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# Release 4.1 Quick Install

[With Release 4.1, all users who are installing **standalone configurations** are encouraged to use Quick Install, leaving the traditional SunInstall installation for system administrators and other, more experienced users.]

## Introduction

This document is a guide to Release 4.1 Quick Install. It contains this introduction, plus the following sections:

- **What is Quick Install?** Provides background information about the quick install feature of SunInstall.
- **Before You Begin** Contains the preliminary information you need to use Quick Install.
- **Installation Procedure** Guides you through a fast installation of Release 4.1.

## What is Quick Install?

For users who want to install the Sun workstation **standalone**, SunInstall offers two methods:

- Quick Install (new with Release 4.1) offers you a choice of standard installations, each of which is tailored to different user needs and applications. The standard installation categories are: typical user, programmer, full install, and mini install. Quick Install requires a local media device, and only uses the system disk, on which you load the miniroot. You can configure only one Ethernet interface with Quick Install, however. Choose this method if you want a quick and automatic installation.
- Custom Install (the traditional SunInstall installation method) allows you to customize each phase of the installation—from setting up the file systems to selecting the software categories to load. Refer to the *SunInstall User's Manual* for details.

## Before You Begin

**CAUTION** Back up your system before you proceed. Quick Install overwrites the disk files in partitions A and G of the system disk for all types of

systems. Many system disks smaller than 110 Mbyte will have all of the data on the disk overwritten because all of the data is in partitions A and G. Many Sun-3/80 and SPARCstation 1 system disks are smaller than 110 Mbytes. If you are loading SunOS for the first time, make sure that your disk is formatted before you proceed.

Before you use Quick Install, choose a name for your workstation and write down your IP address. If you want to use the NIS name service, you will need to know your domain name. Use the `domainname` command to display this information on a running system. If you don't know your IP address or domain name, contact your system administrator.

The following procedure assumes that you are going to install Release 4.1 from a local media storage device onto a local disk. If you don't know the Sun abbreviation for these devices, see Tables 1 and 2.

Table 1 *Media Devices*

Abbreviation	Media Device Number	Description
<b>xt</b>	xt0	1/2" tape drive (Xylogics controller)
<b>mt</b>	mt0	1/2" tape drive (Tapemaster controller)
<b>fd</b>	fd0	floppy disk drive
<b>sr</b>	sr0	cd-rom drive
<b>st</b>	st0,st1	scsi tape drive

*NOTE* The device name of the cd-rom is **sr** for everything except the boot PROM. For this, the device name is **sd** like all other SCSI disk devices.

Table 2 *Disk Devices*

Abbreviation	Disk Device Numbers	Description
<b>sd</b>	sd0 sd1 sd2 sd3 sd4 sd6	SCSI disk
<b>xy</b>	xy0 xy1 xy2 xy3	Xylogics 450/451 SMD disk
<b>xd</b>	xd0 through xd15	Xylogics 7053 disk

## Abort Sequences

As you perform the procedure in the next section, you may want to abort the installation. If so, use the following abort sequences:

- During steps 1 through 3, you can press **[LI-a]** to abort your system and return to the PROM monitor.
- While you are completing the Quick Install forms in the remaining steps, you can press **[Control-C]** at any time to stop the installation and return to the miniroot.

**Do not press [Control-C], while disk or tape operations are in progress.**

## Installation Procedure

The installation procedure is actually a two-part process. First, you copy the miniroot from the software delivery media to a formatted disk. Then, you install the release 4.1 software on the disk.

*NOTE* In this procedure, the word *type* means to type the characters without pressing **Return**. The word *enter* means to type the characters, and then press **Return**.

To install Release 4.1 with Quick Install:

1. Load the first Release 4.1 media into your media device.
2. Become superuser and halt your machine.

```
clytemnestra: su
Password:
# /etc/halt
```

When the system halts, the PROM monitor prompt (>) appears.

## Miniroot Installation

The miniroot is a small version of the operating system that includes the kernel `vmunix`, plus a few essential utilities such as `cat`, and `ed`. To limit the size, the miniroot does not include common programs such as `more` or `vi` (the visual editor). If you need an editor while in the miniroot, you must use `ed`, the SunOS line editor. However, the use of an editor is not required to install SunOS 4.1.

1. Copy and boot the miniroot with the following command syntax. Substitute the appropriate abbreviation from Tables 1 and 2 for *devicename* and *disk*. Replace *n* by the applicable numbers from Table 3. The *n1* is the controller number, *n2* is the SCSI device bus address, and *n3* is the number of the file on the media (tape, floppy disk, or cd-rom).

Syntax for tape:

```
> b devicename (n1,n2,n3) install disk (n1,n2,n3)
```

Syntax for floppy disk and cd-rom:

```
> b devicename (n1,n2,n3) -sw
```

Table 3 *SCSI Device Syntax*

<i>Device</i>	<i>Standard</i>	<i>Sun-3/80</i>	<i>SPARCstation 1</i>
<b>st0</b>	st0(0,0,0)	(0,0,0)	(0,0,0)
<b>st1</b>	st(0,28,0)	(0,28,1)	(0,1,0)
<b>sd0</b>	sd(0,0,1)	(0,0,1)	(0,0,1)
<b>sd1</b>	sd(0,1,1)	Not used	(0,1,1)
<b>sd2</b>	sd(0,8,1)	(0,8,1)	(0,2,1)
<b>sd3</b>	sd(0,9,1)	Not used	(0,3,1)
<b>sd4</b>	sd(0,10,1)	(0,10,1)	N/A
<b>sd5</b>	Reserved	Reserved	Reserved
<b>sd6</b>	sd(,18,1)	(0,18,1)	N/A
<b>sr</b>	sd(0,30,y)	Not used	(0,6,2)
<b>fd0</b>	Not used	(N/A)	(0,0,0)

y = 1 for Sun4.

The following examples show how to copy the miniroot to the boot devices.

#### Example for tape to SCSI disk

To copy the miniroot from tape `st0` to SCSI disk `sd0`:

```
> b st()install sd(,1)
```

After you enter the appropriate command, a series of messages appears, followed by the `root` prompt (`#`). When this appears, proceed to *SunOS Installation*.

#### Example for cd-rom or floppy disk to SCSI disk

To copy the miniroot from cd-rom `sr0` to a SCSI disk on a SPARCstation 1:

```
> b sd(,6,2) -sw
```

where `-sw` is an option that specifies single user and write to the file system.

If you are copying the miniroot from floppy disk, you are prompted to change disks as required.

When the system is ready to install the miniroot from cd-rom or floppy disk, the following menu appears:

```

What would you like to do ?
 1 - install SunOS mini-root
 2 - exit to single user shell
Enter a 1 or 2:

```

Enter **1** to continue the installation.

If your system has only one SCSI disk, the miniroot is copied to that disk. If your system has more than one disk, specify the disk number after the following message appears:

```

Enter a 1 or 2:1
Beginning system installation - probing for disks:
Which disk do you want to be your miniroot system disk.
 1 - sd0: disk description
 2 - sd1: disk description
 3 - exit to single user shell
Enter a 1, 2, or 3:

```

Enter the appropriate number to select the disk.

Before the miniroot is copied, you can reformat and re-label the disk.

### Example:

```

Enter a 1, 2, or 3:2
selected disk unit "sd1"
Do you want to format and/or label disk "sd1"
 1 - yes, run format
 2 - no, continue with loading miniroot
 3 - no, exit to single user shell
Enter a 1,2, or 3:

```

After the disk is formatted, the miniroot is copied to the disk. Then, the reboot menu appears:

```

Mini-root installation complete.

What would you like to do ?
 1 - reboot using the just-installed mini-root
 2 - exit into single user shell
Enter a 1 or 2: 1

```

Enter a **1** to reboot the miniroot.

## SunOS Installation

1. From the miniroot reboot menu, enter **1** to reboot the miniroot.

*NOTE* Some of the screen prompts that appear while you are doing the Quick Install support a help function. To display the help messages, press "?". Also, you can enter information in the screens and then change your mind because the last screen in the Quick Install requests confirmation of your choices.

Start SunInstall as follows:

```
# suninstall
```

SunInstall displays the following screen:

```

Welcome to SunInstall

Remember: Always back up your disks before beginning an installation.

SunInstall provides two installation methods:

1) Quick installation:

Choose this method if you want a quick and automatic installation.
This method offers a choice of standard installations, each tailored
to different needs and applications. You will be asked a minimum
number of questions. The Quick Install guide contains more
information to help you decide if this method is appropriate.

2) Manual installation:

Choose this method if you want more freedom to configure your
system. You must use this option if you are installing your
system as a server.

Your choice (or Q to quit) >> 1
```

2. Enter **1** to select the quick installation method.  
SunInstall requests a terminal type.

```
Select your terminal type:
1) Televideo 925
2) Wyse Model 50
3) Sun Workstation
4) Other

>> 3
```

The device check takes 10 to 30 seconds.

After you have selected a terminal, SunInstall checks the media devices and then requests a system name. Only the device from which you are installing should have SunOS on it because SunInstall tries to use the first device it finds.

Choose a system name that starts with a lower case letter, followed by any combination of lower case letters, numbers, underscores (\_), hyphens (-), or periods.

```

                                HOSTNAME
-----
This screen assigns a name to your workstation. If your system is connected
to a network, choose a name that is unique within your area network.
Type '?' if you want more information about selecting a name.

hostname : noname

```

3. Press **Delete** or **Control-U** to erase the sample response (noname), and enter your machine (or host) name.

SunInstall prepares to set your system clock by displaying the TIME ZONE screen to gather the required information.

```

                                TIME ZONE
-----
Select one of the following regions.

                                x*  United States
                                *   Canada
                                *   Mexico
                                *   South America
                                *   Europe
                                *   Asia
                                *   Australia and New Zealand
                                *   Greenwich Mean Time

Press <Return> or <Space> to move forward to your choice and type 'x'.
Type '?' if you need more information about choosing a time zone.

```

4. Press **Return** or the spacebar to move the cursor to a category, then type **x** to display a submenu of timezones for that category.

If you select United States, for example, the following screen appears.

```

                                UNITED STATES
                                Please use x or X to select your choice

TIME ZONE NAME                    AREA
US/Eastern                        Eastern time zone, USA
US/Central                        Central time zone, USA
US/Mountain                       Mountain time zone, USA
US/Mountain - Arizona            Mountain time zone, USA
                                No daylight savings time
US/Pacific                       Pacific time zone, USA
US/Pacific-New                  Pacific time zone, USA
                                with proposed change to Daylight
                                Savings Time near election time
US/Alaska                       Alaska time zone, USA
US/East-Indiana                 Eastern time zone, USA
                                no Daylight Savings Time
US/Hawaii                       Hawaii

```

5. Press **Return** or the spacebar to move the cursor to the appropriate timezone, and type **x**.

After you select a time zone, SunInstall requests confirmation by displaying the SYSTEM TIME screen:

```

                                SYSTEM TIME SCREEN
-----
This screen sets the system clock.  If you type 'n' and press <Return>
you must enter the correct time yourself.  Type '?' for information
about entering the time.

Is 'Sun Oct 15 10:28:08 1989 PDT' the correct time? [y/n]: y

```

6. If the time is correct, press **[Return]** to select the default (y) . Otherwise, enter **n** and press **[Return]**.

- If you answer **n**, be prepared to specify the date and time in the format:

mm/dd/yy	(two-digit-month/two-digit-day/two-digit-year)
hr:mm:sec	(two-digit-hour: two-digit-minutes: two-digit seconds)

SunInstall displays the format so that you can set the date and time yourself.

- If you enter **y**, SunInstall uses the displayed information to set the system clock.

Next SunInstall asks whether or not your workstation is connected to a network.

```

                                NETWORK
-----
This screen determines whether or not your system will be configured
into a network. If you enter 'y' you will need to answer some
additional questions.

Before the network installation begins, verify that an Ethernet cable
is plugged into the back of your system.

Is your workstation attached to a network? [y/n]: y

```

7. If your workstation is on a network, press **[Return]** to select the default (y). Otherwise, enter **n**.

If you enter **y**, SunInstall requests your Internet address.

```

                                NETWORK ADDRESS
-----
This screen assigns a network address to your workstation. Do not use
the displayed address (192.9.200.1). Contact your System Administrator
for the unique network address of your system. Do not enter an address
unless you are sure it is correct.

Type '?' for information about entering your network address

Internet Address: 192.9.200.1

```

8. Press **Delete** or **Control-U** to erase the sample response (192.9.100.1), and enter your IP Address.

SunInstall displays the following screen:

```

                                NIS NAME SERVICE
-----
The NIS is the Network Information Service.  If your site uses
NIS, enter 'y' to ensure correct access to the service.  Ask your System
Administrator if you do not know whether or not your site uses
NIS.

Will your workstation be using NIS? [y/n] : n

```

Press **n** to skip the DOMAIN menu and display the PRESERVE PARTITIONS screen.

To use NIS, enter **y**: SunInstall requests your domain name.

```

                                DOMAIN NAME
-----
Your domain name distinguishes your network from all other networks.
Do not use the displayed name (noname).  Contact your System
Administrator for the existing domain name of your network.

Type '?' for information about domain names.

Domain name : noname

```

9. Press **Delete** or **Control-U** to erase the sample response (noname), and enter your domain name.

After you enter your domain name, SunInstall displays the PRESERVE DATA PARTITIONS screen, so that you can specify whether you want to preserve data on your disk (your home directory, for example).

### PRESERVE DATA PARTITIONS

Quick Install gives you the option of saving data partitions that already exist on the installation disk. If additional disks are attached to the system, Quick Install does not affect them.

If you enter 'n', Quick Install will not preserve any partitions on the installation disk. The contents of the disk will be erased before installation begins.

If you enter 'y', Quick Install will install software in the a: and g: partitions, but preserve the other partitions. Only the contents of the a: and g: partitions will be erased before installation begins.

- If your home directory is currently in the g: partition, it will be lost. This commonly applies to small disks (110 MB or less). Back up your home directory so that you can restore it from media later.
- If your home directory is currently in the h: partition, it will be preserved. This commonly applies to large disks (over 110 MB).

Do you want to preserve the existing data partitions? [y/n] : n

The PRESERVE DATA PARTITIONS screen doesn't apply under the following circumstances:

- You are installing Release 4.1 on a new disk.
- All of the data is in partitions A and G.

Since NO data on the disk is preserved, you can simply press **Return** to enter **n**, the default. If you need to preserve the data, exit from Quick Install.

If you are installing Release 4.1 on a disk that contains data, in a partition other than A or G, you should consider your response carefully. When you've read the text of the screen, type ? for more detailed information.

Enter **n** or **y**, as appropriate.

The following screen displays the choices you'll see for a typical networked environment; other choices appear for a non-networked environment.

```

                                STANDARD INSTALLATIONS
-----
Select the standard installation that best suits your needs. Press
<Return> or <Space> to move forward a choice or <Control-B> to move
backward. Type 'x' to make a selection or '?' to display more
information about a choice. The menu scrolls up if additional
choices are available.

Select <none of the above> if none of the installations apply.

INSTALLATION DESCRIPTION
-----
Typical_user  Typical user running SunView applications
Programmer    Programmer writing and debugging software
Full_install  Install everything on the SunOS installation media
Mini_install  Installs smallest workable system (no SunView)
<none of the above>

```

The STANDARD INSTALLATIONS screen is displayed so that you can pick an installation. Here are your choices:

- Typical\_user is a system suited to the average user, who is not a programmer, but someone who just wants to run SunView applications, edit files, use mail, and so on.
- Programmer is a system suited to programmers, who want to develop and test programs in a SunView environment.
- Full\_install is a system that contains all of the Release 4.1 software.
- Mini\_install is a system suited to only the simplest uses. This installation is for those who require basic network functions, but don't need to run SunView applications.

You can type ? to see the software categories associated with each installation. Table 4, at the end of this document, lists all of the Release 4.1 software categories. If networking is not selected, you can remove the Networking category from each set of software. The software in each category is:

```

Typical_user  root, usr, Kvm, Install, Networking,
              System_V, Sys, Debugging, SunView_Users,
              Text, and Manual

```

```

Programmer    root, usr, Kvm, Install, Networking,
              System_V, Sys, TLI, RFS, Debugging,
              SunView_Users, SunView_Programmers,
              SunView_Demo, Text Graphics Manual

Full_install  root, usr, Kvm, Install, Networking,
              System_V, Sys, TLI, RFS, Debugging,
              SunView_Users, SunView_Programmers,
              SunView_Demo, Shlib_Custom, Text,
              User_Diag, Graphics, uucp, Manual, Demo,
              Games, Versatec, Security

Mini_install  root, usr, Kvm, Install, Networking

```

10. Press **Return** or the spacebar to move the cursor down the list of displayed choices.

To select an installation, type **x**.

A screen such as the following is displayed so that you can confirm the information you've entered.

```

                                CONFIRMATION
-----
Hostname      : clytemnestra
Timezone      : US/Pacific
Internet Address : 195.5.2.15

NIS domain 'em_city.oz.com'
Preserve data partitions: Yes

Standard Installation: Typical user
                    (Typical user running SunView applications)

Enter 'n' if you want to change some information; enter 'q' if you want
to cancel Quick installation.

Start the installation? [y/n] : y

```

11. If the information is correct, press **Return** to use the information and begin the installation.

Otherwise, enter one of the following:

- q to quit SunInstall and return to the miniroot. (Quick Install will not remember the information you've entered.)
- n to change any of the information.

When you confirm the displayed information, installation proceeds as it you had filled out the standard SunInstall forms.

Table 4 *Software Categories*

Type	Category	Description
<b>Required</b>	root	Contents of /, the root filesystem.
	usr	The core of /usr, including standard utilities, system programs, and library routines.
	kvm	Kernel-architecture-dependent programs, such as ps(1), vmstat(8), and others.
	Install	Installation software and tools, such as add_services, used to add software to an installed system in multiuser mode.
	Networking*	Required NFS software, programs such as rlogin(1C) and rcp(1C), and tools for network administration.
<b>Desirable</b>	Debugging	Debugging tools for programmers, for example, dbxtool (1), a source-level debugger for C, Pascal, and Fortran-77 programs that runs in a window environment.
	RFS	Remote Filesystem, an alternative to NFS in a System-V environment.
	Sys	Software for building kernels and kernel-configuration files for common configurations.
	System_V	Selected programs, include files, and libraries for UNIX† System-V compatibility and compliance with X/Open Portability Guide standards.
	TLI	Transport Layer Interface, a communications protocol used by RFS, an alternative to NFS in a System-V environment.
<b>Common</b>	SunView_Users	Provides an environment in which to run window-based tools, such as mailtool(1), dbxtool(1), sundiag(8), and many others.

\* Required for networked systems.

† UNIX is a trademark of AT&T Bell Laboratories.

Table 4 (cont'd)

Type	Category	Description
Optional	Demo	Miscellaneous demonstration programs (uncompiled source).
	Games	Online games, such as <code>adventure(6)</code> , <code>boggle(6)</code> , <code>chesstool(6)</code> , and many others.
	Graphics	Software for programmers who want to develop graphics-based applications in a SunView environment. (Includes CGI and SunCore.)
	Manual	Source files for the online manual pages.
	Security	Software to provide enhanced password security and event-specific auditing, as specified for C2-level security.
	Shlib_Custom	Software for programmers who want to build their own shared libraries.
	SunView_Demo	SunView demonstration programs (uncompiled source).
	SunView_Programmers	Software for programmers who want to develop window-based applications in a SunView environment. Most Sun graphics products require this category.
	Text	Text-processing software, including the <code>nroff(1)</code> and <code>troff(1)</code> formatting programs, standard macro packages, and preprocessors such as <code>eqn(1)</code> and <code>tbl(1)</code> .
	User_Diag	Diagnostic programs, including <code>sun-diag(8)</code> , a window-based tool used to test system devices and peripherals.
	uucp	Files to support <code>uucp(1C)</code> , for system-to-system, serial-line network communications.
Versatec	Spooling support for Versatec V-80 plotters.	

## Bug List

Refer to the *SunOS 4.1 Release Manual* and *Read This First*.



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## Revision History

Dash	Revision	Date	Comments
01	01	October 15, 1989	Review draft
02	02	November 15, 1989	Review draft
05	50	February 16, 1990	Beta 1 Review Draft
10	A	February 26, 1990	First Customer Ship



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Please list errors in technical accuracy by page number and actual text of the error.

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Did this guide meet your needs? If not, please indicate what you think should be added or deleted in order to do so. Please comment on any material that you feel should be present but is not. Is there material found in other manuals that would be more convenient if it were in this manual?

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Notes

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## Notes