Solaris 8 (Intel Platform Edition) Installation Guide

Adobe PostScript™

Please Recycle

Contents

Preface

The *Solaris 8 (Intel Platform Edition) Installation Guide* describes how to use Solaris™ Web Start to install and upgrade the Solaris operating environment and related software on a single IA based system from a local CD-ROM drive.

Note - In this document, the term "IA" refers to the Intel 32-bit processor architecture, which includes the Pentium, Pentium Pro, Pentium II, Pentium II Xeon, Celeron, Pentium III, and Pentium III Xeon processors and compatible microprocessor chips made by AMD and Cyrix.

This book does not describe how to install the Solaris operating environment on networked systems or how to use the Solaris 8 Interactive Installation Program, Solaris JumpStart™, or Solaris custom JumpStart to set up, automate, customize, and perform the installation of Solaris on any number of systems in a large enterprise network environment. These advanced topics are covered in the *Solaris 8 Advanced Installation Guide*.

Who Should Use This Book

This book is intended for users and system administrators who want to install Solaris software on a single system with Solaris Web Start, Sun Microsystems' graphical, wizard based, Java™ powered software installation application.

How This Book Is Organized

This section describes the chapters in this book.

Chapter 1 defines terms used in this book and describes how to plan and set up for the installation process.

Chapter 2 describes how to use Solaris Web Start to configure your system and install the Solaris software.

Chapter 3 describes how to use the Solaris 8 Interactive Installation Program to create an `fdisk` partition for Solaris software and consequently preserve other existing operating systems and user data on a disk.

Chapter 4 discusses how to back up and plan for upgrading a system and how to set up, configure, and upgrade Solaris on a system. It also describes how to clean up after upgrading a system.

Chapter 5 describes how to add and remove individual software packages after installing the Solaris software.

Chapter 6 describes some of the problems you may encounter during installation and provides possible solutions.

Appendix A provides a brief description of each software package included on the Solaris 8 Software 1 of 2 Intel Platform Edition CD.

Appendix B provides a brief description of each software package included on the Solaris 8 Software 2 of 2 Intel Platform Edition CD.

Appendix C provides a brief description of each software package included on the Solaris 8 Languages Intel Platform Edition CD.

Related Books

Table P–1 lists related information you may need when installing the Solaris 8 software.

TABLE P–1 Related Information

Information	Description
Solaris 8 (Intel Platform Edition) Release Notes	Describes any bugs, known problems, software being discontinued, and patches related to the Solaris 8 release.
Solaris 8 (Intel Platform Edition) Hardware Compatibility List	Contains supported hardware information.
Solaris 8 Advanced Installation Guide	Describes how to install the Solaris operating environment on networked systems and how to use the Solaris 8 Interactive Installation Program, Solaris JumpStart, and Solaris custom JumpStart to set up, automate, customize, and perform the installation of Solaris on any number of systems in a large enterprise network environment.

Ordering Sun Documents

Fatbrain.com, an Internet professional bookstore, stocks select product documentation from Sun Microsystems, Inc.

For a list of documents and how to order them, visit the Sun Documentation Center on Fatbrain.com at `http://www1.fatbrain.com/documentation/sun`.

Accessing Sun Documentation Online

The docs.sun.com^{SM} Web site enables you to access Sun technical documentation online. You can browse the docs.sun.com archive or search for a specific book title or subject. The URL is `http://docs.sun.com`.

What Typographic Conventions Mean

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

TABLE P–2   Typographic Conventions

Typeface or Symbol	Meaning	Example
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% you have mail.`
`AaBbCc123`	What you type, contrasted with on-screen computer output	`machine_name% `**`su`** `Password:`
AaBbCc123	Command-line place holder: replace with a real name or value	To delete a file, type **`rm`** *filename*.
AaBbCc123	Book titles, new words or terms, or words to be emphasized	Read Chapter 6 in the *User's Guide*. These are called *class* options. Do *not* save changes yet.

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–3   Shell Prompts

Shell	Prompt
C shell prompt	`machine_name%`
C shell superuser prompt	`machine_name#`

TABLE P–3 Shell Prompts *(continued)*

Shell	Prompt
Bourne shell and Korn shell prompt	$
Bourne shell and Korn shell superuser prompt	#

Getting Started

This chapter describes how to plan for and set up the installation of Solaris 8 *Intel Platform Edition*.

Note - Solaris software might be preinstalled on your system; see your hardware documentation.

Terms Used in This Book

Before you get started, you must understand these terms.

Term	Definition
CHS enabled (cylinder/head/sector enabled)	Addressing of the disk is by cylinder, head, and sector number. Compare with *LBA enabled*.
custom JumpStart	A type of installation in which the Solaris software is automatically installed on a system based on a user-defined profile. You can create customized profiles for different types of users and systems.
cylinder	On a disk drive, the set of tracks with the same nominal distance from the axis about which the disk rotates. See also *track*, *sector*.

Term	Definition
DHCP (Dynamic Host Configuration Protocol)	An application-layer protocol that enables individual computers, or clients, on a TCP/IP network to extract an IP address and other network configuration information from a designated and centrally maintained DHCP server or servers. DHCP reduces the overhead of maintaining and administering a large IP network.
`fdisk` partition	A logical partition of a disk drive dedicated to a particular operating system on IA (Intel Architecture) based systems. When using the Solaris 8 Interactive Installation Program, you must set up at least one Solaris 8 `fdisk` partition on an IA based system. IA based systems are designed to support up to four different operating systems on each drive; each operating system must be located on a unique `fdisk` partition.
	The `fdisk` partition on an IA based system that contains the Solaris software is divided into slices, one of which is the `swap` slice. Compare with *slice*.
initial installation	The fresh installation of Solaris that overwrites all the information on a system's disk. See also *upgrade*.
IPv6	A new version (version 6) of Internet Protocol (IP) designed to be an evolutionary step from the current version, IPv4 (version 4). It is an increment to IPv4. Deploying IPv6, using defined transition mechanisms, does not disrupt current operations. In addition, IPv6 provides a platform for new Internet functionality.
	IPv6 is described in more detail in "Overview of IPv6" in *System Administration Guide, Volume 3*.
Kiosk	A browser-based environment in which information, such as documentation, web pages, and other content, is displayed as the user installs the Solaris software with Solaris Web Start.
LBA enabled (logical block address enabled)	Sectors on the disk are mapped and addressed linearly. Compare with *CHS enabled*.
miniroot	The smallest possible bootable Solaris root (`/`) file system. A miniroot contains a kernel and just enough software to install the Solaris environment on a hard disk. The miniroot is the file system that is copied to a machine in the initial installation.

Term	Definition
package	A collection of software that is grouped into a single entity for modular installation.
sector	A data storage area on a disk, or sections of each disk ring. A sector can usually hold 512 bytes.
slice	A logical division of a Solaris fdisk partition (for example, the swap or root slice in the fdisk partition). Compare with fdisk *partition*.
Solaris 8 Interactive Installation Program	A graphical user interface (GUI) or character user interface (CUI) based, menu-driven, interactive script that enables you to set up a system and install the Solaris 8 software on it.
Solaris Web Start	A graphical, wizard based, Java powered software application that installs the Solaris operating environment and other software on a single system from a local or remote CD-ROM drive. You can also run Solaris Web Start through a command-line interface. Compare with custom JumpStart and Solaris 8 Interactive Installation Program.
swap	A slice used by Solaris software to temporarily store programs and data that do not fit into a system's memory (the programs and data in swap are removed or overwritten every time the system is rebooted). If the swap space is too small, some programs might not run after installation. If the swap space is too large, other files required for installation might not fit on the disk.
	The recommended swap size for the majority of users is 512 Mbytes.
	Note - If necessary, you can subsequently increase (but not decrease) the swap space on a system on which you install the Solaris software.
track	A concentric ring on a disk that passes under a single stationary disk head as the disk rotates.

Term	Definition
upgrade	The merging of a new version of Solaris with an existing version on your disk; upgrading your system with a new version of Solaris saves as many local modifications as possible since the last time Solaris was installed. See also *initial installation.*
	Note - You cannot use Solaris Web Start to upgrade to Solaris 8 from Solaris 7 or earlier versions of the Solaris operating environment because it uses a different method to install Solaris software (a separate 10–Mbyte IA boot partition).
	You must instead use the Solaris 8 Interactive Installation Program, which is described in more detail in "Using the Solaris 8 Interactive Installation Program" in *Solaris 8 Advanced Installation Guide.*
wizard	A self-contained, graphical user interface-based program that guides you through a specific task.

Planning and Setting Up for Installation

Ways to Run Solaris Web Start

You can run Solaris Web Start two ways, as a:

- Graphical user interface, which requires a local or remote CD-ROM drive or network connection, video adapter, keyboard, and monitor

- Command-line user interface, which requires a local or remote CD-ROM drive or network connection, keyboard, and monitor; you can run the Solaris Web Start command-line user interface with `tip`(1)

The content and sequence of instructions in both the graphical user interface and command-line user interface are generally the same, with slight differences, as shown by these examples:

CODE EXAMPLE 1–1 Graphical User Interface: Time Zone Dialog Box
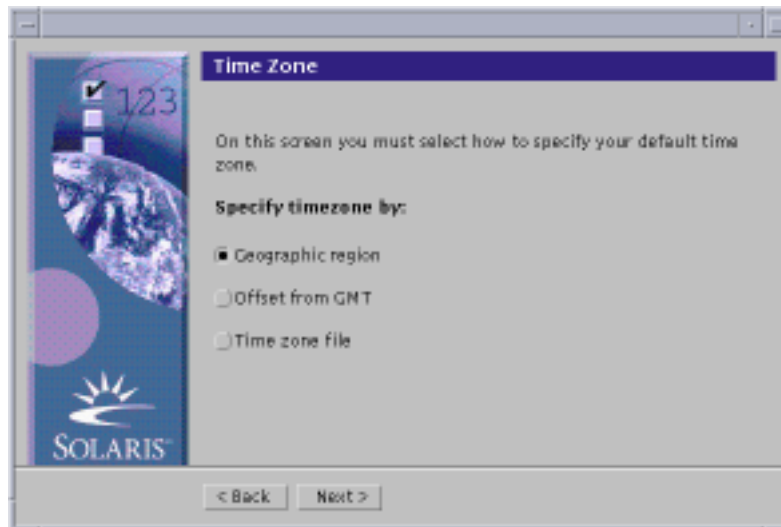
CODE EXAMPLE 1–2 Command-line User Interface: Time Zone Menu and Prompt

```
Please select how to specify your default time zone.

Specify Time Zone by:

1. Geographic region
2. Offset from GMT
3. Time zone file

   Please enter the number corresponding to how you would like to specify
   the time zone [1]:
```

What Determines Which Interface Is Used

If Solaris Web Start detects a video adapter for the system, it uses the graphical user interface, and if it does *not*, it uses the command-line user interface.

▼ To Plan Your Installation

Note - The instructions in this book describe how to install Solaris 8 software using a CD. If you choose to install Solaris 8 software over a network, some steps might differ.

1. Use this decision table to determine what to do first.

If you intend to install Solaris software from	Then go to
A CD-ROM drive attached to your system	Step 2 on page 18.
A remote CD-ROM drive on a network	*Solaris 8 Advanced Installation Guide* and the steps presented in this and later chapters.

2. **Is Solaris already installed on the system?**
   - If yes, go to Chapter 4 in this book.
   - If no, go to Step 3 on page 18.

3. **Make sure your hardware is supported.**

   See the *Solaris 8 (Intel Platform Edition) Hardware Compatibility List.*

4. **If your system is attached to a network, gather the following information about the system on which you intend to install the Solaris operating environment.**

   Note - If Solaris is not already installed on the system, contact your system administrator or whoever is responsible for maintaining your network to find the following information.

Information	Example	To find the information (with Solaris installed), use
Host name	crater	**uname -n**
Host IP address	129.221.2.1	**ypmatch** *system_name* **hosts** or **nismatch** *system_name* **hosts.org_dir**
Subnet mask	255.255.255.0	**more /etc/netmasks**

Information	Example	To find the information (with Solaris installed), use

Type of name service (DNS, NIS, or NIS+)	`passwd:    files nis`
	`group:     files nis`
	
	`hosts:     xfn nis [NOTFOUND=return] files`
	`networks:  nis [NOTFOUND=return] files`
	`protocols: nis [NOTFOUND=return] files`
	`rpc:       nis [NOTFOUND=return] files`
	`ethers:    nis [NOTFOUND=return] files`
	`netmasks:  nis [NOTFOUND=return] files`
	`bootparams: nis [NOTFOUND=return] files`
	`publickey: nis [NOTFOUND=return] files`
	
	`netgroup:  nis`
	
	`automount: files nis`
	`aliases:   files nis`
	
	`services:  files nis`
	`sendmailvars:  files`
		`cat /etc/nsswitch.conf`

Domain name	`lbloom.West.Arp.COM`	**`domainname`**
Host name of name server	`thor75`	**`ypwhich`**
Host IP address of name server	`129.153.75.20`	**`ypmatch`** *nameserver_name* **`hosts`** or **`nismatch`** *nameserver_name* **`hosts.org_dir`**

5. **Determine which of the following software you intend to install and the total disk space the combined software will require.**

   - The Solaris software group:

Software Group	Recommended Disk Space
Entire Distribution Plus OEM Support	2.4 Gbytes
Entire Distribution	2.3 Gbytes
Developer System Support	1.9 Gbytes
End User System Support	1.6 Gbytes

> **Note -** Swap space is included in the disk space recommendations. A minumum of 320 Mbytes is required for swap space, but more might be needed due to available memory and other factors. By default, Solaris Web Start allocates 512 Mbytes for swap space.

- Additional software

  See the documentation to determine the disk space you'll need.
- Vendor or third-party software

  See the vendor or third-party software documentation.
- Space for home directories

  Home directories might contain user files such as mail, text or data files, or application files.

6. **Determine the language you want to use to install Solaris. If you use the CD labeled:**

   - Solaris 8 Installation English Intel Platform Edition—all prompts, messages, and other installation information are displayed in English only.
   - Solaris 8 Installation Multilingual Intel Platform Edition—you can select one of the following languages in which to display all prompts, messages, and other installation information:

     - Simplified Chinese
     - Traditional Chinese
     - English
     - French
     - German
     - Italian
     - Japanese
     - Korean
     - Spanish
     - Swedish

7. **Make sure you have *at least* the following CDs:**

   - Solaris 8 Installation English Intel Platform Edition *or* Solaris 8 Installation Multilingual Intel Platform Edition
   - Solaris 8 Software 1 of 2 Intel Platform Edition *and* Solaris 8 Software 2 of 2 Intel Platform Edition

■ Solaris 8 Languages Intel Platform Edition (if you use the Multilingual CD)

▼ To Set Up for Installation

Note - The BIOS on most IA motherboards manufactured since late 1997 supports the "El Torito" standard and thus recognizes CD-ROM drives as boot devices.

1. **Do you intend to install the Solaris software through a `tip`(1) line?**

   ■ If no, go to the next step.
   ■ If yes, make sure your window display is at least 80 columns wide and 24 rows long.

   Note - To determine the current dimensions of your `tip` window, use the `stty`(1) command.

2. **Is your system capable of booting from a CD?**

   ■ If yes, ensure that the capability is turned on by using your system's BIOS setup tool.
   ■ If no, insert the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition into the system's diskette drive.

   Note - You can also download the Solaris 8 Device Configuration Assistant from the Solaris Driver Connection at `http://soldc.sun.com/support/drivers`.

3. **Insert the CD labeled Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition into the system's CD-ROM drive:**

CD-ROM Drive - Tray Version	CD-ROM Drive - Caddy Version
1. Press the eject button on the front panel of the CD-ROM drive. A tray slides out.	1. To open the caddy, pinch the corners while lifting the lid at the center.
2. Insert the CD labeled Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition (logo facing up) into the tray. 3. Push the tray into the CD-ROM drive.	2. Insert the CD labeled Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition (logo facing up) and close the caddy.
	3. With the arrow on the caddy pointing toward the CD-ROM drive, insert the caddy.

4. **Boot the system by shutting it down and then turning it off and on.**

   A memory test and hardware detection are executed. The screen refreshes.

   - If you're using the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition, the message:

```
Solaris Boot Sector                               Version 1
```

is displayed at the top of your screen. Then, information similar to this is displayed:

```
Solaris for x86 - Generic DCB                Version 1.234




                        loading /solaris/boot.bin
```

The screen refreshes and information similar to this is displayed:

```
SunOS Secondary Boot version 3.00

              Solaris Intel Platform Edition Booting System

Running Configuration Assistant...
```

- If you're using only the CD labeled Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition, the message:

  ```
  SunOS - Intel Platform Edition     Primary Boot Subsystem, vsn 2.0
  ```

  is displayed at the top of the screen. Then, information similar to this is displayed:

```
SunOS Secondary Boot version 3.00

              Solaris Intel Platform Edition Booting System

Running Configuration Assistant...
```

5. **When the Solaris Device Configuration Assistant screen is displayed, press F2_Continue.**

   The Bus Enumeration screen is displayed with the message:

```
Determining bus types and gathering hardware configuration data ...
```

The Scanning Devices screen is then displayed. System devices are scanned.
When scanning is complete, the Identified Devices screen is displayed.

6. **Press F2_Continue.**

   The Loading screen is displayed with messages about drivers that are loaded to
   boot your system. After a few seconds, the Boot Solaris screen is displayed.

7. **On the Boot Solaris screen, select CD and press F2_Continue.**

   ■ If you're using the CD labeled Solaris 8 Installation English Intel Platform
   Edition, and Solaris Web Start cannot find a Solaris fdisk partition, the
   Running Driver screen is displayed briefly, followed by information similar to
   this:

```
                    <<< Current Boot Parameters >>>
Boot path: /pci@0,0/pci-ide@7,1/ide@1/sd@0,0:a
Boot args: kernel/unix


                    <<< Starting Installation >>>

SunOS Release 5.8 Version Generic 32-bit
Copyright 1983-2000 Sun Microsystems, Inc.  All rights reserved.
Configuring /dev and /devices
Using RPC Bootparams for network configuration information.
Solaris Web Start 3.0 installer

English has been selected as the language in which to perform the install.
Starting the Web Start 3.0 Solaris installer

Solaris installer is searching the system's hard disks for a
location to place the Solaris installer software.

No suitable Solaris fdisk partition was found.

Solaris Installer needs to create a Solaris fdisk partition
on your root disk, c0d0, that is at least 395 MB.

WARNING: All information on the disk will be lost.


May the Solaris Installer create a Solaris fdisk [y,n,?]
```

   ■ Otherwise, if you're using the CD labeled Solaris 8 Installation English Intel
   Platform Edition, and Solaris Web Start *can* find a Solaris fdisk partition, the
   Running Driver screen is displayed briefly, followed by information similar to
   this:

```
                         <<< Current Boot Parameters >>>
Boot path: /pci@0,0/pci-ide@7,1/ide@1/sd@0,0:a
Boot args: kernel/unix


                         <<< Starting Installation >>>

SunOS Release 5.8 Version Generic 32-bit
Copyright 1983-2000 Sun Microsystems, Inc.  All rights reserved.
Configuring /dev and /devices
Using RPC Bootparams for network configuration information.
Solaris Web Start 3.0 installer

English has been selected as the language in which to perform the install.
Starting the Web Start 3.0 Solaris installer

Solaris installer is searching the system's hard disks for a
location to place the Solaris installer software.



The default root disk is /dev/dsk/c0d0.
The Solaris installer needs to format
/dev/dsk/c0d0 to install Solaris.

WARNING: ALL INFORMATION ON THE DISK WILL BE ERASED!


Do you want to format /dev/dsk/c0d0?  [y,n,?,q]
```

- If you're using the CD labeled Solaris 8 Installation Multilingual Intel Platform
  Edition, information similar to this is displayed:

```
                         <<< Current Boot Parameters >>>
Boot path: /pci@0,0/pci-ide@7,1/ide@1/sd@0,0:a
Boot args: kernel/unix


                         <<< Starting Installation >>>

SunOS Release 5.8 Version Generic 32-bit
Copyright 1983-2000 Sun Microsystems, Inc.  All rights reserved.
Configuring /dev and /devices
Using RPC Bootparams for network configuration information.
Solaris Web Start 3.0 installer
The Solaris Installer can be run in English, or any of the following languages:

  1) English            6) Japanese
  2) German             7) Korean
  3) Spanish            8) Swedish
  4) French             9) Simplified_Chinese
  5) Italian           10) Traditional_Chinese
```

(continued)

```
Select the language you want to use to run the installer:
```

8. Which installation CD are you using?

- If the Solaris 8 Installation English Intel Platform Edition CD, go to the next step.
- If the Solaris 8 Installation Multilingual Intel Platform Edition CD, type the number to select the language in which to display prompts, messages, and other installation information.

If Solaris Web Start cannot find a Solaris fdisk partition, information similar to this is displayed (in the language you selected):

```
language_you_selected has been selected as the language in which to perform the install.
Starting the Web Start 3.0 Solaris installer

Solaris installer is searching the system's hard disks for a
location to place the Solaris installer software.

No suitable Solaris fdisk partition was found.

Solaris Installer needs to create a Solaris fdisk partition
on your root disk, c0d0, that is at least 395 MB.

WARNING: All information on the disk will be lost.


May the Solaris Installer create a Solaris fdisk [y,n,?]
```

If Solaris Web Start *can* find a Solaris fdisk partition, information similar to this is displayed (in the language you selected):

```
language_you_selected has been selected as the language in which to perform the install.
Starting the Web Start 3.0 Solaris installer

Solaris installer is searching the system's hard disks for a
location to place the Solaris installer software.



The default root disk is /dev/dsk/c0d0.
The Solaris installer needs to format
```

(continued)

```
/dev/dsk/c0d0 to install Solaris.

WARNING: ALL INFORMATION ON THE DISK WILL BE ERASED!


Do you want to format /dev/dsk/c0d0?  [y,n,?,q]
```

9. **Was Solaris Web Start able to find a Solaris** `fdisk` **partition?**

   ■ If yes, go to Step 21 on page 31.
   ■ If no, at the prompt, type **y** and press Enter.

   Information similar to this is displayed:

```
          Total disk size is 972 cylinders
          Cylinder size is 4032 (512 byte) blocks

                                      Cylinders
     Partition   Status    Type        Start   End   Length   %
     =========   ======    ==========  =====   ===   ======   ===
        1                  DOS12           0     7        8    1




SELECT ONE OF THE FOLLOWING:

   1. Create a partition
   2. Specify the active partition
   3. Delete a partition
   4. Exit (update disk configuration and exit)
   5. Cancel (exit without updating disk configuration)
Enter Selection:
```

10. **Type** `1` **and press Enter.**

    Information similar to this is displayed:

```
Select the partition type to create:
   1=SOLARIS    2=UNIX        3=PCIXOS     4=Other
   5=DOS12      6=DOS16       7=DOSEXT     8=DOSBIG
   A=x86 Boot   B=Diagnostic  0=Exit?
```

11. Type A and press Enter.

Information similar to this is displayed:

```
Specify the percentage of disk to use for this partition
(or type "c" to specify the size in cylinders).
```

12. Type the percentage you want and press Enter.

Information similar to this is displayed:

```
Should this become the active partition? If yes, it will be activated
each time the computer is reset or turned on.
Please type "y" or "n".
```

13. Type y and press Enter.

Information similar to this is displayed:

```
Partition 2 is now the active partition.


SELECT ONE OF THE FOLLOWING:

   1. Create a partition
   2. Specify the active partition
   3. Delete a partition
   4. Exit (update disk configuration and exit)
   5. Cancel (exit without updating disk configuration)
```

14. Type 1 and press Enter.

Information similar to this is displayed:

```
Select the partition type to create:
   1=SOLARIS    2=UNIX        3=PCIXOS     4=Other
   5=DOS12      6=DOS16       7=DOSEXT     8=DOSBIG
```

```
     A=x86 Boot  B=Diagnostic  0=Exit?
```

15. Type 1 and press Enter.

Information similar to this is displayed:

```
Specify the percentage of disk to use for this partition
(or type "c" to specify the size in cylinders).
```

16. Type the percentage you want and press Enter.

Information similar to this is displayed:

```
Should this become the active partition? If yes, it will be activated
each time the computer is reset or turned on.
Please type "y" or "n".
```

17. Type n and press Enter.

An IA boot partition and a Solaris partition are created. Information similar to
this is displayed:

```
         Total disk size is 972 cylinders
         Cylinder size is 4032 (512 byte) blocks

                                       Cylinders
      Partition   Status   Type          Start   End   Length   %
      =========   ======   ============  =====   ===   ======   ===
          1                DOS12             0     7        8     1
          2        Active  x86 Boot          8    16        9     1
          3                Solaris          17   969      953    98




 SELECT ONE OF THE FOLLOWING:

    1. Create a partition
    2. Specify the active partition
```

```
   3. Delete a partition
   4. Exit (update disk configuration and exit)
   5. Cancel (exit without updating disk configuration)
Enter Selection:
```

18. Type 4 and press Enter.

Information similar to this is displayed:

```
No suitable Solaris fdisk partition was found.

Solaris Installer needs to create a Solaris fdisk partition
on your root disk, c0d0, that is at least 395 MB.

WARNING: All information on the disk will be lost.


May the Solaris Installer create a Solaris fdisk [y,n,?]
```

19. Type n and press Enter.

Information similar to this is displayed:

```
Please choose another installation option, see the
Solaris Install Documentation for more details.

To restart the installation, run /sbin/cd0_install.
```

20. At the system prompt, type /sbin/cd0_install and press Enter.

Information similar to this is displayed:

```
The default root disk is /dev/dsk/c0d0.
The Solaris installer needs to format
/dev/dsk/c0d0 to install Solaris.

WARNING: ALL INFORMATION ON THE DISK WILL BE ERASED!


Do you want to format /dev/dsk/c0d0?  [y,n,?,q]
```

21. At the prompt, type y and press Enter.

Information similar to this is displayed:

```
NOTE: The swap size cannot be changed during filesystem layout.


Enter a swap partition size between 384MB and 1865MB, default = 512MB [?]
```

22. At the prompt, press Enter to accept the default swap partition size, or type the swap partition size you want and press Enter.

Information similar to this is displayed:

```
The Installer prefers that the swap slice is at the beginning of the
disk. This will allow the most flexible filesystem partitioning later in the installation.

Can the swap slice start at the beginning of the disk  [y,n,?,q]
```

23. Do you want to place the swap space at the beginning of the disk (and thus improve the flexibility of partitioning the file system and the efficiency with which the disk is accessed)?

- If yes, type y, press Enter, and go to Step 25 on page 32.
- If no, type n and press Enter.

Information similar to this is displayed:

```
WARNING: Placing the swap slice at a cylinder location other than cylinder 0
requires expert knowledge about disk layout. This choice may affect
disk layout choices later in the installation.

Enter a starting cylinder between 3 and 590, default = 3 [?]
```

24. Press Enter to accept the default starting cylinder (3), or type the starting cylinder you want and press Enter.

Information similar to this is displayed:

```
You have selected the following to be used by the Solaris installer:

        Disk Slice  : /dev/dsk/c0d0
        Size        : 512 MB
        Start Cyl.  : 3

WARNING: ALL INFORMATION ON THE DISK WILL BE ERASED!


Is this OK  [y,n,?,q]
```

25. At the prompt, type y and press Enter.

Information similar to this is displayed:

```
The Solaris installer will use disk slice, /dev/dsk/c0d0s1.
After files are copied, the system will automatically reboot, and
installation will continue.
Please Wait...

Copying mini-root to local disk....done.


Copying platform specific files....done.

Preparing to reboot and continue installation.
Need to reboot to continue the installation
Please remove the boot media (floppy or cdrom) and press Enter
Note: If the boot media is cdrom, you must wait for the system
to reset in order to eject.
```

26. Did you insert the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition into the system's diskette drive in Step 2 on page 21?

- If yes, eject the diskette from the system's diskette drive and press Enter.
- If no, press Enter.

Information similar to this is displayed:

```
Syncing file systems... 49 done
rebooting...
```

The system resets, and a memory test and hardware detection are executed.

27. **Quickly, eject the Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition CD from the CD-ROM drive before the system completes the memory test and hardware detection.**

Information similar to this is displayed:

```
SunOS - Intel Platform Edition                    Primary Boot Subsystem, vsn 2.0


                   Current Disk Partition Information

            Part#    Status    Type      Start       Length
            ================================================
              1               DOS12        63          32193
              2      Active   X86 BOOT   32256         36288
              3               SOLARIS    68544       3842496
              4               <unused>




          Please select the partition you wish to boot:
```

After a few seconds, the screen refreshes and information similar to this is displayed:

```
SunOS Secondary Boot version 3.00


            Solaris Intel Platform Edition Booting System


Running Configuration Assistant...
Autobooting from bootpath /pci@0,0/pci-ide@7,1/ata@1/cmdk@0,0:b

If the system hardware has changed, or to boot from a different
device, interrupt the autoboot process by pressing ESC.
```

(continued)

```
Initializing system
Please wait...


                   <<< Current Boot Parameters >>>
Boot path: /pci@0,0/pci-ide@7,1/ata@1/cmdk@0,0:b
Boot args:

Type    b [file-name] [boot-flags] <ENTER>     to boot with options
or      i <ENTER>                              to enter boot interpreter
or      <ENTER>                                to boot with defaults

                <<< timeout in 5 seconds >>>

Select (b)oot or (i)nterpreter:
SunOS Release 5.8 Version Generic 32-bit
Copyright 1983-2000 Sun Microsystems, Inc.  All rights reserved.
Configuring /dev and /devices
Using RPC Bootparams for network configuration information.
```

The Solaris Installation Program screen is then displayed.

28. Press F2_Continue.

The kdmconfig - Introduction screen is displayed.

29. Press F2_Continue.

The kdmconfig - View and Edit Window System Configuration screen is displayed.

30. Examine the configuration information on the kdmconfig - View and Edit Window System Configuration screen and make any changes you need.

31. When you're done, select No changes needed - Test/Save and Exit, and press F2_Continue.

The kdmconfig Window System Configuration Test screen is displayed.

32. Press F2_Continue.

33. On the screen that is displayed, try to move the pointer and examine the colors shown on the palette to ensure that they're displayed accurately.

34. Are the colors displayed accurately and can you move the pointer?

- If no, either click No (if possible), press any key on the keyboard, or wait until `kdmconfig` exits the kdmconfig Window System Configuration Test screen automatically, and then repeat Step 30 on page 34 through Step 34 on page 34 until the colors are displayed accurately and you can move the pointer as expected.
- If yes, click Yes.

  After a few seconds, the Welcome screen is displayed:

  Welcome

  The following screens will gather information about this system.

  This information will be used to configure:

  - Network
  - Name Service
  - Date and Time
  - Root Password
  - Proxy Server Information
  - Power Management

  To go to the next screen, click Next

  SOLARIS

  Next >

35. Go to Chapter 2.

Using Solaris Web Start

This chapter explains how to use Solaris Web Start to install Solaris software.

Note - Information about customizing the Solaris and other product software you install on a system is presented in Chapter 5.

Default Behavior and Limitations of Solaris Web Start

Table 2–1 summarizes what Solaris Web Start does and does not let you do, as well as what it does by default.

TABLE 2–1   Default Behavior and Limitations of Solaris Web Start

By default, Solaris Web Start	You can, however	But, you cannot
Installs all of the Solaris software at once	Install individual software groups or additional software products	Install individual packages that make up a software group
Creates the default disk slices **Note -** You cannot change the default `swap` slice size.	Change the size of slices	Change the swap size at the file system stage of installation

By default, Solaris Web Start	You can, however	But, you cannot
Sets up the system disk	Set up other disks by choosing Custom Install and using the Lay Out File Systems dialog box	—
Installs additional software in one session	Install additional software in a location other than the default (provided the installation software for the additional software supports changing the default location where the software is installed)	Place unbundled and other software in a slice other than /opt
Installs English versions of the Solaris environment	Choose to install additional localized versions of Solaris	Omit the installation of the English version of the Solaris environment

Limitations of Default Install on Systems With More Than One Disk

If you're installing software on a system that contains more than one disk, selecting Default Install on the Select Type of Install dialog box sets up only the system disk.

The system does not recognize other disks unless you manually set up file systems on them, mount the file systems, and create entries for them in /etc/vfstab. "Managing File Systems (Overview)" in *System Administration Guide, Volume 1* and format(1M) describe how to set up file systems.

If you want Solaris Web Start to set up *all* the disks in your system, select Custom Install on the Select Type of Install dialog box and select all the disks shown on the Lay Out File Systems dialog box.

Laying Out a File System Manually

Solaris Web Start lays out file systems for you automatically, and these file system configurations are adequate for most situations.

However, you might lay out file systems manually if you need to install other products not included in your product box. These products must share the same file systems used by the Solaris software (root (/), /usr, and /swap).

If you need to lay out file systems manually, Solaris Web Start provides the tools you need to:

- Select the disks you want
- Select the file systems you want
- Create, rename, move, delete, expand, or shrink file systems

Note - You cannot change the size of the default `swap` slice.

- View a summary of and confirm your choices

Note - Editing file systems requires advanced system administrator's knowledge. Do not alter the layout of file systems unless you have experience.

Using Solaris Web Start to Install Solaris

▼ To Configure Your System

Note - Your computer system must include a local or remote CD-ROM drive or network connection, video adapter, keyboard, and monitor to install Solaris software with the Solaris Web Start graphical user interface. However, your computer system need only include a local or remote CD-ROM drive or network connection, keyboard, and monitor to install Solaris software with the Solaris Web Start command-line user interface.

1. **Did you follow the steps in Chapter 1?**
   - If no, go back to Chapter 1.
   - If yes, go to the next step.

2. **On the Welcome screen, click Next >.**

   Solaris Web Start attempts to gather information about your system. The Network Connectivity dialog box is then displayed:

3. Is the system networked?

- If no, select Non-networked and click Next >.

  The Host Name dialog box is displayed:

- If yes, select Networked and click Next >.

  The DHCP dialog box is displayed:

DHCP

Please specify whether or not this system should use DHCP to configure it's network interfaces. Choose Yes if DHCP is to be used, or No if the interfaces are to be configured manually.

Use DHCP:

◯ Yes

⦿ No
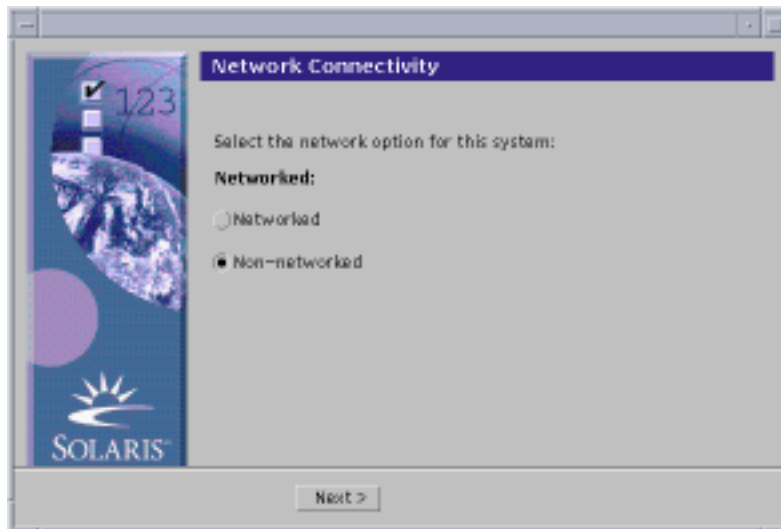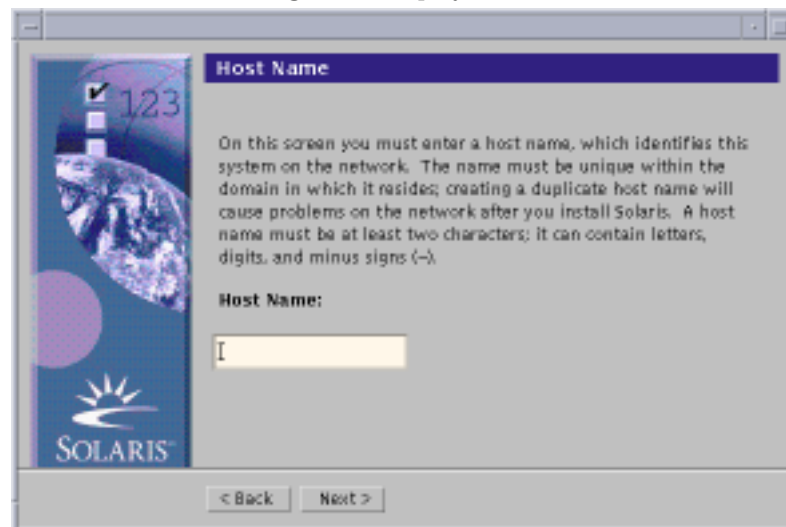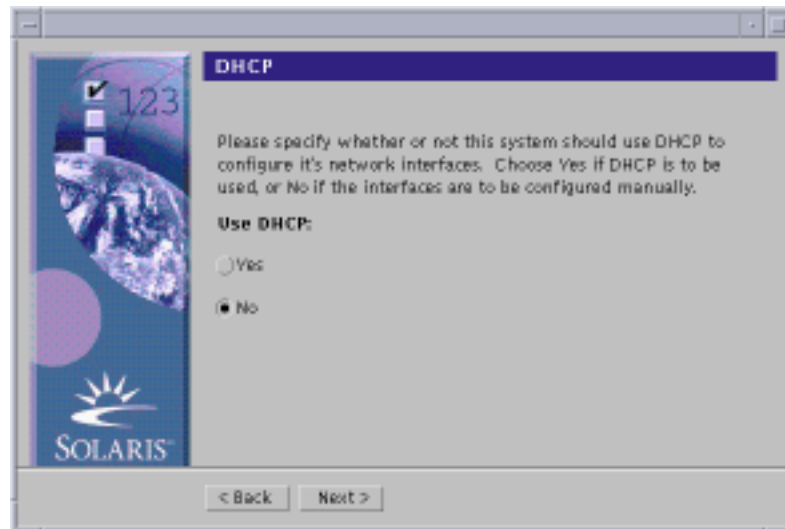
< Back   Next >

4. Did you select Networked in Step 3 on page 40?

- If no, go to Step 7 on page 42.
- If yes, go to the next step.

5. Do you want to use DHCP for the network interface configuration?

- If no, select No, click Next >, and go to Step 7 on page 42.
- If yes, select Yes and click Next >.

The IPv6 dialog box is displayed:

IPv6

On this screen you should specify whether or not IPv6, the next generation Internet Protocol will be enabled on this machine. Enabling IPv6 will have no effect if this machine is not on a network that provides IPv6 service. IPv4 service will not be affected if IPv6 is enabled.

Enable IPv6:

◯ Yes

⦿ No
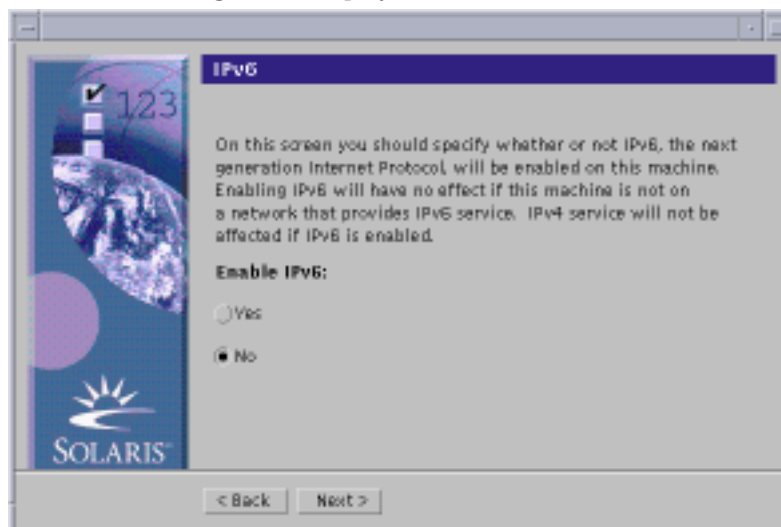
< Back   Next >

6. **Do you want to enable IPv6?**

   - If no, select No, click Next >, and go to Step 11 on page 44.
   - If yes, select Yes, click Next >, and go to Step 11 on page 44.

7. **On the Host Name dialog box, type the host name you want and click Next >.**

   If you selected Networked on the Network Connectivity dialog box shown in Step 3 on page 40, the IP Address dialog box is displayed:
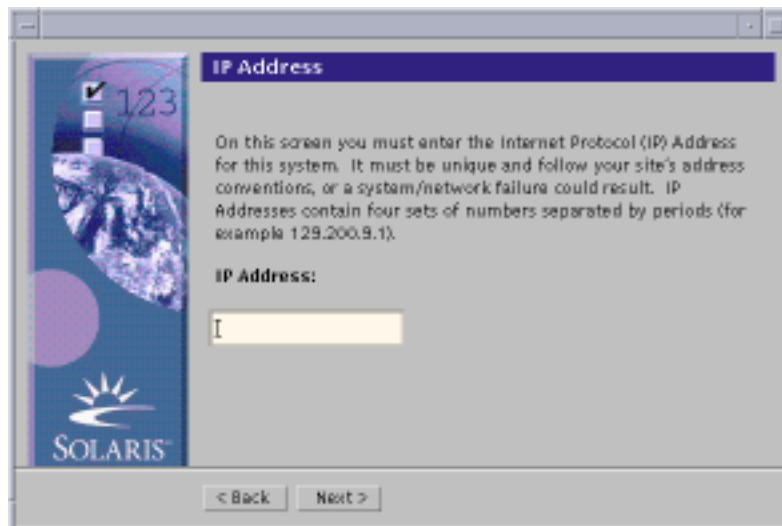
   If you selected Non-networked on the Network Connectivity dialog box shown in Step 3 on page 40, the Time Zone dialog box is displayed:
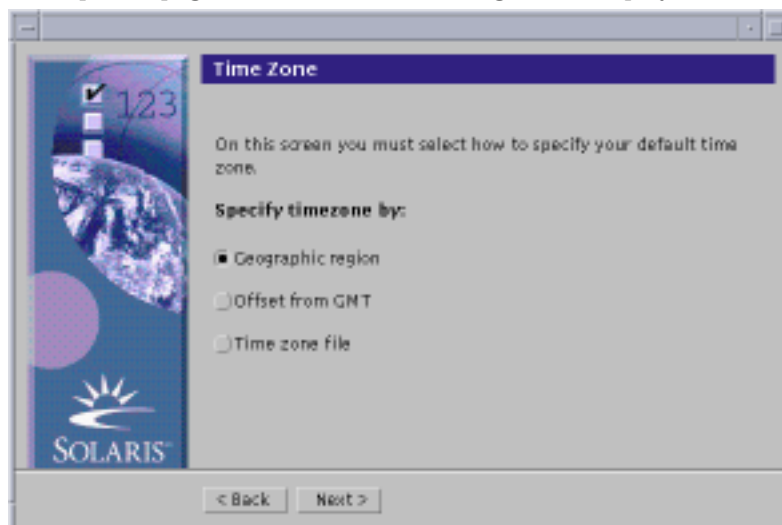
8. **Is your system networked (that is, did you select Networked on the Network Connectivity dialog box)?**

   ■ If no, go to Step 15 on page 48.
   ■ If yes, did you specify that you want DHCP used for the network interface configuration (that is, did you select Yes on the DHCP dialog box)?

      ■ If yes, go to Step 11 on page 44.
      ■ If no, on the IP Address dialog box, type the IP address of your networked system and click Next >.

   The Netmask dialog box is displayed:
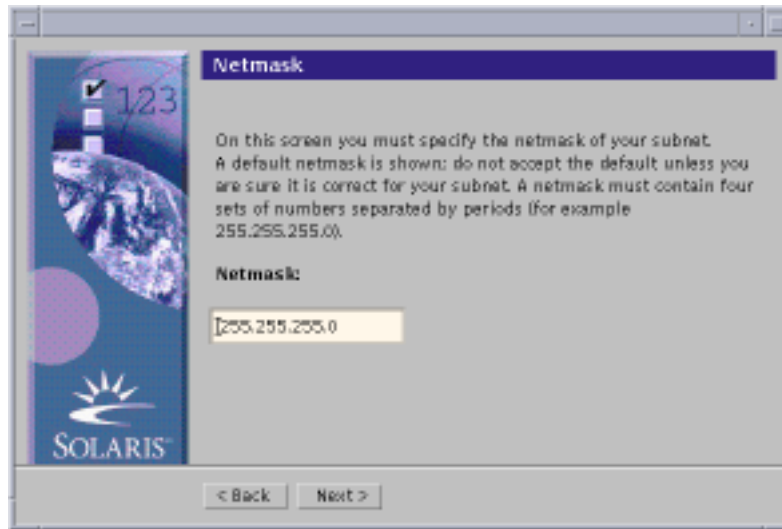
9. **Type the netmask you want (or leave the default netmask) and click Next >.**
   The IPv6 dialog box is displayed:
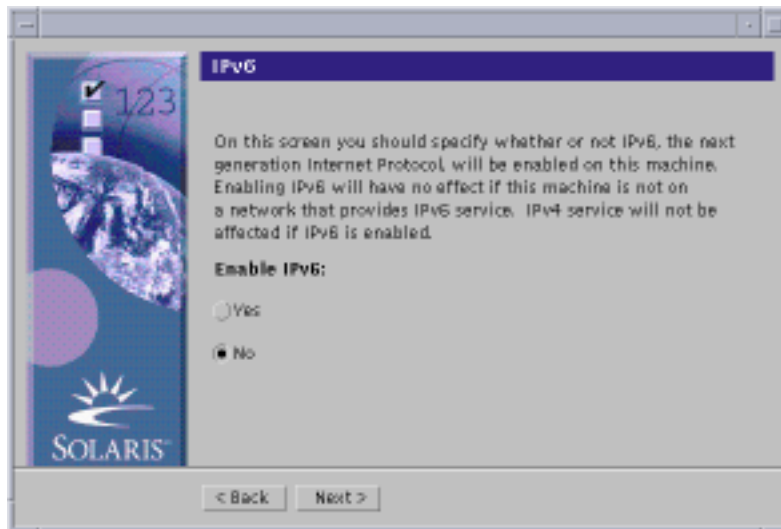
10. Do you want to enable IPv6?

- If no, select No and click Next >.
- If yes, select Yes and click Next >.

The Name Service dialog box is displayed:
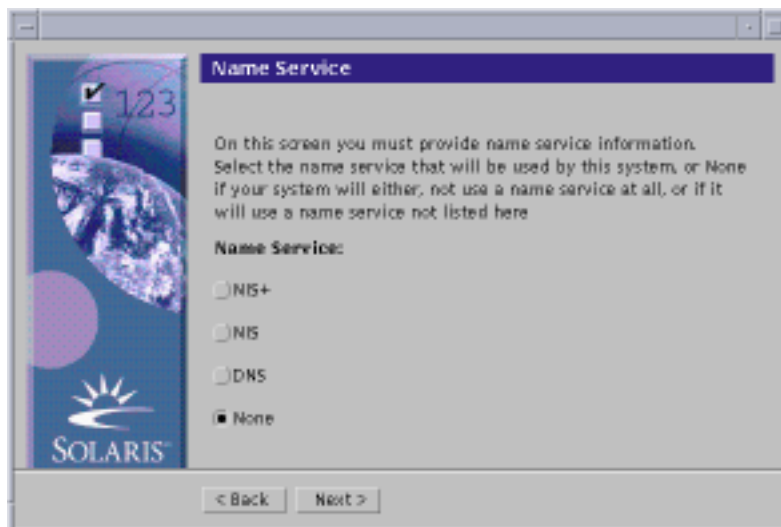
11. Select the name service the system will use, or None if you aren't using a name service, and click Next >.

If you selected NIS+, NIS, or DNS, the Domain Name dialog box is displayed:

If you selected None, the Time Zone dialog box is displayed:
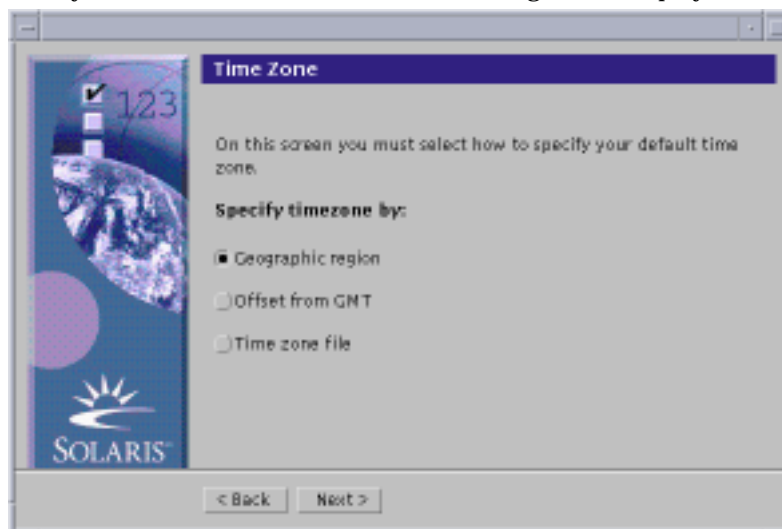
12. Did you select None in the preceding step?

- If yes, go to Step 15 on page 48.
- If no, type the name of the domain in which the system is located and click Next >.

  If you selected NIS+ or NIS, the Name Server dialog box is displayed:

Name Server

On this screen you must specify how to find a name server for this system. You can let the software try to find one, or you can specify one. The software can find a name server only if it is on your local subnet.

Name server:

■ Find one

☐ Specify one

< Back   Next >

If you selected DNS, the DNS Server Address dialog box is displayed:

DNS Server Address

On this screen you must enter the IP Address of your DNS server (s). You must enter at least one address. IP Addresses must contain four sets of numbers separated by periods (for example 129.200.9.1).

Server's IP Address:

[   ]   Required

[   ]   Optional

[   ]   Optional

< Back   Next >

13. Are you using NIS+/NIS or DNS?

- If NIS+ or NIS, select "Find one" or "Specify one" and click Next >.

  - If you selected "Find one," the Time Zone dialog box is displayed.
  - If you selected "Specify one," the Name Server Information dialog box is displayed:

- If DNS, type the IP address of the DNS server or servers you want and click Next >.

  The DNS Search List dialog box is displayed:
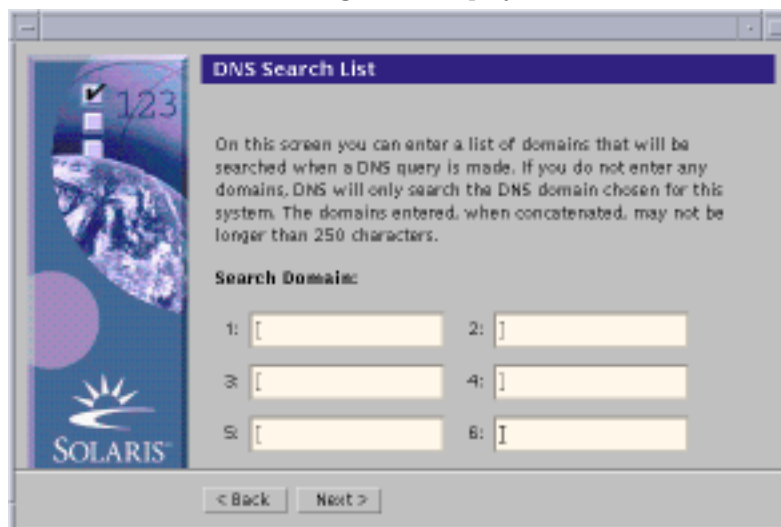
14. Are you using NIS+/NIS or DNS?

- If NIS+ or NIS, on the Name Server Information dialog box, type the host name and IP address of your name server and click Next >.
- If DNS, type the name of the domain or domains you want searched when a DNS query is made, if any, and click Next >.

The Time Zone dialog box is displayed:
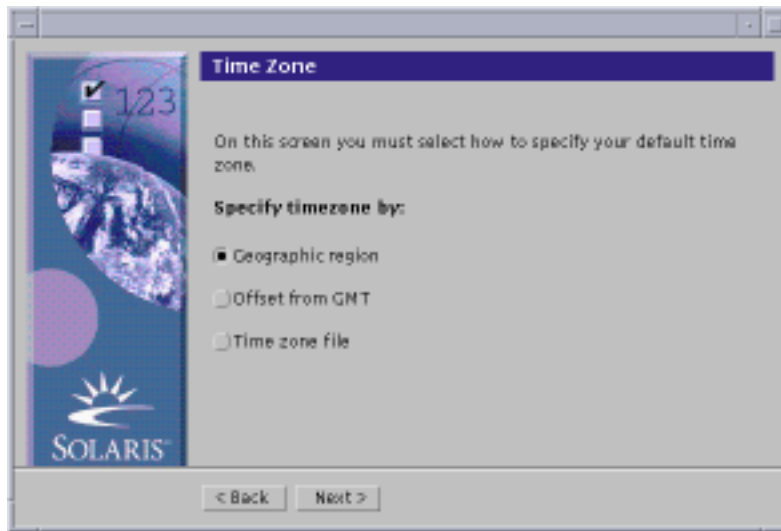
15. On the Time Zone dialog box, select how you want to set your default time zone and click Next >.

The Geographic Region, Offset From GMT, or Time Zone File dialog box is displayed, depending on the method you chose.

16. Use this decision table to determine what to do next:

If you chose	Then
	Select the region you want in the left window and the time zone in the right, and click Next >.
	Drag the slider toward the left (for west of Greenwich, England) or right (for east of Greenwich, England), and click Next >.
	Specify the name of any file in `/usr/share/lib/zoneinfo`, or click Select to choose a file in this directory, and click Next >.

The Date and Time dialog box is displayed:
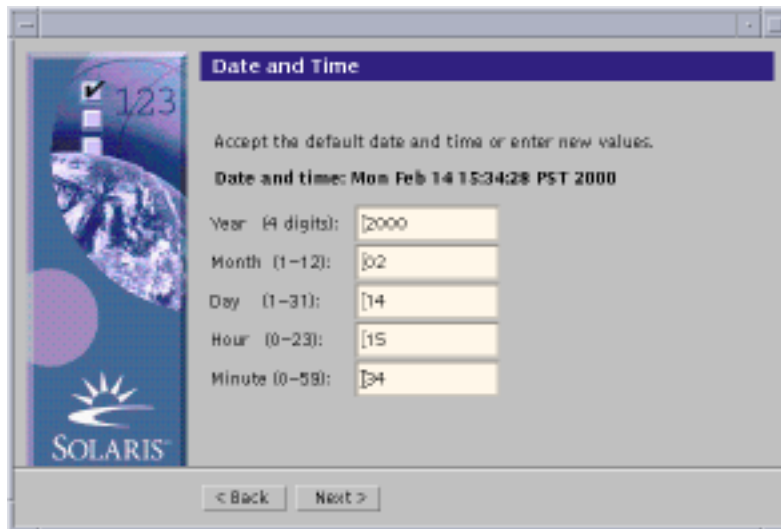
17. If necessary, correct the date and time, and click Next >.

The Root Password dialog box is displayed:

18. Type the alphanumeric string you want to use for the superuser password in both fields, and click Next >.

The Proxy Server Configuration dialog box is displayed:

Proxy Server Configuration

A network proxy is used to provide additional security between your computer and the Internet (usually along with a firewall). If you are not sure of your settings, please see your system administrator.

The default is a direct connection to the Internet. Check this if you do not need to go through a proxy server to gain access to the internet. Otherwise, provide the information in the space provided below.

● Direct connection to the Internet

○ Use Proxy Configuration Below

Host: [   ]   Port: [   ]

< Back   Next >

19. Does the system go through a proxy server to access the Internet?

- If no, select Direct connection to the Internet and click Next >.
- If yes, select Use Proxy Configuration Below, specify the host name and port of the proxy server for the system, and click Next >.

The Confirm Information dialog box is displayed:

Confirm Information

Selection Summary

Host Name: pubs
Time Zone: Pacific
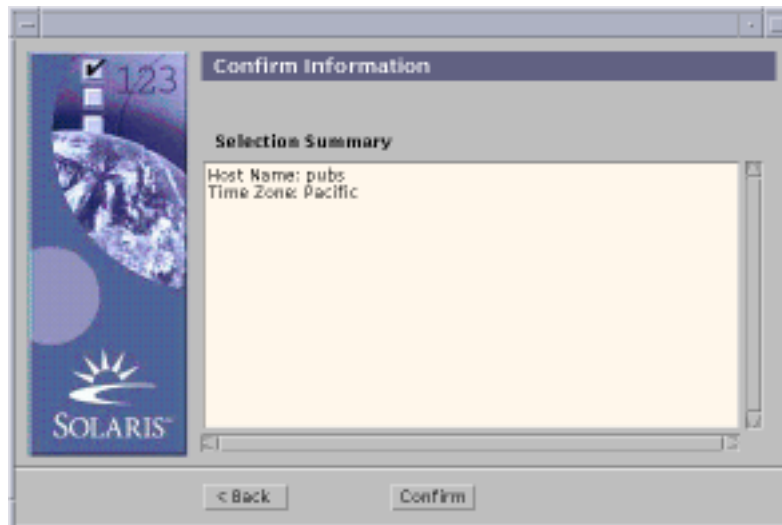
< Back   Confirm

20. Is the information on the Confirm Information dialog box correct?

- If no, click < Back until you display the dialog box you need to correct the information.
- If yes, click Confirm.

The message:

```
Please wait while the system is configured with your settings...
```

is displayed in the Confirm Information dialog box. The Extracting dialog box is displayed momentarily. Then the Solaris Web Start Installation Kiosk and Welcome to Solaris dialog box are displayed:

Note - From this point on, you can click on any link listed in the Kiosk menu.

In some cases, the Kiosk might obscure a dialog box. To display an obscured dialog box, on the Kiosk menu, click Send Kiosk to Background.

> **Note -** Click Save Kiosk on System to copy the Kiosk to your system (to `/var/sadm/webstart/kiosk`) so you can use it after you install the Solaris software. To use the Kiosk, you must also:
>
> - Use Netscape™ Communicator 4.7.
> - Point Netscape to `/var/sadm/webstart/kiosk/index.html`.
> - In the CDE Style Manager, check Point In Window To Make Active and uncheck Raise Window When Made Active.

▼ To Install Solaris

1. **On the Welcome to Solaris dialog box, click Next >.**

   The Insert CD dialog box is displayed:
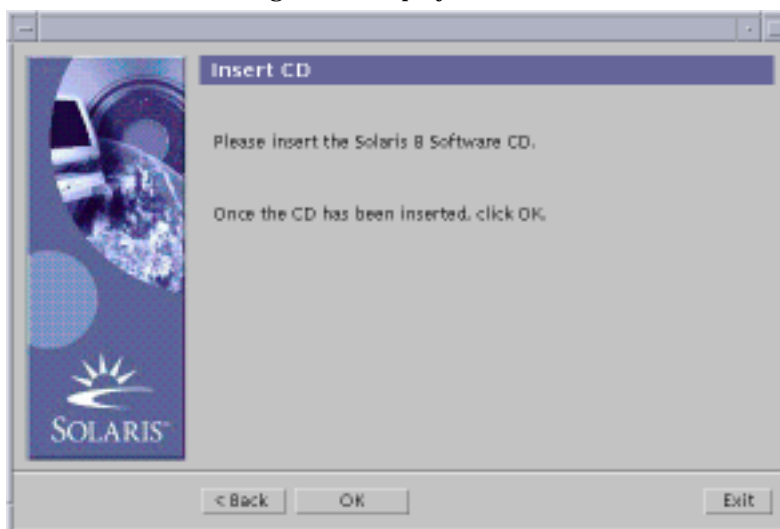
2. **Remove the CD from the tray or caddy, and insert the CD labeled Solaris 8 Software 1 of 2 Intel Platform Edition.**

3. **Push the tray in or insert the caddy and click OK on the Insert CD dialog box.**

   The Reading CD and Initializing dialog boxes are displayed. The Select Type of Install dialog box is then displayed:

The screen shows a dialog box titled "Installer: Solaris 8 Software" with a "Select Type of Install" panel containing the following text:

To install basic Solaris products into their default directory locations, select Default Install.

Custom install provides a choice of which Solaris products to install. For each product, it also provides an option to customize the products install.

Please select one of the following:

Default Install / Custom Install (with Default Install selected)

Buttons: Next >   Exit

4. **Which type of installation do you want to perform?**

   - If Default Install, select Default Install, click Next >, and go to Step 20 on page 62.

   - If Custom Install, select Custom Install and click Next >.

   Note - Custom Install enables you to install additional Solaris and third-party products from a CD, from a local or network file system, or by downloading from a web page displayed in the Kiosk.

   The Select Software Localizations dialog box is displayed:

5. **Select the geographic regions and localizations you want to install in addition to English and click Next >.**

The Select System Locale dialog box is displayed:
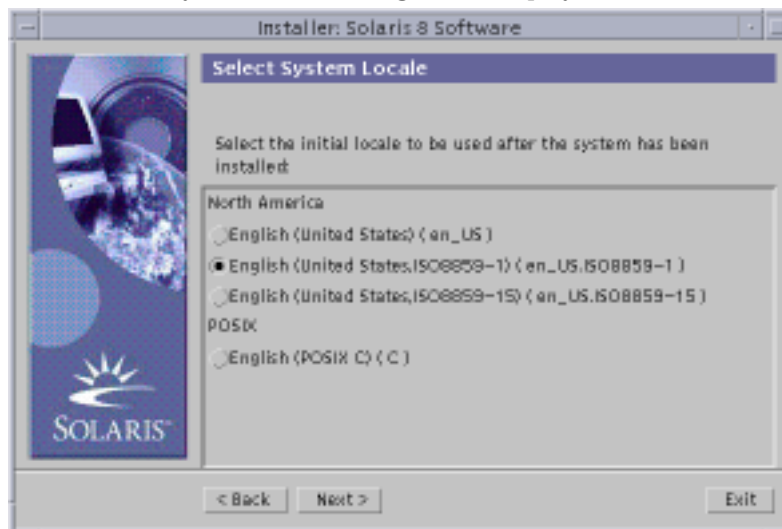
6. **Select the initial locale you want to be used after Solaris is installed and click Next >.**

Note - English (United States, en_US) is selected by default.

The Select Products dialog box is displayed:

7. Select the product or products you want to install in addition to Solaris 8 and click Next >.

Note - A description of each product, if available, is displayed when you select it.

The Additional Products dialog box is displayed:

8. **Do you want to install additional third-party or other software products (that can be installed with Solaris Web Start)?**

   - If no, select None, click Next >, and go to Step 13 on page 59.
   - If yes, select Product CD, Kiosk Download, or Local or Network File System, and click Next >.

     - If you selected Product CD, the Solaris 8 Software 1 of 2 Intel Platform Edition CD is ejected and the Insert CD dialog box is displayed.
     - If you selected Kiosk Download, the Scanning dialog box is displayed. When Solaris Web Start is done scanning the Kiosk download area (`/webstart/kiosk/download`), the Select Products dialog box is displayed. The products you can install with Solaris Web Start are listed in the windows.
     - If you selected Local or Network File System, the Specify Network File System Path dialog box is displayed:

9. **Which product source did you specify previously?**

   - If Product CD, remove the Solaris 8 Software 1 of 2 Intel Platform Edition CD from the tray or caddy, insert the product CD you want, and click OK on the Insert CD dialog box.

     The Scanning CD dialog box is displayed. When Solaris Web Start is done scanning the product CD, the Select Products dialog box is displayed. The contents of the product CD you can install with Solaris Web Start are listed in the windows.
   - If Kiosk Download, go to the next step.
   - If Local or Network File System, on the Specify Network File System Path dialog box, type the path to the file system and click Next >.

The Scanning dialog box is displayed. When Solaris Web Start is done scanning the file system, the Select Products dialog box is displayed. The products you can install with Solaris Web Start are listed in the windows.

10. **On the Select Products dialog box, select the products you want to install and click Next >.**

Note - A description of each product, if available, is displayed when you select it.

The Additional Products dialog box is displayed.

11. **Do you want to install additional third-party or other software products (that can be installed with Solaris Web Start)?**

   ■ If yes, select Product CD, Kiosk Download, or Local or Network File System, click Next >, and repeat the preceding steps starting at Step 9 on page 57.
   ■ If no, select None and click Next >.

   If you previously inserted and scanned an additional products CD, the CD is ejected and an Insert CD dialog box prompts you to insert the Solaris 8 Software 1 of 2 Intel Platform Edition CD.

12. **Did you specify that you want to install additional products from a CD?**

   ■ If no, go to the next step.
   ■ If yes, remove the product CD from the tray or caddy, insert the Solaris 8 Software 1 of 2 Intel Platform Edition CD, and click OK.

   The Reading CD dialog box is displayed. The Select Solaris Cluster Configuration dialog box is then displayed:
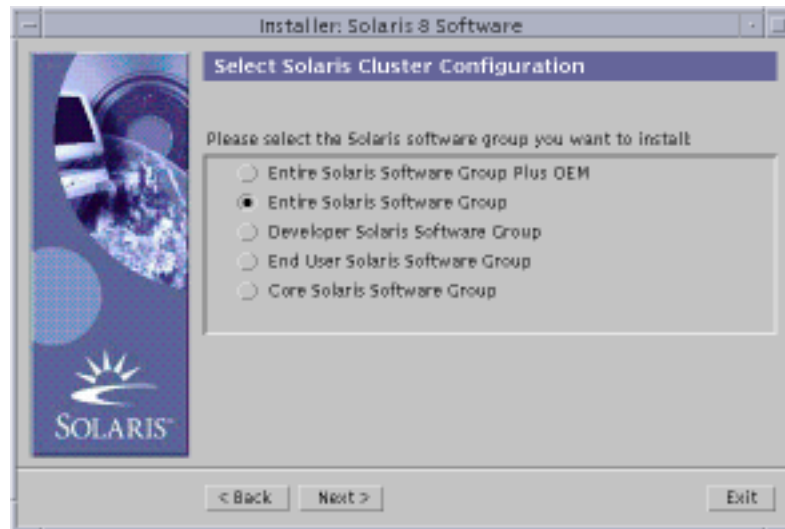
13. Select the Solaris software group you want to install and click Next >.

The Disk Selection dialog box is displayed:
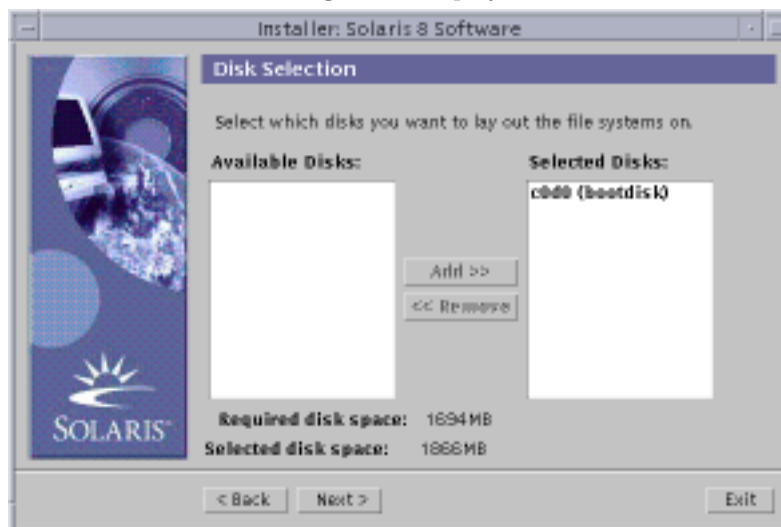
14. Select the disk or disks on which you want to lay out file systems and click Next >.

The Gathering Disk Space Requirements dialog box is displayed, followed by the Lay Out File Systems dialog box (with the Modify button):
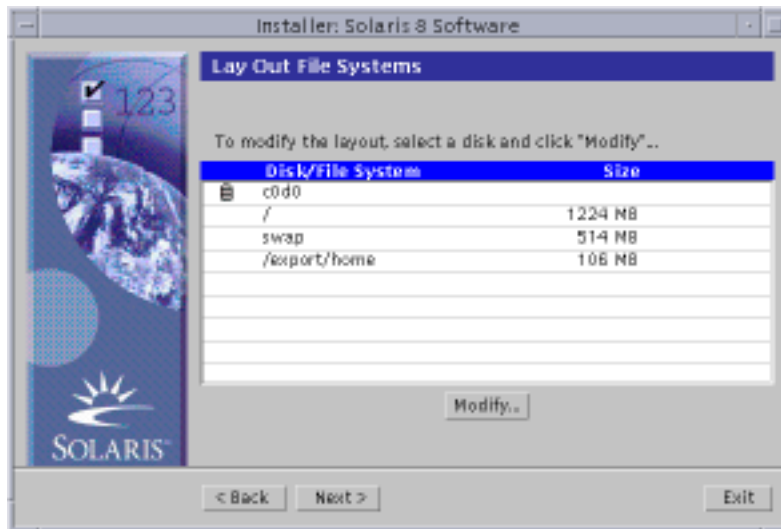
15. Do you want to modify a file system on a disk?

- If no, click Next > and go to Step 20 on page 62.
- If yes, highlight the disk/file system you want and click Modify.

The Disk dialog box is displayed:
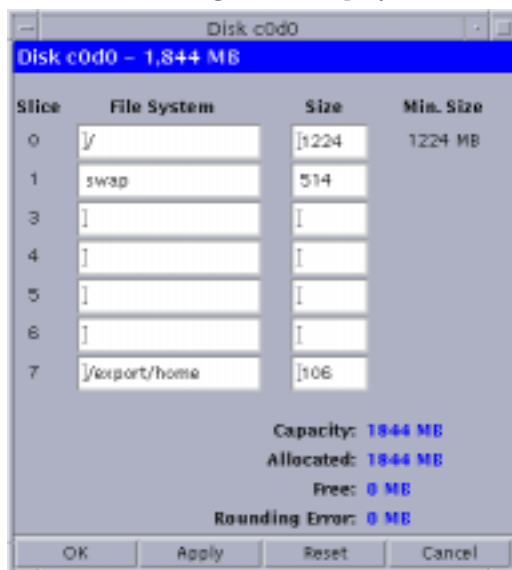
> **Note -** Although you highlight a particular file system on a disk to modify in this step, you can modify *any* file system shown on the Disk dialog box.

16. **Do you want to specify the size changes in megabytes or cylinders?**

    - If cylinders, click Cyl.

      Sizes are displayed in cylinders.

    - If megabytes (the default), go to the next step.

    > **Note -** If sizes are displayed in cylinders, click MB to specify the size changes in megabytes.

17. **Make the changes you want on the Disk dialog box.**

    > **Note -** To apply and save changes but continue, click Apply. To erase all changes you haven't yet applied, click Reset. To apply and save changes and dismiss the dialog box, click OK.

18. **When you're done making changes, click OK.**

    The Disk dialog box is dismissed.

19. **When you're done modifying the layout of file systems, click Next >.**

    The Ready to Install dialog box is displayed:
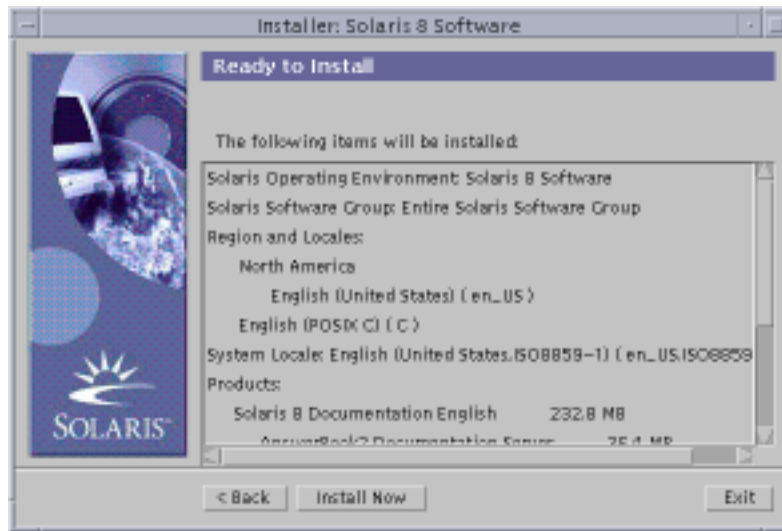
20. On the Ready to Install dialog box, click Install Now.

The Installing dialog box is displayed:
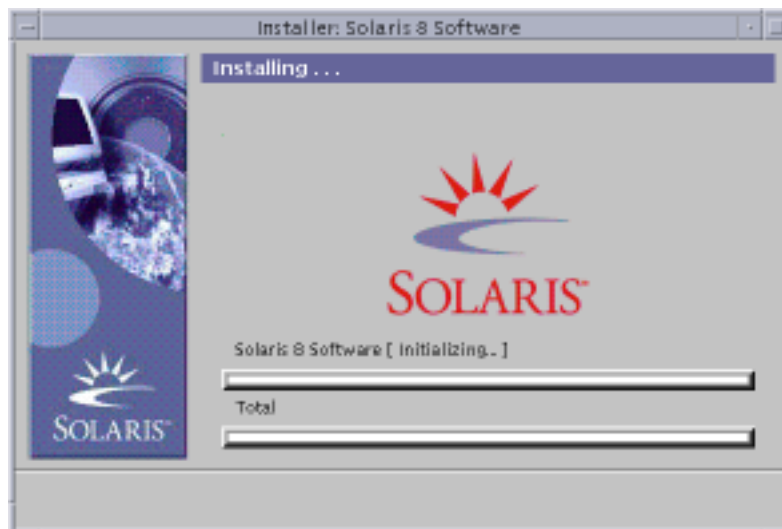
Status messages and the name of each package that's added to the Solaris software are displayed in brackets above the top progress bar. The status of the entire installation is shown on the bottom progress bar.

A complete list of Solaris 8 packages is included in Appendix A, Appendix B, and Appendix C.

> **Note -** Installation can take a while, but the actual time depends on the software group you chose to install, the reallocation of any space if needed, and the speed of the network or local CD-ROM drive you use.

When installation of the software on the Solaris 8 Software 1 of 2 Intel Platform Edition CD is finished, the CD is ejected and the Installation Summary dialog box is displayed:
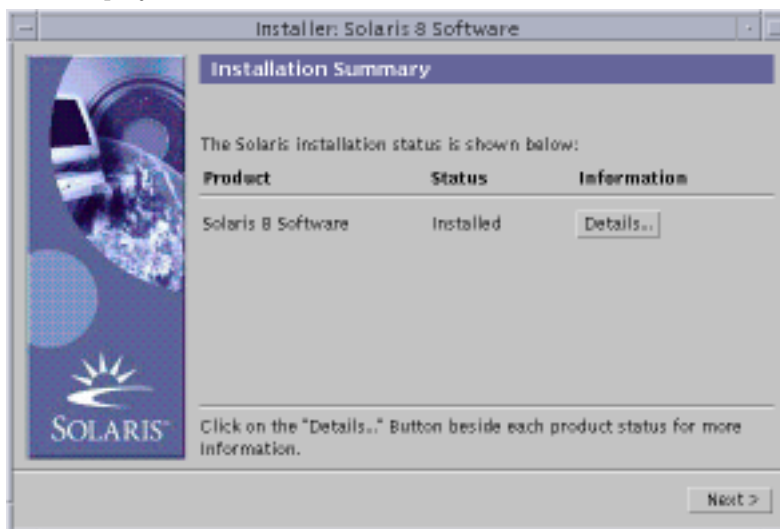
21. **Do you want to display a log file that describes what was installed on the system?**

   - If no, go to Step 24 on page 65.
   - If yes, click Details for the product you want.

   A new dialog box titled Details is displayed over the Installation Summary dialog box:

22. When you're done viewing the Details dialog box, click Dismiss.

The Details dialog box is dismissed.

23. On the Installation Summary dialog box, click Next >.

- If a CD is inserted in the CD-ROM drive, it's ejected.
- If additional software is required, a Specify Media dialog box like this is displayed:

- Otherwise, the Reboot dialog box is displayed:
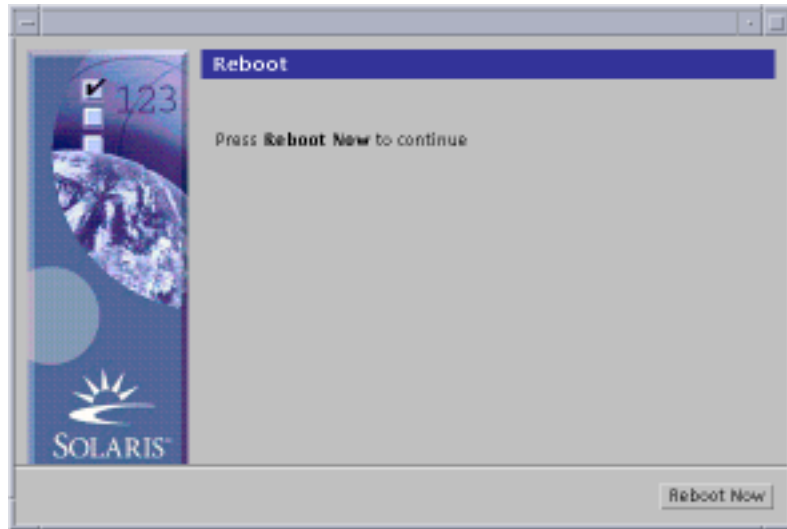
24. Is additional software required?

- If no, go to Step 27 on page 66.
- If yes, do you want to install the additional software from a CD or through a network file system?

  - If CD, select CD and click Next >.

    The Insert CD dialog box is displayed.
  - If network file system, select Network File System and click Next >.

    A Specify Network File System Path dialog box like this is displayed:

25. How did you specify you want to install the additional software?

- If from a CD, insert the CD specified on the Insert CD dialog box and click OK.

  The Reading CD, Launching Installer, and Extracting dialog boxes are displayed, followed by the Installing dialog box. When installation of the software on the CD is finished, the CD in the CD-ROM drive is ejected and the Installation Summary dialog box is displayed.

- If through a network file system, type the path to the network file system on the Specify Network File System Path dialog box and click Next >.

  The Launching Installer and Extracting dialog boxes are displayed, followed by the Installing dialog box. When installation of the software through the network is finished, the Installation Summary dialog box is displayed.

26. Repeat the previous steps starting at Step 23 on page 64.

27. On the Reboot dialog box, click Reboot Now.

The system is rebooted. After a few seconds, a dialog box that prompts you to enter the user name and password for the system is displayed.

28. Type the user name and password for the system.

A dialog box that prompts you to select the Solaris desktop you want (either CDE or OpenWindows™) is displayed.

29. Select the Solaris desktop you want and click OK.

After a few seconds, the Solaris desktop you selected is displayed.

30. Do you intend to use Netscape Communicator and OpenWindows on the system on which you just installed Solaris 8?

- If no, you're done.
- If yes, use a text editor of your choice to open the system's `.cshrc` file, and add an entry to your path environment variable for the directory in which Netscape Communicator is installed.

  For example, if Netscape Communicator is installed in the default directory, add `/opt/NSCPcom` to your path environment variable.

Note - When running Netscape Communicator with OpenWindows, your path environment variable needs to include a pointer to the `NSCPcom` directory to find the binaries.

Using Solaris Web Start With an Install Server

You typically install Solaris software with Solaris Web Start by using the system's CD-ROM drive. You can, however, install Solaris over a network instead. Installing Solaris over the network involves setting up an *install server*, a machine on which an image of Solaris software exists. This image can be transferred over the network to other computers.

Setting up an install server and installing Solaris over a network are described in the *Solaris 8 Advanced Installation Guide*.

Preserving Existing Operating Systems and User Data

Many Intel 32–bit processor architecture (IA) based systems are preinstalled with one or more operating systems such as Microsoft Windows, Microsoft Windows NT, OS/2, or other implementations of the UNIX® operating system.

These preinstalled operating systems commonly use partitions on the disk. These partitions contain data that you might not want to lose. To maintain an existing operating system and the Solaris operating environment on the same system, you must create a separate `fdisk` partition for the Solaris software.

Note - You cannot use Solaris Web Start to upgrade to Solaris 8 from Solaris 7 or earlier versions of the Solaris operating environment because it uses a different method to install Solaris software (a separate 10–Mbyte IA boot partition).

You must instead use the Solaris 8 Interactive Installation Program, which is described in more detail in "Using the Solaris 8 Interactive Installation Program" in *Solaris 8 Advanced Installation Guide.*

Installing Solaris in a Partition

This section explains how to use the Solaris 8 Interactive Installation Program to create an `fdisk` partition for Solaris software and consequently preserve other existing operating systems and user data on a disk.

Ways to Use the Solaris 8 Interactive Installation Program

You can run Solaris 8 Interactive Installation Program (and the Device Configuration Assistant) two ways, as a:

- Graphical user interface, which requires a local or remote CD-ROM drive or network connection, video adapter, keyboard, and monitor

- Character-based user interface, which requires a local or remote CD-ROM drive or network connection, keyboard, and monitor; you can run the Solaris 8 Interactive Installation Program's character-based user interface with `tip`(1)

The content and sequence of instructions in both the graphical user interface and the character-based user interface are generally the same, with only slight differences.

What Determines Which Interface Is Used

If the Solaris 8 Interactive Installation Program detects a video adapter for the system, it uses the graphical user interface, and if it does *not*, it uses the character-based user interface.

▼ To Create an `fdisk` Partition for Solaris: Configuration

1. **Check the documentation for your existing operating system to ensure that it can be used on the same system with the Solaris operating environment.**

2. **Does the partition in which you intend to install the Solaris operating environment contain data you want to keep?**

   - If no, go to the next step.
   - If yes, use a backup utility to back up the data onto storage media.

3. **Are you using the Linux operating system?**

   - If no, go to the next step.
   - If yes, the Solaris `fdisk` partition and the Linux `swap` partition use the same identifier (0x83); to resolve this problem, you can:

     - Choose not to use a swap partition at all (provided you have enough memory)
     - Put the Linux `swap` partition on another drive
     - Back up the Linux data you want to keep onto storage media, install the Solaris operating environment, and *then* re-install Linux

⚠ Caution - If you decide to install Linux after the Solaris operating environment, when the Linux installation program asks if you want to format the Linux `swap` partition (actually a Solaris `fdisk` partition) as a `swap` file, reply no.

4. **Do you intend to install the Solaris software on the system through a `tip`(1) line?**

   - If no, go to the next step.
   - If yes, make sure your window display is at least 80 columns wide and 24 rows long.

     Note - To determine the current dimensions of your `tip` window, use the `stty`(1) command.

5. **Do you intend to use the system's CD-ROM drive to install the Solaris 8 software on the system?**

   - If no, go to Step 8 on page 71.
   - If yes, go to the next step.

6. **Is your system capable of booting from a CD?**

   - If yes, ensure that the capability is turned on by using your system's BIOS setup tool.
   - If no, insert the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition into the system's diskette drive.

     Note - You can download the Solaris 8 Device Configuration Assistant from the Solaris Driver Connection at `http://soldc.sun.com/support/drivers`.

     Note - The BIOS on most IA motherboards manufactured since late 1997 supports the "El Torito" standard and thus recognizes CD-ROM drives as boot devices.

7. **Insert the CD labeled Solaris 8 Software 1 of 2 Intel Platform Edition into the system's CD-ROM drive.**

8. **Boot the system by shutting it down and then turning it off and on.**

   A memory test and hardware detection are executed. The screen refreshes.

- If you're using the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition, the message:

```
Solaris Boot Sector                           Version 1
```

is displayed at the top of your screen. Then, information similar to this is displayed:

```
Solaris for x86 - FCS DCB                     Version 1.234




                    loading /solaris/boot.bin
```

The screen refreshes and information similar to this is displayed:

```
SunOS Secondary Boot version 3.00

            Solaris Intel Platform Edition Booting System

Running Configuration Assistant...
```

- If you're using only the CDs labeled Solaris 8 Software 1 of 2 Intel Platform Edition and Solaris 8 Software 2 of 2 Intel Platform Edition, the message:

```
SunOS - Intel Platform Edition    Primary Boot Subsystem, vsn 2.0
```

is displayed at the top of the screen. Then, information similar to this is displayed:

```
SunOS Secondary Boot version 3.00

            Solaris Intel Platform Edition Booting System

```

(continued)

```
Running Configuration Assistant...
```

9. **When the Solaris Device Configuration Assistant screen is displayed, press F2_Continue.**

   The Bus Enumeration screen is displayed with the message:

   ```
   Determining bus types and gathering hardware configuration data ...
   ```

   The Scanning Devices screen is displayed. System devices are scanned. When scanning is complete, the Identified Devices screen is displayed.

10. **Press F2_Continue.**

    The Loading screen is displayed with messages about drivers that are loaded to boot your system. After a few seconds, the Boot Solaris screen is displayed.

11. **On the Boot Solaris screen, select CD and press F2_Continue.**

    The Running Driver screen is displayed briefly, followed by information similar to this:

    ```
                        <<< Current Boot Parameters >>>
    Boot path: /pci@0,0/pci-ide@7,1/ata@1/sd@0,0:a
    Boot args: kernel/unix


    Select the type of installation you want to perform:

            1 Solaris Interactive
            2 Custom JumpStart

    Enter the number of your choice followed by the <ENTER> key.

    If you enter anything else, or if you wait for 30 seconds,
    an interactive installation will be started.

    Select type of installation:
    ```

12. **Type 1 and press Enter or wait 30 seconds.**

    Information similar to this is displayed:

```
<<< starting interactive installation >>>

Booting kernel/unix...
SunOS Release 5.8 Version Generic 32-bit
Copyright 1983-2000 Sun Microsystems, Inc.  All rights reserved.
Configuring /dev and /devices
Using RPC Bootparams for network configuration information.
Stand by...
```

After a few seconds, a menu of languages is displayed.

13. **Type the number that corresponds to the language in which to display prompts, messages, and other installation information.**

   A menu of locales is displayed.

14. **Type the number that corresponds to the locale you want to use for the installation.**

   After a few seconds, the Solaris Installation Program screen is displayed.

15. **Press F2_Continue.**

   The kdmconfig – Introduction screen is displayed.

16. **Press F2_Continue.**

   The kdmconfig - View and Edit Window System Configuration screen is displayed.

17. **Examine the configuration information on the kdmconfig - View and Edit Window System Configuration screen and make any changes you need.**

18. **When you're done, select No changes needed - Test/Save and Exit, and press F2_Continue.**

   The kdmconfig Window System Configuration Test screen is displayed.

19. **Press F2_Continue.**

   The screen refreshes and the kdmconfig Window System Configuration Test palette and pattern screen is displayed.

20. **Try to move the pointer and examine the colors shown on the palette to ensure that they're displayed accurately.**

21. **Can you move the pointer and are the colors displayed accurately?**

- If no, either click No (if possible), press any key on the keyboard, or wait until `kdmconfig` exits the kdmconfig Window System Configuration Test screen automatically, and then repeat Step 17 on page 74 through Step 21 on page 74 until the colors are displayed accurately and you can move the pointer as expected.
- If yes, click Yes.

OpenWindows starts. An empty desktop and the Solaris Install Console window are displayed with the message:

```
The system is coming up.   Please wait.
```

After a few seconds, the Identify This System dialog box is displayed:

22. Click Continue.

The Configure Security Policy dialog box is displayed.

23. Do you want to configure Kerberos security for the system?

- If yes, select Yes and click Continue.

  The Configure Kerberos Security dialog box is displayed.
- If no, select No and click Continue.

  The Confirm Information dialog box is displayed.

24. Did you choose to configure Kerberos security in the preceding step?

- If no, go to the next step.
- If yes, fill in the Configure Kerberos Security dialog box and click Continue.

  The Confirm Information dialog box is displayed.

25. On the Confirm Information dialog box, click Continue.

- If your system is already networked and the Solaris 8 Interactive Installation Program is able to identify your system completely, the Solaris Interactive Installation dialog box is displayed.
- If your system is not currently networked or it cannot identify your system completely, the Solaris 8 Interactive Installation Program displays the dialog boxes that enable you to provide the information, starting with the Network Connectivity dialog box.

26. Was the Solaris 8 Interactive Installation Program able to identify your system completely?

- If yes, go to Step 1 on page 80.
- If no, go to the next step.

27. Is the system networked?

Preserving Existing Operating Systems and User Data   **75**

- If no, on the Network Connectivity dialog box, select No, click Continue, and go to Step 30 on page 76.
- If yes, select Yes and click Continue.

The DHCP dialog box is displayed.

28. Do you want to use DHCP for the network interface configuration?

- If no, select No, click Continue, and go to Step 30 on page 76.
- If yes, select Yes and click Continue.

The IPv6 dialog box is displayed.

29. Do you want to enable IPv6?

- If no, select No, click Continue, and go to Step 33 on page 76.
- If yes, select Yes, click Continue, and go to Step 33 on page 76.

30. On the Host Name dialog box, type the host name you want and click Continue.

- If your system is networked (that is, you selected Yes on the Network Connectivity dialog box in Step 27 on page 75), the IP Address dialog box is displayed.
- If your system is not networked, the Confirm Information dialog box is displayed.

31. Is your system networked?

- If no, go to Step 40 on page 78.
- If yes, did you specify that you want DHCP used for the network interface configuration (that is, did you select Yes on the DHCP dialog box in Step 28 on page 76)?

    - If yes, go to Step 33 on page 76.
    - If no, on the IP Address dialog box, type the IP address of your networked system and click Continue.

The IPv6 dialog box is displayed.

32. Do you want to enable IPv6?

- If yes, select Yes and click Continue.
- If no, select No and click Continue.

The Confirm Information dialog box is displayed.

33. Is the information shown on the Confirm Information dialog box correct?

- If no, click Change and repeat the preceding steps starting from Step 27 on page 75 until the information is correct.

- If yes, click Continue.

The Name Service dialog box is displayed.

34. **On the Name Service dialog box, select the name service the system will use or None, and click Continue.**

   - If you selected NIS, NIS+, or DNS, the Domain Name dialog box is displayed.
   - If you selected None, the Confirm Information dialog box is displayed.

35. **Did you select None in Step 34 on page 77?**

   - If yes, go to Step 40 on page 78.
   - If no, on the Domain Name dialog box, type the name of the domain in which the system is located and click Continue.

      - If you selected NIS+ or NIS, the Name Server dialog box is displayed.
      - If you selected DNS, the DNS Server Addresses dialog box is displayed.

36. **Are you using NIS+/NIS or DNS?**

   - If NIS+ or NIS, select "Find one" or "Specify one" and click Continue.

      - If you selected "Find one," the Confirm Information dialog box is displayed.
      - If you selected "Specify one," the Name Server Information dialog box is displayed.
   - If DNS, type the IP address of the DNS server or servers you want and click Continue.

      The DNS Search List dialog box is displayed.

37. **Are you using NIS+/NIS or DNS?**

   - If NIS+ or NIS, did you select "Specify one" or "Find one" in the previous step?

      - If "Find one," go to Step 40 on page 78.
      - If "Specify one," type the server's host name and IP address, and click Continue.

      The Subnets dialog box is displayed.
   - If DNS, type the name of the domain or domains you want searched when a DNS query is made, if any, click Continue, and go to Step 40 on page 78.

38. **Is the name server you specified part of a subnet?**

   - If yes, select Yes and click Continue.

      The Netmask dialog box is displayed.

■ If no, click Continue and go to Step 40 on page 78.

39. Type the netmask you want and click Continue.

The Confirm Information dialog box is displayed.

40. Is the information shown on the Confirm Information dialog box correct?

■ If no, is the system networked?

■ If no, click Change and repeat the preceding steps starting from Step 27 on page 75 until the information is correct.
■ If yes, click Change and repeat the preceding steps starting from Step 34 on page 77 until the information is correct.

■ If yes, click Continue.

The Time Zone dialog box is displayed.

41. On the Time Zone dialog box, select how you want to set your default time zone and click Set.

The Geographic Region, Offset From GMT, or Time Zone File dialog box is displayed, depending on the method you chose.

42. Use this decision table to determine what to do next:

If you chose	Then
Geographic region	Select the region you want in the left window and the time zone in the right, and click Continue.
Offset from GMT	Drag the slider toward the left (for west of Greenwich, England) or right (for east of Greenwich, England), and click Continue.
Time zone file	Specify the name of a file in /usr/share/lib/zoneinfo, or click Select to choose a file in this directory, and click Continue.

The Date and Time dialog box is displayed.

43. If necessary, correct the date and time, and click Continue.

The Confirm Information dialog box is displayed.

44. Is the information shown on the Confirm Information dialog box correct?

■ If no, click Change and repeat the steps starting from Step 41 on page 78 until the information is correct.

■ If yes, click Continue.

If the Solaris operating environment is *not* installed on the system, this version of the Solaris Interactive Installation dialog box is displayed:

```
                Solaris Interactive Installation

You'll be using the initial option for installing Solaris software on the system.
The initial option overwrites the system disks when the new Solaris software
is installed.

On the following screens, you can accept the defaults or you can customize
how Solaris software will be installed by:

            — Allocating space for diskless clients or AutoClient systems
            — Selecting the type of Solaris software to install
            — Selecting disks to hold software you've selected
            — Specifying how file systems are laid out on the disks

After completing these tasks, a summary of your selections (called a profile)
will be displayed.


 Continue              Exit                   Help
```

If the Solaris operating environment is already installed on the system, this
version of the Solaris Interactive Installation dialog box is displayed:


```
                Solaris Interactive Installation

This system is upgradable, so there are two ways to install the Solaris
software.

The Upgrade option updates the Solaris software to the new release,
saving as many modifications to the previous version of Solaris software as
possible.  Back up the system before using the Upgrade option.

The Initial option overwrites the system disks with the new version of Solaris
software.  This option allows you to preserve any existing file systems.
Back up any modifications made to the previous version of Solaris software
before starting the Initial option.

After you select an option and complete the tasks that follow, a summary of
your actions will be displayed.


 Upgrade        Initial           Exit              Help
```

▼ To Create an `fdisk` Partition for Solaris: Installation

1. On the Solaris Interactive Installation dialog box, click Continue or Initial.

   ■ If you clicked Initial, additional information is displayed on the Solaris Interactive Installation dialog box:

   ■ If you clicked Continue, the Select Geographic Regions dialog box is displayed:

Select Geographic Regions

Select the geographic regions for which support should be installed.

- ▶ ☐ Asia
- ▶ ☐ South America
- ▶ ☐ Central America
- ▶ ☐ Australasia
- ▶ ☐ Western Europe
- ▶ ☐ Southern Europe
- ▶ ☐ Northern Europe
- ▶ ☐ North America
- ▶ ☐ Central Europe
- ▶ ☐ Eastern Europe

▼ Expanded region   ◢ Partial   ☐ Unselected
▶ Collapsed region   ■ Selected

| Continue | Go Back | Exit | Help |

2. **In the previous step, did you select Continue or Initial?**

   - If Continue, go to the next step.
   - If Initial, click Continue.

3. **On the Select Geographic Regions dialog box, select the geographic region or regions for which you want to install support and click Continue.**

   The Select Software dialog box is displayed:

```
                        Select Software

Select the Solaris software to install on the system.

NOTE: After selecting a software group, you can add or remove software by customizing it.
However, this requires understanding of software dependencies and how Solaris software
is packaged.

        Software Group                          Recommended Size
        ⋎ Entire Distribution plus OEM support          910 MB
        ⋎ Entire Distribution                           910 MB
        ⋎ Developer System Support                      876 MB
        ◆ End User System Support                       616 MB
        ⋎ Core System Support                           209 MB

    ☐ Select To Include Solaris 64 Bit Support

  Continue  |   Go Back  |  Customize...  |   Exit   |   Help
```

4. Select the software group you want to install.

5. Do you want to add or remove software clusters or packages to or from the software group you selected in the previous step?

   - If no, go to the next step.
   - If yes, click Customize and use the Customize Software dialog box to add or remove the software clusters or packages you want.

6. Click Continue.

   - If an IA boot partition is found on the system's disk, the Use x86boot partition? dialog box is displayed:
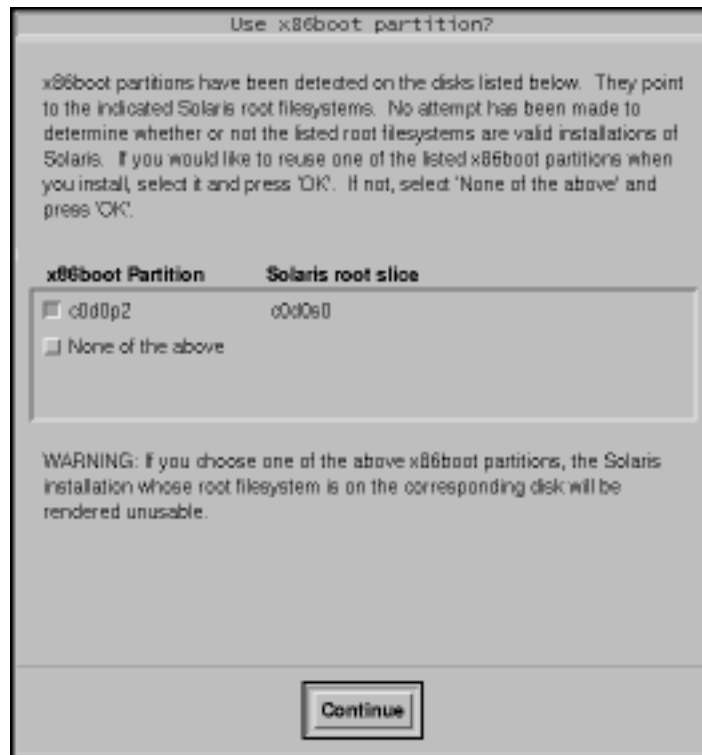
```
                    Use x86boot partition?

x86boot partitions have been detected on the disks listed below.  They point
to the indicated Solaris root filesystems.  No attempt has been made to
determine whether or not the listed root filesystems are valid installations of
Solaris.  If you would like to reuse one of the listed x86boot partitions when
you install, select it and press 'OK'.  If not, select 'None of the above' and
press 'OK'.


x86boot Partition          Solaris root slice

  c0d0p2                     c0d0s0
  None of the above



WARNING: If you choose one of the above x86boot partitions, the Solaris
installation whose root filesystem is on the corresponding disk will be
rendered unusable.




                        Continue
```

Note - You cannot use Solaris Web Start to upgrade to Solaris 8 from Solaris 7 or earlier versions of the Solaris operating environment because it uses a different method to install Solaris software (a separate 10–Mbyte IA boot partition).

You must instead use the Solaris 8 Interactive Installation Program, which is described in more detail in "Using the Solaris 8 Interactive Installation Program" in *Solaris 8 Advanced Installation Guide*.

■ Otherwise, the Select Disks dialog box is displayed:

Select Disks

Select the disks for installing Solaris software. Start by looking at the Required field; this value is the approximate space needed to install the software you've selected. Keep selecting disks until the Total Selected value exceeds the Required value.

> To move a disk from the Available to the Selected window, click on the disk, then click on the > button.

Available Disks			Selected Disks
c0d0	1911 MB	>	
		<	
		>>	
		<<	
		Edit fdisk	

Total Available: 1911

Select Boot Disk

Recommended: 463
Required: 340
Total Selected: 0

Continue   Go Back   Exit   Help

7. **Was a boot partition detected on the disk in the preceding step?**

   - If no, go to the next step.
   - If yes, select the boot disk you want to reuse or "None of the above" and click Continue.

     The Select Disks dialog box is displayed.

8. **If the disk you want isn't already shown in the Selected Disks window, highlight the disk you want in the Available Disks window, click the > button, and highlight the disk in the Selected Disks window.**

   The Edit fdisk button is activated.

9. **Click Edit fdisk.**

   The Customize fdisk Partitions dialog box is displayed:

```
                        Customize fdisk Partitions

On this screen you can create, delete, and customize fdisk partitions. The Free field is updated as
you assign sizes to fdisk partitions 1 through 4.

                         Partition        Size     Start Cylinder

                    1   X86BOOT  ⊐    │ 1 1 │           1

                    2    Solaris  ⊐    │ 1 905 │          6

                    3   <unused> ⊐    │ 0 │              0

                    4   <unused> ⊐    │ 0 │              0

                         Capacity:   1911 MB
                         Allocated:  1911 MB
                            Free:       0 MB

   OK                            Cancel                        Help
```
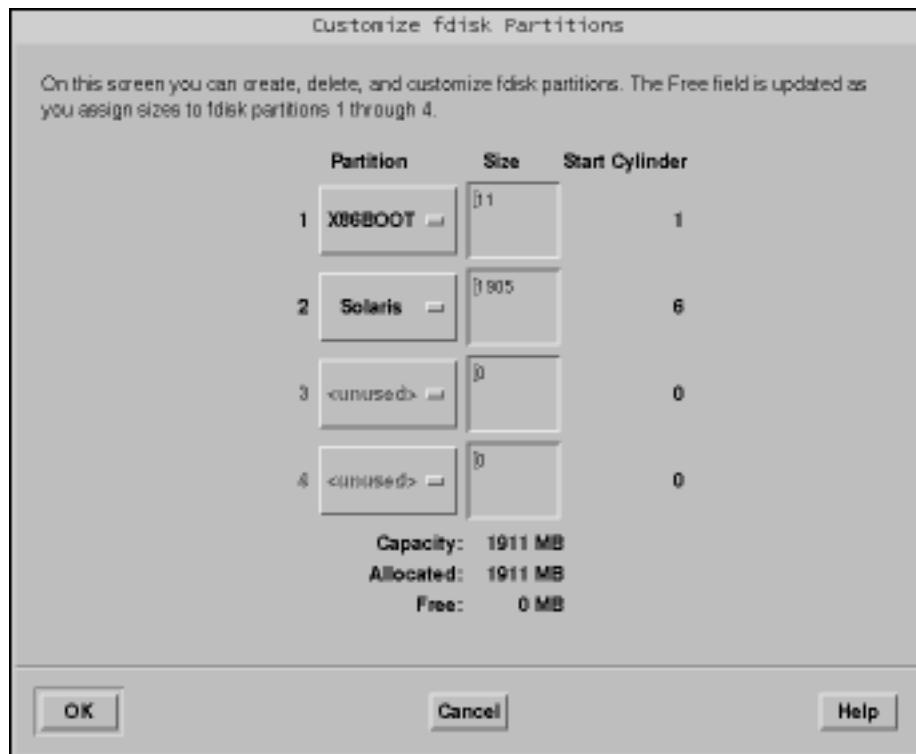
10. Click and hold the button under Partition for the partition you want, and select Solaris from the pull down menu.

The following warning message is displayed:

```
Changes to this partition will destroy existing data on the partition
```

11. Click OK.

The Customize fdisk Partitions dialog box is dismissed, and the Select Disks dialog box is displayed.

12. Click Continue.

- If the partition you selected already contains data, the Preserve Data? dialog box is displayed.
- If the partition does not contain data, the Automatically Layout File Systems? dialog box is displayed:

Automatically Layout File Systems?

Do you want to use auto-layout to automatically layout file systems? Manually laying out file systems requires advanced system administration skills.

| Auto Layout | Go Back | Manual Layout | Exit | Help |
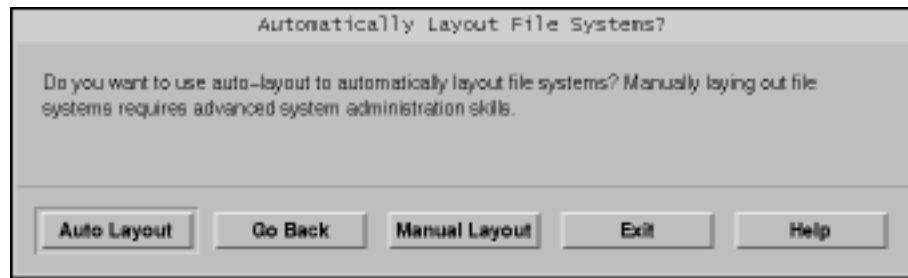
13. Is the Preserve Data? dialog box displayed?

- If no, go to the next step.
- If yes, do you want to preserve the data in the partition?

    - If no, go to the next step.
    - If yes, click Preserve and follow the directions on the dialog boxes that follow.

14. Do you want the Solaris 8 Interactive Installation Program to lay out file systems for you automatically?

- If yes, click Auto Layout.

  The Automatically Layout File Systems dialog box is displayed:

- If no, click Manual Layout.

  The File System and Disk Layout dialog box is displayed:

File System and Disk Layout

The summary below is your current file system and disk layout, based on the information you've supplied.

NOTE: If you choose to customize, you should understand file systems, their intended purpose on the disk, and how changing them may affect the operation of the system.

File System	Disk	Size	Options
overlap	c0d0s2	1895 MB	

| Continue | Go Back | Customize... | Exit | Help |
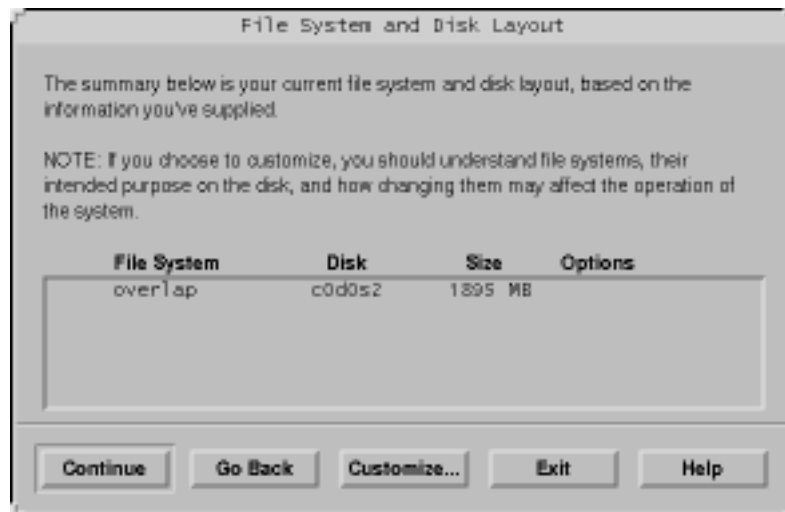
15. Did you select Auto Layout or Manual Layout?

- If Manual Layout, go to the next step.
- If Auto Layout, select the file systems you want to create, if any, and click Continue.

The File System and Disk Layout dialog box is displayed.

16. Do you want to customize the file system and disk layout?

- If yes, click Customize and follow the directions on the dialog boxes that follow.
- If no, click Continue.

The Mount Remote File Systems dialog box is displayed:
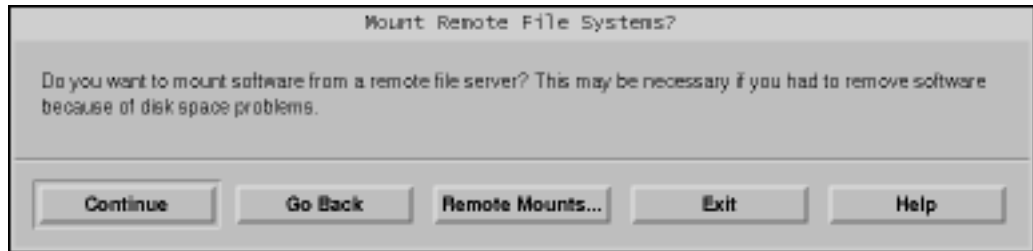
17. Do you want to mount software from a remote file server?

- If yes, click Remote Mounts and follow the directions on the dialog boxes that follow.
- If no, click Continue.

The Profile dialog box is displayed:

```
                              Profile

  The information shown below is your profile for installing Solaris software. It reflects the
  choices you've made on previous screens.

  Profile

  Installation Option:
    Initial

  Boot Device:
    c0d0

  Client Services:
    None

  Regions:
    North America

  Software:
    Solaris 8,
    End User System Support

  File System and Disk Layout:
    /              c0d0s0    671 MB
    swap           c0d0s1    149 MB
    overlap        c0d0s2   1669 MB
    /export/home   c0d0s7    842 MB


  [ Begin Installation ]    [ Change ]      [ Exit ]       [ Help ]
```

18. Click Begin Installation.

A Warning dialog box is displayed that reminds you to change the default boot device specified in the system's BIOS from the CD-ROM or diskette drive to the hard drive after you install the Solaris software:

19. Click OK.

A dialog box with two buttons on it is displayed: Auto Reboot and Manual Reboot:
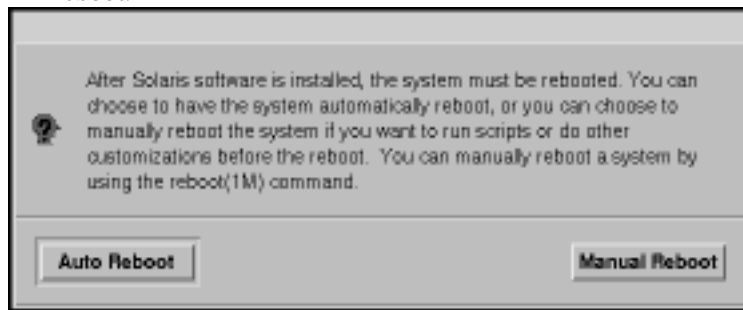
20. Click on Auto Reboot or Manual Reboot.

An Information dialog box is displayed that reminds you to eject the Solaris 8 Software 1 of 2 Intel Platform Edition or Solaris 8 Software 2 of 2 Intel Platform Edition CD and/or the diskette that contains the Solaris Device Configuration Assistant:

21. Did you insert the Device Configuration Assistant diskette into the diskette drive in Step 6 on page 71?

- If no, go to the next step.
- If yes, eject it.

22. Eject the Solaris 8 Software 1 of 2 Intel Platform Edition or Solaris 8 Software 2 of 2 Intel Platform Edition CD from the CD-ROM drive.

23. On the Information dialog box, click OK.

The Installing Solaris Software – Progress dialog box is displayed:
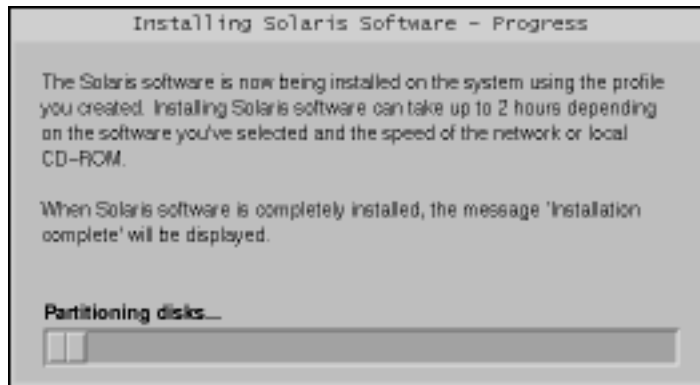
When the Solaris 8 Interactive Installation Program is finished installing the Solaris software, the system reboots automatically or prompts you to reboot manually.

24. After the system reboots or after you reboot the system, make sure that the active partition is set to the Solaris operating environment.

Upgrading a System

This chapter describes how to upgrade an existing Solaris *Intel Platform Edition* system.

Note - Before using Solaris Web Start to update or upgrade a system, refer to the *Solaris 8 (Intel Platform Edition) Release Notes* and *Solaris 8 Installation Supplement.*

Ways to Upgrade a System

When you install a new version of Solaris software on an existing Solaris system, you can choose one of the following ways to upgrade the Solaris operating environment:

- *Upgrade* – This option merges the new version of the Solaris operating environment with the existing files on the system's disks. It saves as many modifications as possible that you have made to the previous version of the Solaris operating environment.

- *Initial* – This option overwrites the system's disk with the new version of the Solaris operating environment. You must back up any local modifications that you have made to the previous version of the Solaris operating environment before you begin the installation and restore the local modifications after the installation is finished.

Frequently Asked Questions About Upgrading

- Can I use the upgrade option on my system?

  You cannot use Solaris Web Start to upgrade to Solaris 8 from Solaris 7 or earlier versions of the Solaris operating environment because it uses a different method to install Solaris software (a separate 10–Mbyte IA boot partition). You can, however, upgrade from Solaris 8 to a Solaris 8 Update or a Solaris 8 Maintenance Update.

  To upgrade to Solaris 8 from an earlier version of Solaris, you must instead use the Solaris 8 Interactive Installation Program, which is described in "Using the Solaris 8 Interactive Installation Program" in *Solaris 8 Advanced Installation Guide*.

  To determine the version of the Solaris operating environment your system is running, type:

  ```
  $ uname -a
  ```

- How do I know I can upgrade my system?

  You can upgrade a system provided there is a separate 10–Mbyte IA boot partition on the disk. Solaris Web Start creates an IA boot partition automatically. The Solaris 8 Interactive Installation Program does not.

  You also need a slice on the disk that isn't needed to upgrade that disk. swap is preferred, but any slice will suffice as long as it is not located in any of the "upgradeable" root slices listed in /etc/vfstab. The size of this slice must also exceed or equal the minimum required size, which is dynamic.

  The minimum required sizes for the Solaris 8 Installation English Intel Platform Edition and Solaris 8 Installation Multilingual Intel Platform Edition CDs are shown in Table 4–1:

TABLE 4–1   Minimum Required Sizes for Slices

	64 Mbytes Memory	128 Mbytes Memory	256 Mbytes or More Memory
Solaris 8 Installation English Intel Platform Edition CD	256 Mbytes	256 Mbytes	256 Mbytes
Solaris 8 Installation Multilingual Intel Platform Edition CD	404 Mbytes	340 Mbytes	308 Mbytes

TABLE 4–1 Minimum Required Sizes for Slices *(continued)*

- Do I have to back out patches before I use the upgrade option?

  No, backing out packages is not required.

- What if Solaris Web Start doesn't provide the upgrade option, but the system can be upgraded?

  See Chapter 6 for information.

- What if the system's file systems don't have enough space for the upgrade?

  You can reallocate disk space with Solaris Web Start if the current file systems don't have enough space for the upgrade. Solaris Web Start attempts to determine how to reallocate the disk space so the upgrade can succeed. If Solaris Web Start cannot determine how to reallocate disk space, you must manually modify the layout of the file systems.

- Can I automatically upgrade to another software group?

  No. For example, if you previously installed the End User System Support software group on your system, you cannot use the upgrade option to upgrade to the Developer System Support software group. However, you can always add software to the system during the upgrade that is not part of the currently installed software group.

- Where does Solaris Web Start describe the local modifications that could not be preserved?

  - Before the system reboots: `/a/var/sadm/system/data/upgrade_cleanup`
  - After the system reboots: `/var/sadm/system/data/upgrade_cleanup`

- Where does the installation program place upgrade log files?

  - Before the system reboots: `/a/var/sadm/system/logs/upgrade_log`
  - After the system reboots: `/var/sadm/system/logs/upgrade_log`

Upgrading Your System

▼ To Get Started

1. **Check the documentation:**
   - Check the *Solaris 8 (Intel Platform Edition) Release Notes* and vendor release notes to ensure that the software you use is still supported in the new release.

- Check the *Solaris 8 (Intel Platform Edition) Hardware Compatibility List* to make sure your hardware is still supported.
- See the documentation that came with your system to make sure your system and devices are still supported by the new release.
- Check for all the available patches you might need. The most recent patch list is provided at `http://sunsolve.sun.com`.
- Check Table 4–2 for known problems. This list is not complete. Always check vendor and third-party software documentation for additional upgrade instructions.

TABLE 4–2 Software That Requires Changes Before Upgrading

Software	Problem Summary
Prestoserve	If you start the upgrade process by shutting down the system using `init 0`, you can lose data. See the Prestoserve documentation for shutdown instructions.

2. **Determine the language you want to use to upgrade Solaris. If you use the CD labeled:**

- Solaris 8 Installation English Intel Platform Edition—all prompts, messages, and other upgrade information are displayed in English only.
- Solaris 8 Installation Multilingual Intel Platform Edition—you can select one of the following languages in which to display all prompts, messages, and other upgrade information:

  - English
  - French
  - German
  - Italian
  - Japanese
  - Korean
  - Spanish
  - Swedish
  - Simplified Chinese
  - Traditional Chinese

3. **Make sure you have *at least* the following CDs:**

- Solaris 8 Installation English Intel Platform Edition *or* Solaris 8 Installation Multilingual Intel Platform Edition

- Solaris 8 Software 1 of 2 Intel Platform Edition *and* Solaris 8 Software 2 of 2 Intel Platform Edition
- Solaris 8 Languages Intel Platform Edition (if you use the Multilingual CD)

▼ To Back Up a System

Caution - Back up existing file systems before upgrading the Solaris operating environment. Copying them to removable media (such as tape) safeguards data against loss, damage, or corruption.

You can use the Solaris Web Start Specify Backup Media dialog box to back up a system on a local disk, local tape, or remote file system.

If you do not have a backup procedure in place, follow these steps to perform a full backup of file systems on tape. Backing up a system and setting up scheduled backups are described in more detail in *System Administration Guide, Volume I.*

1. Become superuser.

2. Shut down the system:

```
# init 0
```

3. Boot the system in single-user mode:

```
ok boot -s
```

4. Do you want to check the file systems for consistency?

Note - Checking the file systems for consistency ensures you back up uncorrupted data. A power failure, for example, can leave files in an inconsistent state.

- If no, go to the next step.
- If yes, use the fsck command with the −m option:

```
# fsck -m /dev/rdsk/device-name
```

5. Do you intend to back up the file systems onto a remote tape drive?
- If no, go to the next step.

Upgrading a System **95**

- If yes:

a. **Add the following entry to the** ./rhosts **file of the system that is initiating the backup:**

```
host root
```

b. **Verify that the host name added to the** /.rhosts **file above is accessible via the local** /etc/inet/hosts **file or available through an NIS or NIS+ name server.**

6. **Identify the device name of the tape drive.**

The default tape drive is /dev/rmt/0.

7. **Insert a tape that is not write-protected into the tape drive.**

8. **Back up file systems using one of the** ufsdump **commands listed in Table 4–3.**

TABLE 4–3 Full Backup Commands

To make a full backup on a	Use this command
Local cartridge tape drive	ufsdump9ucf /dev/rmt *files_to_backup*
Remote cartridge tape drive	ufsdump0ucf *remote_host*:/ *files_to_backup*

9. **When prompted, remove the tape and replace it with the next volume.**

10. **Label each tape with the volume number, level, date, system name, and file system.**

11. **Press Control-D.**

The system is returned to run level 3.

12. **Verify that you successfully backed up the system:**

```
# ufsrestore -t
```

▼ To Plan for Upgrading

1. Use this decision table to determine what to do first.

If you intend to upgrade from a	Then go to
CD-ROM drive attached to your system	The next step.
Remote CD-ROM drive on a network	*Solaris 8 Advanced Installation Guide.*

2. If your system is attached to a network, gather the following information about the system that contains the Solaris operating environment you intend to upgrade.

Information	Example	To find the information (with Solaris installed), use
Host name	crater	**uname -n**
Host IP address	129.221.2.1	**ypmatch** *system_name* **hosts** or **nismatch** *system_name* **hosts.org_dir**
Subnet mask	255.255.255.0	**more /etc/netmasks**
Type of name service (DNS, NIS, or NIS+)	passwd: files nis group: files nis hosts: xfn nis [NOTFOUND=return] files networks: nis [NOTFOUND=return] files protocols: nis [NOTFOUND=return] files rpc: nis [NOTFOUND=return] files ethers: nis [NOTFOUND=return] files netmasks: nis [NOTFOUND=return] files bootparams: nis [NOTFOUND=return] files publickey: nis [NOTFOUND=return] files netgroup: nis automount: files nis aliases: files nis services: files nis sendmailvars: files	**cat /etc/nsswitch.conf**
Domain name	lbloom.West.Arp.COM	**domainname**

Information	Example	To find the information (with Solaris installed), use
Host name of name server	thor75	**ypwhich**
Host IP address of name server	129.153.75.20	**ypmatch** *nameserver_name* **hosts** or
		nismatch *nameserver_name* **hosts.org_dir**

▼ To Set Up for Upgrading

1. **Do you intend to install the Solaris software through a** tip**(1) line?**

   - If no, go to the next step.
   - If yes, make sure your window display is at least 80 columns wide and 24 rows long.

   Note - To determine the current dimensions of your tip window, use the stty(1) command.

2. **Is your system capable of booting from a CD?**

   - If yes, ensure that the capability is turned on by using your system's BIOS setup tool.
   - If no, insert the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition into the system's diskette drive.

   Note - You can also download the Solaris 8 Device Configuration Assistant from the Solaris Driver Connection at http://soldc.sun.com/support/ drivers.

3. **Insert the CD labeled Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition into the system's CD-ROM drive.**

CD-ROM Drive - Tray Version	CD-ROM Drive - Caddy Version
1. Press the eject button on the front panel of the CD-ROM drive. A tray slides out.	1. To open the caddy, pinch the corners while lifting the lid at the center.
2. Insert the CD labeled Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition (logo facing up) into the tray.	2. Insert the CD labeled Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition (logo facing up) and close the caddy.
3. Push the tray into the CD-ROM drive.	3. With the arrow on the caddy pointing toward the CD-ROM drive, insert the caddy.

4. **Boot the system by shutting it down and then turning it off and on.**

   A memory test and hardware detection are executed. The screen refreshes.

   ■ If you're using the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition, the message:

```
Solaris Boot Sector                          Version 1
```

is displayed at the top of your screen. Then, information similar to this is
displayed:

```
Solaris for x86 - Generic DCB                Version 1.234




                    loading /solaris/boot.bin
```

The screen refreshes and information similar to this is displayed:

```
SunOS Secondary Boot version 3.00

            Solaris Intel Platform Edition Booting System

Running Configuration Assistant...
```

- If you're using only the CD labeled Solaris 8 Installation English Intel Platform
  Edition or Solaris 8 Installation Multilingual Intel Platform Edition, the
  message:

```
SunOS - Intel Platform Edition    Primary Boot Subsystem, vsn 2.0
```

is displayed at the top of the screen. Then, information similar to this is
displayed:

```
SunOS Secondary Boot version 3.00

            Solaris Intel Platform Edition Booting System

Running Configuration Assistant...
```

5. **When the Solaris Device Configuration Assistant screen is displayed, press
   F2_Continue.**

   The Bus Enumeration screen is displayed with the message:

```
Determining bus types and gathering hardware configuration data ...
```

The Scanning Devices screen is then displayed. System devices are scanned. When scanning is complete, the Identified Devices screen is displayed.

6. **Press F2_Continue.**

   The Loading screen is displayed with messages about drivers that are loaded to boot your system. After a few seconds, the Boot Solaris screen is displayed.

7. **On the Boot Solaris screen, select CD and press F2_Continue.**

   ■ If you're using the CD labeled Solaris 8 Installation English Intel Platform Edition, the Running Driver screen is displayed briefly, followed by information similar to this:

```
                       <<< Current Boot Parameters >>>
Boot path: /pci@0,0/pci-ide@7,1/ide@1/sd@0,0:a
Boot args: kernel/unix


                       <<< Starting Installation >>>

SunOS Release 5.8 Version Generic 32-bit
Copyright 1983-2000 Sun Microsystems, Inc.  All rights reserved.
Configuring /dev and /devices
Using RPC Bootparams for network configuration information.
Solaris Web Start 3.0 installer

English has been selected as the language in which to perform the install.
Starting the Web Start 3.0 Solaris installer

Solaris installer is searching the system's hard disks for a
location to place the Solaris installer software.

Your system appears to be upgradeable.
Do you want to do a Initial Install or Upgrade?

  1) Initial Install
  2) Upgrade
  Please Enter 1 or 2 >
```

   ■ If you're using the CD labeled Solaris 8 Installation Multilingual Intel Platform Edition, information similar to this is displayed:

```
                       <<< Current Boot Parameters >>>
Boot path: /pci@0,0/pci-ide@7,1/ide@1/sd@0,0:a
Boot args: kernel/unix


                       <<< Starting Installation >>>
```

Upgrading a System **101**

```
SunOS Release 5.8 Version Generic 32-bit
Copyright 1983-2000 Sun Microsystems, Inc.  All rights reserved.
Configuring /dev and /devices
Using RPC Bootparams for network configuration information.
Solaris Web Start 3.0 installer
The Solaris Installer can be run in English, or any of the following languages:

  1) English            6) Japanese
  2) German             7) Korean
  3) Spanish            8) Swedish
  4) French             9) Simplified_Chinese
  5) Italian           10) Traditional_Chinese
Select the language you want to use to run the installer:
```

8. Which installation CD are you using?

- If the Solaris 8 Installation English Intel Platform Edition CD, go to the next step.
- If the Solaris 8 Installation Multilingual Intel Platform Edition CD, type the number to select the language in which to display prompts, messages, and other installation information.

Information similar to this is displayed (in the language you selected):

```
language_you_selected has been selected as the language in which to perform the install.
Starting the Web Start 3.0 Solaris installer

Solaris installer is searching the system's hard disks for a
location to place the Solaris installer software.

Your system appears to be upgradeable.
Do you want to do a Initial Install or Upgrade?

  1) Initial Install
  2) Upgrade
  Please Enter 1 or 2 >
```

9. At the prompt, type 2 for upgrade and press Enter.

Solaris Web Start searches the disk for swap slices that meet the minimum size requirements. Information similar to this is then displayed:

```
Since swap slices are usually erased at each reboot,
the Solaris Installer would prefer to place the Solaris install image
on a slice labeled swap.


The Installer would like to use the disk slice c0d0s1, labeled as swap.

WARNING: All information will be lost.

Can the Solaris Installer use this slice?  [y,n,?,q]
```

10. Do you want to use the disk slice shown on your screen?

- If yes, type **y** and go to Step 18 on page 106.
- If no, type **n** and press Enter.

Solaris Web Start searches the disk for slices that meet the minimum size requirements and are not located in any of the "upgradeable" root slices listed in /etc/vfstab**, as described in Table 4–1. Information similar to this is displayed:**

```
1) c0d0s1
2) Find Another

"Find Another" allows the Solaris Installer to find other
slices that may meet the criteria found in the Solaris
install guide.
Please make a selection. >
```

11. Do you want to use the disk slice shown on your screen?
- If yes, type **1** and go to Step 18 on page 106.
- If no, type **2** and press Return.

Solaris Web Start continues looking for another disk slice. If another disk slice is not found, the original swap shown on your screen is used by default. If another disk slice is found, information similar to this is displayed:

```
The following slices were found to meet the
criteria in the Solaris Install Guide.

WARNING: If one of the listed slices is chosen
         to be used by the Solaris Installer
         all information on the slice will be
         erased

1) c0d0s7 last mounted on /export/home
```

```
2) None


"None" will skip these disk slices and present
you with a listing of all disks on the system

Please make a selection from the choices above >
```

12. Do you want to use one of the slices shown or None?

> **Note -** If you select None and a disk identifier, you can no longer upgrade the system. You must perform an initial installation.

- If you want to use one of the slices shown, type the number of the slice you want and go to Step 18 on page 106.
- If None, type **2** and press Return.

Information similar to this is displayed:

```
The default root disk is /dev/dsk/c0d0.
The Solaris installer needs to format
/dev/dsk/c0d0 to install Solaris.

WARNING: ALL INFORMATION ON THE DISK WILL BE ERASED!


Do you want to format /dev/dsk/c0d0?  [y,n,?,q]
```

13. At the prompt, type y and press Enter.

Information similar to this is displayed:

```
NOTE: The swap size cannot be changed during filesystem layout.


Enter a swap slice size between 384MB and 1865M, default = 512MB [?]
```

14. At the prompt, press Enter to enter the default swap slice size, or type the swap slice size you want and press Enter.

Information similar to this is displayed:

```
The Installer prefers that the swap slice is at the beginning of the
disk. This will allow the most flexible filesystem partitioning later in the installation.

Can the swap slice start at the beginning of the disk  [y,n,?,q]
```

15. Do you want to place the swap space at the beginning of the disk (and thus improve the flexibility of partitioning the file systems and the efficiency with which the disk is accessed)?

  - If yes, type **y** and go to Step 18 on page 106.
  - If no, type **n** and press Enter.

Information similar to this is displayed:

```
WARNING: Placing the swap slice at a cylinder location other than cylinder 3
requires expert knowledge about disk layout. This choice may affect
disk layout choices later in the installation.

Enter a starting cylinder between 3 and 687, default = 3 [?]
```

16. Press Enter to enter the default starting cylinder (0), or type the starting cylinder you want and press Enter.

Information similar to this is displayed:

```
You have selected the following to be used by the Solaris installer:

        Disk Slice  : /dev/dsk/c0d0
        Size        : 512 MB
        Start Cyl.  : 3

WARNING: ALL INFORMATION ON THE DISK WILL BE ERASED!


Is this OK  [y,n,?,q]
```

17. At the prompt, type y.

18. Press Enter.

Information similar to this is displayed:

```
The Solaris installer will use disk slice, /dev/dsk/c0d0s1.
After files are copied, the system will automatically reboot, and
installation will continue.
Please Wait...

Copying mini-root to local disk....done.


Copying platform specific files....done.

Preparing to reboot and continue installation.
Need to reboot to continue the installation
Please remove the boot media (floppy or cdrom) and press Enter
Note: If the boot media is cdrom, you must wait for the system
to reset in order to eject.
```

19. Did you insert the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition into the system's diskette drive in Step 2 on page 98?

  ■ If yes, eject the diskette from the system's diskette drive and press Enter.

  ■ If no, press Enter.

Information similar to this is displayed:

```
Syncing file systems... 49 done
rebooting...
```

The system resets, and a memory test and hardware detection are executed.

20. Quickly, eject the Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition CD from the CD-ROM drive before the system completes the memory test and hardware detection.

Information similar to this is displayed:

```
SunOS - Intel Platform Edition                    Primary Boot Subsystem, vsn 2.0


                 Current Disk Partition Information

          Part#    Status    Type     Start      Length
          =================================================
            1                DOS12      63        32193
            2     Active   X86 BOOT   32256       36288
```

```
                    3              SOLARIS    68544     3842496
                    4              <unused>



          Please select the partition you wish to boot:
```

After a few seconds, the screen refreshes and information similar to this is displayed:

```
SunOS Secondary Boot version 3.00


            Solaris Intel Platform Edition Booting System


Running Configuration Assistant...
Autobooting from bootpath /pci@0,0/pci-ide@7,1/ata@1/cmdk@0,0:b

If the system hardware has changed, or to boot from a different
device, interrupt the autoboot process by pressing ESC.


Initializing system
Please wait...


                     <<< Current Boot Parameters >>>
Boot path: /pci@0,0/pci-ide@7,1/ata@1/cmdk@0,0:b
Boot args:

Type    b [file-name] [boot-flags] <ENTER>      to boot with options
or      i <ENTER>                               to enter boot interpreter
or      <ENTER>                                 to boot with defaults

                 <<< timeout in 5 seconds >>>

Select (b)oot or (i)nterpreter:
SunOS Release 5.8 Version Generic 32-bit
Copyright 1983-2000 Sun Microsystems, Inc.  All rights reserved.
Configuring /dev and /devices
Using RPC Bootparams for network configuration information.
```

The Solaris Installation Program screen is then displayed.

21. Press F2_Continue.

The kdmconfig - Introduction screen is displayed.

22. Press F2_Continue.

The kdmconfig - View and Edit Window System Configuration screen is displayed.

23. Examine the configuration information on the kdmconfig - View and Edit Window System Configuration screen and make any changes you need.

24. When you're done, select No changes needed - Test/Save and Exit, and press F2_Continue.

The kdmconfig Window System Configuration Test screen is displayed.

25. Press F2_Continue.

26. On the screen that is displayed, try to move the pointer and examine the colors shown on the palette to ensure that they're displayed accurately.

27. Are the colors displayed accurately and can you move the pointer?

- If no, either click No (if possible), press any key on the keyboard, or wait until kdmconfig exits the kdmconfig Window System Configuration Test screen automatically, and then repeat Step 23 on page 108 through Step 27 on page 108 until the colors are displayed accurately and you can move the pointer as expected.
- If yes, click Yes.

  After a few seconds, the Welcome screen is displayed:

▼ To Configure Your System for Upgrading

1. **On the Welcome screen, click Next >.**

   Solaris Web Start attempts to gather information about your system. The Network
   Connectivity dialog box is then displayed:
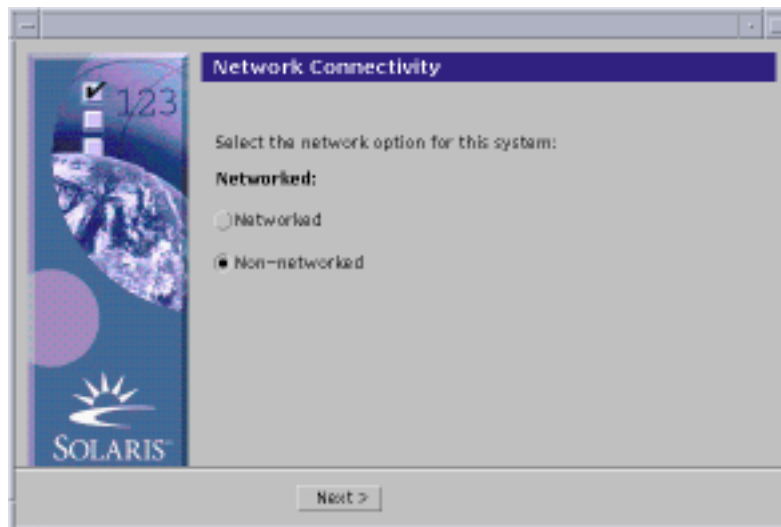
2. **Is the system networked?**

- If no, select Non-networked and click Next >.

The Host Name dialog box is displayed:
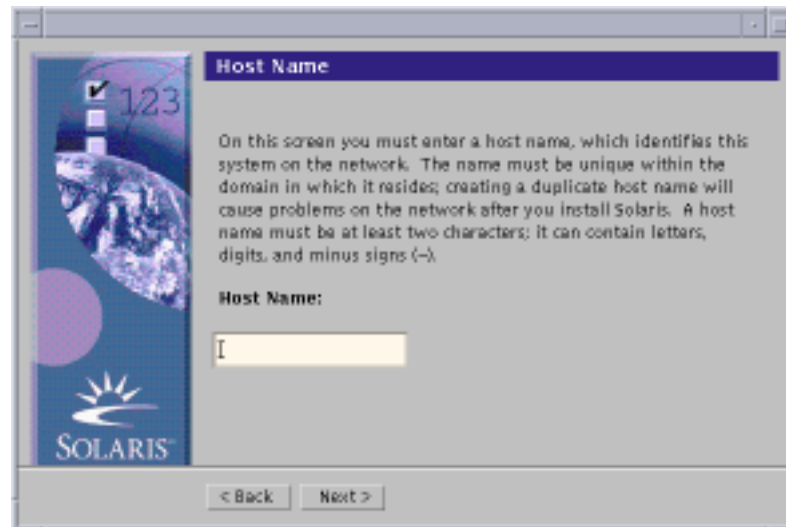
- If yes, select Networked and click Next >.

The DHCP dialog box is displayed:
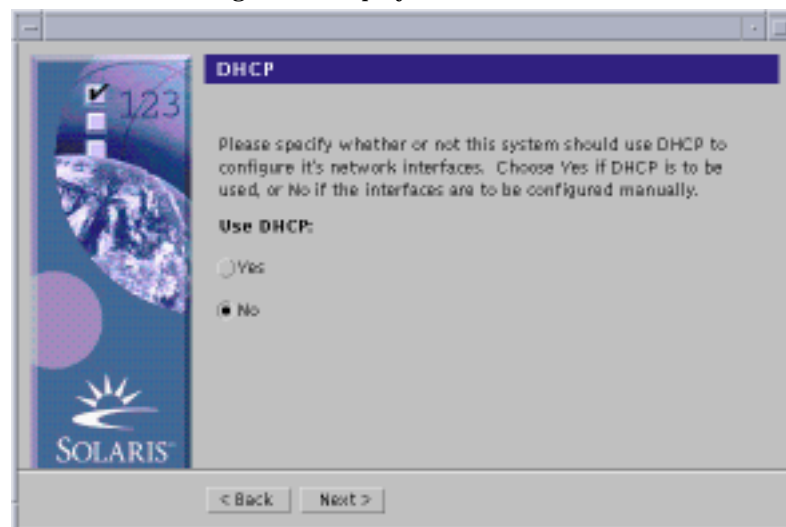
3. **Did you select Networked in Step 2 on page 109?**

   - If no, go to Step 6 on page 111.
   - If yes, go to the next step.

4. **Do you want to use DHCP for the network interface configuration?**

- If no, select No, click Next >, and go to Step 6 on page 111.
- If yes, click Yes and click Next >.

The IPv6 dialog box is displayed:
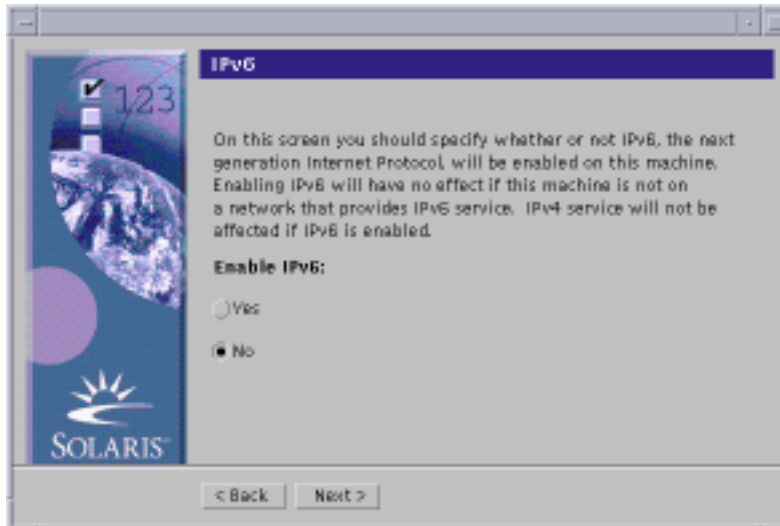
5. **Do you want to enable IPv6?**

   - If no, select No, click Next >, and go to Step 10 on page 114.
   - If yes, select Yes, click Next >, and go to Step 10 on page 114.

6. **On the Host Name dialog box, type the host name you want and click Next >.**

   If you selected Networked on the Network Connectivity dialog box shown in Step 2 on page 109, the IP Address dialog box is displayed:
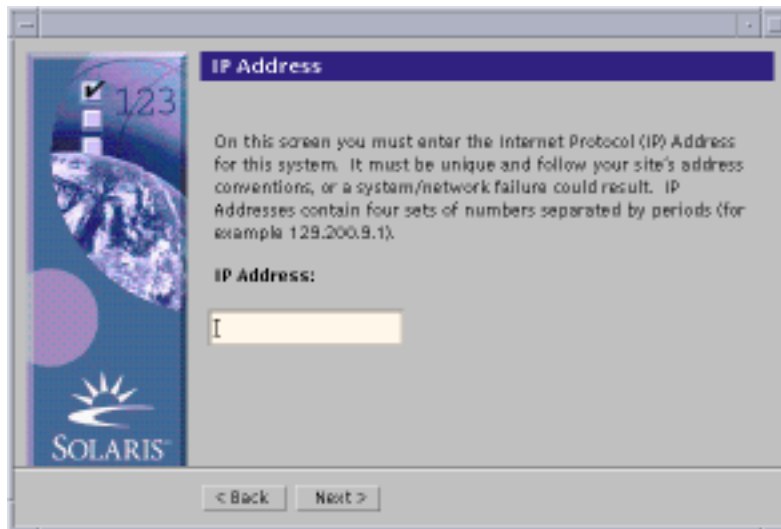
If you selected Non-networked on the Network Connectivity dialog box shown in
Step 2 on page 109, the Time Zone dialog box is displayed:
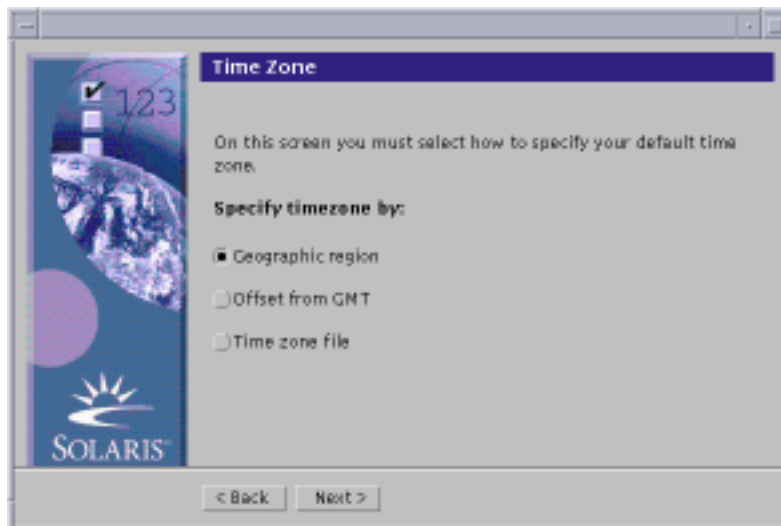
7. **Is your system networked (that is, did you select Networked on the Network
    Connectivity dialog box)?**

    ■ If no, go to Step 14 on page 117.
    ■ If yes, did you specify that you want DHCP used for the network interface
      configuration (that is, did you select Yes on the DHCP dialog box)?

        ■ If yes, go to Step 10 on page 114.

- If no, on the IP Address dialog box, type the IP address of your networked system and click Next >.

The Netmask dialog box is displayed:
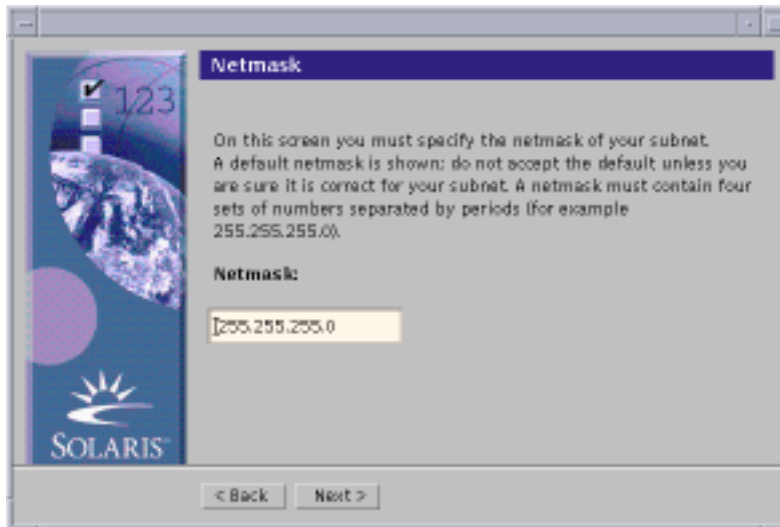
8. Type the netmask you want (or leave the default netmask) and click Next >.

The IPv6 dialog box is displayed:
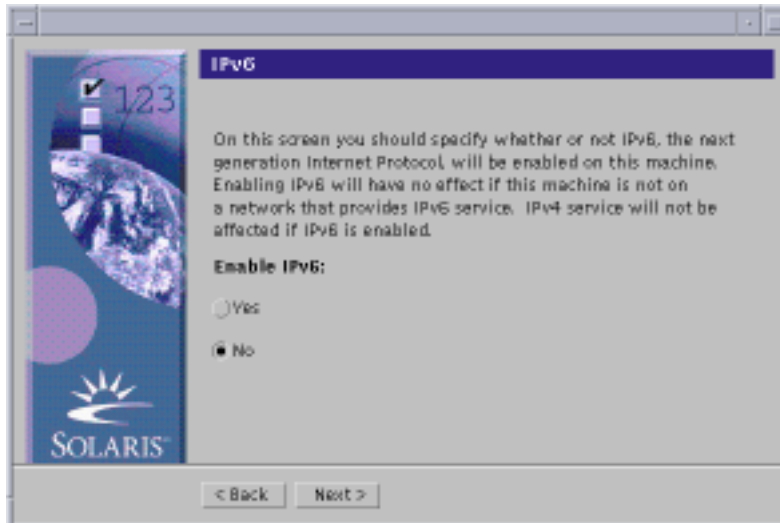
9. Do you want to enable IPv6?

- If no, select No and click Next >.

- If yes, select Yes and click Next >.

The Name Service dialog box is displayed:

10. Select the name service the system will use, or None if you aren't using a name service, and click Next >.

If you selected NIS+, NIS, or DNS, the Domain Name dialog box is displayed:
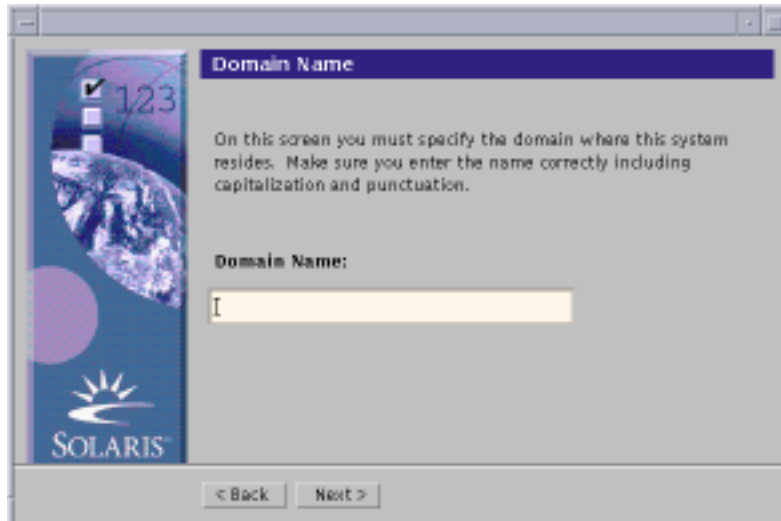
If you selected None, the Time Zone dialog box is displayed:
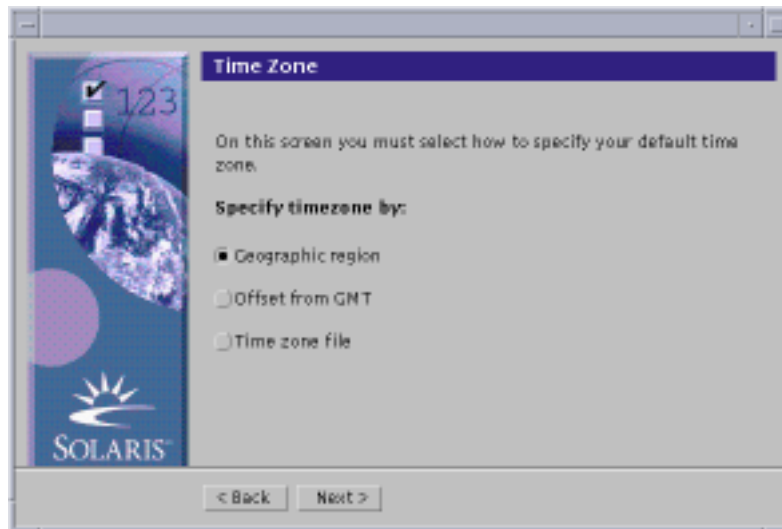
11. Did you select None in the preceding step?

- If yes, go to Step 14 on page 117.
- If no, type the name of the domain in which the system is located and click Next >.

  If you selected NIS+ or NIS, the Name Server dialog box is displayed:
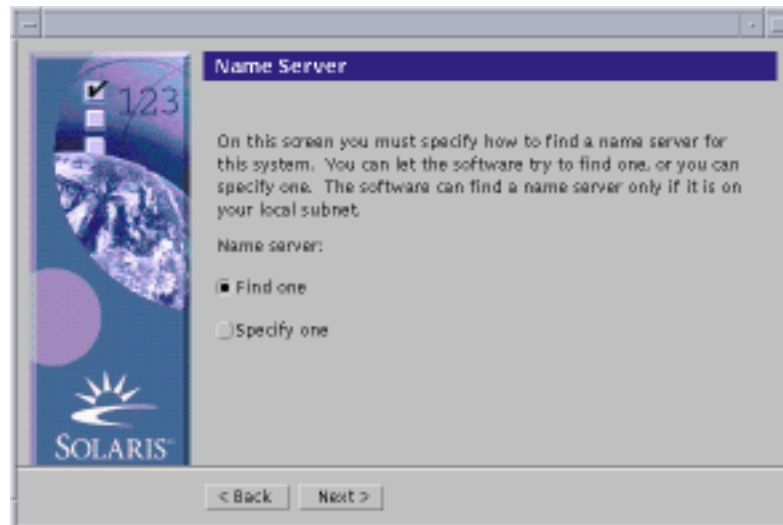
  If you selected DNS, the DNS Server Address dialog box is displayed:
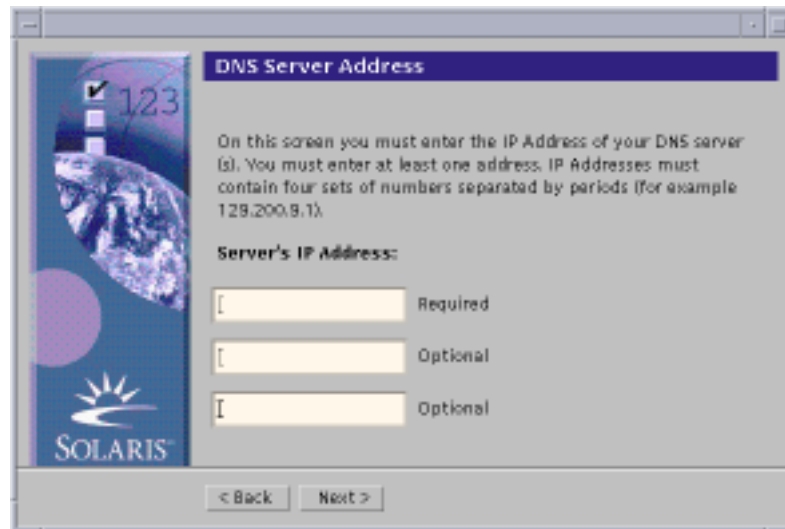
12. Are you using NIS+/NIS or DNS?

- If NIS+ or NIS, select "Find one" or "Specify one" and click Next >.

    - If you selected "Find one," the Time Zone dialog box is displayed.
    - If you selected "Specify one," the Name Server Information dialog box is displayed:
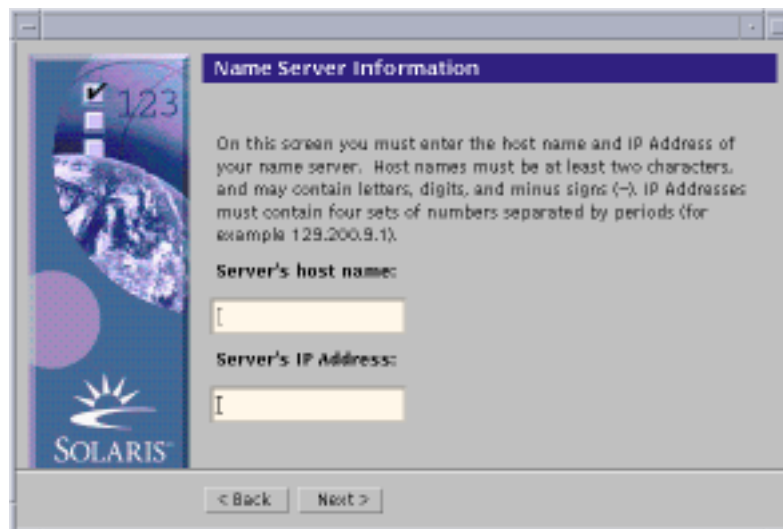
- If DNS, type the IP address of the DNS server or servers you want and click Next >.

    The DNS Search List dialog box is displayed:
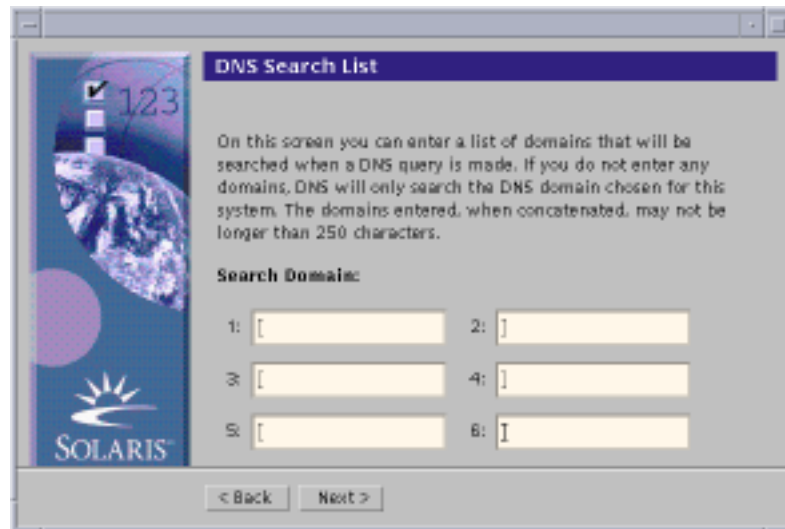
13. Are you using NIS+/NIS or DNS?

- If NIS+ or NIS, on the Name Server Information dialog box, type the host name and IP address of your name server and click Next >.
- If DNS, type the name of the domain or domains you want searched when a DNS query is made, if any, and click Next >.

The Time Zone dialog box is displayed:
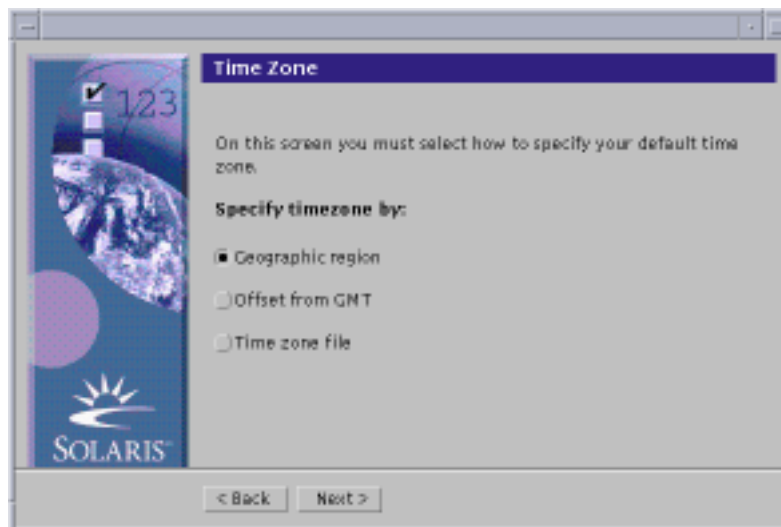
14. On the Time Zone dialog box, select how you want to set your default time zone and click Next >.

The Geographic Region, Offset From GMT, or Time Zone File dialog box is displayed, depending on the method you chose.

15. Use this decision table to determine what to do next:

If you chose	Then
	Select the region you want in the left window and the time zone in the right, and click Next >.
	Drag the slider toward the left (for west of Greenwich, England) or right (for east of Greenwich, England), and click Next >.
	Specify the name of any file in /usr/share/lib/zoneinfo, or click Select to choose a file in this directory, and click Next >.

The Date and Time dialog box is displayed:

16. If necessary, correct the date and time, and click Next >.

The Root Password dialog box is displayed:
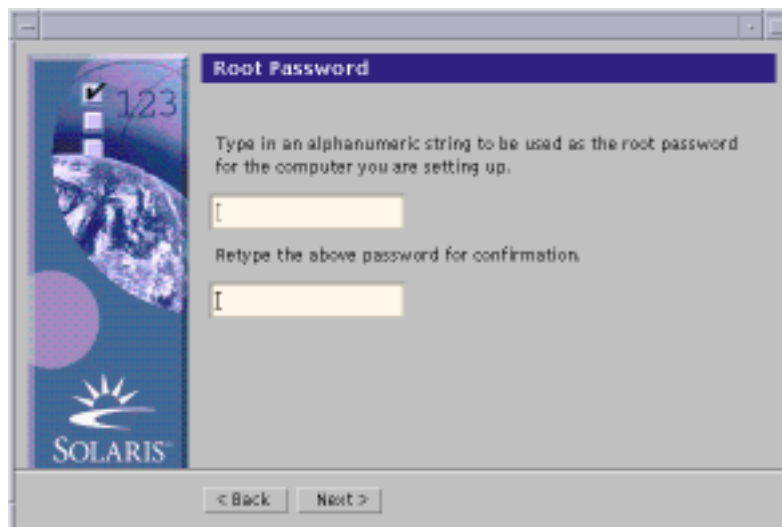
17. Type the alphanumeric string you want to use for the superuser password in both fields, and click Next >.

The Proxy Server Configuration dialog box is displayed:

18. Does the system go through a proxy server to access the Internet?

- If no, select Direct connection to the Internet and click Next >.
- If yes, select Use Proxy Configuration Below, specify the host name and port of the proxy server for the system, and click Next >.

The Confirm Information dialog box is displayed:
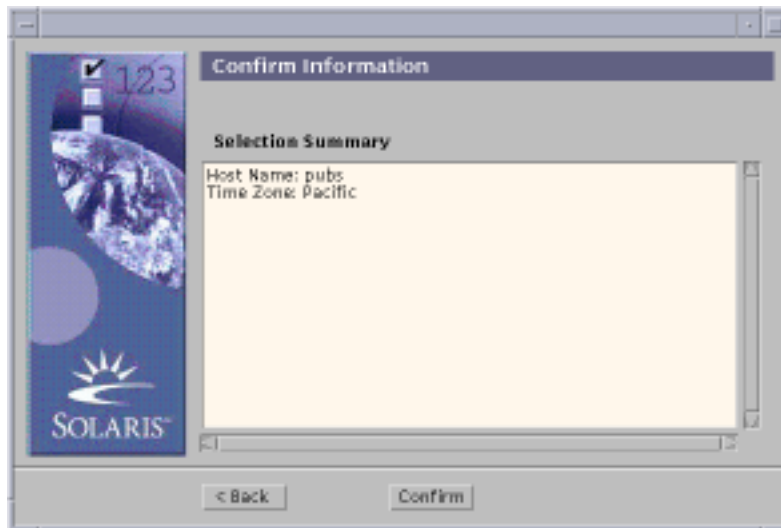
19. Is the information on the Confirm Information dialog box correct?

- If no, click < Back until you display the dialog box you need to correct the information.
- If yes, click Confirm.

The message:

```
Please wait while the system is configured with your settings...
```

is displayed in the Confirm Information dialog box. The Extracting dialog box is displayed momentarily. Then the Solaris Web Start Installation Kiosk and Welcome to Solaris dialog box are displayed:
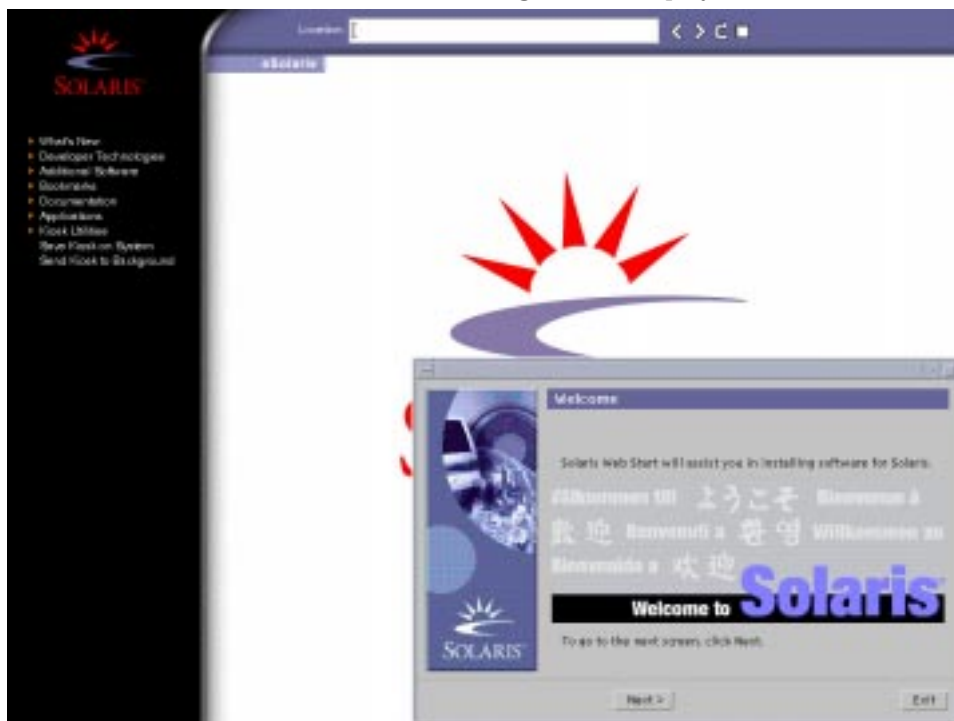
Note - In some cases, the Kiosk might obscure a dialog box. To display an obscured dialog box, on the Kiosk menu, click Send Kiosk to Background.

▼ To Upgrade Solaris

1. **On the Welcome to Solaris dialog box, click Next >.**

The Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition CD is ejected and the Insert CD dialog box is displayed:
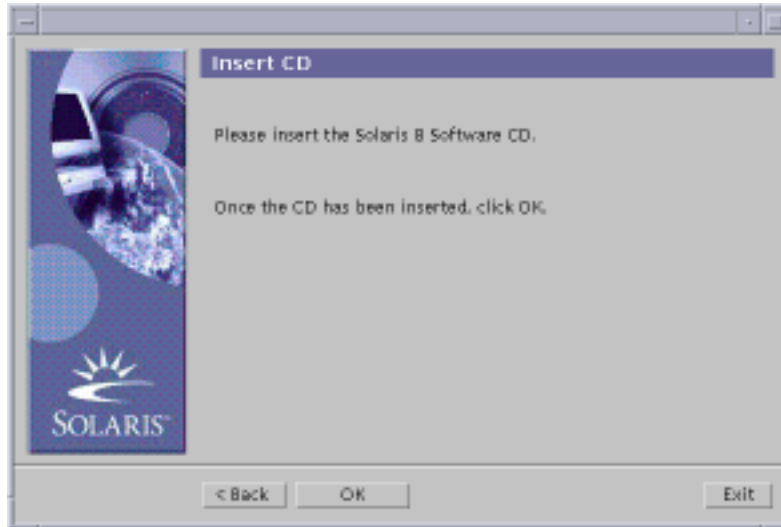
2. **Remove the CD from the tray or caddy, and insert the CD that contains the upgraded Solaris 8 software.**

3. **Push the tray in or insert the caddy and click OK on the Insert CD dialog box.**

   The Reading CD and Initializing dialog boxes are displayed. Then, the Select Upgrade or Initial Install dialog box is displayed:

4. Which type of upgrade do you want to perform?

- If initial, select Initial Install and click Next >.
- If upgrade, select Upgrade Install and click Next >.

If you chose Initial Install, the Initializing dialog box is displayed, followed by the Select Type of Install dialog box:
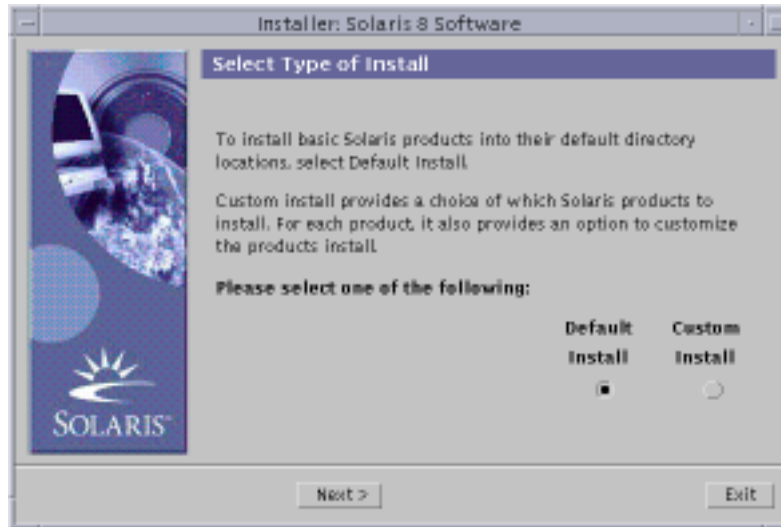
If you chose Upgrade Install and there is more than one version of the Solaris operating environment already installed on the system, the Select Version To Upgrade dialog box is displayed:
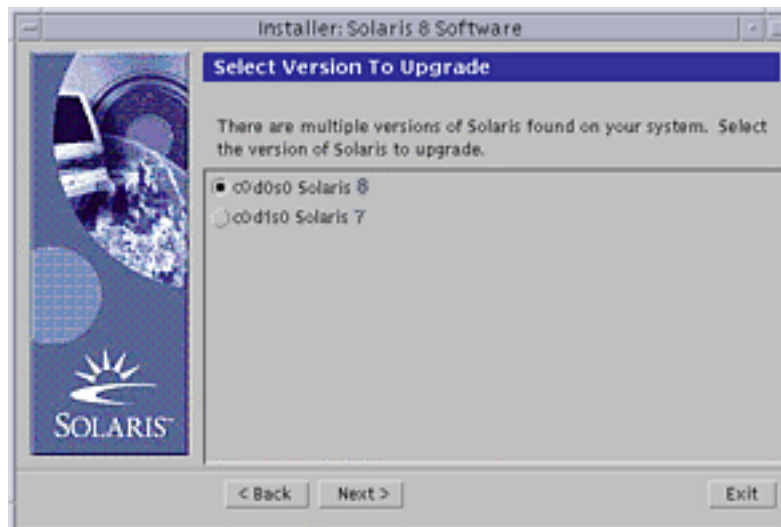
If you chose Upgrade Install and there is only one version of the Solaris operating environment on the system, the Specify Backup Media dialog box is displayed:
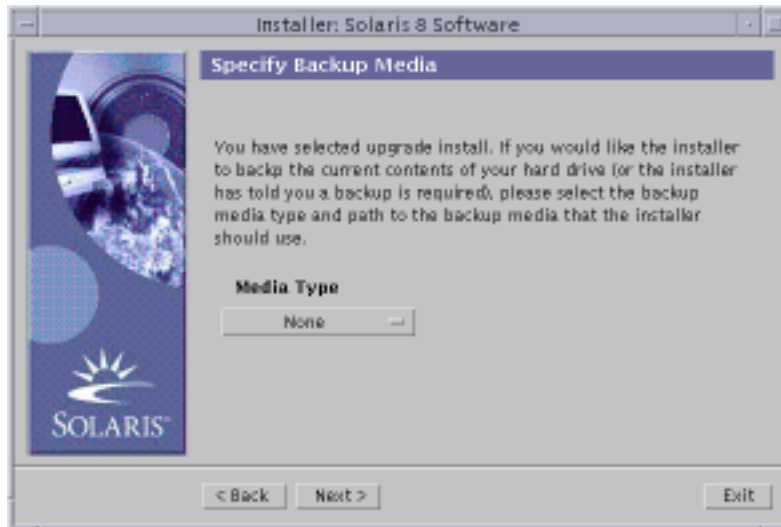
5. **How many versions of Solaris are already installed on the system?**

   - If none, go to Step 7 on page 125.
   - If only one version of Solaris is installed on the system, go to the next step.
   - If more than one version of Solaris is installed on the system, on the Select Version To Upgrade dialog box, select the version you want to upgrade and click Next >.

   The Specify Backup Media dialog box is displayed.

6. **On the Specify Backup Media dialog box, select the media type you want (by pulling down the Media Type pop-up menu, selecting Local Disk, Local Tape, or Remote Filesystem, and specifying the path name) and click Next >.**

   The Testing Upgrade Profile dialog box is displayed.

   Note - At this point, Solaris Web Start tests the system you're upgrading to ensure that enough disk space is available for the upgraded Solaris software. If there is not enough disk space available, Solaris Web Start displays a message suggesting that you perform an initial upgrade.

   The Select Type of Install dialog box is then displayed:
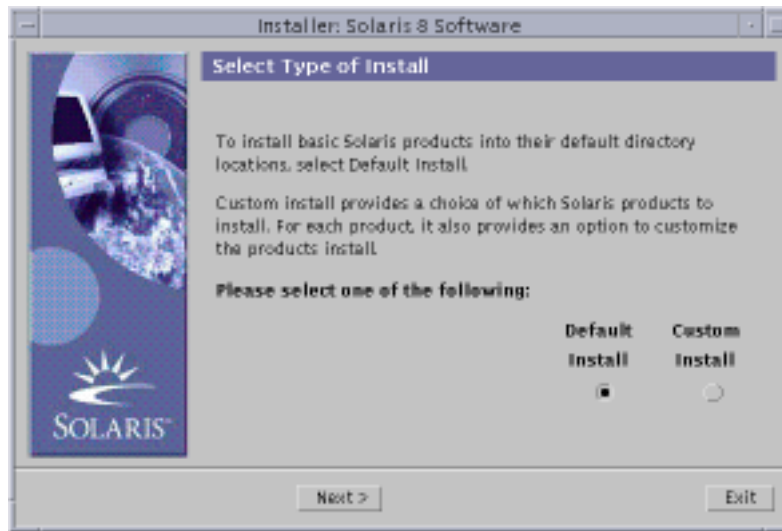
7. Which type of installation do you want to perform?

- ■ If Default Install, select Default Install, click Next >, and go to Step 16 on page 129.
- ■ If Custom Install, select Custom Install and click Next >.

The Select Software Localizations dialog box is displayed:

8. Select the geographic regions and localizations you want to install in addition to English and click Next >.

The Select System Locale dialog box is displayed:
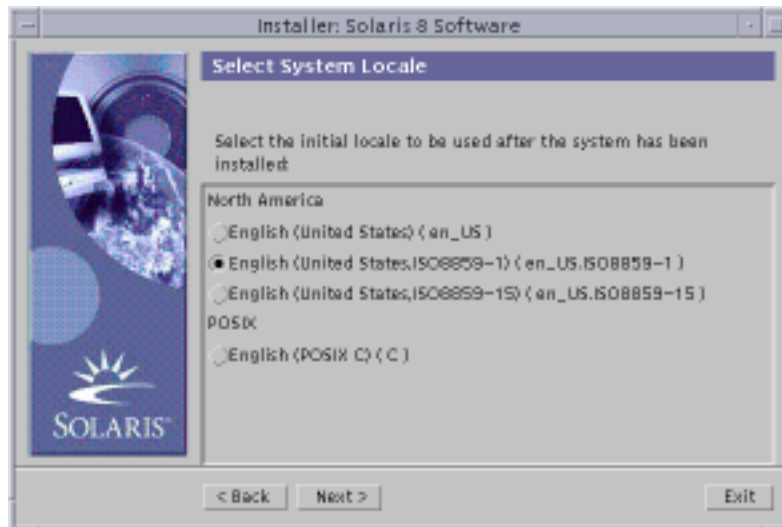
9. **Select the initial locale you want to be used after the upgraded Solaris software is installed on the system and click Next >.**

Note - English (United States, en_US) is selected by default.

The Select Products dialog box is displayed:
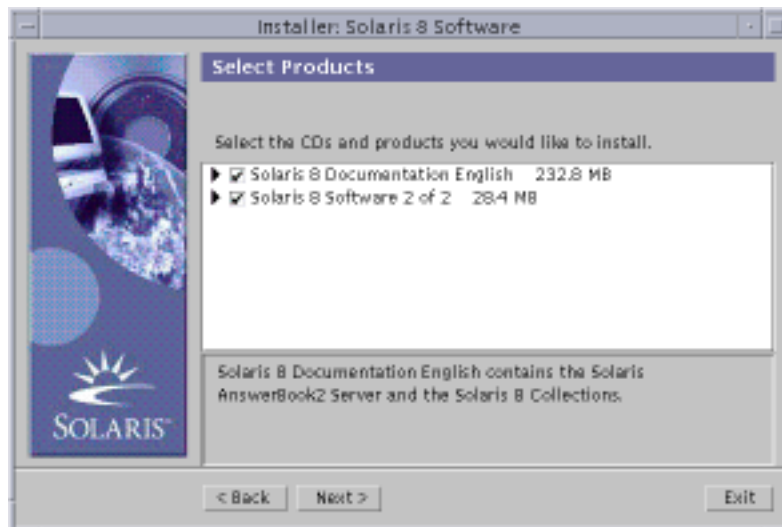
10. Select the product or products you want to install in addition to the upgraded Solaris 8 software and click Next >.

Note - A description of each product, if available, is displayed when you select it.

The Additional Products dialog box is displayed:

11. Do you want to install additional third-party or other software products (that can be installed with Solaris Web Start)?

- If no, select None, click Next >, and go to Step 16 on page 129.
- If yes, select Product CD, Kiosk Download, or Local or Network File System, and click Next >.

    - If you selected Product CD, the Solaris 8 Software 1 of 2 Intel Platform Edition CD is ejected and the Insert CD dialog box is displayed.
    - If you selected Kiosk Download, the Scanning dialog box is displayed. When Solaris Web Start is done scanning the Kiosk download area (/webstart/kiosk/download), the Select Products dialog box is displayed. The products you can install with Solaris Web Start are listed in the windows.
    - If you selected Local or Network File System, the Specify Network File System Path dialog box is displayed:

12. **Which product source did you specify previously?**

   - If Product CD, remove the Solaris 8 Software 1 of 2 Intel Platform Edition CD from the tray or caddy, insert the product CD you want, and click OK on the Insert CD dialog box.

     The Scanning CD dialog box is displayed. When Solaris Web Start is done scanning the product CD, the Select Products dialog box is displayed. The contents of the product CD you can install with Solaris Web Start are listed in the windows.

   - If Kiosk Download, go to the next step.

   - If Local or Network File System, on the Specify Network File System Path dialog box, type the path to the file system and click Next >.

     The Scanning dialog box is displayed. When Solaris Web Start is done scanning the file system, the Select Products dialog box is displayed. The products you can install with Solaris Web Start are listed in the windows.

13. **On the Select Products dialog box, select the products you want to install and click Next >.**

   Note - A description of each product, if available, is displayed when you select it.

   The Additional Products dialog box is displayed.

14. **Do you want to install additional third-party or other software products (that can be installed with Solaris Web Start)?**

   - If yes, select Product CD, Kiosk Download, or Local or Network File System, click Next >, and repeat the preceding steps starting at Step 12 on page 128.

- If no, select None and click Next >.

If you previously inserted and scanned an additional products CD, the CD is ejected and an Insert CD dialog box prompts you to insert the Solaris 8 Software 1 of 2 Intel Platform Edition CD.

15. Did you specify that you want to install additional products from a CD?

- If no, go to the next step.
- If yes, remove the product CD from the tray or caddy, insert the Solaris 8 Software 1 of 2 Intel Platform Edition CD, and click OK.

  The Reading CD dialog box is displayed. If you chose upgrade, the Testing Upgrade Profile dialog box is also displayed for a few seconds. The Ready to Install dialog box is then displayed:

```
Installer: Solaris 8 Software

Ready to Install

  The following items will be installed:

Solaris Operating Environment: Solaris 8 Software
Solaris Software Group: Entire Solaris Software Group
Region and Locales:
    North America
        English (United States) ( en_US )
    English (POSIX C) ( C )
System Locale: English (United States.ISO8859-1) ( en_US.ISO8859
Products:
    Solaris 8 Documentation English          232.8 MB
    AnswerBook2 Documentation Server          25.4 MB

  < Back      Install Now                            Exit
```

16. On the Ready to Install dialog box, click Install Now.

The Installing dialog box is displayed.

Status messages and the name of each package that's added to the Solaris software are displayed in brackets above the top progress bar. The status of the entire installation is shown on the bottom progress bar.

A complete list of Solaris 8 packages is included in Appendix A, Appendix B, and Appendix C.

Note - Upgrading can take a while, but the actual time depends on the software group you chose to install, the reallocation of any space if needed, and the speed of the network or local CD-ROM drive you use.

When installation of the software on the Solaris 8 Software 1 of 2 Intel Platform Edition CD is finished, the CD is ejected and the Installation Summary dialog box is displayed:
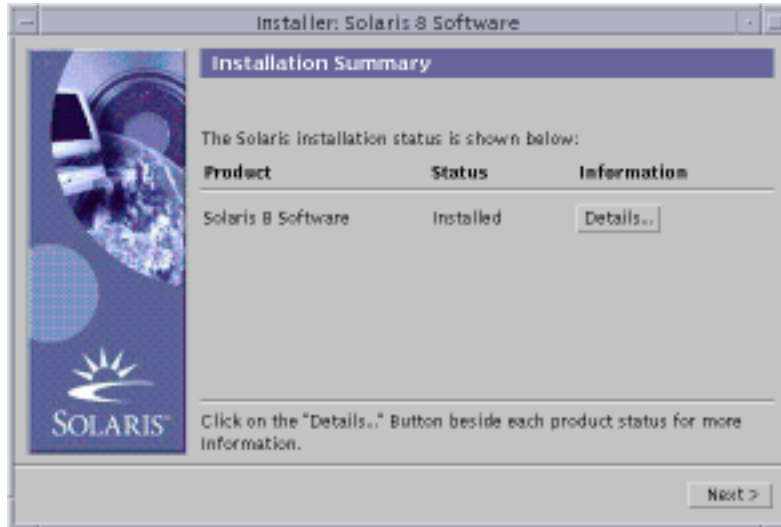
17. Do you want to display a log file that describes what was installed on the system?

- If no, go to Step 20 on page 131.
- If yes, click Details for the product you want.

  A new dialog box titled Details is displayed over the Installation Summary dialog box:
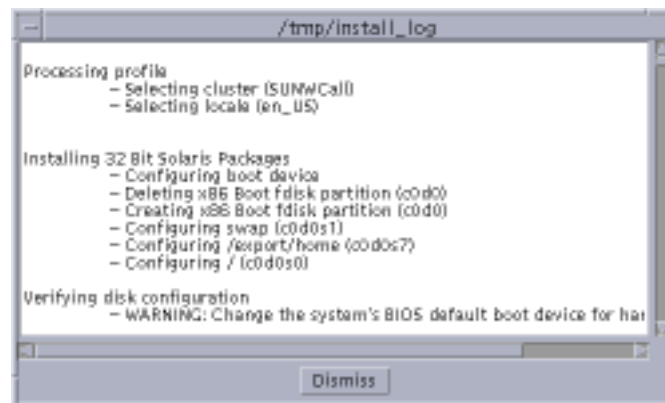
18. When you're done viewing the Details dialog box, click Dismiss.

The Details dialog box is dismissed.

19. On the Installation Summary dialog box, click Next >.

If a CD is inserted in the CD-ROM drive, it's ejected.

If additional software is required, a Specify Media dialog box like this is displayed:

Otherwise, the Reboot dialog box is displayed:
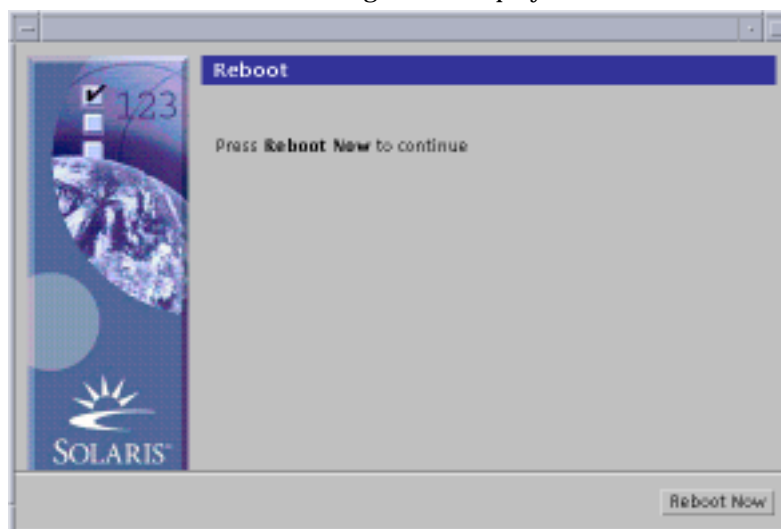
20. Is additional software required?

  - If no, go to Step 23 on page 132.

- If yes, do you want to install the additional software from a CD or through a network file system?

  - If CD, select CD and click Next >.

    The Insert CD dialog box is displayed.
  - If network file system, select Network File System and click Next >.

    A Specify Network File System Path dialog box like this is displayed:

21. How did you specify you want to install the additional software?

- If from a CD, insert the CD specified on the Insert CD dialog box and click OK.

  The Reading CD, Launching Installer, and Extracting dialog boxes are displayed, followed by the Installing dialog box. When installation of the software on the CD is finished, the CD in the CD-ROM drive is ejected and the Installation Summary dialog box is displayed.
- If through a network file system, type the path to the network file system on the Specify Network File System Path dialog box and click Next >.

  The Launching Installer and Extracting dialog boxes are displayed, followed by the Installing dialog box. When installation of the software through the network is finished, the Installation Summary dialog box is displayed.

22. Repeat the previous steps starting at Step 19 on page 131.

23. On the Reboot dialog box, click Reboot Now.

The system is rebooted. After a few seconds, a dialog box that prompts you to enter the user name and password for the system is displayed.

24. Type the user name and password for the system.

A dialog box that prompts you to select the Solaris desktop you want (either CDE or OpenWindows) is displayed.

25. Select the Solaris desktop you want and click OK.

After a few seconds, the Solaris desktop you selected is displayed.

26. Do you intend to use Netscape Communicator and OpenWindows on the system on which you just installed Solaris 8?

- If no, you're done.
- If yes, use a text editor of your choice to open the system's `.cshrc` file, and add an entry to your path environment variable for the directory in which Netscape Communicator is installed.

   For example, if Netscape Communicator is installed in the default directory, add `/opt/NSCPcom` to your path environment variable.

Note - When running Netscape Communicator with OpenWindows, your path environment variable needs to include a pointer to the `NSCPcom` directory to find the binaries.

Note - You can see upgrade log files:

- Before the system reboots at: `/a/var/sadm/system/logs/upgrade_log`
- After the system reboots at: `/var/sadm/system/logs/upgrade_log`

▼ To Clean Up After Upgrading

After you finish upgrading a system, you might need to clean it up. When you upgrade, Solaris Web Start merges local software modifications of the existing system with the new Solaris software; however, in some cases, merging is not possible.

1. See the contents of the following file to determine whether you need to fix local modifications that Solaris Web Start could not preserve:

   `/a/var/sadm/system/data/upgrade_cleanup`

Caution - Check all the contents of `upgrade_cleanup` carefully. Your system might not boot if you don't fix the unpreserved local modifications.

---

2. If necessary, fix any unpreserved local modifications.

3. Reboot the system:

```
# reboot
```

Adding and Removing Software After Installing Solaris 8

This chapter describes how to customize the Solaris software on your system after you install or upgrade to Solaris 8.

You can add and remove software in the following ways:

You can use	To add, remove, or change
Solaris Web Start	Products (on the Solaris 8 Software CDs, Solaris 8 Software Companion, Solaris 8 Languages Intel Platform Edition, or Solaris 8 Documentation SPARC/Intel Platform Edition CDs, for example), software groups, and additional software *except* individual packages of software
Solaris Product Registry	All software installed using Solaris Web Start 3.0 or using the Solaris package management commands (`pkgadd`, for example)

You can use	To add, remove, or change
Admintool	Products, groups, and packages of software (on the Solaris 8 Software CDs, or Solaris 8 Software Companion, Solaris 8 Languages Intel Platform Edition, or Solaris 8 Documentation SPARC/Intel Platform Edition CDs, for example)
	Note - You can use Admintool to add or remove software on a local system only (that is, the system on which you are running Admintool). Admintool is not intended for use in a distributed environment.
The `pkgadd`(1M) and `pkgrm`(1M) commands	Individual packages of software

Note - *System Administration Guide, Volume I* contains information about adding and removing software packages on client systems in a variety of computing environments.

Adding Software With Solaris Web Start

This section describes how to use Solaris Web Start to add software to a system on which you've installed the Solaris operating environment.

▼ To Add Software With Solaris Web Start

Note - This procedure assumes that the system is running Volume Manager. If you are not using Volume Manager to manage diskettes and CDs, refer to *System Administration Guide, Volume I* for detailed information about managing removable media without Volume Manager.

1. **Log in to the installed or upgraded system.**

2. **Locate the net image of the software you want to install or insert the CD that contains the software you want to add into the CD-ROM drive attached to the system.**

   If you inserted a CD, Volume Manager automatically mounts the CD.

> **Note -** If you insert the Solaris 8 Languages Intel Platform Edition CD, Solaris Web Start starts automatically.

3. **Find the directory that contains the software you want to add.**

   Table 5–1 lists some of the directories on the Solaris 8 CDs that contain the Solaris Web Start Installer and software you can add with it.

TABLE 5–1   Location of Software You Can Add

CD	Software	Directory
Solaris 8 Software 2 of 2 Intel Platform Edition	Components of Developer System Support, Entire Distribution, or Entire Distribution Plus OEM Support software groups **Note -** The Solaris Web Start installer on the Solaris 8 Software 2 of 2 Intel Platform Edition CD only installs those components in these software groups that you skipped when you initially installed the Solaris 8 operating environment on the system. You cannot upgrade to another software group after installing or upgrading the Solaris 8 operating environment.	Top-level directory (volume identifier) of the CD Example: `sol_8_ia_2`
Solaris 8 Software 2 of 2 Intel Platform Edition	Unbundled and preliminary evaluation software	`Solaris_8/EA` in the top-level directory (volume identifier) of the CD Example: `sol_8_ia_2/ Solaris_8/EA`
Solaris 8 Software 2 of 2 Intel Platform Edition	Individual Solaris 8 packages that make up the Developer System Support, Entire Distribution, and Entire Distribution Plus OEM Support software groups which you can install individually with `pkgadd`(1M)	`Solaris_8/Product` in the top-level directory (volume identifier) of the CD Example: `sol_8_ia_2/ Solaris_8/Product`

TABLE 5–1   Location of Software You Can Add   *(continued)*

CD	Software	Directory
Solaris 8 Software 2 of 2 Intel Platform Edition	Source code for some of the third-party public domain software included with Solaris 8	`Solaris_8/Tools` in the top-level directory (volume identifier) of the CD Example: `sol_8_ia_2/Solaris_8/Tools` **Note -** The installer in this directory is named `install_source`.
Solaris 8 Languages Intel Platform Edition **Note -** Solaris Web Start starts automatically when you insert this CD in a CD-ROM drive.	Localized interface software and documentation, including Simplified and Traditional Chinese, French, German, Italian, Japanese, Korean, Spanish, and Swedish **Note -** The Solaris 8 Software CDs contain the interface that enables you to input, display, and print text in a target language, including multibyte locales.	Top-level directory (volume identifier) of the CD Example: `sol_8_lang_ia`
Solaris 8 Documentation English SPARC/Intel Platform Edition	Solaris AnswerBook2 Server, Solaris 8 Collections, Release Notes, or other documentation	Top-level directory (volume identifier) of the CD Example: `sol_8_doc`

4. **Double click Installer or installer.**

   An Installer window is displayed, followed by a Solaris Web Start dialog box.

5. **Follow the directions on the screen to install the software.**

6. **When you're done, click Exit.**

   Solaris Web Start exits.

7. **Did you use a CD to install the software?**

   - If no, stop, you're done.

- If yes, are you using the Common Desktop Environment (CDE) or OpenWindows?

  - If CDE, on the File Manager window for the CD, select File and then Eject.
  - If OpenWindows, on the File Manager window for the CD, click Eject Disk.

  The CD is ejected.

Adding and Removing Software With the Product Registry

Purpose

The Solaris Product Registry is a tool to help you manage installed software. Once Solaris is installed, Product Registry provides a list of all the software that was installed using Solaris Web Start 3.0 or the Solaris package management commands (`pkgadd`, for example).

The Solaris Product Registry enables you to:

- View a list of installed and registered software and some software attributes
- Find and launch an installer
- Install additional software products
- Uninstall software

How the Product Registry Works

The Solaris Product Registry main window, shown in Figure 5–1, consists of three areas of information:

- Installed, registered, and removed software
- Standard attributes of the currently selected software
- Customized attributes and attributes internal to the registered software
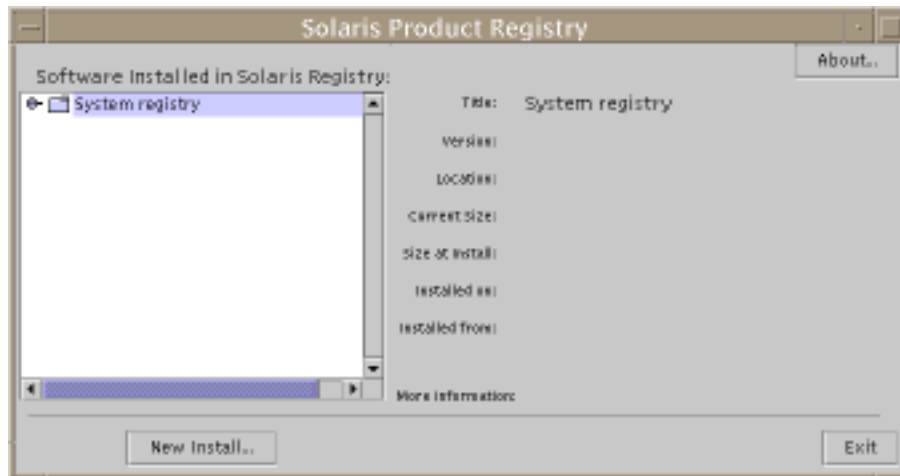
Figure 5–1   Solaris Product Registry Window

To view the items in the Product Registry, click the turner control to the left of the folder icon next to "System registry." Notice that the turner control changes from pointing to the right to pointing down.

You can expand or collapse any item in the Registry except items that have a text file icon to its left.

"Solaris 8" under "Software Installed in Solaris Registry," as shown in Figure 5–2, always contains two items: the configuration software group you chose when installing Solaris and "additional system software."

Software groups that can be displayed include Core, End User System Support, Developer System Support, and Entire Distribution.

The "additional system software" item contains Solaris products that are not part of the software group you chose. Additionally, "unclassified software" contains any package that you installed using the pkgadd command that is not a Solaris product or part of the software group.
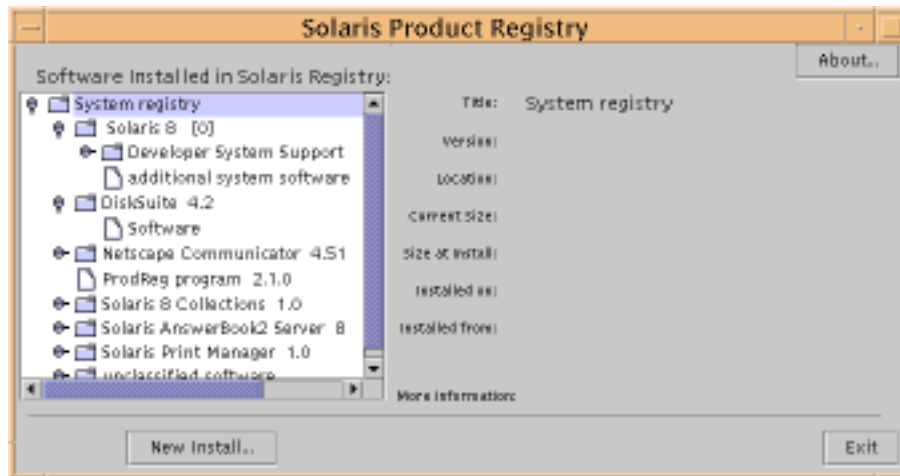
Figure 5–2   Solaris Product Registry Expanded

Product Registry attributes appear above the "More Information" box. For product items installed with Solaris Web Start, the Product Registry contains values for at least Title, Version, Location, and Installed on. Items in an expanded list under a product or software group inherit the version information of the product. You can click an item to view its attribute values.

Sometimes an item appears in the Product Registry window but the corresponding software has been removed with the pkgrm command.

In this case, the message "Missing files in one or more components" is displayed after the "Installed from" attribute (see Figure 5–3). You can either re-install the software by using the pkgadd command or you can remove it by using the Product Registry.
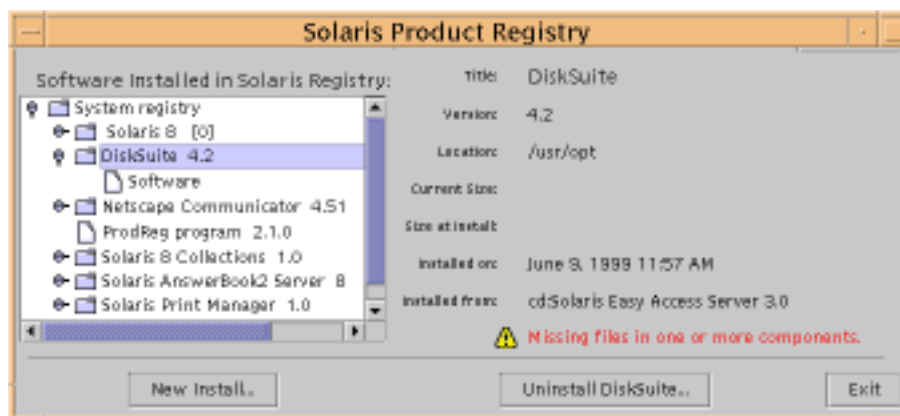
Figure 5–3   Missing Files Message in the Solaris Product Registry

▼ To List Information About All Installed Products

1. Do you want to list information about all installed software products on your system?

- If no, stop, you're done.
- If yes, go to the next step.

2. If the Solaris Product Registry is not already running, type:

`/usr/bin/prodreg`

Note - In most cases, you do not need to specify the path /usr/bin/.

The Solaris Product Registry window, which contains the System registry, is displayed.

3. To view the list of installed and registered software, click the turner control to its left.

4. Do you want to view software attributes?

- If no, go to the next step.
- If yes, select the software you want by clicking its name under "Software installed in Solaris Registry."

The Product Registry displays attribute information for the selected software.

▼ To Check the Integrity of an Installed Product

1. Do you want to check the integrity of software products installed on the system?

- If no, stop, you're done.
- If yes, go to the next step.

2. If the Solaris Product Registry is not already running, type:

`/usr/bin/prodreg`

Note - In most cases, you do not need to specify the path /usr/bin/.

The Solaris Product Registry window, which contains the System registry, is displayed.

3. To view the list of installed and registered software, click the turner control to its left.

4. Select the software you want by clicking its name in the window titled "Software installed in Solaris Registry."

If all or part of the product was removed with the `pkgrm` command, the message "Missing files in one or more components" is displayed after the "Installed from" attribute.

▼ To Install Software With the Product Registry

1. Do you want to add an additional software product or products to the Solaris 8 software you already installed?

   ■ If no, stop, you're done.
   ■ If yes, go to the next step.

2. Log in to the installed or upgraded system.

3. Locate the net image of the software you want to install or insert the CD that contains the software you want to add to the system into the CD-ROM drive attached to the system.

If you inserted a CD, Volume Manager automatically mounts the CD.

4. If the Solaris Product Registry is not already running, type:

`/usr/bin/prodreg`

Note - In most cases, you do not need to specify the path `/usr/bin/`.

The Solaris Product Registry window, which contains the System registry, is displayed.

5. To view the list of installed and registered software, click the turner control to the left of the System registry.

6. Click the New Install button at the bottom of the Solaris Product Registry window.

The Product Registry displays the Select Installer dialog box, which initially points to the `/cdrom` directory.

Note - You can install software from local media or over a network.

7. **When you find the installer you want, click its name in the Files box.**

Note - The Solaris Web Start installer is named `Installer` or `installer`.

---

8. **Click OK.**
   The installer you selected is launched.

9. **Follow the directions displayed by the installer you selected to install the software.**

▼ To Uninstall Products

1. **Do you want to uninstall a software product or products installed on the system?**
   - If no, stop, you're done.
   - If yes, go to the next step.

2. **If the Solaris Product Registry is not already running, type:**
   `/usr/bin/prodreg`

Note - In most cases, you do not need to specify the path `/usr/bin/`.

   The Solaris Product Registry window, which contains the System registry, is displayed.

3. **To view the list of installed and registered software, click the turner control to its left.**

4. **Select the software you want to uninstall by clicking its name in the window titled "Software installed in Solaris Registry."**

5. **Read the software attributes to make sure this is the software you want to uninstall.**

6. **Click the Uninstall** *software_product_name* **button at the bottom of the Solaris Product Registry window.**
   The software product you selected is uninstalled.

Adding and Removing Packages With Admintool

This section describes how to add and remove software packages through the Admintool graphical user interface.

▼ To Add Packages With Admintool

Note - Unless you are a member of the UNIX® system administrator group (group 14), you must become superuser on your system to add or remove software packages with Admintool.

---

1. **Log in to the installed or upgraded system and become superuser:**

   ```
   # su
   ```

2. **Insert the CD that contains the software you want to add to the system into the CD-ROM drive attached to the system.**

   Volume Manager automatically mounts the CD.

3. **Note the directory path to the software on the CD you want to add.**

4. **Start Admintool:**

   ```
   # admintool &
   ```

   The Users window is displayed:

Admintool: Users

File   Edit   Browse   Help

User Name	User ID	Comment
adm	4	Admin
bin	2	
daemon	1	
listen	37	Network Admin
lp	71	Line Printer Admin
noaccess	60002	No Access User
nobody	60001	Nobody
nobody4	65534	SunOS 4.x Nobody
nuucp	9	uucp Admin
root	0	Super-User
sys	3	
uucp	5	uucp Admin

Host: pubs

5. From the Browse menu, choose Software.

The Software window is displayed:

Admintool: Software

File   Edit   Browse   Properties   Help

All Software   ⌄   Size (MB)

```
End User System Support 2.3
    1 1 OS Specific Functionality 1.0.0
        Adaptec 29xx/39/xx/78xx Family of SCSI HBA 5.8/ps28_xx
        Adaptec AHA-29xx/39xx, AIC-78xx Ultra 2 SCSI HBA 5.8/ps28_xx
        Buslogic FlashPoint Ultra PCI SCSI 5.8/ps28_xx
        COMPAQ Hot Plug PCI controller driver 5.8/ps28_xx
        Compaq Family SCSI HBA 5.8/ps28_xx
        Compaq NetFlex Family NIC 5.8/ps28_xx
        Compaq PSMI MP Module 5.8/ps28_xx
        Compaq SMART-2/E Family of Array Controller 5.8/ps28_xx
        Corollary PSMI MP Module 5.8/ps28_xx
        MEGA Family SCSI Host Bus Adapter 5.8/ps28_xx
```

Show Details...   Host: pubs

6. From the Edit menu, choose Add.

7. Did the Set Source Media window appear?

Admintool: Set Source Media

Software Location: CD with Volume Management   ⌄

CD Path: /cdrom/cdrom0/s0

OK   Cancel   Help
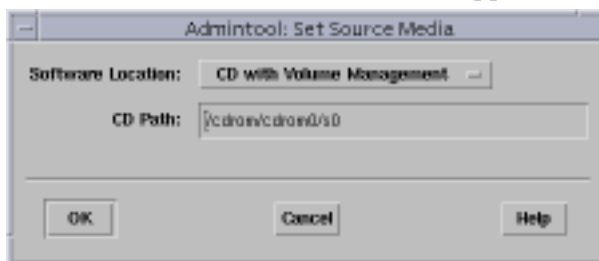
- If no, go to the next step.
- If yes, and if it isn't already displayed in the CD Path box, specify the directory path to the CD you noted in Step 3 on page 145 and click OK.

The Add Software window is displayed:
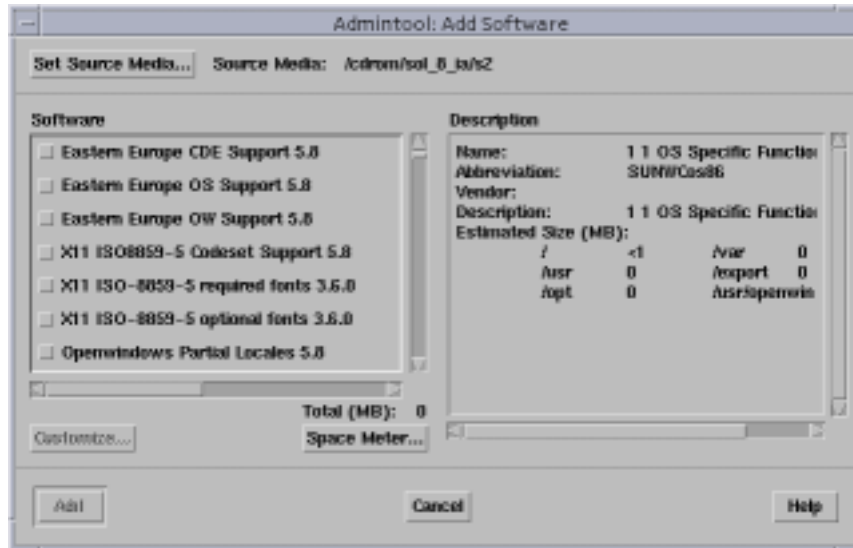
8. **In the Software portion of the window, select the software you want to install on the local system:**
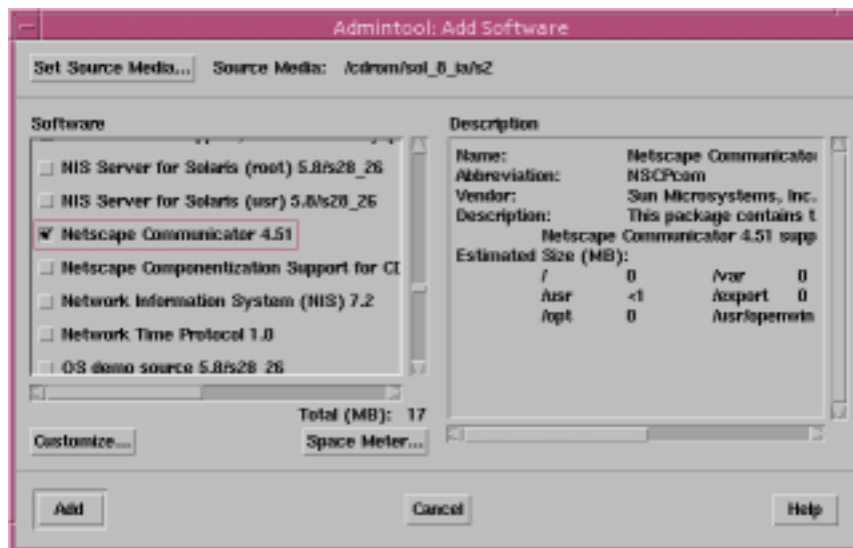
9. Click Add.

The Add Software terminal window appears, in which a message is displayed as each component of the software is added:
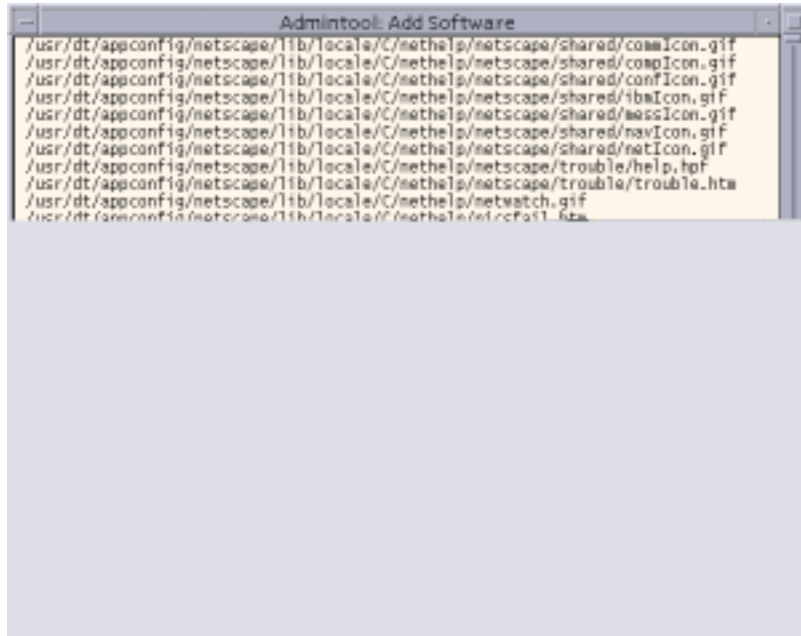
When all the components that make up the software you selected are added, the following message is displayed:

```
Installation of <name_of_software> was successful. press <Return> to continue
```

10. Press Enter.

The Add Software terminal window is dismissed, and the Software window is displayed so you can continue to add software.

11. When you're done adding software, from the File menu, choose Exit.

▼ To Remove Packages With Admintool

Note - Unless you are a member of the UNIX system administrator group (group 14), you must become superuser on your system to add or remove software packages with Admintool.

1. **Log in to the installed or updated system and become superuser:**

```
# su
```

2. **Start Admintool:**

```
# admintool &
```

The Users window is displayed:
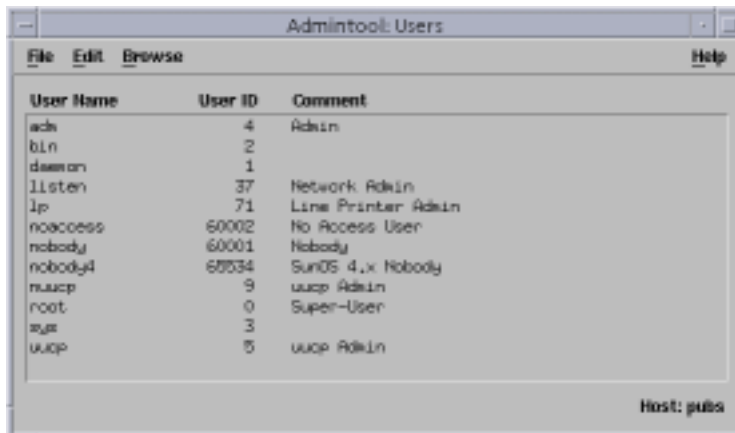
3. **From the Browse menu, choose Software.**

The Software window is displayed:
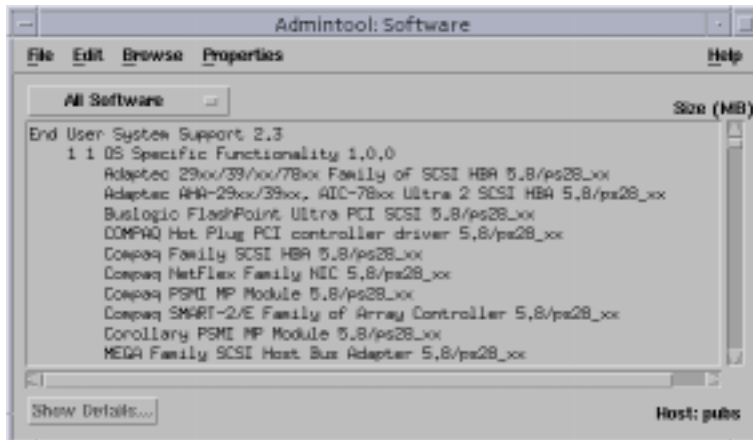
4. **Select the software you want to delete by highlighting it.**

5. From the Edit menu, choose Delete.

The Warning dialog box is displayed, and you are prompted to confirm that you want to delete the software:
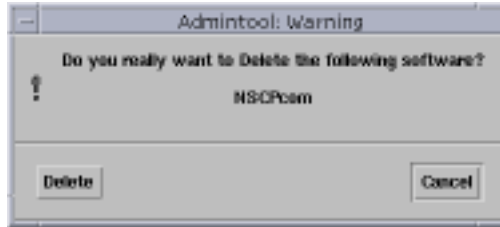
6. On the Warning dialog box, click Delete.

The Delete Software terminal window is displayed with messages that are generated as the software is being deleted:
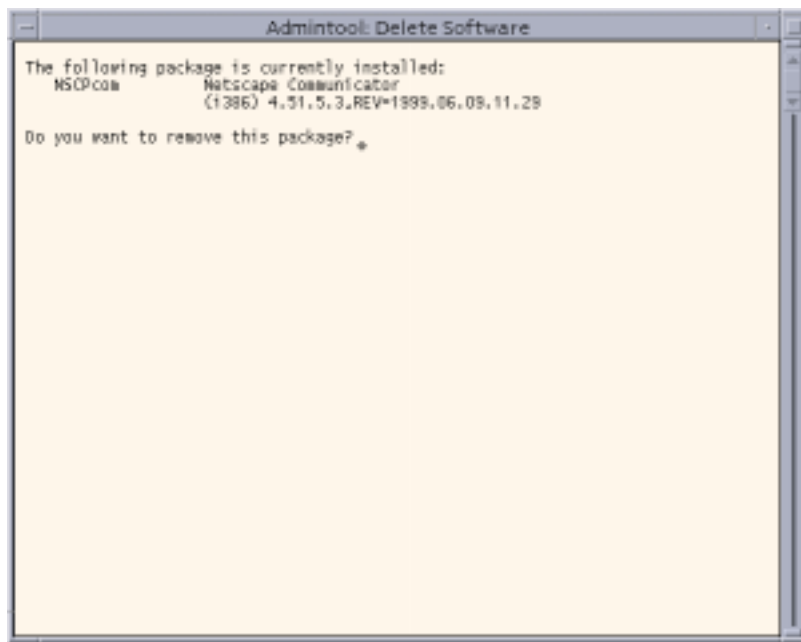
You are prompted to confirm that you want to delete each software package you selected.

7. At each prompt, type y**,** n**, or** q**.**

A message is displayed as each component of the software is deleted. When all the components that make up the software you selected are deleted, the following message is displayed:

```
Removal of <name_of_software> was successful. press <Return> to continue
```

8. **Press Enter.**

   The Delete Software terminal window is dismissed, and the Software window is
   displayed so you can select more software to delete.

9. **When you're done deleting software, from the File menu, choose Exit.**

Adding and Removing Packages With `pkgadd` and `pkgrm`

▼ To Add Packages With `pkgadd`

1. **Log in to the installed or updated system and become superuser:**

   ```
   # su
   ```

2. **Insert the CD that contains the software you want to add to the system into the
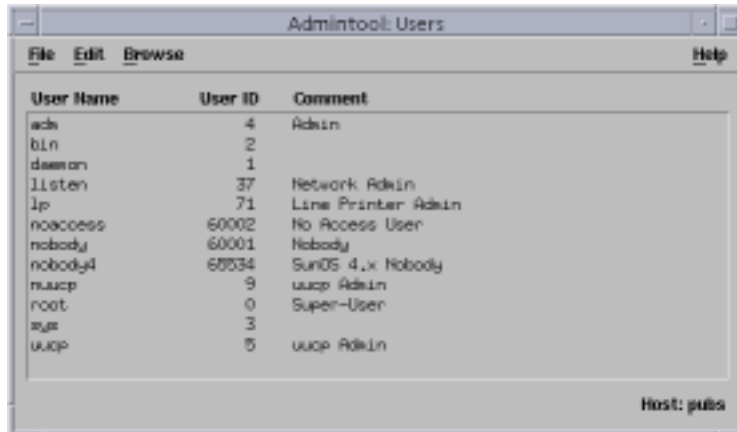   CD-ROM drive attached to the system.**

   Volume Manager automatically mounts the CD.

3. **Note the directory path to the software on the CD you want to add.**

4. **Add one or more packages to the system:**

   ```
   # /usr/sbin/pkgadd -d device_name pkgid
   ```

   where:

device_name	Is the directory path to the CD that contains the software you want to add to the installed system.
pkgid	Is the name of the software package to be added to the installed system. For example, SUNWaudio.

5. When you're done, use the pkgchk**(1M) command to verify that the package is installed correctly:**

```
# /usr/sbin/pkgchk -v pkgid
```

If no errors are found, pkgchk returns a list of installed files. If an error is found, pkgchk returns a message that describes the problem.

Example: Installing Software From a Mounted CD

The following example shows how to use pkgadd to install the SUNWaudio package from a mounted Solaris 8 Software 1 of 2 Intel Platform Edition CD.

Note - The name of this product is Solaris 8 but code and path or package path names might use Solaris_2.8 or SunOS_5.8. Always follow the code or path as it is written.

```
# /usr/sbin/pkgadd -d /cdrom/sol_8_ia/Solaris_8/Product SUNWaudio.
.
.
Installation of <SUNWaudio> was successful.
# pkgchk -v SUNWaudio
/usr
/usr/bin
/usr/bin/audioconvert
/usr/bin/audioplay
/usr/bin/audiorecord
#
```

▼ To Remove Packages With pkgrm

1. Log in to the installed or updated system and become superuser:

```
# su
```

2. Remove one or more packages from the system:

```
# /usr/sbin/pkgrm pkgid
```

Where *pkgid* is the name of the software package you want to remove from the installed system. For example, SUNWaudio.

3. **At each prompt, type** y, n, **or** q **to specify that you want to remove the package, not remove the package, or quit.**

4. **When you're done, use the** pkgchk**(1M) command to verify that the package was removed correctly:**

```
# /usr/sbin/pkgchk -v pkgid
```

If the package was not removed correctly, pkgchk returns a warning message.

Example: Removing Software From a System

The following example shows how to use pkgrm to remove the SUNWaudio package from a system.

```
# /usr/sbin/pkgrm SUNWaudio
The following package is currently installed:
   SUNWaudio      Audio applications
                  (i386) 3.6.20,REV=1.2000.11.7

Do you want to remove this package? y
.
.
.
Removal of <SUNWaudio> was successful.
# pkgchk -v SUNWaudio
WARNING: no pathnames were associated with <SUNWaudio>
#
```

Troubleshooting

This chapter provides a list of specific error messages and generic problems that you might encounter when installing the Solaris software. Some apply specifically to Solaris Web Start, some do not. Start by using the following list to identify where in the installation process the problem is occurring.

Booting a System

Error Messages

```
le0: No carrier - transceiver cable problem
```

Problem	How to fix the problem
The system is not connected to the network.	If this is a non-networked system, ignore this message. If this is a networked system, make sure the Ethernet cabling is attached securely.

```
The file just loaded does not appear to be executable
```

Problem	How to fix the problem
The system cannot find the proper media for booting.	Verify that the system has been set up properly to install over the network from an install server. For example, make sure you specified the correct platform group for the system when you set it up.
	Also, if you did not place an image of the Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition CD on the install server, make sure the Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition CD is mounted and accessible on the install server.

```
Can't boot from file/device
```

Problem	How to fix the problem
The installation program cannot find the Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition CD in the system's CD-ROM drive.	Make sure: ■ The CD-ROM drive is installed properly and is turned on ■ The Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition CD is inserted into the CD-ROM drive

```
Not a UFS filesystem
```

Problem	How to fix the problem
When Solaris software was installed (either through the interactive or custom JumpStart method), the default boot drive was not selected. When an alternate boot disk is selected, you must use the Solaris 8 Device Configuration Assistant to boot the system from that point on.	Insert the diskette labeled Solaris 8 Device Configuration Assistant Intel Platform Edition or the CD labeled Solaris 8 Software 1 of 2 Intel Platform Edition into the system's boot diskette drive (usually the A: drive) or the CD-ROM drive, respectively.

General Problems

Problem	How to fix the problem
System hangs or panics when non-memory PC cards are inserted.	Non-memory PC cards cannot use the same memory resources used by other devices. To correct this, use a DOS debugger to identify device memory usage, then manually reserve memory resources for the PC card device using the following instructions. 1. Boot the system using the Solaris 8 Device Configuration Assistant. 2. When the Solaris Device Configuration Assistant screen is displayed, select F2_Continue. The Bus Enumeration screen is displayed, followed by the Scanning Devices screen. The system is scanned to identify system hardware. When scanning is finished, the Identified Devices screen is displayed. 3. Select F4_Device Tasks. The Device Tasks screen is displayed. 4. Select View/Edit Devices and then press F2_Continue. The View/Edit Devices screen is displayed. 5. Press F3_Add Device. The Add ISA Device screen is displayed. 6. Select Unsupported ISA device and then press F2_Continue. The Select Resource Types screen is displayed. 7. Select Memory and then press F2_Continue. The Specify Memory Resource screen is displayed. 8. Enter the address range to reserve (for example, CA800–CFFFF), and then press F2_Continue. The Select Resource Types screen is displayed. 9. Press F4_Add. The View/Edit Devices screen is displayed. 10. Press F2_Continue. The Device Tasks screen is displayed. 11. Select Save Configuration and then press F2_Continue. The Save Configuration screen is displayed. 12. Type the name you want to assign to the configuration and then press F2_Continue. The Device Tasks screen is displayed. 13. Press F3_Back. The Identified Devices screen is displayed. 14. Press F3_Back. The Solaris Device Configuration Assistant screen is displayed. 15. Press F2_Continue to continue booting your system.

Problem	How to fix the problem
The BIOS primary IDE drive on your system was not detected by the Solaris Device Configuration Assistant during the pre-booting phase.	■ The drive might be unsupported. Check the *Solaris 8 (Intel Platform Edition) Hardware Compatibility List.* ■ Make sure the ribbon and power cables are plugged in correctly. Check the manufacturer's documentation. ■ If only one drive is attached to the controller, designate the drive as the master drive by setting jumpers. Some drives have different jumper settings for a single master, as opposed to a master operating with a slave. Connect the drive to the connector at the end of the cable to reduce signal ringing that occurs when an unused connector is dangling at the end of the cable. ■ If two drives are attached to the controller, jumper one as master (or as master operating with a slave), and the second as slave. ■ If one drive is a hard disk and the second a CD-ROM drive, designate the drive as the slave by setting jumpers. Any drive can be plugged into any connection on the cable. ■ If there are persistent problems with two drives on a single controller, attach one drive at a time to verify that each works. Jumper the drive as master or single master and use the drive connector at the end of the IDE ribbon cable to attach the drive. Verify that each drive works, then jumper the drives back into a master and slave configuration. ■ If the drive is a disk drive, use the BIOS setup utility to ensure that the drive type (which indicates the number of cylinders, heads, and sectors) is correctly configured. Some BIOS software automatically detects a drive type. ■ If the drive is a CD-ROM drive, use the BIOS setup utility to configure the drive type as CD-ROM, if possible. ■ If MS-DOS does not recognize the drive, there is probably a hardware or BIOS configuration problem. For many systems, IDE CD-ROM drives are only recognized by MS-DOS if an MS-DOS CD-ROM driver has been installed.

Problem	How to fix the problem
The IDE disk or CD-ROM drive on your system was not found by the Solaris Device Configuration Assistant in the pre-booting phase.	■ If IDE disks are disabled in the BIOS, use the Solaris Device Configuration Assistant to boot from the hard disk. ■ If the system has no IDE disks, it might be a diskless client.

Problem	How to fix the problem
System hangs before displaying the prompt.	See the *Solaris 8 (Intel Platform Edition) Hardware Compatibility List.*

Installing the Solaris Operating Environment

Problem	How to fix the problem
IDE disk drives do not automatically map out bad blocks like other drives supported by Solaris software. Before installing Solaris on an IDE disk, you might want to perform a surface analysis on the disk.	To perform a surface analysis on an IDE disk: 1. Start the Solaris 8 Interactive Installation Program. You interact with the program through a character user interface (CUI) or a graphical user interface (GUI) if your monitor supports it. 2. When the Solaris Interactive Installation dialog box is displayed, click Exit. A Warning dialog box is displayed. 3. Click Exit. 4. If you are using the GUI installation program, open a Command Tool window for the remaining steps. If you are using the CUI installation program, use the system shell for the remaining steps in this procedure. 5. Type **format** to start the format program. 6. Select the IDE disk drive on which you want to perform a surface analysis.

Note - IDE drives do not include a target number. The IDE drive naming convention is c*x*d*y*, where c*x* is the controller number and d*y* is the device number.

7. At the format> prompt, type **fdisk**. Use the fdisk program to create a Solaris partition on the disk. (If a Solaris fdisk partition already exists, leave it alone.)
8. At the format> prompt, type **analyze**.
9. At the analyze> prompt, type **config**. This command shows you the current settings for a surface analysis. If you want to change any settings, type **setup**.
10. At the analyze> prompt, type **read**, **write**, or **compare** for the type of surface analysis to be performed. If format finds bad blocks, it will re-map them.
11. At the analyze> prompt, type **quit**.
12. Do you want to specify blocks to re-map? If yes, at the format> prompt, type **repair**. Otherwise, go to the next step.
13. Continue to type **quit** until you exit the format program to the system prompt.
14. Choose Restart Install from the Workspace menu to resume the GUI installation, or type **suninstall** to resume the CUI installation.

```
WARNING: CHANGE DEFAULT BOOT DEVICE
```

Problem	How to fix the problem
The default boot device set in the system's BIOS might be set to a device that requires your using the Solaris 8 Device Configuration Assistant Intel Platform Edition diskette to boot the system. This is an informational message.	Continue with the installation and, if necessary, change the system's default boot device specified in the BIOS after you install the Solaris software to a device that does not require the Solaris 8 Device Configuration Assistant Intel Platform Edition diskette.

Upgrading Solaris Software

This section describes possible solutions for problems you might encounter when upgrading Solaris software.

Error Messages

```
No upgradeable disks
```

Problem	How to fix the problem
A `swap` entry in the `/etc/vfstab` file is causing the upgrade to fail.	Comment out the following lines in the `/etc/vfstab` file: ■ All `swap` files and slices on disks not being upgraded ■ `swap` files that are no longer present ■ Any unused `swap` slices

General Problems

Problem	How to fix the problem
The upgrade fails because Solaris Web Start cannot find an IA boot partition. Solaris Web Start consequently attempts to perform an initial upgrade. Ultimately, the message:	If your system's BIOS supports the changing of the default boot device from one device to another:

The upgrade fails because Solaris Web Start cannot find an IA boot partition. Solaris Web Start consequently attempts to perform an initial upgrade. Ultimately, the message:

```
Please choose another installation option,
see the Solaris install Documentation for more
details.
#
```

is displayed and Solaris Web Start exits.

Note - You cannot use Solaris Web Start to upgrade to Solaris 8 from Solaris 7 or earlier versions of the Solaris operating environment because it uses a different method to install Solaris software (a separate 10–Mbyte IA boot partition).

You must instead use the Solaris 8 Interactive Installation Program, which is described in more detail in "Using the Solaris 8 Interactive Installation Program" in *Solaris 8 Advanced Installation Guide*.

If your system's BIOS supports the changing of the default boot device from one device to another:

1. Add a second disk to the system and manually create a Solaris fdisk partition and IA boot partition *greater than or equal to 10 Mbytes* on the second disk.

Note - The second disk must either be LBA enabled (logical block address enabled—that is, sectors on the disk are mapped and addressed linearly) or contain fewer than 1024 cylinders. To determine if the second disk is LBA enabled or CHS enabled (cylinder/head/sector enabled—that is, addressing of the disk is by cylinder, head, and sector number), type:

`# `**`prtconf -pv | grep lba`**

If lba-access-ok is displayed, the second disk is LBA enabled. If lba-access-ok is *not* displayed, the second disk is CHS enabled.

2. Use your system's BIOS setup tool to identify the second disk as the default boot device.
3. Format the Solaris partition so that it contains a swap slice that is large enough to hold the Solaris software (a minimum of 256 Mbytes is required, but 512 Mbytes is recommended; a minimum of 320 Mbytes is required for Solaris 8 Installation Multilingual Intel Platform Edition).
4. Upgrade the Solaris software on the first disk by booting from the second disk.

Problem	How to fix the problem
The upgrade fails because the installation program could not mount metadevices on the system.	Metadevices cannot be upgraded automatically. Instructions are included in the "Upgrading to Other Solaris Versions" in the *Solstice DiskSuite 4.2 Reference Guide*.

Problem	How to fix the problem
The upgrade option is not presented even though there is a version of Solaris software that can be upgraded on the system.	
Reason 1: The /var/sadm directory is a symbolic link or it is mounted from another file system.	*Solution for Reason 1:* Move the /var/sadm directory into the root (/) or /var file system.

Reason 2: The /var/sadm/softinfo/ INST_RELEASE file is missing.	*Solution for Reason 2:* Create a new INST_RELEASE file by using the following template:
	
	`OS=Solaris`
	`VERSION=2.x`
	`REV=0`
	
	where *x* is the version of Solaris software on the system.

Problem	How to fix the problem
The upgrade fails for reasons beyond your control, such as a power failure or a network connection failure, and the system is left in an unbootable state.	1. Reboot the system from the Solaris 8 Installation English Intel Platform Edition or Solaris 8 Installation Multilingual Intel Platform Edition CD, or from the network. 2. Choose the upgrade option for installation. Solaris Web Start determines if the system has been partially upgraded and will continue the upgrade where it left off.

Problem	How to fix the problem
The upgrade fails because the installation program could not mount a file system. During an upgrade, the installation program attempts to mount all the file systems listed in the system's /etc/vfstab file on the root (/) file system being upgraded. If the installation program cannot mount a file system, it fails and exits.	Make sure all file systems in the system's /etc/ vfstab file can be mounted. Comment out any file systems in the /etc/vfstab file that cannot be mounted or that might cause the problem, so the installation program doesn't try to mount them during the upgrade. **Note -** Any system-based file systems that contain software to be upgraded (for example, /usr) cannot be commented out.

Problem	How to fix the problem
There is not enough space on the system for the upgrade. See if you can fix this problem without using auto-layout to rearrange space, by checking the following reasons for the space problem:	
Reason 1: Since the automounter is not active during an upgrade, the installation program installs any files or directories in a package that are symbolic links to automounted file systems. If a symbolic link is overwritten, the upgrade might fail because of insufficient disk space.	*Solution for Reason 1:* During the upgrade, delete software packages that will create files or directories on the automounted file systems. Then the installation program does not overwrite the symbolic link with the files or directories in the package.
Note - The /var/mail and /var/news directories, which usually reside on an automounted file system, are not affected by an upgrade.	
Reason 2: New software has been added to the software group that you are upgrading or some of the existing software has increased in size. During an upgrade, the installation program installs any new software that is part of the software group previously installed on the system, and it also upgrades any existing packages on the system.	*Solution for Reason 2:* During the upgrade, delete software packages that are installed in the file systems that need more space. Especially look for any new packages that have been added to the Solaris software that you don't need.

Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD

This appendix lists and describes the packages included on the CD labeled Solaris 8 Software 1 of 2 Intel Platform Edition.

TABLE A–1   Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD

This Package	Contains
AMImega	MEGA Family SCSI Host Bus Adapter
CPQcnft	Compaq NetFlex Family NIC
CPQncr	Compaq Family SCSI HBA
CPQsmii	Compaq SMART-2/E Family of Array Controller
MADGFmt	Madge Token Ring Family of NIC
MYLXflp	Buslogic FlashPoint Ultra PCI SCSI
NCRos86r	NCR Platform Support, OS Functionality (root)
NSCPcom	Application and configuration files of Netscape Communicator 4.7 supporting International security
NSCPcpcom	Simplified Chinese partial version of Netscape Communicator 4.7 supporting International security

This Package	Contains
NSCPhpcom	Traditional Chinese partial version of Netscape Communicator 4.7 supporting International security
NSCPjacom	Japanese (common) localization of Netscape Communicator 4.7 supporting International security
NSCPkpcom	Korean Partial version of Netscape Communicator 4.7 supporting International security
SUNW1251f	Russian additional locale fonts (1251)
SUNW5dt	Traditional Chinese Localizations for CDE Desktop Login Environment
SUNW5leu	Traditional Chinese Language Environment specific files; it is a required package to run Traditional Chinese BIG5 Language Environment
SUNW5ttf	Traditional Chinese True Type Fonts Package
SUNW5xmft	Chinese/Taiwan BIG5 X Window System Platform Required Fonts Package
SUNW5xplt	Traditional Chinese BIG5 X Window System Platform Software Package
SUNWadmap	Software used to perform system administration tasks
SUNWadmc	Core software libraries used for system administration
SUNWadmfw	System and network administration libraries and services
SUNWadmj	Java libraries used for system administration tools
SUNWadmr	root programs and scripts for initializing system installation
SUNWadp	Adaptec 29xx/39/xx/78xx Family of SCSI HBAs
SUNWale	Common files shared by Chinese, Japanese, and Korean locales; it is a required package to run Asian Language Environment
SUNWaled	Man pages shared by Chinese, Japanese, and Korean locales
SUNWami	Authentication Management Infrastructure (AMI) - core libraries and utilities

This Package	Contains
SUNWamir	Authentication Management Infrastructure (AMI) - configuration files
SUNWarrf	X11 fonts for Arabic character set (required fonts)
SUNWatfsr	Configuration and start-up files for the AutoFS file system
SUNWatfsu	Utilities and a daemon (automountd) for the AutoFS file system
SUNWauadt	Australasia CDE Support
SUNWauaos	Australasia OS Support
SUNWauaow	Australasia OW Support
SUNWaudd	SunOS audio device drivers using the new audio driver architecture
SUNWaudio	Audio binaries
SUNWcadp	Adaptec AHA-29xx/39xx, AIC-78xx Ultra 2 SCSI HBAs
SUNWcamdt	Central America CDE Support
SUNWcamos	Central America OS Support
SUNWcamow	Central America OW Support
SUNWcar.i	Core software for a specific hardware platform group
SUNWcdt	Simplified Chinese (EUC) Localizations for CDE Desktop Login Environment
SUNWceudt	Central Europe CDE Support
SUNWceuos	Central Europe OS Support
SUNWceuow	Central Europe OW Support
SUNWciu8	Simplified Chinese (EUC) iconv modules for UTF-8

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWcleu	Simplified Chinese (EUC) Language Environment specific files; it is a required package to run Simplified Chinese (EUC) Language Environment
SUNWcor	Corollary PSMI MP Module
SUNWcpmp	Compaq PSMI MP Module
SUNWcqhpc	Driver for COMPAQ Hot Plug PCI Controller
SUNWcsd	Core entries for /dev and /devices needed for the initial boot of Solaris
SUNWcsl	Core shared libraries for a specific instruction-set architecture
SUNWcsr	Core software for a specific instruction-set architecture
SUNWcsu	Core software for a specific instruction-set architecture
SUNWctlu	Print utilities for CTL locales
SUNWctpls	Layout interface for language engines
SUNWcttf	Simplified Chinese (EUC) True Type Fonts
SUNWcudt	Simplified Chinese (UTF-8) Localizations for CDE Desktop Login Environment
SUNWcufnt	Simplified Chinese (UTF-8) X Window System Platform Required Fonts
SUNWculeu	Simplified Chinese (UTF-8) Language Environment specific files; it is a required package to run Simplified Chinese (UTF-8) Language Environment
SUNWcuplt	Simplified Chinese (UTF-8) X Window System Platform Software Package
SUNWcxmft	Simplified Chinese (EUC) X Window System Platform Required Fonts
SUNWcxplt	Simplified Chinese (EUC) X Window System Platform Software Package
SUNWdeis	German install software localization

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWdespl	Spell Checking Engine - German Dictionary
SUNWdoc	Utilities and fonts for development, display, and production of documentation such as manual pages (`nroff/troff`)
SUNWdtbas	CDE application basic Runtime environment
SUNWdtcor	Solaris Desktop `/usr/dt` file system anchor
SUNWdtct	UTF-8 Code Conversion Tool
SUNWdtdmn	Daemons for the Common Desktop Environment, CDE
SUNWdtdst	CDE Desktop Applications
SUNWdtdte	Solaris Desktop Login Environment
SUNWdtezt	Address Manager, Process Manager, File Finder, Perfmeter, Workstation Info
SUNWdthe	CDE Help Runtime environment
SUNWdthev	CDE Help Volumes
SUNWdthez	Desktop Power Pack Help Volumes
SUNWdticn	Icons for the Common Desktop Environment, CDE
SUNWdtim	Solaris CDE Image Viewer
SUNWdtjxt	Java Extensions
SUNWdtlog	System boot for Desktop Login
SUNWdtnsc	Netscape Componentization Support for CDE
SUNWdtrme	Common Desktop Environment (CDE) release documentation
SUNWdtscm	CDE Dtpower Schemes

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWdtwm	CDE Desktop Window Manager
SUNWeeudt	Eastern Europe CDE Support
SUNWeeuos	Eastern Europe OS Support
SUNWeeuow	Eastern Europe OW Support
SUNWesis	Latin Spanish install software localization
SUNWesspl	Spell Checking Engine - Spanish Dictionary
SUNWesu	Additional UNIX system utilities, including `awk`, `bc`, `cal`, `compress`, `diff`, `dos2unix`, `last`, `rup`, `sort`, `spell`, `sum`, `uniq`, and `uuencode`
SUNWeudba	American English/UTF-8 L10N for CDE Base
SUNWeudbd	American English/UTF-8 L10N for CDE Dtbuilder
SUNWeudda	American English/UTF-8 L10N for CDE Desktop Applications
SUNWeudhr	American English/UTF-8 L10N for CDE Help Runtime
SUNWeudhs	American English/UTF-8 L10N for CDE Help Runtime
SUNWeudis	American English/UTF-8 L10N for CDE Icons
SUNWeudiv	American English/UTF-8 L10N for Desktop Image tools
SUNWeudlg	American English/UTF-8 L10N for CDE Desktop Login Environment
SUNWeudmg	American English/UTF-8 L10N for Desktop Window Manager
SUNWeuezt	American English/UTF-8 L10N for Desktop Power Pack Applications
SUNWeugrf	X11 fonts for sun_eu_greek character set

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWeuluf	American English/UTF-8 L10N for Environment User Files
SUNWeuodf	American English/UTF-8 Core OPEN LOOK Desktop Files
SUNWeusru	American English/UTF-8 L10N for Solaris User Registration
SUNWeuxwe	American English/UTF-8 X Window System Environment
SUNWfdl	Solaris Desktop Font Downloader for Adobe PostScript printers
SUNWfns	Federated Naming Service (XFN) - core libraries and utilities
SUNWfris	French install software localization
SUNWfrspl	Spell Checking Engine - French Dictionary
SUNWftpr	File Transfer Protocol Daemon and Utilities
SUNWftpu	File Transfer Protocol Daemon and Utilities
SUNWgdt	Simplified Chinese (GBK) Localizations for CDE Desktop Login Environment
SUNWgleu	Simplified Chinese (GBK) Language Environment specific files; it is a required package to run Simplified Chinese (GBK) Language Environment
SUNWgss	Generic Security Service Application Program Interface, Version 2 - user
SUNWgssc	Generic Security Service Application Program Interface, Version 2 - config
SUNWgssdh	GSS-API mechanism libraries for NIS+ extended Diffie-Hellman
SUNWgssk	Generic Security Service Application Program Interface, Version 2 - kernel
SUNWgttf	Simplified Chinese (GBK) True Type Fonts
SUNWgxfnt	Simplified Chinese (GBK) X Window System Platform Required Fonts

TABLE A–1   Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWgxplt	Simplified Chinese (GBK) X Window System Platform Software Package
SUNWhdt	Traditional Chinese Localizations for CDE Desktop Login Environment
SUNWhiu8	Traditional Chinese iconv modules for UTF-8
SUNWhler	Stream modules for Traditional Chinese Language Environment; it is a required package to run Traditional Chinese Language Environment
SUNWhleu	Traditional Chinese Language Environment specific files; it is a required package to run Traditional Chinese Language Environment
SUNWhttf	Traditional Chinese True Type Fonts Package
SUNWhudt	Traditional Chinese (UTF-8) Localizations for CDE Desktop Login Environment
SUNWhufnt	Simplified Chinese (UTF-8) X Window System Platform Required Fonts
SUNWhuleu	Traditional Chinese (UTF-8) Language Environment specific files; it is a required package to run Traditional Chinese UTF-8 Language Environment
SUNWhuplt	Traditional Chinese UTF-8 X Window System Platform Software Package
SUNWhxfnt	Traditional Chinese X Window System Platform Required Fonts Package
SUNWhxplt	Traditional Chinese X Window System Platform Software Package
SUNWi13cs	X11 ISO-8859-13 Codeset Support
SUNWi13rf	X11 fonts for ISO-8859-13 character set (required fonts)
SUNWi15cs	X11 ISO-8859-15 Codeset Support
SUNWi15rf	X11 fonts for ISO-8859-15 character set (required fonts)
SUNWi1cs	X11 ISO-8859-1 Codeset Support
SUNWi1of	ISO-8859-1 (Latin-1) Optional Fonts

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWi2cs	X11 ISO-8859-2 Codeset Support
SUNWi2of	X11 fonts for ISO-8859-2 character set (optional fonts)
SUNWi2rf	X11 fonts for ISO-8859-2 character set (required fonts)
SUNWi4of	X11 fonts for ISO-8859-4 character set (optional fonts)
SUNWi4rf	X11 fonts for ISO-8859-4 character set (required fonts)
SUNWi5cs	X11 ISO-8859-5 Codeset Support
SUNWi5of	X11 fonts for ISO-8859-5 character set (optional fonts)
SUNWi5rf	X11 fonts for ISO-8859-5 character set (required fonts)
SUNWi7cs	X11 ISO-8859-7 Codeset Support
SUNWi7of	X11 fonts for ISO-8859-7 character set (optional fonts)
SUNWi7rf	X11 fonts for ISO-8859-7 character set (required fonts)
SUNWi8rf	X11 fonts for ISO-8859-8 character set (required fonts)
SUNWi9cs	X11 ISO-8859-9 Codeset Support
SUNWi9of	X11 fonts for ISO-8859-9 character set (optional fonts)
SUNWi9rf	X11 fonts for ISO-8859-9 character set (required fonts)
SUNWiiimr	Internet/Intranet Input Method Framework (`root`)
SUNWiiimu	Internet/Intranet Input Method Framework (`usr`)
SUNWinst	Sun installation software
SUNWipc	Utilities to monitor or remove messages, semaphores, or shared memory for interprocess communication

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWislcc	XSH4 conversion for Eastern European locales
SUNWisolc	XSH4 conversion for ISO Latin character sets
SUNWitis	Italian install software localization
SUNWitspl	Spell Checking Engine - Italian Dictionary
SUNWj2dem	Demonstration applications and applets
SUNWj2pi	Configuration files for Java Plug-In 1.2.2
SUNWj2rt	Java virtual machine and core class libraries
SUNWjc0r	Japanese Kana-Kanji Conversion Server cs00 `root` Files
SUNWjc0u	Japanese Kana-Kanji Conversion Server cs00 User Files
SUNWjedt	Japanese (EUC) Localization for CDE Desktop Login Environment
SUNWjeuc	Japanese (EUC) Feature Package specific files for `usr`; it is a required package to support EUC environment
SUNWjexpl	Japanese (EUC) Localizations for X Window System platform software
SUNWjfpr	Stream modules for Japanese Feature Package (JFP); it is a required package to run JFP environment
SUNWjfpu	Japanese Feature Package (JFP) specific files for `usr`; it is a required package to run JFP environment
SUNWjiu8	Japanese iconv modules, which convert data between {eucJP PCK} and UTF-8
SUNWjman	Japanese Feature Package Man Pages to see English man pages for `SUNWjfpr` and `SUNWjfpu`
SUNWjmfp	JMF player

TABLE A–1   Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWjpck	Japanese (PCK - PC Kanji Code) Feature Package specific files; it is a required package to support PCK environment
SUNWjpdt	Japanese (PCK) Localization for CDE Desktop Login Environment
SUNWjpxpl	Japanese (PCK) Localizations for X Window System platform software
SUNWju8	Japanese (UTF-8) Feature Package specific files; it is a required package to support Japanese UTF-8 environment
SUNWjudt	Japanese (UTF-8) Localization for CDE Desktop Login Environment
SUNWjuxpl	Japanese (UTF-8) Localizations for X Window System platform software
SUNWjvjit	Java JIT compiler
SUNWjvrt	JavaVM Runtime environment, includes java, appletviewer, and classes.zip
SUNWjxcft	Japanese JISX212 TrueType and bitmap fonts
SUNWjxmft	Japanese X Window System Minimum Required Fonts - gothic medium
SUNWkdt	Korean Localizations for CDE Desktop Login Environment
SUNWkey	Configuration tables that specify keyboard attributes such as localized meanings for individual keys
SUNWkiu8	Korean UTF-8 iconv modules for UTF-8
SUNWkler	Stream modules for Korean Language Environment; it is a required package to run Korean Language Environment
SUNWkleu	Korean Language Environment specific files; it is a required package to run Korean Language Environment
SUNWkoi8f	X11 fonts for KOI8-R character set
SUNWkttf	Korean True Type Fonts
SUNWkudt	Korean/UTF-8 Localizations for CDE Desktop Login Environment

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWkuleu	Korean UTF-8 Language Environment specific files; it is a required package to run Korean Language Environment
SUNWkuxpl	Korean UTF-8 X Window System Platform Software Package
SUNWkvm.i	Core software for a specific hardware platform group
SUNWkxfnt	Korean X Window System Platform Required Fonts
SUNWkxmft	Korean UTF-8 X Window System Platform Required Fonts
SUNWkxplt	Korean X Window System Platform Software Package
SUNWlccom	Localization common files
SUNWlcl	Locale Conversion Library
SUNWlibC	Sun Workshop Compilers Bundled libC
SUNWlibCf	Sun WorkShop Bundled libC (cfront version)
SUNWlibms	Sun WorkShop Bundled shared libm
SUNWllc	LLC2 driver implementing IEEE 802.2 Logical Link Control 2 service
SUNWllcr	The configuration and startup files for llc2 driver
SUNWloc	Localization utilities and C locale (POSIX default) definitions
SUNWlpmsg	ToolTalk programs for passing printer alerts
SUNWmeadt	Middle East CDE Support
SUNWmeaos	Middle East OS Support
SUNWmeaow	Middle East OW Support
SUNWmfrun	Motif 2.1.1 libraries, headers, xmbind and bindings

TABLE A–1   Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWmgapp	Solaris Management Applications
SUNWmibii	Solstice Enterprise Agents 1.0.3 snmp daemon
SUNWmlx	Mylex DAC960 Family of RAID devices
SUNWmp	MP Print Filter
SUNWnafdt	Northern Africa CDE Support
SUNWnafos	Northern Africa OS Support
SUNWnafow	Northern Africa OW Support
SUNWnamdt	North America CDE Support
SUNWnamos	North America OS Support
SUNWnamow	North America OW Support
SUNWneudt	Northern Europe CDE Support
SUNWneuos	Northern Europe OS Support
SUNWneuow	Northern Europe OW Support
SUNWnisr	Configuration files and directories for the Network Information System (NIS and NIS+)
SUNWnisu	Utilities for the Network Information System (NIS and NIS+)
SUNWntpr	Network Time Protocol v3, NTP Daemon and Utilities (xntpd 3.4y)
SUNWntpu	Network Time Protocol v3, NTP Daemon and Utilities (xntpd 3.4y)
SUNWolaud	Audiotool and other auxiliary audio support
SUNWolbk	OpenWindows online handbooks

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWoldcv	OPEN LOOK document and help view applications
SUNWoldst	OPEN LOOK deskset tools
SUNWoldte	OPEN LOOK Desktop Environment (olwm, props, wsinfo, etc.)
SUNWolimt	OPEN LOOK imagetool
SUNWolrte	OPEN LOOK toolkits Runtime environment
SUNWos86r	Platform Support, OS Functionality (root)
SUNWos86u	Platform Support, OS Functionality (root)
SUNWpcelx	3COM EtherLink III PCMCIA Ethernet Driver
SUNWpcmci	Kernel modules and start-up files for PCMCIA card services
SUNWpcmcu	Daemon providing PCMCIA card services
SUNWpcmem	PCMCIA memory card driver
SUNWpcr	Client configuration files and utilities for the print service
SUNWpcser	PCMCIA serial card driver
SUNWpcu	Client configuration files and utilities for the print service
SUNWpdas	Tools to synchronize desktop applications with the Palm Pilot PDA
SUNWpe10	Xircom parallel port Ethernet adaptor
SUNWpl5u	Perl 5 programming language
SUNWplow	OpenWindows enabling for Partial Locales
SUNWplow1	OpenWindows enabling for Supplementary Partial Locales

TABLE A–1   Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWpmi	X Server VESA PMI files
SUNWpmowr	Power Management OW Utilities, (root)
SUNWpmowu	Power Management OW Utilities, (usr)
SUNWpmr	Power Management config file and rc script
SUNWpmu	Power Management binaries
SUNWppm	Graphical tool for managing printers under Solaris
SUNWpsdcr	Platform Support, Bus-independent Device Drivers, (root)
SUNWpsdir	Platform Support, ISA Bus Device Drivers, (root)
SUNWpsdpr	PCMCIA ATA card driver
SUNWpsf	Client configuration files and utilities for the print service
SUNWpsr	Configuration and start-up files for the print service
SUNWpsu	Client configuration files and utilities for the print service
SUNWrdm	OILBN ReadMe Directory
SUNWrmodr	Realmode Modules, (root)
SUNWrmodu	Realmode Modules, (usr)
SUNWrsg	GSS-API services for ONC RPC
SUNWrsgk	Kernel GSS-API services for ONC RPC
SUNWsacom	Solstice Enterprise Agents 1.0.3 files for root file system
SUNWsadmi	Solstice Enterprise Agents 1.0.3 Desktop Management Interface

This Package	Contains
SUNWsamdt	South America CDE Support
SUNWsamos	South America OS Support
SUNWsamow	South America OW Support
SUNWsasnm	Solstice Enterprise Agents 1.0.3 Simple Network Management Protocol
SUNWscplp	Print utilities for user interface and source build compatibility with SunOS 4.x
SUNWscpr	Utilities for user interface and source build compatibility with SunOS 4.x
SUNWscpu	Utilities for user interface and source build compatibility with SunOS 4.x
SUNWseudt	Southern Europe CDE Support
SUNWseuos	Southern Europe OS Support
SUNWseuow	Southern Europe OW Support
SUNWslpr	root file system portion of the Service Location Protocol (SLP) framework; includes the SLP configuration file and start scripts for the SLP daemon
SUNWslpu	usr file system portion of the Service Location Protocol (SLP) framework; included are C and Java developer libraries and a daemon which can act as a directory agent (DA)
SUNWsndmr	Sendmail root
SUNWsndmu	Sendmail user
SUNWsolnm	Enable Solaris Name in /etc/release file
SUNWspl	Spell Checking Engine - Base Release (English)
SUNWsregu	Solaris User Registration prompts at desktop login for user registration information

TABLE A–1   Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWsvis	Swedish install software localization
SUNWsvspl	Spell Checking Engine - Swedish Dictionary
SUNWswmt	Solaris 2.x Install and Patch Utilities
SUNWtdbas	Thai Localizations for CDE Base functionality
SUNWtddst	Thai Localizations for CDE Desktop Applications
SUNWtddte	Thai Localizations for CDE Desktop Login Environment
SUNWtdft	Thai Localizations for CDE Fonts
SUNWtdwm	Thai Localizations for CDE Desktop Window Manager
SUNWtiu8	Thai UTF-8 iconv modules for UTF-8
SUNWtleu	Thai Language Environment specific files; it is a required package to run Thai Language Environment
SUNWtltk	ToolTalk binaries and shared libraries needed for Common Desktop Environment (CDE), OpenWindows, and all ToolTalk clients
SUNWtoo	Utilities for software development, including ld, ldd, od, and truss
SUNWtxfnt	Thai X Window System Platform Required Fonts Package
SUNWtxodt	Thai Core OPEN LOOK Desktop Package
SUNWtxplt	X Window System Platform Software Package
SUNWudf	Universal Disk Format 1.50 File System, (usr)
SUNWudfr	Universal Disk Format 1.50 File System
SUNWuiu8	Iconv modules for UTF-8 Locale

TABLE A–1   Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWuium	Iconv Manual pages for UTF-8 Locale
SUNWulcf	UTF-8 Locale Environment Common Files
SUNWulocf	UTF-8 Locale Environment OpenWindows Common Files
SUNWusb	USBA (USB framework) and USB Device Drivers
SUNWuxlcf	UTF-8 X Locale Environment Common Files
SUNWvolg	Volume Management Graphical User Interface
SUNWvolr	Configuration and start-up files for volume (removable media) management and volfs
SUNWvolu	Utilities and a daemon (vold) for volume (removable media) management and volfs
SUNWwbapi	Solaris WBEM API
SUNWwbcor	Solaris WBEM Services (root)
SUNWwbcou	Solaris WBEM Services (usr)
SUNWweudt	Western Europe CDE Support
SUNWweuos	Western Europe OS Support
SUNWweuow	Western Europe OW Support
SUNWwsr	Product registry, viewer, and Web Start support
SUNWxcu4	Utilities providing conformance with XCU4 specifications
SUNWxi18n	Runtime library loaded by libX11.so, and provides input and output capability for internationalized X Window System applications
SUNWxildh	XIL Loadable Pipeline Libraries

This Package	Contains
SUNWxilow	XIL Deskset Loadable Pipeline Libraries
SUNWxilrl	XIL Runtime Environment
SUNWxim	X Input Method server provides different styles of input
SUNWxsvc	Xinside Xserver pseudo driver
SUNWxwacx	AccessX client program
SUNWxwcft	X Window System optional fonts
SUNWxwcsl	Font support library for Type1/CID fonts
SUNWxwdv	Kernel device drivers for X Window System
SUNWxwfnt	X Window System Fonts (required fonts)
SUNWxwfs	OpenWindows font server
SUNWxwice	OpenWindows ICE library and iceauth
SUNWxwmod	Kernel modules required to run the OpenWindows product
SUNWxwoft	X Window System optional fonts
SUNWxwopt	Nonessential MIT core clients and server extensions
SUNWxwpls	X Server platform software
SUNWxwplt	X Window System platform software (server, DPS, extensions, Xlib, required and common MIT clients)
SUNWxwrtl	X Window System and Graphics Runtime library links
SUNWxwscf	X Server probe and configuration

TABLE A–1 Packages on the Solaris 8 Software 1 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWxwssu	X Server platform specific, config start up software
SYMhisl	Symbios 8XX Hi-Performance SCSI HBA

Packages on the Solaris 8 Software 2 of 2 Intel Platform Edition CD

This appendix lists and describes the packages included on the CD labeled Solaris 8 Software 2 of 2 Intel Platform Edition.

TABLE B–1   Packages on the Solaris 8 Software 2 of 2 Intel Platform Edition CD

This Package	Contains
SUNWaccr	Utilities for accounting and reporting of system activity
SUNWaccu	Utilities for accounting and reporting of system activity
SUNWapchd	The Apache HTTP server (documentation)
SUNWapchr	The Apache HTTP server program (`root` components)
SUNWapchu	The Apache HTTP server program (`usr` components)
SUNWapppr	Configuration files for the daemon implementing asynchronous point-to-point protocol (PPP)
SUNWapppu	Login service and the daemon implementing asynchronous point-to-point protocol (PPP)
SUNWarc	System libraries in archive (`ar`) format for software development of statically linked executables

This Package	Contains
SUNWast	Administrative utilities for improving system security by monitoring or restricting access to system files and directories
SUNWaudh	SunOS C/C++ header files for audio drivers and applications
SUNWaudmo	Audio demo programs, libraries, and sounds
SUNWbash	GNU Bourne-Again shell (bash)
SUNWbashS	Source for the GNU Bourne-Again shell (bash)
SUNWbnur	Configuration and start-up files for UUCP utilities
SUNWbnuu	UUCP utilities and daemon
SUNWbtool	Software development utilities, including `ar`, `dis`, `dump`, `elfdump`, `lex`, `lorder`, `mcs`, `nm`, `prof`, `ranlib`, `rpcgen`, `size`, `strip`, `tsort`, and `yacc`
SUNWbzip	The `bzip` compression utility
SUNWbzipS	Source for the `bzip` compression utility
SUNWcoff	UNIX System V, Release 3.x binary compatibility
SUNWcpc.i	Kernel support for CPU Performance Counters
SUNWcpcu	CPU Performance Counter libraries and utilities
SUNWcstl	Apptrace utility for application tracing, including shared objects
SUNWdfbh	SunOS C/C++ header files for development of software for dumb frame buffers
SUNWdhcm	Graphical management interface for the DHCP server
SUNWdhcsr	`root` file system portion of the SunOS BOOTP/DHCP service, which uses the BOOT Protocol and/or Dynamic Host Configuration Protocol to provide network configuration parameters to BOOTP/DHCP clients; adminstration utilities for the service are included

TABLE B–1   Packages on the Solaris 8 Software 2 of 2 Intel Platform Edition CD   *(continued)*

This Package	Contains
SUNWdhcsu	usr file system portion of the SunOS BOOTP/DHCP service, which uses the BOOT Protocol and/or Dynamic Host Configuration Protocol to provide network configuration parameters to BOOTP/DHCP clients; adminstration utilities for the service are included
SUNWdpl	System libraries compiled with profiling for software development performance measurement
SUNWdtab	CDE Desktop Application Builder
SUNWdtdem	CDE Demos
SUNWdthed	CDE Help Developer Environment
SUNWdtinc	CDE Include files
SUNWdtma	Manual pages for the Common Desktop Environment, CDE
SUNWdtmad	Common Desktop Environment (CDE) Developer manual pages
SUNWdtmaz	Manual pages for Address Manager, Process Manager, File Finder, Perfmeter, Workstation Info
SUNWebnfs	Java packages for WebNFS
SUNWfac	Utilities and resources for a Form and Menu Language Interpreter (FMLI) execution environment
SUNWfnsx5	Federated Naming Service (XFN) - support for X.500 Directory
SUNWglt	Layout Table Generation Utility
SUNWgpch	The GNU Patch utility
SUNWgpchS	Source for the GNU Patch utility
SUNWgzip	The GNU Zip (gzip) compression utility
SUNWgzipS	Source for the GNU Zip (gzip) compression utility

TABLE B–1 Packages on the Solaris 8 Software 2 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWhea	SunOS C/C++ header files for general development of software
SUNWj2dev	Tools and utilities including javac, jdb, javadoc, rmiregistry
SUNWj2man	Man pages
SUNWjvdem	JavaVM demo programs
SUNWjvdev	JavaVM developers packages, includes javac, javah, and javap
SUNWjvman	JavaVM man pages
SUNWkcspf	Kodak Color Management System Runtime
SUNWkcspg	Kodak Color Management System Runtime Demos
SUNWkcsrt	Kodak Color Management System Runtime
SUNWless	The GNU pager (less)
SUNWlessS	Source for the GNU pager (less)
SUNWlibm	Sun WorkShop Bundled libm
SUNWlldap	LDAP libraries in for software development of dynamically linked executables
SUNWman	System Reference Manual Pages
SUNWmdb	Modular Debugger (MDB)
SUNWmfdev	Motif UIL compiler
SUNWmfman	CDE Motif Manuals
SUNWmkcd	CD creation utilities
SUNWmkcdS	Source for the CD creation utilities

TABLE B–1 Packages on the Solaris 8 Software 2 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWncar	Core components to enable the network cache and accelerator
SUNWncau	Components to enable the network cache and accelerator
SUNWoladd	OPEN LOOK Alternate Desktop Demos
SUNWoldem	OPEN LOOK demo programs
SUNWoldim	Graphics files in various formats
SUNWolinc	OPEN LOOK include files
SUNWolman	OPEN LOOK toolkit/desktop users man pages
SUNWolslb	OPEN LOOK toolkit/desktop static and lint libraries for programmers
SUNWolsrc	OPEN LOOK example source code for programmers
SUNWosdem	Source code to demonstrate the use of OS interfaces: ELF
SUNWpl5m	Perl 5 Reference Manual Pages
SUNWpl5p	POD documentation for Perl 5 programming language
SUNWpmowm	Power Management OW Utilities Man Pages
SUNWpppk	Kernel device drivers implementing asynchronous point-to-point protocol (PPP)
SUNWpsh	SunOS C/C++ header files for development of software for device drivers specific to bus and platform
SUNWrpm	Utilities for processing RPM archives
SUNWs53	Kernel module and associated utilities for the UNIX System V, Release 3, file system
SUNWsadml	Solstice launcher and associated libraries

TABLE B–1 Packages on the Solaris 8 Software 2 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWsprot	Solaris Bundled tools
SUNWsra	Libraries in archive (ar) format for source build compatibility with SunOS 4.x
SUNWsrh	SunOS C/C++ header files for source build compatibility with SunOS 4.x
SUNWsutl	Statically linked utilities for system disaster recovery
SUNWtcsh	Tenex C-shell (tcsh)
SUNWtcshS	Source for the Tenex C-shell (tcsh)
SUNWter	Extensive terminfo database entries describing capabilities of terminals and pseudoterminals
SUNWtltkd	ToolTalk static library and include files for programmers
SUNWtltkm	ToolTalk manual pages for ToolTalk programmers, OpenWindows users, and Common Desktop Environment (CDE) users
SUNWtnfc	Utilities needed to enable probe points, in the kernel and in applications, that can generate Trace Normal Format (TNF) records in a trace file
SUNWtnfd	Utilities needed by developers using Trace Normal Format (TNF) facilities
SUNWucbt	Apptrace shared objects for UCB compatibility libraries
SUNWusbu	USB Headers
SUNWxcu4t	XCU4 Compliant Versions of make and sccs utilities
SUNWxilh	XIL API Header files
SUNWxwdem	X Window System demo programs
SUNWxwdim	Graphics files in various formats
SUNWxwdxm	DPS MOTIF library

TABLE B–1 Packages on the Solaris 8 Software 2 of 2 Intel Platform Edition CD *(continued)*

This Package	Contains
SUNWxwfa	Font Administration application for Solaris platforms
SUNWxwhl	X Window System and Graphics Header links in /usr/include
SUNWxwinc	X Window System include files
SUNWxwman	X Window System online user man pages
SUNWxwpmn	X Window System online programmers man pages
SUNWxwslb	X Window System static and lint libraries for programmers
SUNWxwsrc	X Window System example source code for programmers
SUNWypr	NIS Server for Solaris 2.6 and up
SUNWypu	NIS Server for Solaris 2.6 and up
SUNWzip	The Info-Zip (zip) compression utility
SUNWzipS	Source for the Info-Zip (zip) compression utility
SUNWzlib	The Zip compression library
SUNWzlibS	Source for the Zip compression library
SUNWzsh	Z shell (zsh)
SUNWzshS	Source for the Z shell (zsh)

Packages on the Solaris 8 Languages Intel Platform Edition CD

This appendix lists and describes the packages included on the CD labeled Solaris 8 Languages Intel Platform Edition, by language.

TABLE C–1   Packages on the Solaris 8 Languages Intel Platform Edition CD: Simplified Chinese

This Package	Contains
NSCPccom	Simplified Chinese localization of Netscape Communicator 4.7 supporting International security
NSCPcucom	Zh.UTF-8 localization of Netscape Communicator 4.7 supporting International security
NSCPgcom	Zh.GBK localization of Netscape Communicator 4.7 supporting International security
SUNWcadis	Simplified Chinese (EUC) Localizations for Admintool and GUI install
SUNWcadma	Simplified Chinese (EUC) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNWhadis packages for Simplified Chinese (EUC) localization
SUNWcdab	Simplified Chinese (EUC) Localizations for CDE Desktop Application Builder
SUNWcdbas	Simplified Chinese (EUC) Localizations for CDE Base functionality

TABLE C–1 Packages on the Solaris 8 Languages Intel Platform Edition CD: Simplified Chinese *(continued)*

This Package	Contains
SUNWcddst	Simplified Chinese (EUC) Localizations for CDE Desktop Applications
SUNWcddte	Simplified Chinese (EUC) Localizations for CDE Desktop Login Environment
SUNWcdezt	Simplified Chinese (EUC) Localizations for Desktop Power Pack Applications
SUNWcdft	Simplified Chinese (EUC) Localizations for CDE Fonts
SUNWcdhe	Simplified Chinese (EUC) Localizations for CDE Help Runtime environment
SUNWcdhev	Simplified Chinese (EUC) CDE Help Volumes
SUNWcdhez	Simplified Chinese (EUC) (Common) Desktop Power Pack Help Volumes
SUNWcdicn	Simplified Chinese (EUC) Localizations for CDE Icons
SUNWcdim	Simplified Chinese (EUC) Localizations for CDE Imagetool
SUNWcdwm	Simplified Chinese (EUC) Localizations for CDE Desktop Window Manager
SUNWcepmw	Simplified Chinese (EUC) Localization for Power Management OW Utilities
SUNWcexir	Simplified Chinese (EUC) XIL Runtime Environment
SUNWcj2p	Simplified Chinese localization of Java Plug-In 1.2.2
SUNWcj2rt	Java virtual machine and core class libraries (Simplified Chinese supplement)
SUNWcjvdv	Simplified Chinese Localizations for JavaVM developers package
SUNWcjvrt	Simplified Chinese Localizations for JavaVM Runtime environment
SUNWckcsr	Simplified Chinese (EUC) KCMS Runtime Environment

TABLE C–1 Packages on the Solaris 8 Languages Intel Platform Edition CD: Simplified Chinese *(continued)*

This Package	Contains
SUNWcleue	Simplified Chinese (EUC) Language Environment specific files; it is a required package to run Simplified Chinese (EUC) Language Environment
SUNWcoaud	Simplified Chinese (EUC) OPEN LOOK Audio Applications Package
SUNWcodcv	Simplified Chinese (EUC) OPEN LOOK Document and Help Viewer Applications Package
SUNWcodem	Simplified Chinese (EUC) OPEN LOOK Demo Programs Package
SUNWcodst	Simplified Chinese (EUC) OPEN LOOK Deskset Tools Package
SUNWcodte	Simplified Chinese (EUC) Core OPEN LOOK Desktop Package
SUNWcoimt	Simplified Chinese (EUC) OPEN LOOK Imagetool Package
SUNWcoman	Simplified Chinese (EUC) OPEN LOOK Toolkit/Desktop Users Man Pages Package
SUNWcorte	Simplified Chinese (EUC) OPEN LOOK Toolkits Runtime Environment Package
SUNWcpdas	Simplified Chinese Localization for tools to synchronize desktop applications with the Palm Pilot PDA
SUNWcrdm	Simplified Chinese (EUC) OILBN ReadMe Directory
SUNWcreg	Simplified Chinese (EUC) Localizations for Solaris User Registration
SUNWcsadl	Simplified Chinese (EUC) Localizations for Solstice Admintool launcher and associated libraries
SUNWctltk	Simplified Chinese (EUC) ToolTalk Runtime Package Package
SUNWcttfe	Simplified Chinese (EUC) True Type Fonts
SUNWcuada	Simplified Chinese (UTF-8) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNWgadis packages for Simplified Chinese (UTF-8) localization

TABLE C–1 Packages on the Solaris 8 Languages Intel Platform Edition CD: Simplified Chinese *(continued)*

This Package	Contains
SUNWcuadi	Simplified Chinese (UTF-8) Localizations for Admintool and GUI install
SUNWcubas	Simplified Chinese (UTF-8) Localizations for CDE Base functionality
SUNWcudab	Simplified Chinese (UTF-8) Localizations for CDE Desktop Application Builder
SUNWcudc	Simplified Chinese (EUC) Localizations for User Defined Character tool for Solaris CDE
SUNWcudez	Simplified Chinese (UTF-8) Localizations for Desktop Power Pack Applications
SUNWcudft	Simplified Chinese (UTF-8) Localizations for CDE Fonts
SUNWcudhe	Simplified Chinese (UTF-8) Localizations for CDE Help Runtime environment
SUNWcudhv	Simplified Chinese (UTF-8) CDE Help Volumes
SUNWcudhz	Simplified Chinese (UTF-8) Localizations for Desktop Power Pack Help Volumes
SUNWcudic	Simplified Chinese (UTF-8) Localizations for CDE Icons
SUNWcudim	Simplified Chinese (UTF-8) L10N for CDE Desktop Imagetool
SUNWcudst	Simplified Chinese (UTF-8) Localizations for CDE Desktop Applications
SUNWcudte	Simplified Chinese (UTF-8) Localizations for CDE Desktop Login Environment
SUNWcudwm	Simplified Chinese (UTF-8) Localizations for CDE Desktop Window Manager
SUNWculee	Simplified Chinese (UTF-8) Language Environment specific files; it is a required package to run Simplified Chinese (UTF-8) Language Environment
SUNWcuman	Simplified Chinese (UTF-8) X Window System Online User Man Pages Package

TABLE C–1 Packages on the Solaris 8 Languages Intel Platform Edition CD: Simplified Chinese *(continued)*

This Package	Contains
SUNWcuodt	Simplified Chinese (UTF-8) Core OPEN LOOK Desktop Package
SUNWcupmw	Simplified Chinese (UTF-8) Localization for Power Management OW Utilities
SUNWcurdm	Simplified Chinese (UTF-8) OILBN ReadMe Directory
SUNWcureg	Simplified Chinese (UTF-8) Localizations for Solaris User Registration
SUNWcusad	Simplified Chinese (UTF-8) Localizations for Solstice Admintool launcher and associated libraries
SUNWcuudc	Simplified Chinese (UTF-8) Localizations for User Defined Character tool for Solaris CDE environment
SUNWcuxe	Simplified Chinese (UTF-8) X Window System Platform Software Package
SUNWcwsr	Simplified Chinese (EUC) product registry 2.0 localizable text resources
SUNWcxe	Simplified Chinese (EUC) X Window System Platform Software Package
SUNWcxfnt	Simplified Chinese (EUC) X Window System Platform Required Fonts
SUNWcxman	Simplified Chinese (EUC) X Window System Online User Man Pages Package
SUNWcxoft	Simplified Chinese (EUC) X Window System Optional Fonts Package
SUNWgadis	Simplified Chinese (GBK) Localizations for Admintool and GUI install
SUNWgadma	Simplified Chinese (GBK) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNWgadis packages for Simplified Chinese (GBK) localization
SUNWgdab	Simplified Chinese (GBK) Localizations for CDE Desktop Application Builder
SUNWgdbas	Simplified Chinese (GBK) Localizations for CDE Base functionality
SUNWgddst	Simplified Chinese (GBK) Localizations for CDE Desktop Applications

TABLE C–1 Packages on the Solaris 8 Languages Intel Platform Edition CD: Simplified Chinese *(continued)*

This Package	Contains
SUNWgddte	Simplified Chinese (GBK) Localizations for CDE Desktop Login Environment
SUNWgdezt	Simplified Chinese (GBK) Localizations for Desktop Power Pack Applications
SUNWgdft	Simplified Chinese (GBK) Localizations for CDE Fonts
SUNWgdhe	Simplified Chinese (GBK) Localizations for CDE Help Runtime environment
SUNWgdhev	Simplified Chinese (GBK) CDE Help Volumes
SUNWgdhez	Simplified Chinese (GBK) Localizations for Desktop Power Pack Help Volumes
SUNWgdicn	Simplified Chinese (GBK) Localizations for CDE Icons
SUNWgdim	Simplified Chinese (GBK) L10N for CDE Desktop Imagetool
SUNWgdwm	Simplified Chinese (GBK) Localizations for CDE Desktop Window Manager
SUNWgleue	Simplified Chinese (GBK) Language Environment specific files; it is a required package to run Simplified Chinese (GBK) Language Environment
SUNWgodte	Simplified Chinese (GBK) Core OPEN LOOK Desktop Package
SUNWgpmw	Simplified Chinese (GBK) Localization for Power Management OW Utilities
SUNWgrdm	Simplified Chinese (GBK) OILBN ReadMe Directory
SUNWgreg	Simplified Chinese (GBK) Localizations for Solaris User Registration
SUNWgsadl	Simplified Chinese (GBK) Localizations for Solstice Admintool launcher and associated libraries
SUNWgttfe	Simplified Chinese (GBK) True Type Fonts
SUNWgudc	Simplified Chinese (GBK) Localizations for User Defined Character tool for Solaris CDE environment

TABLE C–1 Packages on the Solaris 8 Languages Intel Platform Edition CD: Simplified Chinese *(continued)*

This Package	Contains
SUNWgxe	Simplified Chinese (GBK) X Window System Platform Software Package
SUNWgxman	Simplified Chinese (GBK) X Window System Online User Man Pages Package

TABLE C–2 Packages on the Solaris 8 Languages Intel Platform Edition CD: Traditional Chinese

This Package	Contains
NSCP5com	Zh_TW.BIG5 localization of Netscape Communicator 4.7 supporting International security
NSCPhcom	Traditional Chinese localization of Netscape Communicator 4.7 supporting International security
NSCPhucom	Zh_TW.UTF-8 localization of Netscape Communicator 4.7 supporting International security
SUNW5adi	Traditional Chinese Localizations for Admintool and GUI install
SUNW5adma	Traditional Chinese Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNW5adi packages for Localization
SUNW5dab	Traditional Chinese Localizations for CDE Desktop Application Builder
SUNW5dbas	Traditional Chinese Localizations for CDE Base functionality
SUNW5ddst	Traditional Chinese Localizations for CDE Desktop Applications
SUNW5ddte	Traditional Chinese Localizations for CDE Desktop Login Environment
SUNW5dezt	Traditional Chinese (BIG5) Localizations for Desktop Power Pack Applications
SUNW5dft	Traditional Chinese Localizations for CDE Fonts

TABLE C–2 Packages on the Solaris 8 Languages Intel Platform Edition CD: Traditional Chinese *(continued)*

This Package	Contains
SUNW5dhe	Traditional Chinese Localizations for CDE Help Runtime environment
SUNW5dhev	Traditional Chinese CDE Help Volumes
SUNW5dhez	Traditional Chinese (Common BIG5) Localizations for Desktop Power Pack Help Volumes
SUNW5dicn	Traditional Chinese Localizations for CDE Icons
SUNW5dim	Traditional Chinese Localizations for CDE Imagetool
SUNW5dwm	Traditional Chinese Localizations for CDE Desktop Window Manager
SUNW5leue	Traditional Chinese Language Environment specific files; it is a required package to run Traditional Chinese BIG5 Language Environment
SUNW5odte	Traditional Chinese BIG5 Core OPEN LOOK Desktop Package
SUNW5pmw	Traditional Chinese BIG5 Localization for Power Management OW Utilities
SUNW5rdm	Traditional Chinese (BIG5) OILBN ReadMe Directory
SUNW5sadl	Traditional Chinese Localizations for Solstice Admintool launcher and associated libraries
SUNW5ttfe	Traditional Chinese True Type Fonts Package Extension
SUNW5udc	Traditional Chinese (BIG5) Localizations for User Defined Character tool for Solaris CDE environment
SUNW5xfnt	Traditional Chinese BIG5 X Window System Platform Required Fonts Package
SUNWhadis	Traditional Chinese (EUC) Localizations for Admintool and GUI install
SUNWhadma	Traditional Chinese (EUC) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNWhadis packages for Traditional Chinese (EUC) localization
SUNWhdab	Traditional Chinese Localizations for CDE Desktop Application Builder

TABLE C–2 Packages on the Solaris 8 Languages Intel Platform Edition CD: Traditional Chinese *(continued)*

This Package	Contains
SUNWhdbas	Traditional Chinese Localizations for CDE Base functionality
SUNWhddst	Traditional Chinese Localizations for CDE Desktop Applications
SUNWhddte	Traditional Chinese Localizations for CDE Desktop Login Environment
SUNWhdezt	Traditional Chinese (EUC) Localizations for Desktop Power Pack Applications
SUNWhdft	Traditional Chinese Localizations for CDE Fonts
SUNWhdhe	Traditional Chinese Localizations for CDE Help Runtime environment
SUNWhdhev	Traditional Chinese CDE Help Volumes
SUNWhdhez	Traditional Chinese (Common) Localizations for Desktop Power Pack Help Volumes
SUNWhdicn	Traditional Chinese Localizations for CDE Icons
SUNWhdim	Traditional Chinese Localizations for CDE Imagetool
SUNWhdwm	Traditional Chinese Localizations for CDE Desktop Window Manager
SUNWhepmw	Traditional Chinese (EUC) Localization for Power Management OW Utilities
SUNWhexir	Traditional Chinese (EUC) XIL Runtime Environment
SUNWhj2p	Traditional Chinese localization of Java Plug-In 1.2.2
SUNWhj2rt	Java virtual machine and core class libraries (Traditional Chinese supplement)
SUNWhjvdv	Traditional Chinese Localizations for JavaVM developers package
SUNWhjvrt	Traditional Chinese Localizations for JavaVM Runtime environment

TABLE C–2 Packages on the Solaris 8 Languages Intel Platform Edition CD: Traditional Chinese   *(continued)*

This Package	Contains
SUNWhkcsr	Traditional Chinese (EUC) KCMS Runtime Environment
SUNWhleue	Traditional Chinese Language Environment specific files; it is a required package to run Traditional Chinese Language Environment
SUNWhoaud	Traditional Chinese OPEN LOOK Audio Applications Package
SUNWhodcv	Traditional Chinese OPEN LOOK Document and Help Viewer Applications Package
SUNWhodem	Traditional Chinese OPEN LOOK Demo Programs Package
SUNWhodst	Traditional Chinese OPEN LOOK Deskset Tools Package
SUNWhodte	Traditional Chinese Core OPEN LOOK Desktop Package
SUNWhoimt	Traditional Chinese OPEN LOOK Imagetool Package
SUNWhoman	Traditional Chinese OPEN LOOK Toolkit/Desktop Users Man Pages Package
SUNWhorte	Traditional Chinese OPEN LOOK Toolkits Runtime Environment Package
SUNWhpdas	Traditional Chinese Localization for tools to synchronize desktop applications with the Palm Pilot PDA
SUNWhrdm	Traditional Chinese (EUC) OILBN ReadMe Directory
SUNWhreg	Traditional Chinese Localizations for Solaris User Registration
SUNWhsadl	Traditional Chinese (EUC) Localizations for Solstice Admintool launcher and associated libraries
SUNWhtltk	Traditional Chinese ToolTalk Runtime Package Package
SUNWhttfe	Traditional Chinese True Type optional Fonts Package Extension
SUNWhuada	Traditional Chinese (UTF-8) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNW5adi packages for localization

TABLE C–2 Packages on the Solaris 8 Languages Intel Platform Edition CD: Traditional Chinese *(continued)*

This Package	Contains
SUNWhuadi	Traditional Chinese (UTF-8) Localizations for Admintool and GUI install
SUNWhubas	Traditional Chinese (UTF-8) Localizations for CDE Base functionality
SUNWhuccd	Traditional Chinese Console Display Environment specific files; it is a required package to run Traditional Chinese Console Display Environment
SUNWhudab	Traditional Chinese (UTF-8) Localizations for CDE Desktop Application Builder
SUNWhudc	Traditional Chinese (EUC) Localizations for User Defined Character tool for Solaris CDE
SUNWhudez	Traditional Chinese (UTF-8) Localizations for Desktop Power Pack Applications
SUNWhudft	Traditional Chinese (UTF-8) Localizations for CDE Fonts
SUNWhudhe	Traditional Chinese (UTF-8) Localizations for CDE Help Runtime environment
SUNWhudhv	Traditional Chinese (UTF-8) CDE Help Volumes
SUNWhudhz	Traditional Chinese (Common UTF-8) Localizations for Desktop Power Pack Help Volumes
SUNWhudic	Traditional Chinese (UTF-8) Localizations for CDE Icons
SUNWhudim	Traditional Chinese (UTF-8) Localizations for CDE Imagetool
SUNWhudst	Traditional Chinese (UTF-8) Localizations for CDE Desktop Applications
SUNWhudte	Traditional Chinese (UTF-8) Localizations for CDE Desktop Login Environment
SUNWhudwm	Traditional Chinese (UTF-8) Localizations for CDE Desktop Window Manager
SUNWhulee	Traditional Chinese (UTF-8) Language Environment specific files; it is a required package to run Traditional Chinese UTF-8 Language Environment

TABLE C–2 Packages on the Solaris 8 Languages Intel Platform Edition CD: Traditional Chinese *(continued)*

This Package	Contains
SUNWhuodt	Traditional Chinese UTF-8 Core OPEN LOOK Desktop Package
SUNWhupmw	Traditional Chinese UTF-8 Localization for Power Management OW Utilities
SUNWhurdm	Traditional Chinese (UTF-8) OILBN ReadMe Directory
SUNWhusad	Traditional Chinese (UTF-8) Localizations for Solstice Admintool launcher and associated libraries
SUNWhuudc	Traditional Chinese (UTF-8) Localizations for User Defined Character tool for Solaris CDE environment
SUNWhwsr	Traditional Chinese prodreg 2.0 localizable text resources
SUNWhxe	Traditional Chinese X Window System Platform Software Package
SUNWhxman	Traditional Chinese X Window System Online User Man Pages Package

TABLE C–3 Packages on the Solaris 8 Languages Intel Platform Edition CD: French

This Package	Contains
NSCPfrcdo	French localization of Netscape Communicator 4.7 supporting U.S. security
NSCPfrcom	French localization of Netscape Communicator 4.7 supporting International security
SUNWf8bas	Base L10N fr CDE functionality to run a CDE application
SUNWf8dst	CDE Desktop Applications
SUNWf8dte	CDE Desktop Environment
SUNWf8he	CDE Help L10N fr Runtime Environment

TABLE C–3   Packages on the Solaris 8 Languages Intel Platform Edition CD: French   *(continued)*

This Package	Contains
SUNWf8im	CDE Desktop applications
SUNWf8wm	French UTF-8 CDE Desktop Window Manager Messages
SUNWfj2rt	Java virtual machine and core class libraries (French supplement)
SUNWfjvdv	French Localizations for JavaVM developers package
SUNWfjvrt	French Localizations for JavaVM Runtime environment
SUNWfoaud	French OPEN LOOK Audio applications
SUNWfobk	French OpenWindows online handbooks
SUNWfodcv	French OPEN LOOK document and help viewer applications
SUNWfodem	French OPEN LOOK demo programs
SUNWfodst	French OPEN LOOK deskset tools
SUNWfodte	French OPEN LOOK desktop environment
SUNWfoimt	French OPEN LOOK `imagetool`
SUNWforte	French OPEN LOOK toolkits Runtime environment
SUNWfpdas	French tools to synchronize desktop applications with the Palm Pilot PDA
SUNWfrbas	Base L10N fr CDE functionality to run a CDE application
SUNWfrdst	CDE Desktop Applications
SUNWfrdte	CDE Desktop Environment
SUNWfrhe	CDE Help L10N fr Runtime Environment

TABLE C–3 Packages on the Solaris 8 Languages Intel Platform Edition CD: French *(continued)*

This Package	Contains
SUNWfrhed	CDE L10N fr Help Developer Environment
SUNWfrhev	CDE Help Volumes
SUNWfrim	CDE Desktop applications
SUNWfrj2p	French localization of Java Plug-In 1.2.2
SUNWfros	Localizable message files for the OS-Networking consolidation
SUNWfrpmw	French (EUC) Localizations for Power Management OW Utilities
SUNWfrreg	Solaris User Registration prompts at desktop login for user registration
SUNWfrwm	French CDE Desktop Window Manager Messages
SUNWftltk	French ToolTalk binaries and shared libraries
SUNWfwacx	French OPEN LOOK AccessX
SUNWfwsr	Product registry 2.0 localizable text resources
SUNWfxplt	French X Window System platform software

TABLE C–4 Packages on the Solaris 8 Languages Intel Platform Edition CD: German

This Package	Contains
NSCPdecom	German localization of Netscape Communicator 4.7 supporting International security
SUNWd8bas	Base L10N German UTF-8 CDE functionality to run a CDE application
SUNWd8dst	CDE Desktop Applications

TABLE C–4   Packages on the Solaris 8 Languages Intel Platform Edition CD:
German   *(continued)*

This Package	Contains
SUNWd8dte	CDE Desktop Login Environment
SUNWd8he	CDE Help L10N German UTF-8 Runtime Environment
SUNWd8im	CDE Desktop applications
SUNWd8wm	German UTF-8 CDE Desktop Window Manager Messages
SUNWdebas	Base L10N German CDE functionality to run a CDE application
SUNWdedst	CDE Desktop Applications
SUNWdedte	CDE Desktop Login Environment
SUNWdehe	CDE Help L10N German Runtime Environment
SUNWdehed	CDE L10N German Help Developer Environment
SUNWdehev	CDE Help Volumes
SUNWdeim	CDE Desktop applications
SUNWdej2p	German localization of Java Plug-In 1.2.2
SUNWdeos	Localizable message files for the OS-Networking consolidation
SUNWdepmw	German (EUC) Localizations for Power Management OW Utilities
SUNWdereg	Solaris User Registration prompts at desktop login for user registration
SUNWdewm	German CDE Desktop Window Manager Messages
SUNWdj2rt	Java virtual machine and core class libraries (German supplement)
SUNWdjvdv	German Localizations for JavaVM developers package

TABLE C–4 Packages on the Solaris 8 Languages Intel Platform Edition CD: German *(continued)*

This Package	Contains
SUNWdjvrt	German Localizations for JavaVM Runtime environment
SUNWdoaud	German OPEN LOOK Audio applications
SUNWdobk	German OpenWindows online handbooks
SUNWdodcv	German OPEN LOOK document and help viewer applications
SUNWdodem	German OPEN LOOK demo programs
SUNWdodst	German OPEN LOOK deskset tools
SUNWdodte	German OPEN LOOK desktop environment
SUNWdoimt	German OPEN LOOK `imagetool`
SUNWdorte	German OPEN LOOK toolkits Runtime environment
SUNWdpdas	German tools to synchronize desktop applications with the Palm Pilot PDA
SUNWdtltk	German ToolTalk binaries and shared libraries
SUNWdwacx	German OPEN LOOK AccessX
SUNWdwsr	Product registry 2.0 localizable text resources
SUNWdxplt	German X Window System platform software

TABLE C–5 Packages on the Solaris 8 Languages Intel Platform Edition CD: Italian

This Package	Contains
NSCPitcom	Italian localization of Netscape Communicator 4.7 supporting International security
SUNWi8bas	Base L10N it CDE functionality to run a CDE application
SUNWi8dst	CDE it Desktop Applications messages
SUNWi8dte	CDE Italian UTF-8 Desktop Login Environment
SUNWi8he	CDE Help L10N it Runtime Environment
SUNWi8im	CDE Italian UTF-8 Desktop Image editor
SUNWi8wm	Italian UTF-8 CDE Desktop Window Manager Messages
SUNWij2rt	Java virtual machine and core class libraries (Italian supplement)
SUNWijvdv	Italian Localizations for JavaVM developers package
SUNWijvrt	Italian Localizations for JavaVM Runtime environment
SUNWioaud	Italian OPEN LOOK Audio applications
SUNWiobk	Italian OpenWindows online handbooks
SUNWiodcv	Italian OPEN LOOK document and help viewer applications
SUNWiodem	Italian OPEN LOOK demo programs
SUNWiodst	Italian OPEN LOOK deskset tools
SUNWiodte	Italian OPEN LOOK desktop environment
SUNWioimt	Italian OPEN LOOK `imagetool`
SUNWiorte	Italian OPEN LOOK toolkits Runtime environment
SUNWipdas	Italian tools to synchronize desktop applications with the Palm Pilot PDA

TABLE C–5 Packages on the Solaris 8 Languages Intel Platform Edition CD:
Italian *(continued)*

This Package	Contains
SUNWitbas	Base L10N it CDE functionality to run a CDE application
SUNWitdst	CDE it Desktop Applications messages
SUNWitdte	CDE Italian Desktop Login Environment
SUNWithe	CDE Help L10N it Runtime Environment
SUNWithed	CDE L10N it Help Developer Environment
SUNWithev	CDE Help Volumes
SUNWitim	CDE Italian Desktop Image editor
SUNWitj2p	Italian localization of Java Plug-In 1.2.2
SUNWitltk	Italian ToolTalk binaries and shared libraries
SUNWitos	Localizable message files for the OS-Networking consolidation
SUNWitpmw	Italian UTF-8 (EUC) Localizations for Power Management OW Utilities
SUNWitreg	Solaris User Registration prompts at desktop login for user registration
SUNWitwm	Italian CDE Desktop Window Manager Messages
SUNWiwacx	Italian OPEN LOOK AccessX
SUNWiwsr	Product registry 2.0 localizable text resources
SUNWixplt	Italian X Window System platform software

TABLE C–6   Packages on the Solaris 8 Languages Intel Platform Edition CD: Japanese

This Package	Contains
JSat8xw	Japanese Input System ATOK8 for Japanese Solaris
JSatsvr	Japanese Input System ATOKserver root files for Japanese Solaris
JSatsvu	Japanese Input System ATOKserver usr files for Japanese Solaris
JSatsvw	Japanese Input System ATOKserver X11 support files for Japanese Solaris
NSCPjecom	Japanese (EUC) localization of Netscape Communicator 4.7 supporting International security
NSCPjpcom	Japanese (PCK) localization of Netscape Communicator 4.7 supporting International security
NSCPjucom	Japanese (UTF-8) localization of Netscape Communicator 4.7 supporting International security
SUNWjadis	Japanese (EUC) Localizations for Admintool and GUI install
SUNWjadma	Japanese (EUC) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNWjadis packages for Japanese (EUC) localization
SUNWjaj2p	Japanese localization of Java Plug-In 1.2.2
SUNWjc0d	Japanese Kana-Kanji Conversion Server cs00 user dictionary maintenance tool for CDE Motif
SUNWjc0w	Japanese Kana-Kanji Conversion Server cs00 user dictionary maintenance tool for OPEN LOOK; this package is also required to use X Input Method Server on X Window System
SUNWjcs3f	Japanese JIS X0212 Type1 fonts for printing
SUNWjdab	Japanese (Common) Localization for CDE Desktop Application Builder
SUNWjdbas	Japanese (Common) Localization for CDE application basic Runtime environment
SUNWjddst	Japanese (EUC) Localization for CDE Desktop Applications
SUNWjddte	Japanese (EUC) Localization for Solaris Desktop Login Environment

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD: Japanese *(continued)*

This Package	Contains
SUNWjdhcm	Japanese Localizations for DHCP Manager
SUNWjdhe	Japanese (EUC) Localization for CDE Help Runtime environment
SUNWjdhed	Japanese (EUC) Localization for CDE Help Developer Environment
SUNWjdhev	Japanese (Common) Localization for CDE Help Volumes
SUNWjdhez	Japanese (Common) Localizations for Desktop Power Pack Help Volumes
SUNWjdim	Japanese (EUC) Localization for Solaris CDE Image Viewer
SUNWjdrme	Japanese (EUC) Localization for Common Desktop Environment (CDE) release documentation
SUNWjdwm	Japanese (EUC) Localization for CDE Desktop Window Manager
SUNWjeab	Japanese (EUC) Localization for CDE Desktop Application Builder
SUNWjebas	Japanese (EUC) Localization for CDE application basic Runtime environment
SUNWject	Japanese (EUC) Localizations for UTF-8 Code Conversion Tool
SUNWjedev	Japanese (EUC) Development Environment Package specific files
SUNWjeezt	Japanese (EUC) Localizations for Desktop Power Pack Applications
SUNWjehev	Japanese (EUC) Localization for CDE Help Volumes
SUNWjehez	Japanese (EUC) Localizations for Desktop Power Pack Help Volumes
SUNWjej2m	Japanese (EUC) man pages
SUNWjejmn	Japanese (EUC) JavaVM manual pages for Java programmers and users

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD:
Japanese *(continued)*

This Package	Contains
SUNWjeman	Japanese Feature Package Man Pages to see Japanese (EUC) man pages for SUNWjfpr and SUNWjfpu and Japanese man pages for SUNWman and SUNWaled
SUNWjepmm	Japanese (EUC) Power Management OW Utilities Man Pages
SUNWjepmw	Japanese (EUC) Localizations for Power Management OW Utilities
SUNWjeuce	Japanese (EUC) Feature Package specific files for usr; it is an extended package to support EUC environment
SUNWjeudc	Japanese (EUC) Localizations for User Defined Character tool for Solaris CDE environment
SUNWjewnu	Japanese Input System - Wnn6 Messages, (EUC)
SUNWjexfa	Japanese (EUC) Localizations for Font Administration application for Solaris platforms
SUNWjexir	Japanese (EUC) localizations for XIL Runtime Environment
SUNWjfdl	Japanese Localization for Solaris Desktop Font Downloader for Adobe PostScript printers
SUNWjfpre	Stream modules for Japanese Feature Package (JFP); it is an extended package to run JFP environment
SUNWjfpue	Japanese Feature Package (JFP) specific files for usr; it is an extended package to run JFP environment
SUNWjfxmn	English man pages of Japanese features for X Window System
SUNWjj2dv	Japanese Java virtual macTools and utilities including javac, jdb, javadoc, rmiregistry
SUNWjj2rt	Japanese Java virtual machine and core class libraries
SUNWjjmfp	Japanese Localization for JMF player
SUNWjjvdv	Japanese Localizations for JavaVM developers package

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD: Japanese *(continued)*

This Package	Contains
SUNWjjvrt	Japanese Localizations for JavaVM Runtime environment
SUNWjkcsr	Japanese (EUC) Localizations for Kodak Color Management System Runtime
SUNWjlibj	Japanese specific library (/usr/lib/libjapanese.a), header, and transition kit
SUNWjmane	Japanese Feature Package Man Pages (Extension) to see English man pages for SUNWjfpre and SUNWjfpue
SUNWjmfrn	Japanese (EUC) Localizations for Motif 1.2.3 Runtime Kit
SUNWjoaud	Japanese (EUC) Localizations for Audiotool and other auxiliary audio support
SUNWjodcv	Japanese (EUC) Localizations for OPEN LOOK document and help viewer applications
SUNWjodem	Japanese (EUC) Localizations for OPEN LOOK demo programs
SUNWjodst	Japanese (EUC) Localizations for OPEN LOOK deskset tools
SUNWjodte	Japanese (EUC) Localizations for OPEN LOOK Desktop Environment (olwm, props, wsinfo, etc.)
SUNWjoimt	Japanese (EUC) Localizations for OPEN LOOK imagetool
SUNWjorte	Japanese (EUC) Localizations for OPEN LOOK toolkits Runtime environment
SUNWjoumn	Japanese (EUC) OPEN LOOK toolkit/desktop users man pages
SUNWjpab	Japanese (PCK) Localization for CDE Desktop Application Builder
SUNWjpacx	Japanese (PCK) Localizations for AccessX client program
SUNWjpadi	Japanese (PCK) Localizations for Admintool and GUI install

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD: Japanese *(continued)*

This Package	Contains
SUNWjpadm	Japanese (PCK) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNWjpadi packages for Japanese (PCK) localization
SUNWjpbas	Japanese (PCK) Localization for CDE application basic Runtime environment
SUNWjpcke	Japanese (PCK - PC Kanji Code) Feature Package specific files; it is a extended package to support PCK environment
SUNWjpct	Japanese (PCK) Localizations for UTF-8 Code Conversion Tool
SUNWjpdas	Japanese Localization for tools to synchronize desktop applications with the Palm Pilot PDA
SUNWjpdst	Japanese (PCK) Localization for CDE Desktop Applications
SUNWjpdte	Japanese (PCK) Localization for CDE Desktop Login Environment
SUNWjpezt	Japanese (PCK) Localizations for Desktop Power Pack Applications
SUNWjphe	Japanese (PCK) Localization for CDE Help Runtime environment
SUNWjphed	Japanese (PCK) Localization for CDE Help Developer Environment
SUNWjphev	Japanese (PCK) Localization for CDE Help Volumes
SUNWjphez	Japanese (PCK) Localizations for Desktop Power Pack Help Volumes
SUNWjpim	Japanese (PCK) Localization for Solaris CDE Image Viewer
SUNWjpj2m	Japanese (PCK) man pages
SUNWjpjmn	Japanese (PCK) JavaVM manual pages for Java programmers and users
SUNWjpkcs	Japanese (PCK) Localizations for Kodak Color Management System Runtime

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD:
Japanese *(continued)*

This Package	Contains
SUNWjpman	Japanese Feature Package Man Pages to see Japanese (PCK) man pages for SUNWjfpr and SUNWjfpu and Japanese man pages for SUNWman and SUNWaled
SUNWjpmfr	Japanese (PCK) Localizations for Motif 1.2.3 Runtime Kit
SUNWjppmm	Japanese (PCK) Power Management OW Utilities Man Pages
SUNWjppmw	Japanese (PCK) Localizations for Power Management OW Utilities
SUNWjprdm	Japanese (PCK) OILBN ReadMe Directory
SUNWjprme	Japanese (PCK) Localization for Common Desktop Environment (CDE) release documentation
SUNWjpsal	Japanese (PCK) Localizations for Solstice Admintool launcher and associated libraries
SUNWjptlm	Japanese (PCK) ToolTalk manual pages for ToolTalk programmers, OpenWindows users, and Common Desktop Environment (CDE) users
SUNWjptlt	Japanese (PCK) Localizations for ToolTalk binaries and shared libraries needed for Common Desktop Environment (CDE), OpenWindows, and all ToolTalk clients
SUNWjpudc	Japanese (PCK) Localizations for User Defined Character tool for Solaris CDE environment
SUNWjpwm	Japanese (PCK) Localization for CDE Desktop Window Manager
SUNWjpwnu	Japanese Input System - Wnn6 Messages, (PCK)
SUNWjpxfa	Japanese (PCK) Localizations for Font Administration application for Solaris platforms
SUNWjpxir	Japanese (PCK) Localizations for XIL Runtime Environment
SUNWjpxpm	Japanese (PCK) X Window System online programmers man pages
SUNWjpxum	Japanese (PCK) X Window System online user man pages

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD:
Japanese *(continued)*

This Package	Contains
SUNWjrdm	Japanese (EUC) OILBN ReadMe Directory
SUNWjreg	Japanese Localizations for Solaris User Registration
SUNWjsadl	Japanese (EUC) Localizations for Solstice Admintool launcher and associated libraries
SUNWjtlmn	Japanese (EUC) ToolTalk manual pages for ToolTalk programmers, OpenWindows users, and Common Desktop Environment (CDE) users
SUNWjtltk	Japanese (EUC) Localizations for ToolTalk binaries and shared libraries needed for Common Desktop Environment (CDE), OpenWindows, and all ToolTalk clients
SUNWju8e	Japanese (UTF-8) Feature Package specific files; it is a extended package to support Japanese UTF-8 environment
SUNWjuab	Japanese (UTF-8) Localization for CDE Desktop Application Builder
SUNWjuacx	Japanese (UTF-8) Localizations for AccessX client program
SUNWjuadi	Japanese (UTF-8) Localizations for Admintool and GUI install
SUNWjuadm	Japanese (UTF-8) Localizations for software used to perform system administration tasks; Admintool requires both this and SUNWjuadi packages for Japanese (UTF-8) localization
SUNWjubas	Japanese (UTF-8) Localization for CDE application basic Runtime environment
SUNWjuct	Japanese (UTF-8) Localizations for UTF-8 Code Conversion Tool
SUNWjudst	Japanese (UTF-8) Localization for CDE Desktop Applications
SUNWjudte	Japanese (UTF-8) Localization for CDE Desktop Login Environment
SUNWjuezt	Japanese (UTF-8) Localizations for Desktop Power Pack Applications
SUNWjuhe	Japanese (UTF-8) Localization for CDE Help Runtime environment

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD: Japanese *(continued)*

This Package	Contains
SUNWjuhed	Japanese (UTF-8) Localization for CDE Help Developer Environment
SUNWjuhev	Japanese (UTF-8) Localization for CDE Help Volumes
SUNWjuhez	Japanese (UTF-8) Localizations for Desktop Power Pack Help Volumes
SUNWjuim	Japanese (UTF-8) Localization for Solaris CDE Image Viewer
SUNWjuj2m	Japanese (UTF-8) man pages
SUNWjujmn	Japanese (UTF-8) JavaVM Manual pages for Java programmers and users
SUNWjukcs	Japanese (UTF-8) Localizations for Kodak Color Management System Runtime
SUNWjulcf	Japanese (UTF-8) Localizations for xutops command
SUNWjuman	Japanese Feature Package Man Pages to see Japanese (UTF-8) man pages for SUNWjfpr and SUNWjfpu and Japanese man pages for SUNWman and SUNWaled
SUNWjumfr	Japanese (UTF-8) Localizations for Motif 1.2.3 Runtime Kit
SUNWjupmm	Japanese (UTF-8) Power Management OW Utilities Man Pages
SUNWjupmw	Japanese (UTF-8) Localizations for Power Management OW Utilities
SUNWjurdm	Japanese (UTF-8) OILBN ReadMe Directory
SUNWjurme	Japanese (UTF-8) Localization for Common Desktop Environment (CDE) release documentation
SUNWjusal	Japanese (UTF-8) Localizations for Solstice Admintool launcher and associated libraries
SUNWjutlm	Japanese (UTF-8) ToolTalk manual pages for ToolTalk programmers, OpenWindows users, and Common Desktop Environment (CDE) users

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD: Japanese *(continued)*

This Package	Contains
SUNWjutlt	Japanese (UTF-8) Localizations for ToolTalk binaries and shared libraries needed for Common Desktop Environment (CDE), OpenWindows, and all ToolTalk clients
SUNWjuudc	Japanese (UTF-8) Localizations for User Defined Character tool for Solaris CDE environment
SUNWjuwm	Japanese (UTF-8) Localization for CDE Desktop Window Manager
SUNWjuwnu	Japanese Input System - Wnn6 Messages, (UTF-8)
SUNWjuxfa	Japanese (UTF-8) Localizations for Font Administration application for Solaris platforms
SUNWjuxir	Japanese (UTF-8) Localizations for XIL Runtime Environment
SUNWjuxpm	Japanese (UTF-8) X Window System online programmers man pages
SUNWjuxum	Japanese (UTF-8) X Window System online user man pages
SUNWjwacx	Japanese (EUC) Localizations for AccessX client program
SUNWjwbc	Japanese Localizations for Solaris WBEM Services
SUNWjwbk	Japanese (EUC) Localizations for OpenWindows online handbooks
SUNWjwncr	Japanese Input System - Wnn6 Client (root)
SUNWjwncu	Japanese Input System - Wnn6 Client (usr)
SUNWjwncx	Japanese Input System - Wnn6 Client X Window System
SUNWjwndt	Japanese Input System - Wnn6 Client for CDE
SUNWjwnsr	Japanese Input System - Wnn6 Server (root)
SUNWjwnsu	Japanese Input System - Wnn6 Server (usr)

TABLE C–6 Packages on the Solaris 8 Languages Intel Platform Edition CD: Japanese *(continued)*

This Package	Contains
SUNWjwsr	Japanese Solaris Product Registry
SUNWjxfa	Japanese (Common) Localizations for Font Administration application for Solaris platforms
SUNWjxfnt	Japanese X Window System Fonts (required fonts) - gothic bold fonts and TrueType map files
SUNWjxoft	Sun Minchou bitmap fonts
SUNWjxplt	Japanese Localizations for X Window System platform software (Extensions)
SUNWjxpmn	Japanese (EUC) X Window System online programmers man pages
SUNWjxumn	Japanese (EUC) X Window System online user man pages

TABLE C–7 Packages on the Solaris 8 Languages Intel Platform Edition CD: Korean

This Package	Contains
NSCPkocom	Korean localization of Netscape Communicator 4.7 supporting International security
NSCPkucom	Ko.UTF-8 localization of Netscape Communicator 4.7 supporting International security
SUNWkadis	Korean (EUC) Localizations for Admintool and GUI install
SUNWkadma	Korean (EUC) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNWkadis packages for Korean (EUC) localization
SUNWkcoft	Korean/Korean UTF-8 common optional font package
SUNWkdab	Korean Localizations for CDE Desktop Application Builder
SUNWkdbas	Korean Localizations for CDE Base functionality

TABLE C–7 Packages on the Solaris 8 Languages Intel Platform Edition CD: Korean *(continued)*

This Package	Contains
SUNWkdcst	The localized tools package for Korean
SUNWkddst	Korean Localizations for CDE Desktop Applications
SUNWkddte	Korean Localizations for CDE Desktop Login Environment
SUNWkdezt	Korean (EUC) Localizations for Desktop Power Pack Applications
SUNWkdft	Fonts for the Common Desktop Environment, Korean L10N CDE
SUNWkdhe	Korean Localizations for CDE Help Runtime environment
SUNWkdhev	Korean CDE Help Volumes
SUNWkdhez	Korean (Common) Localizations for Desktop Power Pack Help Volumes
SUNWkdicn	Korean Localizations for CDE Icons
SUNWkdim	Korean Localizations for CDE Imagetool
SUNWkdwm	Korean Localizations for CDE Desktop Window Manager
SUNWkepmw	Korean (EUC) Localization for Power Management OW Utilities
SUNWkexir	Korean (EUC) XIL Runtime Environment
SUNWkj2rt	Java virtual machine and core class libraries (Korean supplement)
SUNWkjvdv	Korean Localizations for JavaVM developers package
SUNWkjvrt	Korean Localizations for JavaVM Runtime environment
SUNWkkcsr	Korean (EUC) KCMS Runtime Environment
SUNWkleue	Korean Language Environment specific files; it is a required package to run Korean Language Environment

TABLE C–7 Packages on the Solaris 8 Languages Intel Platform Edition CD: Korean *(continued)*

This Package	Contains
SUNWkoaud	Korean OPEN LOOK Audio Applications Package
SUNWkodcv	Korean OPEN LOOK Document and Help Viewer Applications Package
SUNWkodem	Korean OPEN LOOK Demo Programs Package
SUNWkodst	Korean OPEN LOOK Deskset Tools Package
SUNWkodte	Korean Core OPEN LOOK Desktop Package
SUNWkoimt	Korean OPEN LOOK Imagetool Package
SUNWkoj2p	Korean localization of Java Plug-In 1.2.2
SUNWkoman	Korean OPEN LOOK Toolkit/Desktop Users Man Pages Package
SUNWkorte	Korean OPEN LOOK Toolkits Runtime Environment Package
SUNWkpdas	Korean Localization for tools to synchronize desktop applications with the Palm Pilot PDA
SUNWkrdm	Korean (EUC) OILBN ReadMe Directory
SUNWkreg	Korean Localizations for Solaris User Registration
SUNWksadl	Korean (EUC) Localizations for Solstice Admintool launcher and associated libraries
SUNWktltk	Korean ToolTalk Runtime Package Package
SUNWkttfe	Korean True Type Font Extension
SUNWkuadi	Korean (UTF-8) Localizations for Admintool and GUI install
SUNWkuadm	Korean (UTF-8) Localizations for Software used to perform system administration tasks; Admintool requires both this and SUNWkadis packages for Korean (EUC) localization

TABLE C–7 Packages on the Solaris 8 Languages Intel Platform Edition CD: Korean *(continued)*

This Package	Contains
SUNWkudab	Korean/UTF-8 Localizations for CDE Desktop Application Builder
SUNWkudbs	Korean/UTF-8 Localizations for CDE Base functionality
SUNWkudc	Korean (EUC) Localizations for User Defined Character tool for Solaris CDE environment
SUNWkudda	Korean/UTF-8 Localizations for CDE Desktop Applications
SUNWkuddt	Korean/UTF-8 Localizations for CDE Desktop Login Environment
SUNWkudft	Fonts for the Common Desktop Environment, Korean/UTF-8 L10N CDE
SUNWkudhr	Korean/UTF-8 Localizations for CDE Help Runtime environment
SUNWkudhv	Korean/UTF-8 CDE Help Volumes
SUNWkudhz	Korean (Common) Localizations for Desktop Power Pack Help Volumes
SUNWkudic	Korean/UTF-8 Localizations for CDE Icons
SUNWkudim	Korean/UTF-8 Localizations for CDE Imagetool
SUNWkudwm	Korean/UTF-8 Localizations for CDE Desktop Window Manager
SUNWkudzt	Korean (UTF-8) Localizations for Desktop Power Pack Applications
SUNWkulee	Korean UTF-8 Language Environment specific files; it is a required package to run Korean Language Environment
SUNWkuodf	Korean UTF-8 Core OPEN LOOK Desktop Package
SUNWkupmw	Korean UTF-8 Localization for Power Management OW Utilities
SUNWkurdm	Korean (UTF-8) OILBN ReadMe Directory
SUNWkusal	Korean (UTF-8) Localizations for Solstice Admintool launcher and associated libraries

TABLE C–7 Packages on the Solaris 8 Languages Intel Platform Edition CD: Korean *(continued)*

This Package	Contains
SUNWkuudc	Korean (UTF-8) Localizations for User Defined Character tool for Solaris CDE environment
SUNWkuxe	Korean UTF-8 X Window System Platform Software Package
SUNWkuxft	Korean UTF-8 X Window System Platform Required Fonts
SUNWkwsr	Korean product registry 2.0 localizable text resources
SUNWkxe	Korean X Window System Platform Software Package
SUNWkxfte	Korean X Window System Platform Required Fonts
SUNWkxman	Korean X Window System Online User Man Pages Package

TABLE C–8 Packages on the Solaris 8 Languages Intel Platform Edition CD: Shared

This Package	Contains
SUNWerdm	OILBN ReadMe Directory
SUNWudct	User Defined Character tool for Solaris CDE Environment

TABLE C–9 Packages on the Solaris 8 Languages Intel Platform Edition CD: Spanish

This Package	Contains
NSCPescom	Spanish localization of Netscape Communicator 4.7 supporting International security
SUNWe8bas	Base L10N fr CDE functionality to run a CDE application
SUNWe8dst	CDE Desktop Applications

TABLE C–9 Packages on the Solaris 8 Languages Intel Platform Edition CD: Spanish *(continued)*

This Package	Contains
SUNWe8dte	CDE Desktop Login Environment
SUNWe8he	CDE Help L10N es Runtime Environment
SUNWe8im	CDE Desktop applications
SUNWe8wm	Spanish UTF-8 CDE Desktop Window Manager Messages
SUNWej2rt	Java virtual machine and core class libraries (Spanish supplement)
SUNWejvdv	Spanish Localizations for JavaVM developers package
SUNWejvrt	Spanish Localizations for JavaVM Runtime environment
SUNWeoaud	Spanish OPEN LOOK Audio applications
SUNWeobk	Spanish OpenWindows online handbooks
SUNWeodcv	Spanish OPEN LOOK document and help viewer applications
SUNWeodem	Spanish OPEN LOOK demo programs
SUNWeodst	Spanish OPEN LOOK deskset tools
SUNWeodte	Spanish OPEN LOOK desktop environment
SUNWeoimt	Spanish OPEN LOOK imagetool
SUNWeorte	Spanish OPEN LOOK toolkits Runtime environment
SUNWepdas	Spanish tools to synchronize desktop applications with the Palm Pilot PDA
SUNWesbas	Base L10N fr CDE functionality to run a CDE application
SUNWesdst	CDE Desktop Applications

TABLE C–9 Packages on the Solaris 8 Languages Intel Platform Edition CD: Spanish *(continued)*

This Package	Contains
SUNWesdte	CDE Desktop Login Environment
SUNWeshe	CDE Help L10N es Runtime Environment
SUNWeshed	CDE L10N es Help Developer Environment
SUNWeshev	CDE Help Volumes
SUNWesim	CDE Desktop applications
SUNWesj2p	Spanish localization of Java Plug-In 1.2.2
SUNWesos	Localizable message files for the OS-Networking consolidation
SUNWespmw	Spanish (EUC) Localizations for Power Management OW Utilities
SUNWesreg	Solaris User Registration prompts at desktop login for user registration
SUNWeswm	Spanish CDE Desktop Window Manager Messages
SUNWetltk	Spanish ToolTalk binaries and shared libraries
SUNWewacx	Spanish OPEN LOOK AccessX
SUNWewsr	Product registry 2.0 localizable text resources
SUNWexplt	Spanish X Window System platform software

TABLE C–10 Packages on the Solaris 8 Languages Intel Platform Edition CD: Swedish

This Package	Contains
NSCPsvcom	Swedish localization of Netscape Communicator 4.7 supporting International security
SUNWs8bas	Base Swedish UTF-8 CDE functionality messages
SUNWs8dst	Swedish UTF-8 CDE Desktop Applications messages
SUNWs8dte	Swedish UTF-8 CDE Desktop Login Environment messages
SUNWs8he	Swedish UTF-8 CDE Help Runtime Environment
SUNWs8im	Swedish UTF-8 CDE Image editor messages
SUNWs8wm	Swedish UTF-8 CDE Desktop Window Manager Messages
SUNWsj2rt	Java virtual machine and core class libraries (Swedish supplement)
SUNWsjvdv	Swedish Localizations for JavaVM developers package
SUNWsjvrt	Swedish Localizations for JavaVM Runtime environment
SUNWsoaud	Swedish OPEN LOOK Audio applications
SUNWsobk	Swedish OpenWindows online handbooks
SUNWsodcv	Swedish OPEN LOOK document and help viewer applications
SUNWsodem	Swedish OPEN LOOK demo programs
SUNWsodst	Swedish OPEN LOOK deskset tools
SUNWsodte	Swedish OPEN LOOK desktop environment
SUNWsoimt	Swedish OPEN LOOK imagetool
SUNWsorte	Swedish OPEN LOOK toolkits Runtime environment
SUNWspdas	Swedish tools to synchronize desktop applications with the Palm Pilot PDA

TABLE C–10   Packages on the Solaris 8 Languages Intel Platform Edition CD: Swedish   *(continued)*

This Package	Contains
SUNWstltk	Swedish ToolTalk binaries and shared libraries
SUNWsvbas	Base Swedish CDE functionality messages
SUNWsvdst	Swedish CDE Desktop Applications messages
SUNWsvdte	Swedish CDE Desktop Login Environment messages
SUNWsvhe	Swedish CDE Help Runtime Environment
SUNWsvhed	Swedish CDE Help Developer Environment messages
SUNWsvhev	CDE Help Volumes
SUNWsvim	Swedish CDE Image editor messages
SUNWsvj2p	Swedish localization of Java Plug-In 1.2.2
SUNWsvos	Localizable message files for the OS-Networking consolidation
SUNWsvpmw	Swedish (EUC) Localizations for Power Management OW Utilities
SUNWsvreg	Solaris User Registration prompts at desktop login for user registration
SUNWsvwm	Swedish CDE Desktop Window Manager Messages
SUNWswacx	Swedish OPEN LOOK AccessX
SUNWswsr	Product registry 2.0 localizable text resources
SUNWsxplt	Swedish X Window System platform software

Index

229