK or Solaris WBEM Services at a later date.

- 5. Click OK to close all open dialog boxes and close the Control Panel.**

Installing Supplemental Netscape Language Packages

After installing the base package, with English as the default language, you can install supplemental packages with additional languages. Depending on the language version of Solaris you purchased, you will have the following language choices:

- European Solaris — English, French, Italian, German, Spanish, and Swedish
- Japanese Solaris — English and Japanese
- Asian Solaris — English, Korean, Traditional Chinese, and Simplified Chinese

Note - Each local language package requires 10 MB of free disk space. If you installed Netscape Communicator in a location other than the default directory (`/opt/NSCPcomm`) be sure to install the supplemental language packages in the same location.

▼ How to Install Supplemental Netscape Language Packages

1. **Start the Solaris Web Start Wizard.**
Click Next until you reach the product installation options.
2. **Choose Custom installation, select Netscape Communicator, and click Change.**
3. **From the list of available language packages, select the packages you want to install and click OK.**
4. **Continue following the directions of the Web Start Wizard.**

Alternative Installation Methods

The easiest way to install the SEAS products is to use Solaris Web Start on the product CD. However, if you are familiar with the UNIX[®] operating system environment, you may want to use one of the following alternative installation methods.

Be sure to install any recommended or required patches. Refer to the Patches section in the *Solaris Easy Access Server 3.0 Release Notes*.

- Using the `installer -nodisplay` command to install SEAS or individual products without the Web Start wizard. See “Installing SEAS Products Without Web Start” on page 25 for step-by-step instructions
- Solaris Web Start on the Solaris 7 product CD
- Launching an installer using the Registry. See “Installing Products From the Registry” on page 52 for step-by-step instructions
- Using the `pkgadd` command (for experienced UNIX administrators only.) See “Installing SEAS Products Using `pkgadd`” on page 55 for more information on available packages

Installing SEAS Products Without Web Start

The installation program at the top level of the SEAS product CD installs all the SEAS products. In addition, each product has its own directory on the CD from which you can install individual products. Running one of the installer programs as `installer -nodisplay` in a terminal window installs the corresponding product without asking questions, using all default choices. See “Packages Available With SEAS 3.0 Products” on page 56 for a list of the available product packages.

Be sure to install any recommended or required patches listed in the *Solaris Easy Access Server 3.0 Release Notes*.

▼ How to Install SEAS Products Without Web Start

- 1. Insert the SEAS product CD in the CD-ROM drive.**

A File Manager window opens to display files included on the CD. One of these files is named `installer`. There is an installer file for installing SEAS and one for installing each individual SEAS product.
- 2. Open a terminal window and, if necessary, become root.**
- 3. In the terminal window, change directory to point to the directory on the SEAS product CD which contains the installer program for the product you want to install.**
- 4. In the terminal window, type the command:**

```
installer -nodisplay
```

This will install the product with its default values.

If you want to manage the SEAS products using the Solaris Management Console (SMC) from a system other than the server on which SMC is installed, you should also install the Solaris Management Console. To install the SMC using the `installer -nodisplay` command, change directory to point to the directory on the SEAS product CD that contains the installer program for the SMC and install it from the product CD.

Installing the SEAS 3.0 Documentation

This chapter provides information on the documentation collections provided with Solaris Easy Access Server 3.0 and instructions for installing the AnswerBook2™ documentation viewer.

- “The SEAS Documentation” on page 27
- “Installing the Answerbook2 Server” on page 29
- “Installing the Answerbook2 Server” on page 29
- “Installing the SEAS Collections” on page 31
- “Registering an Answerbook2 Document Server” on page 32
- “Using the AnswerBook2 Server” on page 33

Note - See “Converting to Solstice DiskSuite 4.2” and “Documentation Errata” in *SEAS 3.0 Release Notes* for late-breaking information related to the SEAS documentation.

The SEAS Documentation

All SEAS documentation is available on the SEAS documentation CD, except for the *Release Notes* which are available in printed form. Most documentation is available in AnswerBook2 format, although some documentation is provided in other formats, such as HTML, online help, text files, PDF, and PostScript® files. Documentation can be installed using Solaris Web Start or the `pkgadd` command.

Table 4-1 lists the books and information that constitute the SEAS documentation set.

TABLE 4-1 SEAS Documentation Set

Collections	Book Title	Available Format
Solaris Easy Access Server 3.0	Installation Guide	SGML, PostScript, PDF
	Readme on product CD	HTML, PostScript
	Readme on documentation CD	HTML
	Release Notes	HTML
Solaris Web Start 2.0.2	None	Online Help and man pages for administrators.
Solaris Management Console 1.0	None	Online Help and man pages for administrators
PC NetLink 1.1 (also referred to as SunLink Server)	Administrator's Guide	SGML, HTML, PDF
	Release Notes	SGML
Sun WebServer 2.1	Command Reference	SGML
	Installation Guide	SGML
	Readme	HTML
Sun Directory Services 3.2	Administrator's Guide	SGML
	User's Guide	SGML
	README (in the package)	Text File
CIM/WEBM 1.0	WBEM on Sun Developer's Guide	SGML
SIMS 2.0	Installation and Configuration Guide	PostScript
	Release Notes	HTML
Solstice DiskSuite 4.2	User's Guide	SGML
	Reference Guide	SGML
	Installation and Product Notes	SGML
Solstice PPP 3.0.1	Installing Solstice PPP 3.0.1	SGML
	PPP Administration Guide	SGML
	PPP User's Guide	SGML
Solstice AdminSuite 3.0	None	HTML-based online help
	Release Notes	HTML
Solaris Print Manager 1.0	Administration Guide	SGML

TABLE 4-1 SEAS Documentation Set (continued)

Collections	Book Title	Available Format
Sun Enterprise Authentication Mechanism 1.0	Sun Enterprise Authentication Mechanism Guide	SGML
	Installation and Release Notes	SGML
AnswerBook2	Administration Guide	SGML
	Reference Manual	SGML
	README	HTML

Installing the Answerbook2 Server

The AnswerBook2 product is Sun Microsystems' online documentation system. It uses a browser interface to view, print, and search the documentation.

To view the SEAS online documentation, you must have access to an Answerbook2 documentation server. The AnswerBook2 documentation server enables you to view Sun documentation using your favorite browser. It renders documentation in 3.2-compliant HTML, sending it to a browser for display; it also supports the previous AnswerBook™ documentation format. The AnswerBook2 documentation server software is included on the SEAS documentation CD and on the Solaris 7 documentation CD.

For occasional viewing of the SEAS document collections, you need not install the AnswerBook2 documentation server software. Instead, you can run it directly off the SEAS documentation CD using the `ab2cd` script. For detailed information about this feature, see the README on the SEAS documentation CD. For this, you must have root access to the system on which the CD is connected.

However, to provide your users with access to the documentation of the SEAS products, it is necessary to install the AnswerBook2 documentation server software. Once you have installed the SEAS server software, you must install the SEAS documentation on that server. For information on installing the server software and documentation included on the SEAS documentation CD, see the README file on that CD. For general information about using the AnswerBook2 product, see the module "Accessing Online Documentation" in the *Solaris 7 (SPARC Platform Edition) Installation Library* or the *Solaris 7 (Intel Platform Edition) Installation Library*.

If you do not have access to an AnswerBook2 document server or do not want to install it locally, you can view all released Solaris documentation at the <http://docs.sun.com> Web site.

▼ How to Run the Answerbook2 Server From the SEAS Documentation CD

Note - Be aware that running the document server directly from the CD is slow. As such, it is not recommended that you use this approach if you expect other users to access the SEAS document collections.

1. **Log in as root.**
2. **Change directory, or bring up File Manager, and go to the location containing the executable `ab2_cd` script.**
3. **Run the `ab2_cd` command.**
4. **Access the documentation server using the following URL: `http://localhost:8888` where localhost is the name of the machine to which the CD is attached.**
5. **To stop running the server from the CD, run the `ab2_cd stop` command.**

▼ How to Install the AnswerBook2 Documentation Server

1. **Insert the SEAS documentation CD in the CD-ROM drive.**
2. **Log in as root on the documentation server machine and change directory to the location of the installation packages.**
3. **At the system prompt, start the Product Registry by typing:**

```
prodreg &
```

4. **Click Install at the bottom of the Product Registry Window.**
5. **Locate the AnswerBook2 installer program and click OK.**

6. Follow the directions as prompted.

▼ How to Install the Answerbook2 Documentation Server Using `pkgadd`

1. Insert the SEAS documentation CD in the CD-ROM drive.
2. Log in as root on the documentation server machine and change directory to the location of the installation packages.
3. Type the command:

```
pkgadd package_name
```

To install the server packages into a non-default directory, use the `pkgadd -d . -a none` command. This causes the `pkgadd` utility to prompt you for the directory into which you want the software installed.

`SUNWab2r` (0.02 Megabytes) installs in root partition and provides configuration and startup files.

`SUNWab2s` (0.21 Megabytes) provides shared files for performing document processing.

`SUNWab2u` (21.02 Megabytes) provides executable and back-end processing files for server and administration functions.

4. Start the server, if needed.

Installing the packages should start the server on the default port of 8888. If it does not start, type the following command to start it:

```
# /usr/lib/ab2/bin/ab2admin -o start
```

Installing the SEAS Collections

Before the AnswerBook2 documentation server can do its job, you must install the documentation collections. See Table 4-1 for a list of the SEAS documentation collections.

Use the `pkgadd` utility to install the new book collections onto your server. If you are adding the SEAS document collections to an existing AnswerBook database, use either the Add Collection to List function or the `ad2admin -o add_coll` command to add the collections.

If collection packages are already installed on the documentation server, you can use the server's Scan for Locally Installed Collections function or the `ab2admin -o scan` command to have them automatically found and added to the server's documentation database. This function only works for locally installed packages.

To serve documentation collections located on another documentation server, use the Add Collection to List function or the `ab2admin -o add_coll` command and provide the full path name to the `ab_cardcatalog` or `collinfo` file. For example, if the document server is `ab2docserver` and you want it to serve the DiskSuite 4.2 document collections on the system `bingo`, you might type the following command:

```
ab2admin -o
add_coll -d /net/bingo/opt/answerbooks/english/DiskSuite_4.2/SUNWdsab
```

Registering an Answerbook2 Document Server

If you want other users to automatically find your document server through Federated Naming Services (FNS), you need to register the server. This will include your server in a pool of servers for a site, and give the users the ability to choose from document servers.

▼ How to Register an AnswerBook2 Document Server

1. Type the following command:

```
# /usr/lib/ab2/bin/ab2regsvr server_url
```

where *server_url* is the fully qualified URL to get to this server.

For example: `ab2docserver.eng.sun.com:8888`

For more information about installing AnswerBook2 server software, refer to *Information Library for Solaris 2.5 (SPARC Platform Edition)*.

Using the AnswerBook2 Server

If you are running the Solaris 2.6 or Solaris 7 operating environment, you can start AnswerBook2 in one of the following ways.

- From the CDE front panel, right-mouse click on Program, and then select AnswerBook2.
- From the Open Windows Programs menu, choose AnswerBook2.
- From the UNIX command line, type `answerbook2`.
- From a Web browser, enter the name of the AnswerBook2 server and the port, following this syntax:

```
http://document_server:port.
```

For example: `http://ab2docserver:8888`.

Licensing

This chapter covers the licensing requirements and provides you with information on enabling and ordering additional licenses.

- “Licenses You Receive with SEAS” on page 35
- “Enabling SEAS Licenses” on page 36
- “Ordering Additional Licenses” on page 37
- “Registering a PC NetLink License” on page 37

Licensing Requirements

The purchase of Solaris Easy Access Server 3.0 entitles you to a minimum of licenses for installing and running the SEAS products. After you have installed the products, you may need to enable a license to run the product.

Licenses You Receive with SEAS

The purchase of SEAS entitles you to the following licenses.

TABLE 5-1 Default SEAS Licenses

SEAS Product	License	Licensing Options
Solstice DiskSuite 4.2	One machine license. See the online Binary Code License.	N/A
Solaris PC NetLink (also referred to as SunLink Server)	One machine license and unlimited clients.	N/A
Solstice Internet Mail Server 2.0	1 server and 5 mailboxes. License certificate included.	Additional mailboxes, Enterprise Upgrade, and Sun Messaging Connectivity Services.
Sun Directory Services 3.2	No license required for less than 1,000 directories.	Additional packs of 10,000, 100,000 and 1,000,000.
Sun WebServer 2.0	Four servers; eight virtual host domains per server.	For unlimited virtual domain hosts, contact your sales representative.
JDK 1.1.7	One license by the number of users and the class of computer hardware. See the online Binary Code agreement for details.	N/A
Netscape Communicator 4.5 Standard Edition	One machine license.	N/A

Enabling SEAS Licenses

After you have installed the SEAS products, you may need to enable a license to run the product. Table 5-2 gives brief instructions on enabling product licenses, if needed, and points you to the relevant installation or licensing document for the products.

TABLE 5-2 SEAS Product Licenses

Product	To Enable License	See This Document
Sun Directory Services 3.2	No action required for first 1,000 directories.	The Sun Directory Services README.sds on the SEAS product CD
Solstice Internet Mail Server 2.0	Select the demo mode license option.	<i>Solstice Internet Mail 2.0 Installation and Configuration Guide</i>

Ordering Additional Licenses

To order licenses and software for your location, contact a Sun License Center listed below. See <http://www.sun.com/licensing> for the latest information on licensing, including voice, FAX, and telephone numbers.

TABLE 5-3 License Contacts

If You Are In...	E-mail Contact...
U.S.A and Canada	license@sun.com
Europe	eu-licensing@UK.sun.com
Japan	license@rrd.co.jp
All other countries	eu-licenseing@UK.sun.com

Registering a PC NetLink License

When you purchase PC NetLink, you receive a product registration number. Product registration numbers consist of twelve alphanumeric characters, for example, B7291203F811. While you can install PC NetLink with a temporary evaluation license, you will eventually have to enter the product registration number. We recommend that you register the product before the evaluation license expires. Failing to register the product before the expiration of the temporary evaluation license will cause PC NetLink to display a message stating it cannot start the server and point you to consult the event log.

Before you register your PC NetLink server software, you can verify whether it has been registered or not by using the `registration` command.

▼ How to Verify if PC NetLink Has Been Registered

1. **Open a terminal window on the server where PC NetLink server software has been installed.**
2. **Become superuser by typing the command `su` and entering the superuser password when prompted.**
3. **At the superuser system prompt, type the following command:**

```
/opt/lanman/sbin/registration -r
```

If the product is still using the temporary evaluation license, the system response will display a line indicating when the license will expire. In this case you will need to register the product.

If the product has been registered, the system response will indicate the product ID and product registration number.

▼ How to Register a PC NetLink License

1. **Open a terminal window on the server where PC NetLink server software has been installed.**
2. **Become superuser by typing the command `su` and entering the superuser password when prompted.**
3. **At the superuser system prompt, type the following command:**

```
/opt/lanman/sbin/registration -a product_registration
```

where *product_registration* is the registration number you received.

No system reboot is required. If you registered PC NetLink before the expiration of the evaluation license, you do not need to restart the PC NetLink server. If you registered PC NetLink after the expiration of the evaluation license you will need to restart the PC NetLink server.

▼ How to Start and Restart the PC NetLink Server

1. **Open a terminal window on the server where PC NetLink server software has been installed.**
2. **Become superuser by typing the command `su` and entering the superuser password when prompted.**
3. **At the superuser system prompt, type the command:**

```
/opt/lanman/bin/net start server
```

▼ How to Read the Event Log

1. **Open a terminal window on the server where PC NetLink server software has been installed.**
2. **At the superuser system prompt, type the following command:**

```
elfread --d system | page
```

where `--d` is the option to display details, `system` is the name of the event log, and `page` displays the details one screen at a time.

Alternatively, you can use the SunLink Server Manager to read the event log, but you cannot run the Event Viewer from a Windows client.

Configuring the SEAS Products

The installation process installs all the SEAS products with the minimum default values. Further configuration may be required to meet your needs.

Note - Refer to the documentation collections supplied on the SEAS documentation CD for detailed information about configuring the individual SEAS products.

- “Configuring DiskSuite” on page 44
- “Configuring PPP” on page 44
- “Configuring WBEM” on page 45
- “Configuring WebServer” on page 46
- “Configuring Directory Services” on page 47
- “Configuring PC NetLink” on page 47
- “Configuring SEAM” on page 48

Starting the Solaris Management Console

The Solaris Management Console (SMC) is the environment where you can configure, manage, and start the SEAS products.

You will be prompted for a user name and password.

▼ How to Start the Solaris Management Console

1. In the Applications Manager window, click the SMC icon.

At the end of the installation of the SMC, but before the completion of the installation procedure, the Applications Manager opens and now includes the icon for launching SMC.

Alternatively, right-click on the desktop and then start the SMC from the Workspace menu.

Note - To run the SMC application you must have SMC client software installed on your machine. Any machine you want to manage with SMC must also have the SMC server software installed.

2. If necessary, replace the current server name with the name of another server.

3. Type your user name and press Tab or Return.

If you start an application from the SMC that requires root or administrator's password, you will be prompted to enter it.

4. Type your password and press Return or click Login.

The SMC window opens.

SEAS Products in the Solaris Management Console

The default installation of SEAS adds the following SEAS components to the Solaris Management Console. Refer to Table 1-1 for a description of the SEAS products.

TABLE 6-1 SEAS 3.0 Products in the Solaris Management Console

Category	SEAS Component
Connectivity	Basic Routing Configuration
	DNS Client Configuration
	Network Configuration
	PPP Configuration
	Point-to-Point Protocol
	PC NetLink
Documentation	AnswerBook
Infrastructure	AdminSuite
	Admintool
	Directory Services
	Performance Meter
	Shutdown/Restart Computer
	Terminal
	Workstation Information
Jobs	Process Manager
Print	Print Manager
Software	DNS Server Configuration
	Software Manager
	Solaris Product Registry
Storage	Disk Suite
User and Group	Change Root Password

Starting SEAS Products from the SMC

To start any of the SEAS products, double-click the category in the left pane of the Solaris Management Console window, and double-click the product's icon in the right pane of the window.

Configuring SEAS Products

Configuration information is available for the following products. Also refer to the individual product's documentation set for more in-depth details. The entire SEAS documentation collection is available from the Documentation CD. Refer to "The SEAS Documentation" on page 27 for information on the available books for SEAS and for instructions on installing the documentation.

- "Configuring DiskSuite" on page 44
- "Configuring PPP" on page 44
- "Configuring WBEM" on page 45
- "Configuring WebServer" on page 46
- "Configuring Directory Services" on page 47
- "Configuring PC NetLink" on page 47
- "Configuring WBEM" on page 45

Configuring DiskSuite

The following list presents a high-level overview of configuration tasks for DiskSuite 4.2. Refer to the *Solstice DiskSuite 4.2 User's Guide* for full details.

- Create a bootable disk .
- Configure the `mdlogd.cf` file.
- Edit the power supply management state file.
- Remove DiskSuite 4.0 documentation.
- Set up a previous configuration of DiskSuite prior to an upgrade.
- Read and understand the conceptual configuration information about SCSI drivers, and the DiskSuite upgrade/configuration rules.

Configuring PPP

Gather the information listed in this section before starting the PPP configuration script. Refer to chapter "Configuring Solstice PPP using `pppinit`" and chapter "Editing the Configuration Files" in the *Solstice PPP 3.0.1 Administration Guide* for full details.

- Determine the communications mode. You will need to choose from asynchronous client, asynchronous client/server, or synchronous.

- The type of modem used.
- List of available devices.
- Line speed.
- Name of remote host(s), and phone numbers.
- The file name for the data script.
- The login ID sent to the remote host and password.
- Whether you want to set a specific pool or modem for the host(s).
- Whether you want to use dynamic IP allocation or not.
- The IP netmask address.

Run the PPP configuration tool only once to set the initial PPP configuration interface. If you make a mistake during the configuration, at the end of the script, you have the option to exit without saving. Thereafter run `ppptool` to manage the PPP connection.

▼ How to Configure PPP 3.0.1

1. Click on the Applications tab in the SMC window to display the applications.
2. Double-click the Connectivity folder in the left window pane.
3. Double-click Configuration.
4. In the right window pane, double-click PPP Configuration to start the `pppinit` configuration script.

Configuring WBEM

As a prerequisite to installation, Sun WBEM requires that Sun Directory Services 3.1 (SDS) is started. The installation does not prompt you to provide the SDS password, and SDS does not start. When your SEAS installation has completed, the CIM Object Manager starts automatically and returns an error message indicating that SDS is not configured. Running the `wbemconfig` script starts SDS and configures your Sun WBEM environment. After installing Sun WBEM as part of SEAS, use the following procedure to run `wbemconfig`.

You must be logged in as root to run the `wbemconfig` script. Use the following procedure to configure your Sun WBEM environment.

▼ How to Configure Sun WBEM

1. **Become root on your system by typing the following command:**

```
% su
```

2. **Run the `wbemconfig` script using the following command:**

```
# /opt/SUNWconn/wbem/binwbemconfig
```

3. **When prompted, type `admin` as the SDS administrative account password.**

The `wbemconfig` script runs and automatically does the following:

- Configures SDS.
- Starts the CIM Object Manager.
- Starts the MOF Compiler and compiles two MOF files:
 - `CIM_Schema21.mof` — provides the classes that make up the CIM Schema
 - `Solaris_Schema1.0.mof` — provides the classes that make up the Solaris Schema

Configuring WebServer

For directions on defining web server administrators, configuring the Sun WebServer Administration Server, and starting the web server, refer “Configuring the Administration Server” in *Sun WebServer Installation Guide*.

Once you configured the WebServer, you can add it to the SMC using the following information.

- Application type: URL
- Category: Web & Information
- Run As: User
- Application Name: Sun WebServer
- `http://hostname:port/admin/admin.html`
Note that the default port number is 2380.
- Icon: `/usr/sadm/client/SUNWmc/htdocs/images/webserv.gif`

Configuring Directory Services

Setting up directory services is a complex undertaking. Before proceeding with the configuration of Directory Services, you should read the following chapters:

- “Introduction to Directory Concepts” in *Sun Directory Services 3.1 Administration Guide* explains the concepts and architecture of Directory Services.
- “Planning a Directory Service” in *Sun Directory Services 3.1 Administration Guide* explains the global decisions you need to make about directory services before you can start the configuration of the individual directory service components.

Once you fully understand the implications, and have made the decisions you need to make, you can proceed with “Configuring a Directory Server” in *Sun Directory Services 3.1 Administration Guide* which provides you with step-by-step instructions for the following:

- Configuring security
- Specifying the administrator name and password
- Specifying the encryption method
- Specifying the security mode
- Configuring the LDAP Parameters
- Configuring the Data Store
- Configuring default access
- Configuring logging
- Backing up and restoring the configuration

In addition to the above tasks, you may need to carry out the following related configuration tasks:

- Configuring the NIS server.
- Configuring the RADIUS service
- Viewing and modifying the schema
- Configuring replication
- Configuring the Web Gateway

See “The SEAS Documentation” on page 27 for the complete list of Directory Services documentation supplied with SEAS.

Configuring PC NetLink

After a new installation, your server’s NetBIOS and PC NetLink software are configured by default as follows:

- NetBIOS comes up in broadcast mode.

- The server is configured as the primary domain controller (PDC).
- The PC NetLink host name is the same as the Solaris host name.
- The Server domain is <hostname>_dom.
- The default password for the Administrator account is password.

You will also need to join a domain, set up WINS, and create shares. See the *SunLink Server Administration Guide* for information about changing account passwords and configuration settings.

Note - The default password for the Administrator account is displayed on your screen during installation. Be sure to change the default password as soon as possible.

Configuring SEAM

Setting up SEAM involves many tasks. Refer to the following documentation before installing SEAM. The *SEAM Installation and Release Notes* gives instructions for the tasks which may require the use of the SEAS 3.0 product CD, such as:

- Preconfiguring SEAM installations
- Installing SEAM software

Tasks that can be completed after the software is preconfigured or installed are covered in the *Sun Enterprise Authentication Mechanism Guide*. These tasks include:

- Planning for SEAM
- Configuring master and slave KDCs
- Configuring SEAM clients
- Configuring SEAM NFS servers

Troubleshooting

This chapter covers any known installation issues and provides solutions and workarounds.

- “Contacting Customer Support” on page 49
- “Troubleshooting AdminSuite 3.0 Client Installations” on page 49

See also the *Solaris Easy Access Server 3.0 Release Notes* for late-breaking troubleshooting information.

Contacting Customer Support

If you have any support issues, call your authorized service provider. See <http://access1.sun.com> for further information about support. To learn more about Sun Microsystems™, Inc. see <http://www.sun.com>.

Troubleshooting AdminSuite 3.0 Client Installations

The following may help resolve the issues you may encounter when running AdminSuite 3.0 on Microsoft Windows platforms.

- **Problem:** After trying to start the `admapp.bat` file, a DOS window appears temporarily but disappears without starting anything.

Solution #1: It is likely that one of the environment variable in the `addmapp.bat` file is incorrect. Make sure that the following environment variables are set as indicated here:

WS should be set to the directory where AdminSuite is installed. For example:

```
WS=C:\AdminSuite
```

JAVA_HOME should be set to the Java JRE or Java JDK install path. For example:

```
set JAVA_HOME=C:\java
```

CLASSPATH should be set to point to at least the following:

`.;%WS%\opt\classes;%JAVA_HOME%;<swingpath>\swingall.jar`. For example:

```
set CLASSPATH=.;C:\AdminSuite\opt\classes;C:\java;C:\AdminSuite\opt\swingall.jar.
```

Solution #2: The correct version of Java must exist. The entire JDK is not needed, just the JRE will suffice but which ever is there must be version 1.1.6 or compatible. Sometimes using a JFC swingset other than what gets shipped with AdminSuite can cause problems. JFC Swingset version 1.0.3 should be used for now. There appear to be some problems with running version 1.1. If problems are encountered and any error messages with "JFrame" appear, it may be necessary to use the JFC swingset supplied with the AdminSuite installation.

- *Problem:* After starting the AdminSuite Client for Microsoft Windows, and attempting to log in, an error comes back stating that the RMI registry could not be connected.

Solution #1: The AdminSuite Server is not running on the machine you specified. Enter the name of a valid AdminSuite server and restart the AdminSuite Client.

Solution #2: Make sure the user name and password exist within the context of the machine name you specified for your default AdminSuite Server.

Managing SEAS Products From the Registry

The Solaris Product Registry is a tool for managing software installed using Solaris Web Start 2.0 or the `svr4` package management commands. The Registry provides the following capabilities:

- View a list of installed and registered software and software attributes
- Uninstall software
- Browse for and launch an installer

What Is in the Registry?

The Solaris Product Registry consists of two parts.

- The system registry lists Solaris software, all `svr4` packages, and all software installed and registered by the root user.
- The user registry lists software installed and registered by a user other than the root user.

The Solaris Product Registry window contains three areas of information.

- On the left, a list of installed and registered software
- In the upper right column, standard attributes of the currently selected software
- In the bottom right, an informational section showing internal and customized attributes of the currently selected software

Starting the Registry

From the Solaris Management Console, click the Product Registry icon in the left pane, and then double-click the Product Registry icon in the right pane to launch it.

Alternatively, you can start the Product Registry by entering the following command:

```
/usr/bin/prodreg
```

Installing Products From the Registry

Any of the SEAS products can be individually installed using the Registry.

▼ How to Install a SEAS Product from the Registry

1. If necessary, start the Registry by typing the following command:

```
/usr/bin/prodreg
```

2. Click **New Install** at the bottom of the Registry window to open the **Select Installer** dialog box.
3. Type the name of the installer of the product you want to install and click **Install**.

An **Abort** button appears in place of the list of software on the Registry window. While the installer is running, the Registry functionality is unavailable. To stop the installer, click **Abort**.

Uninstalling Products From the Registry

Follow these directions to uninstall any of the individual SEAS 3.0 products.

▼ How to Uninstall a Product From the Registry

1. **If necessary, start the Registry by typing the following command:**

```
/usr/bin/prodreg
```

2. **In the left column of the Registry window, click System Registry to reveal the list of installed products.**
3. **Select the name of the software you want to uninstall.**
4. **Read the software attributes to make sure you have selected the software you want to uninstall.**
5. **Click Uninstall at the bottom of the Registry window.**
The Uninstall Welcome screen opens.
6. **Click Next, choose between a Full Uninstall (default) and a Partial Uninstall, and then click Uninstall Now.**
An Uninstallation Summary window provides feedback on the uninstallation. When the product is completely uninstalled, the Product Registry window is updated.

The product is removed from the system.

Available SEAS Packages

This appendix contains a list of the packages that make up the Solaris Easy Access Server 3.0 products.

If you are not familiar with adding packages from the command line, you should use the Solaris Web Start method of installation as described in “Installing SEAS with the Installation Wizard” on page 13. Many SEAS 3.0 products require packages from other products, and some products depend on the presence of another product. See Table B-1 in Appendix B. Before beginning a `pkgadd` installation, read the documentation for each product you plan to install and make sure you understand the product dependencies. Selecting only certain packages from the SEAS products may cause some programs not to work.

The installation instructions contained in each product’s documentation were written for standalone installation, not as part of SEAS. When installing SEAS 3.0 using the `pkgadd` command, use the directory path for the SEAS CD, not the directory information given in the individual product installation instructions.

On the SEAS 3.0 documentation CD, some products provide a combination of AnswerBook, HTML and PostScript document files. If there is a conflict between the AnswerBook2 documentation and the HTML or PostScript documentation, the AnswerBook2 documentation is more recent and contains the correct information. In the same way, the *SEAS 3.0 Installation Guide* is more recent and supersedes all HTML and PostScript documentation.

Installing SEAS Products Using `pkgadd`

For instructions on using the `pkgadd` command, see the *Solaris 7 (Intel Platform Edition) Installation Library* or *Solaris 7 (SPARC Platform Edition) Installation Library*.

Packages Available With SEAS 3.0 Products

Table A-1 lists the packages that are part of each product except for AnswerBook2 products, which are shown in Table 4-1. The AnswerBook2 server and the AnswerBook online documentation are on the Solaris Easy Access Server 3.0 Documentation CD.

TABLE A-1 Product Packages

Product	Packages Available
PC NetLink 1.1 (also referred to as SunLink Server)	SUNWuiu8 SUNWlznb SUNWlzs SUNWlzc1 SUNWlzm SUNWlzs r SUNWlzs t SUNWlzd SUNWlzac SUNWlzas SUNWlzag
Solstice AdminSuite 3.0	SUNWseamj SUNWseams
WBEM/CIM SDK 1.0	SUNWwbsdk SUNWwbapi SUNWwbcor SUNWwbdoc
Solaris Print Manager 1.0	SUNWppm
Sun Directory Services 3.2	SUNWlicsw SUNWlit SUNWsd s SUNWsdsc

TABLE A-1 Product Packages *(continued)*

Product	Packages Available
Sun Enterprise Authentication Manager 1.0	SUNWkr5mn SUNWkr5gl SUNkr5do SUNWkr5d SUNWkr5sv SUNWkr5ad Solaris 2.6 only: SUNWgss SUNWgssk SUNWrsg SUNWrsgk
Sun WebServer 2.1	SUNWfns SUNWhtadm SUNWhtsv1 SUNWhttp SUNWhttpc SUNWski SUNWskica SUNWskicw SUNWskild Only on domestic CD: SUNWskimc SUNWskimu SUNWssl Only on global CD: SUNWssld Only on domestic CD SUNWhtdoc SUNWhtman SUNWixavm SUNWixklg
JDK 1.1.7	SUNWjvrt SUNWjvdev SUNWjvjit
Solstice Internet Mail Server 2.0	SUNWimap SUNWipop
Solstice DiskSuite 4.2	SUNWabmd SUNWmd SUNWmdg SUNWmdn

TABLE A-1 Product Packages *(continued)*

Product	Packages Available
Solstice PPP 3.0.1	SUNWpppk SUNWpppm SUNWpppr SUNWppps SUNWpppu
Solaris Management Console 1.0	SUNWmc SUNWmcman SUNWmcapp SUNWmcc SUNWmcsws SUNWmcwz The SMC depends on SUNWhtsv1 and SUNWhttp
Sun Web Start 2.0.2	SUNWws
Netscape Communicator 4.5 Standard Edition	NSCPcom

SEAS Product Compatibility

This section contains information on which Solaris Easy Access Server products depend on other products, parts of other products or other tools such as a web browser.

Product Compatibility

Table B-1 explains which products run under both the Solaris 2.6 and the Solaris 7 operating environments and which operate under only one or the other. It also explains which products depend on other products or parts of other products to run.

TABLE B-1 Product Platform, Compatibility, and Shared Components

Products	Platform and Components Compatibility	
Solaris Enterprise Authentication Mechanism 1.0	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode.
	Web Server	No
	Java	JDK 1.1 or later. HotJava not required
	Other	Graphical user interface requires a pointer to the AnswerBook2 installation.

TABLE B-1 Product Platform, Compatibility, and Shared Components *(continued)*

Products	Platform and Components Compatibility	
Solstice DiskSuite 4.2	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode.
	Web Server	No
	Java	No
	Other	N/A
Solstice PPP 3.0.1	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode.
	Web Server	No
	Java	No
	Other	N/A
Solstice Internet Mail Server	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode.
	Web Server	No
	Java	No
	Other	N/A
Solaris Mangement Console	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode.
	Web Server	Yes, embedded.
	Java	JDK 1.1.5 or 1.1.6 HotJava 1.0.3 or 1.1.3
	Other	JFC 1.1

TABLE B-1 Product Platform, Compatibility, and Shared Components *(continued)*

Products	Platform and Components Compatibility	
Sun Directory Services 3.2	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode.
	Web Server	Sun Web Server or another web server for remote administration.
	Java	JDK and HotJava
	Other	Swing Class 1.0.1 JNDI LDAP SPI (all embedded in product). SSL packages must be present for secure LDAP access.
Sun WebServer 2.1	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode.
	Web Server	Yes; uses own version of Apache.
	Java	No JDK. No HotJava.
	Other	N/A
Sun Web Start	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode.
	Web Server	Optional, Sun Web Server 2.1
	Java	No JDK. HotJava optional.
	Other	Optional Swing Class.
AnswerBook2	Platforms	Solaris 2.6. Solaris 7 32-bit mode. Solaris 7 64-bit mode
	Web Server	N/A
	Java	No JDK. No HotJava.
	Other	An HTML 3.2-compliant browser.

TABLE B-1 Product Platform, Compatibility, and Shared Components *(continued)*

Products	Platform and Components Compatibility	
PC NetLink 1.1	Platforms	Solaris 2.6 Solaris 2.7 Solaris 2.7 on Intel
	Web Server	Yes
	Java	JDK
	Other	N/A