

Solaris 2.X Software

Installation Guide



431106001A

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UltraBook User's Guide

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Table of Contents

Chapter 1	Installing the Solaris Operating System	1
Installation Instructions		1
System Identification		3
Setting the Hostname		3
Configuring the Networking		5
Setting the IP Address		6
Confirming Host and Network Information		7
Setting the Name Service		8
Confirming Network Information		9
Configuring Subnet Information		10
Setting the Time Zone		11
Setting the Geographic Region		12
Verifying Date and Time Information		13
Confirming Time Zone & Date and Time Information		14
Installation or Upgrade		15
Setting the System Type		16
Selecting the Software Configuration		17
Disk Configuration		20
Data Preservation		22
Laying Out File Systems		23
Verifying Software and Disk Configuration		29
Automatic Reboot option		30
System Installation		31
Adding a Root Password		32
Completing the Installation		32
Appendix A:	Solaris 2.x Hard Drive Settings	A-1

Index

Notes

This instruction steps through the RDI installation of the Solaris 2.x operating system. Solaris 2.x is installed via the Sun-distributed CD-ROM. If you do not have this CD-ROM, a copy can be purchased through RDI.

Installation Instructions

If there is existing data on your workstation, back it up before beginning this procedure.

Note:

Refer to your “Sun System Administration Manual” or the man pages for *ufsdump* (Solaris 2.x), or *cpio*.

Note:

You must install from the Sun distributed CD-ROM that came with your UltraBook. Your UltraBook will not function properly if you attempt to install from an earlier version of the Solaris 2.x operating system.

1. Attach a CD-ROM drive to the SCSI port on your workstation. Power-on both the workstation and the CD-ROM drive. Load the Solaris 2.x CD into the CD-ROM drive.
2. When the system starts the boot process, place the workstation into the PROM monitor mode. This is done by holding down the STOP key and pressing the A key to interrupt the boot process.

*The **ok** prompt appears on the screen.*

3. Type **boot scdrom** to boot from an external SCSI CD-ROM and press Enter to boot the workstation.

Note:

You can also boot the system from an attached docking station if the docking station contains a CD-ROM. To boot the system from an attached docking station with CD-ROM, type **boot cdrom** and press Enter.

The system boots and displays various system messages.



The system may require several minutes to boot.

After the system messages appear, the system boots up and starts the Solaris Installation Program. The initial screen for the installation program displays on your screen.



Figure 1 The Solaris Installation Program

4. Choose **Continue** to proceed.

System Identification

This installation requires you to provide the following information:

- Your system hostname
- Your system network address (IP address)

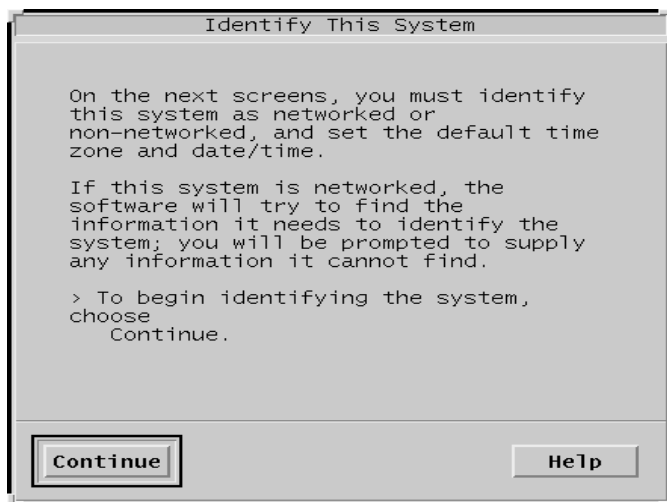


Figure 2 Identify This System

Obtain this information before proceeding with the section. Or, use the defaults shown in this guide. Hostname and IP address can be changed using the VWA utility.

1. Choose **Continue** to proceed.

Setting the Hostname

This installation assumes the workstation is installed as a standalone system, relying on local system files for password and host information. In this procedure, the name “ultrabook” will be used; replace this name with the one appropriate for your system.

The installation program will ask you to enter your hostname by displaying a message similar to the following:

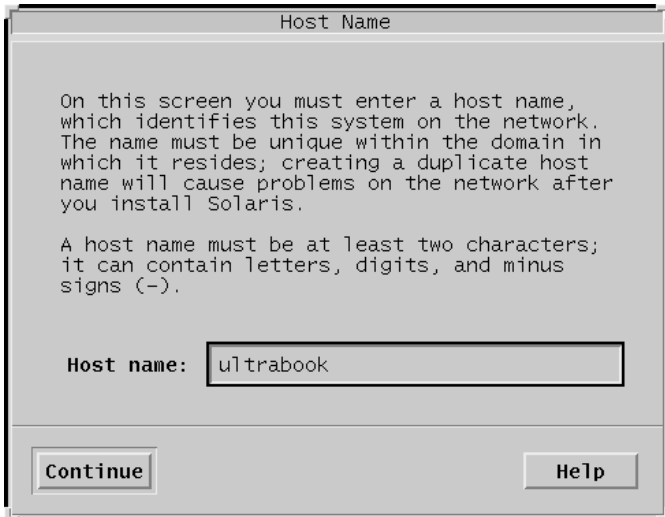


Figure 3 Host Name

1. Enter the name for your system.
2. Choose **Continue** to proceed.

Configuring the Networking

The best way to install a portable workstation is to install it as a networked, standalone machine, which does not run NIS or any other naming service. Use VWA to configure networked states for this system. The installation will ask you to specify whether the machine is connected to a network. A message similar to the following will appear:

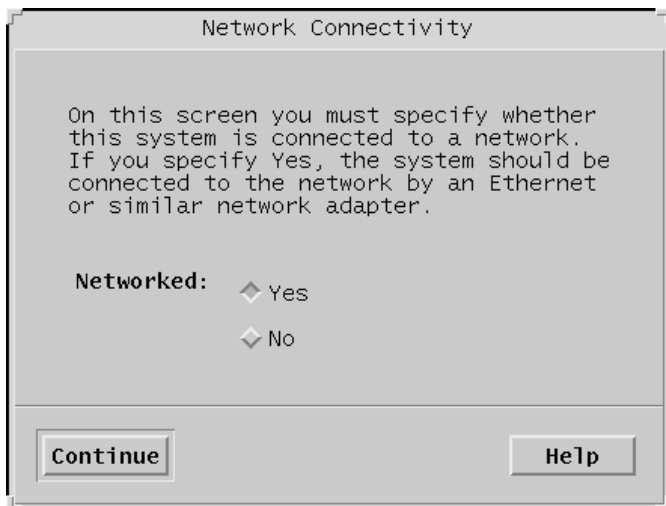


Figure 4 Network Connectivity

1. If the workstation is **or will ever be** connected to a network via an Ethernet or similar network adapter, select the **Yes** option.

Note:

Disregard any messages indicating the workstation should be connected to a network during installation.

2. Choose **Continue** to proceed.

Setting the IP Address

If you selected Yes for a networked workstation, the following message appears:

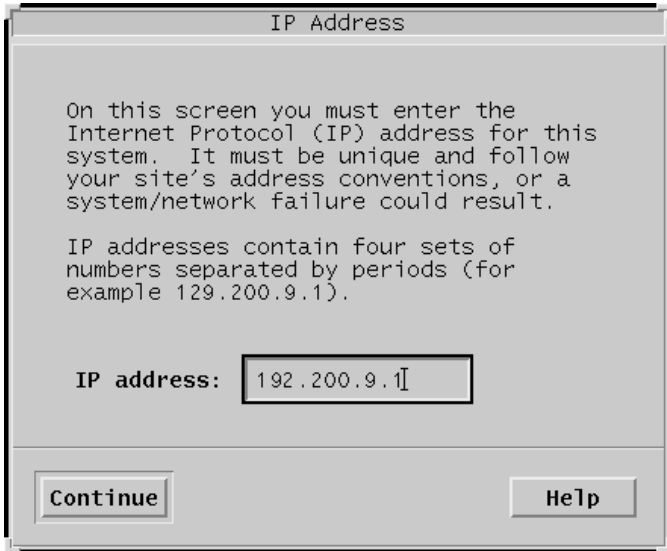


Figure 5 IP Address

1. Enter an IP Address for your system. This example uses the address

“192.200.9.1”

Note:

While you can enter your specific IP Protocol address, RDI suggests entering the “temporary” IP address shown in the example above. This will restore the workstation to its preset factory defaults for network connectivity.

2. Choose **Continue** to proceed.

Confirming Host and Network Information

The next step in the installation asks you to confirm the information you have entered. The information will appear on the screen in a format similar to the following:

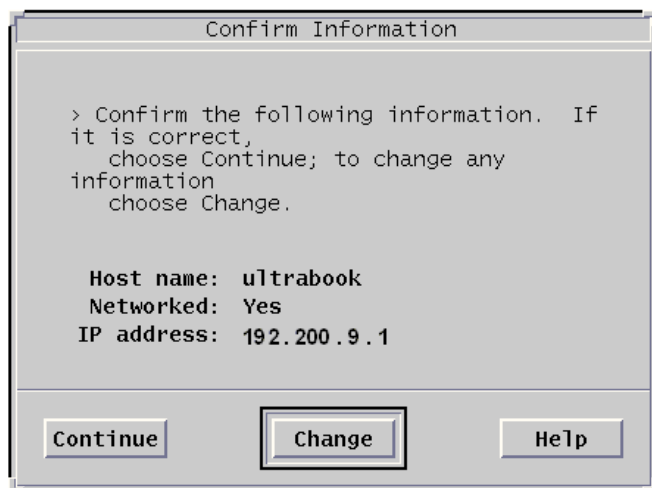


Figure 6 Confirm Information

1. Verify the information is correct.
2. If it is incorrect choose **Change** and re-enter the applicable information.
3. If the information is correct choose **Continue** to proceed.

Note:

If workstation is not attached to an active network, a message may appear:

```
hme0: No carrier - twisted pair cable problem or hub link test
disabled?
```

You can ignore these messages during the installation procedure.

Setting the Name Service

A message similar to the following will be displayed on the screen:

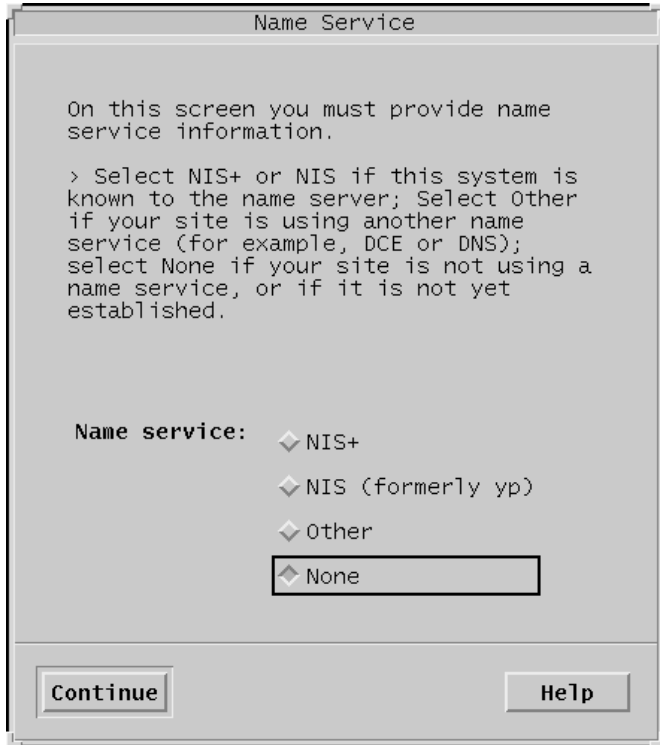


Figure 7 Name Service

1. Select the **None** option.
2. Choose **Continue** to proceed.

Note:

If you selected any option other than **None**, your workstation will not boot successfully unless it is attached to the network with the server, or unless you have configured this machine as a server. This is normal behavior for Solaris.

Confirming Network Information

This part verifies the networking information you have entered. This information appears on a screen similar to the following:

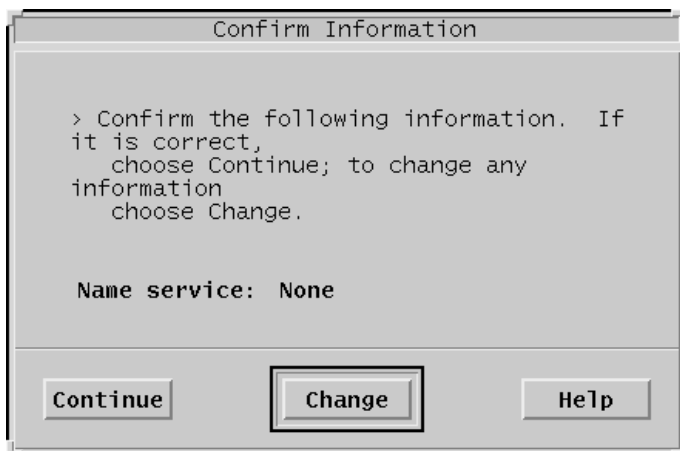


Figure 8 Confirm Information

1. Check the information displayed on the screen to verify that it is correct.
2. If it is incorrect, choose **Change** and re-enter the information.
3. Once the displayed information is correct, choose **Continue** to proceed.

Configuring Subnet Information

The next part of the installation program asks if your network has subnets. The example in this manual assumes that your network does not. A message similar to the following will be displayed on the screen:

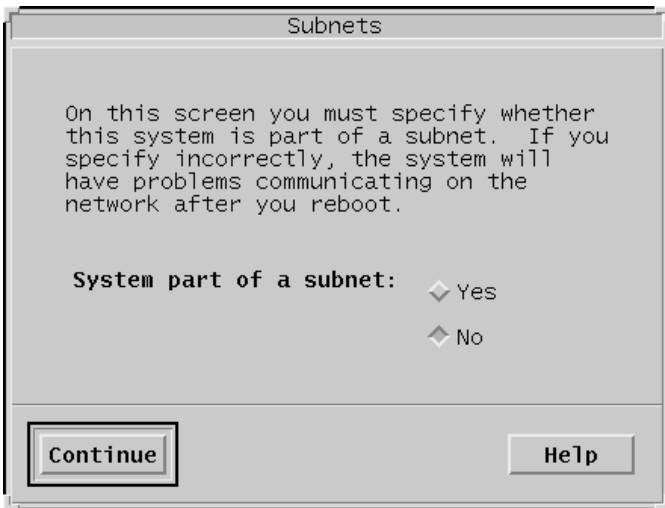


Figure 9 Subnets

1. Select the **No** option.
2. Choose **Continue** to proceed.

Setting the Time Zone

The following screen displayed sets your preferred time zone configuration.

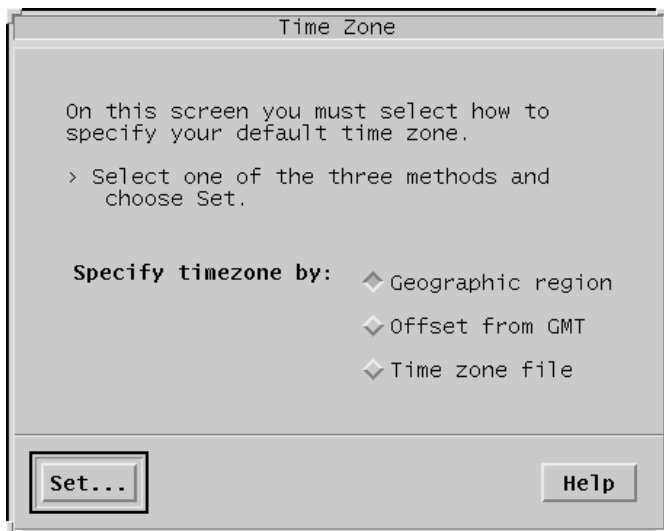


Figure 10 Time Zone

1. Select the appropriate geographic location. The example above shows workstation location by Geographic region.
2. Choose **Set...**

Setting the Geographic Region

Set your time zone according to your geographic region. This example uses the Pacific time zone.

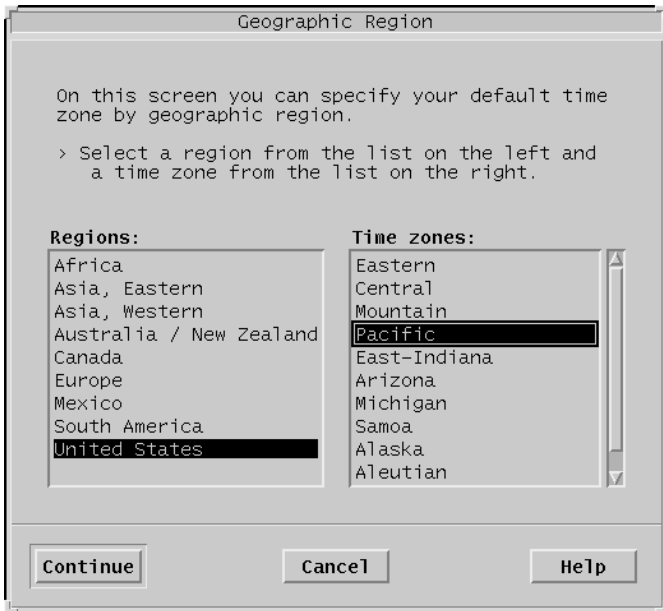


Figure 11 Geographic Region

1. Select the appropriate region and time zone.
2. Choose **Continue** to proceed.

Verifying Date and Time Information

At this point, the program verifies the information you have entered. The information will appear on a screen similar to the following:

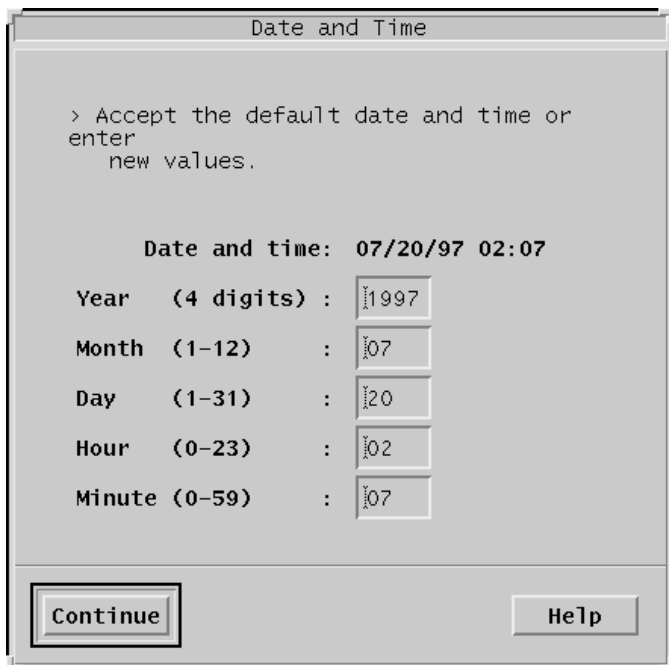


Figure 12 Date and Time

1. Verify the displayed information is correct.
2. If the displayed information is incorrect enter the correct information.
3. Once the displayed information is correct, choose **Continue** to proceed.

Confirming Time Zone & Date and Time Information

The installation program asks you to verify the system time zone and date information you have entered and indicates whether or not your workstation is part of a subnet.

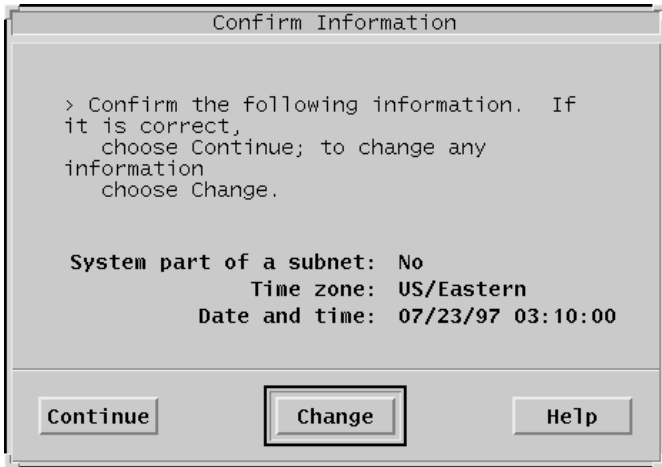


Figure 13 Confirm Information

1. Verify the information is correct.
2. If it is incorrect, choose **Change** and re-enter the correct information.
3. Once the displayed information is correct, choose **Continue**.



This completes the System Identification portion of the Solaris 2.x installation. The system may pause for several minutes at this point before proceeding.

Installation or Upgrade

If there is currently no operating system loaded on the disk, or if an ineligible version of Solaris is loaded, the system displays the Install Solaris Software - Initial screen. The Solaris installation program then proceed to Setting the System Type.

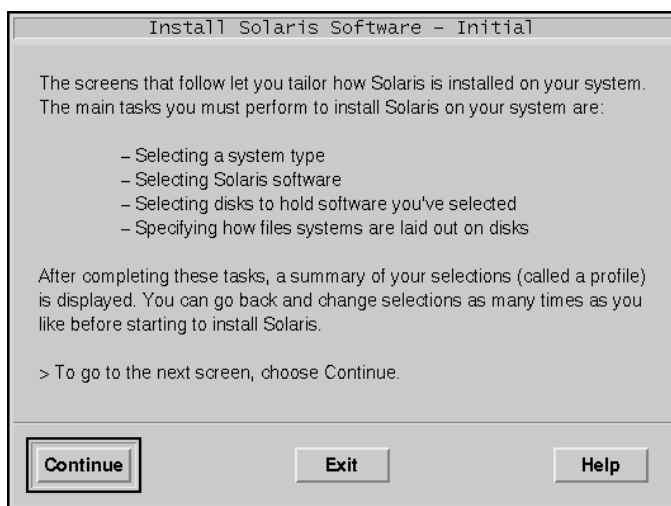


Figure 14 Install Solaris Software - Initial

If an earlier version of Solaris has previously been loaded onto this workstation, the Solaris installation program may notify you about an option to upgrade the existing operating system.

This option is not recommended, and the upgrade procedure is outside the scope of this instruction. For information about upgrading a previous version of Solaris to Solaris 2.x, refer to the “Sun Solaris 2.x Installation Manual”.

Note:

Only certain configurations of Solaris can be upgraded.

If your system is upgradable, a message similar to the following is displayed:

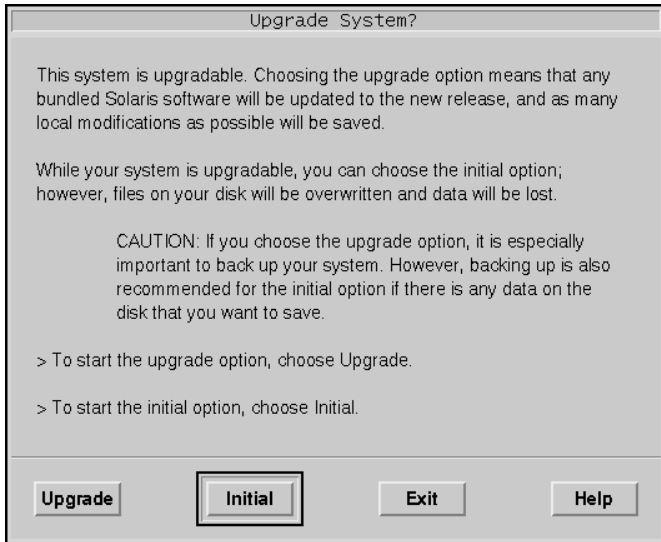


Figure 15 Upgrade System

1. Choose **Initial**.

The installation program will then ask you to specify a system type.

Setting the System Type

The installation program asks you to define the type of system you are working on. The type of system describes where the workstation obtains the files essential for its operation.

A standalone workstation can obtain or share files with other systems, but does not require them to be present to function, and is not required by other systems to function properly. A portable workstation is, by definition, a standalone type.

A message similar to the following will be displayed:

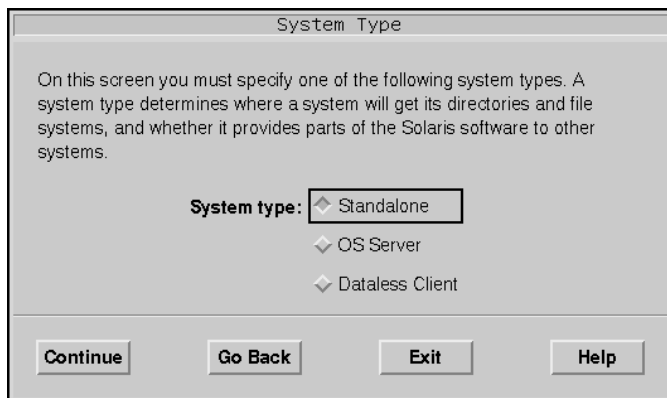


Figure 16 System Type

1. Select the **Standalone** option, as shown in the screen. This option allows your system to share file systems with other machines, but prevents your system from relying on having another machine present in order to boot successfully.
2. Choose **Continue** to begin choosing the software configuration to be installed on the workstation.

Selecting the Software Configuration

The procedure specifies the software to be loaded on your system. The available options include loading the entire Solaris 2.x distribution, loading one of several predetermined subsets, or modifying one of the previous options to tailor the installation for your system.

The Software group selection or similar screen appears:

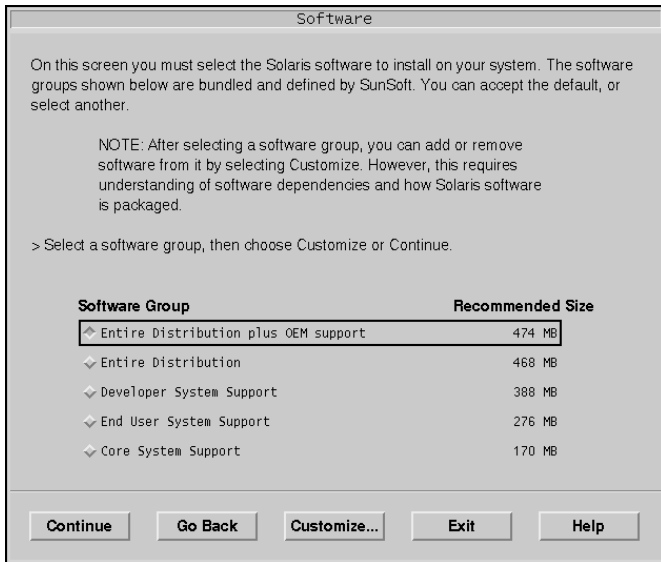


Figure 17 Software

1. Select the **Entire Distribution plus OEM Support** option and choose **Continue** to accept the installation defaults and continue.
2. (Optional, not recommended)

Choose **Customize** to begin modifying the selected software group.

Note:

Choosing to customize is not recommended, unless you have a thorough understanding of networked and standalone systems configuration.

*If you chose **Continue** proceed to the section on “Disk Configuration,” on page 20.*

Software Customization

Use your mouse to move among and to select various software packages and their components. Press Enter to make the selection.

Some packages incorporate several smaller packages. These are referred to as clusters. A cluster can be dealt with as a whole, or by its individual package components.

The screen shown here displays a legend of the possible conditions for selected software clusters and packages.

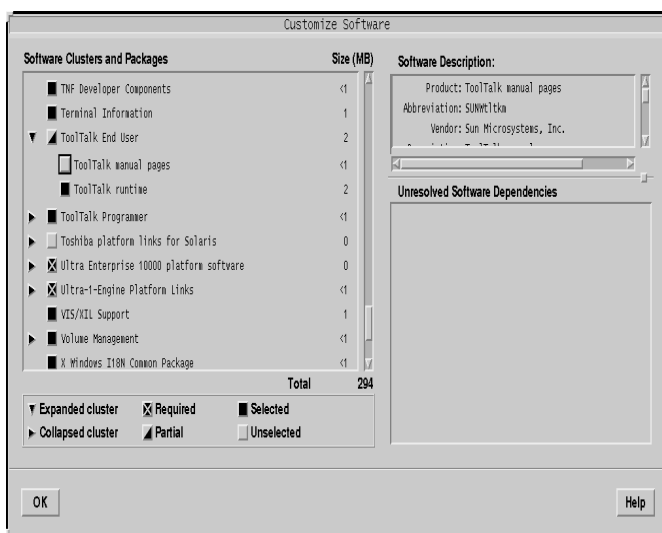


Figure 18 Customize Software

1. To expand a software cluster, select the desired cluster.
2. To collapse an expanded software cluster, select the expanded cluster again.

Note:

A program or cluster can be selected, partially selected, or unselected. See the screen legend to determine the selection status of an individual program or cluster.



Required packages must be installed for the system to function properly.

3. When finished making your software selections choose **OK** to continue.

This ends the Software Selection/Customization portion of the Solaris installation. The next section of the Installation process will require you to configure your disk drive(s).

Disk Configuration

In this section, you tell the Solaris Installation Program where to place the software that you've chosen to load onto the workstation.

The program, in turn, will tell you how much disk space is required for your software, and the available unconfigured disks.

During this process, this screen will display an entry line for each disk drive attached to your workstation. You must configure an operating system disk (or disks), with sufficient space to hold all of your software selections.

If there are other disks attached to the system, you can also partition them at this time.

The following screen is an example of the Disk Configuration screen.

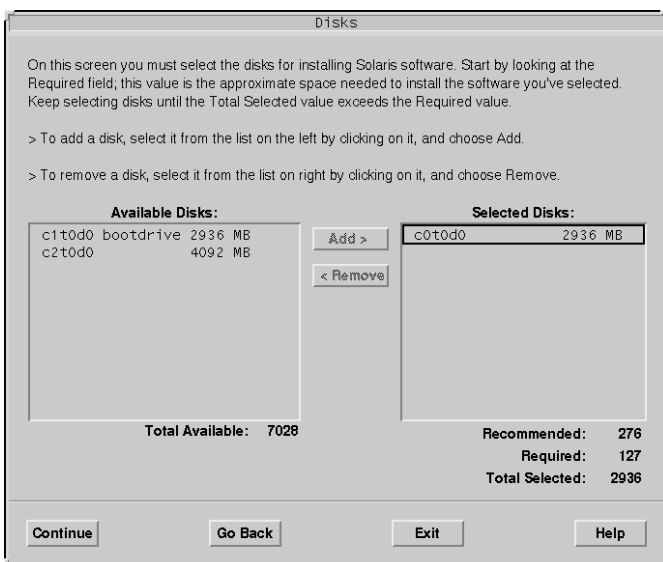


Figure 19 Disks

1. Select the applicable disk and choose **Add** to add the selected disk to the Selected Disks list.
2. Choose **Continue** to proceed.

Data Preservation

If the disk(s) have file systems previously created on them, the Preserve Data? screen appears.

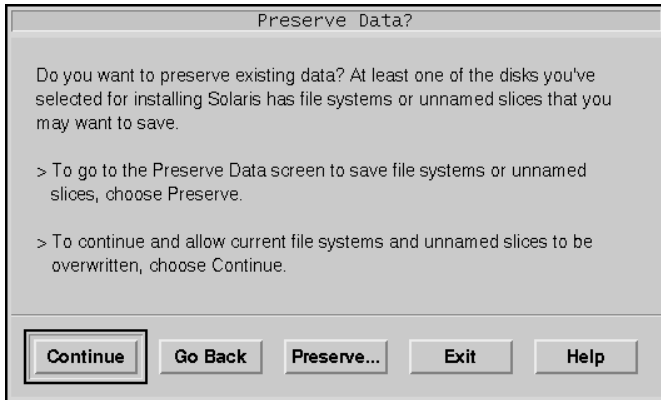


Figure 20 Preserve Data

Note:

You cannot preserve your operating system partitions in a Solaris initial software installation. However, if you have other partitions or disks you want left alone, select the **Preserve** option and answer the applicable questions.

Note:

You will not be able to preserve operating system partitions or to resize the partitions you want preserved if:

- The disk you are configuring is the operating system disk and there are no data partitions on it.
- There are no data partitions that you want to preserve.

1. Choose **Continue** to allow the installation program to overwrite existing slices and file systems or select another option to preserve existing data.

Note:

It is recommended that you choose **Continue**.

Laying Out File Systems

Here, the program asks how you want to partition or allocate the disk space you have. The program can assume the requirements and do the allocation for you. This is called the auto-layout feature. Automatic Layout

The installation program asks if you want the installation program to layout file systems automatically. RDI recommends that you choose this layout option.

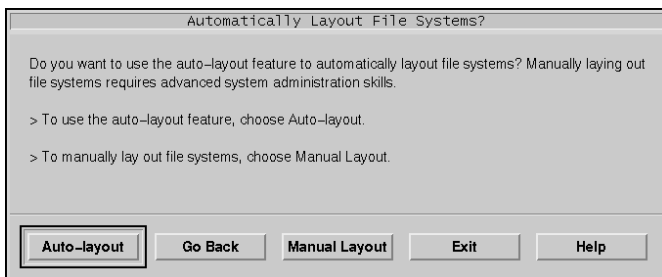


Figure 21 Automatically Layout File Systems

1. Choose **Auto-layout** to have the installation program layout your file systems automatically.



Caution: *Unless you are an experienced network administrator, it is recommended you use the automatic layout procedure.*

The installation program continues and allows you to set sizes and mount points for each file system.

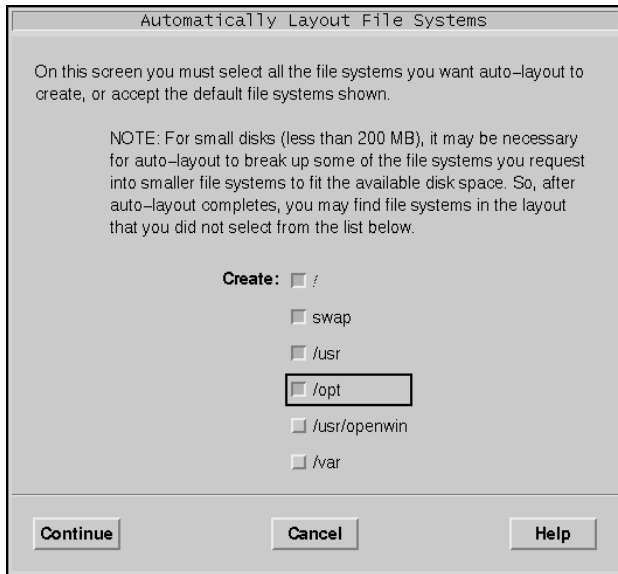


Figure 22 Automatically Layout File Systems

Note:

While you can select any layout option applicable to this installation, RDI recommends that you also specify an additional partition for **/opt** by selecting it as shown in Figure 22.

2. Select **/opt** and choose **Continue**.

This displays the File System and Disk Layout screen shown in Figure 23.

3. Review your file system and disk layout options.

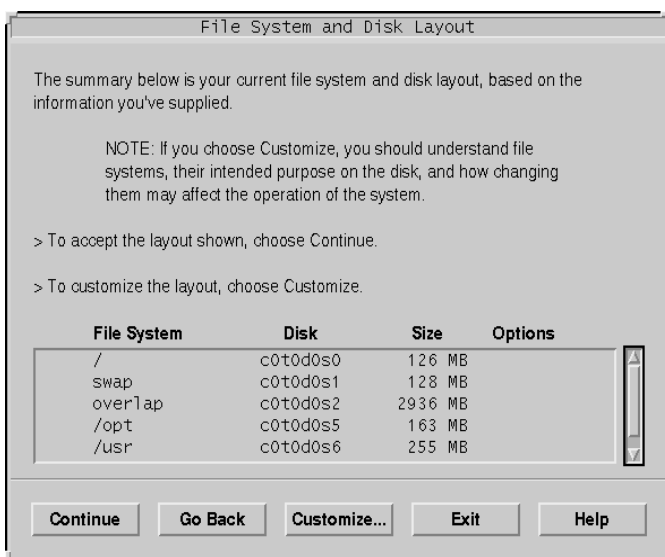


Figure 23 File System and Disk Layout

Note:

RDI recommends increasing the `/opt` partition to at least 325 MB (as shown above) for best overall system performance.

4. (Recommended, not required)

Choose **Customize** to display the Customize Disks screen.



Figure 24 Customize Disks

- a. Adjust the **/export/home** and **/opt** partitions to allow for an **/opt** partition of 325 MB (minimum recommended).

Note:

The numbers shown in the above example are for demonstration purposes only. Adjust the recommended partition sizes until your **/opt** partition is set to 325 MB and your **Free** space is equal to 0 MB. A small rounding error (1 MB) is acceptable and will not affect system performance.

- b. Choose **OK** when you have finished customizing partitions.

The installation program re-displays the File System and Disk Layout screen with your new partition settings.

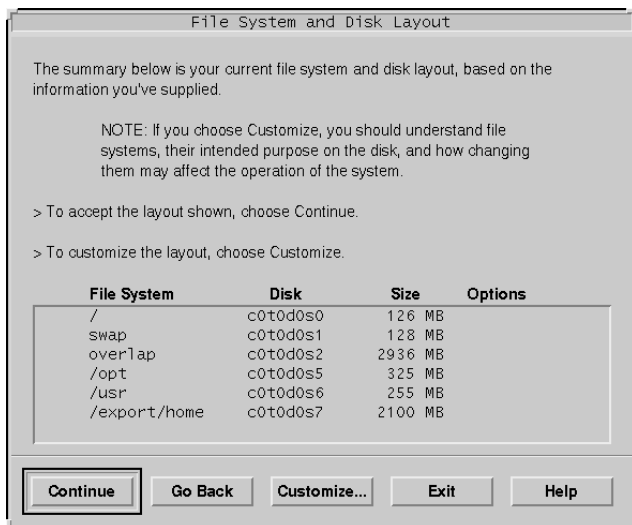


Figure 25 File System and Disk Layout -- Customized

5. Choose **Continue** to proceed when you are satisfied with your selections or select another option to further customize your file system and disk layout selections.

Mounting Remote File Systems

The Solaris installation gives you the option to mount software from another server. It is recommended that the Mount Remote File System option NOT be selected for a portable workstation, since it requires the remote file server be always attached to the portable workstation to operate.

For a portable workstation, use VWA to configure remote mounts, or do this from the operating system level.

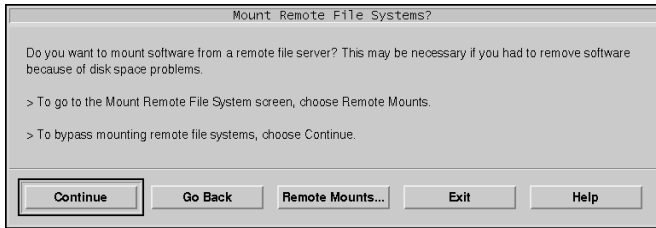


Figure 26 Mount Remote File Systems

1. Choose **Continue** to proceed with the Solaris installation.

Verifying Software and Disk Configuration

The Solaris installation program summarizes the software choices you selected to be installed and the disk layout(s). The Profile screen displays the summary information applicable to your installation of the Solaris operating system.

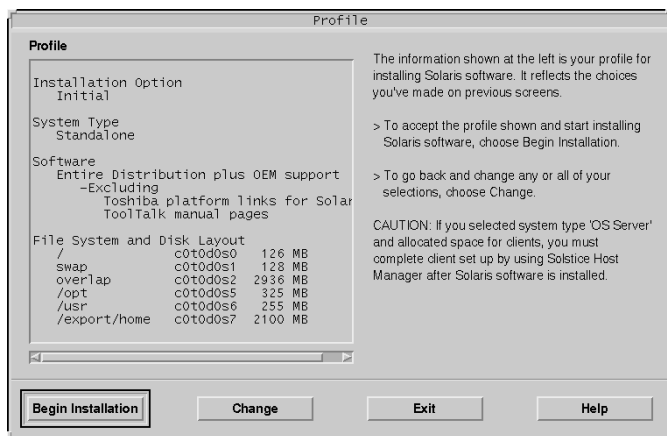


Figure 27 Profile

1. Verify the information displayed is correct.
2. If it is incorrect, choose **Change** and re-enter the information.
3. Choose **Begin Installation** to proceed.

Automatic Reboot option

Next, the Solaris installation program asks if you want to automatically reboot the system after loading the system software and configuring the operating system.

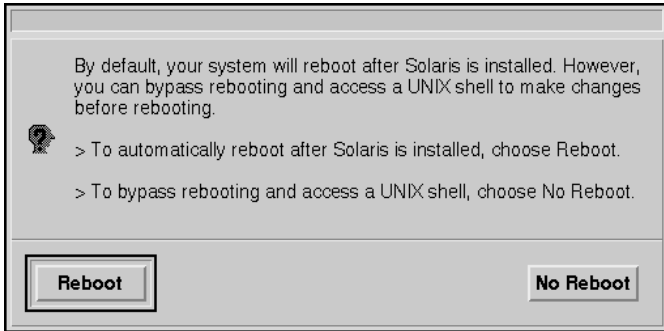


Figure 28 Reboot Option

1. Select the **Reboot** option.

System Installation

The system displays various messages as the operating system is loaded onto the disk. The program continuously updates the screen with messages about the amount of data installed, time remaining, and the package currently being installed.

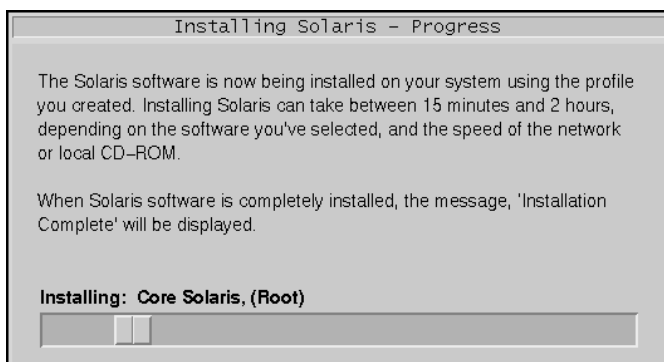


Figure 29 Installing Solaris

Note:

The time remaining is only an estimate based on the amount of software to be loaded, and may change during the installation.

Adding a Root Password

After the system installation is complete, the workstation reboots and asks you to enter the root password.

1. Type the new password and press Enter. You are asked to re-enter the password to verify that there were no mistakes or spelling errors.

Note:

This password will be required to login to the workstation as root.

2. Re-enter the same password and press Enter. The system continues with the boot process.

Note:

Step 2 will only occur during the initial installation/boot.

The system displays various start-up messages and loads the Solaris operating system.

Completing the Installation

See the VWA Software Installation Manual for instructions on installing RDI enhancement software. This software is essential for your workstation to operate properly.

A

Solaris 2.x Hard Drive Settings

Appendix A lists the types of hard disk drives RDI has made available. Each table lists the drive's corresponding parameters when used with Solaris 2.x.

In the table below, the term “swap” indicates a system swap partition, and should not be mounted, or treated as a mountable file system. The term “backup” refers to the entire disk, and should also not be used as a mounted partition. If you want to use the entire disk for a single partition, you should use another partition such as slice 7 for the file system.

Note:

“Slice” is a Solaris 2.X term for partition.

Manufacturer: **IBM**
Model: **DLGA-23080**
Cylinders: **5968**
Alternate: **-**
Heads: **16**
Sectors: **63**
RPM: **4900**

Part	Start Cyl.	Blocks	Number of Cyls.	Size (MB)	Mount Point
0	0	25906	257	125.49	/
1	257	263088	261	128.46	swap
2	0	6013728	5966	2.870 (GB)	backup
5	518	666288	661	325.34	/opt
6	1179	523152	519	255.45	/usr
7	1698	4301136	4267	2.05 (GB)	/export/home

Notes

- A**
- adding a root password 32
 - automatic file system layout 23
 - automatic reboot 30
- B**
- boot 1
 - automatic reboot 30
 - CD-ROM 2
- C**
- CD-ROM 1
 - configuring 5, 10
 - networking 5
 - subnet information 10
 - confirming 7, 9, 14
 - date 14
 - time zone 14
 - connectivity 5
 - core system support configuration 17
 - cpio 1
 - customizing software 19
- D**
- data preservation 22
 - dataless client system type. 16
 - date and time 13, 14
 - developer system support configuration 17
 - disk configuration 29
 - drive settings A-1
- E**
- end user system support configuration 17
 - entire distribution configuration 17
 - Ethernet 5
- F**
- file system, laying out
 - automatically 23
 - file systems, laying out 23
- G**
- geographic region 12
- H**
- hard drive settings A-1
 - host
 - confirming 7
 - hostname 3
 - setting 3
- I**
- identification, system 3
 - installation, system 31
 - IP address 3, 6
 - confirming 7
- L**
- laying out file systems 23
- N**
- name service 8, 9
 - confirming 9
 - network address 3, 6, 7
 - networking 5
- P**
- preserving data 22
- R**
- required software packages . 20
 - root password, adding 32
- S**
- selecting 17
 - software configuration . 17
 - server system type 16
 - setting 3, 6, 8, 11, 12, 16
 - geographic region 12

hard drives	A-1
IP address	6
name service	8
system type	16
time zone	11
software	29
software configuration	17
software customization	19
required packages	20
standalone system type	16
subnet information	10
system identification	3
system installation	31
system type	16

T

time and date	
confirming	14
verifying	13
time zone	11

U

ufsdump	1
upgrading earlier version	15

V

verifying	13, 29
date and time	13
disk configuration	29
software	29