

Sun Ultra™ 24 Workstation Operating System Installation Guide



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Preface

The *Sun Ultra 24 Workstation Operating System Installation Guide* contains information required to configure the Solaris™, Linux, and Windows operating systems.

Shell Prompts

Shell	Prompt
C shell	<i>machine-name%</i>
C shell superuser	<i>machine-name#</i>
Bourne shell and Korn shell	\$
Bourne shell and Korn shell superuser	#

Typographic Conventions

Typeface*	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. % You have mail.
AaBbCc123	What you type, when contrasted with onscreen computer output	% su Password:
<i>AaBbCc123</i>	Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be superuser to do this. To delete a file, type <code>rm filename</code> .

* The settings on your browser might differ from these settings.

Related Documentation

The document set for the Sun Ultra 24 Workstation is described in the *Where to Find Documentation* sheet that is packed with your system, and all documents are posted at the product's documentation site. See the following URL:

<http://www.docs.sun.com>

Translated versions of some of these documents are available at the product documentation site in Simplified Chinese, Traditional Chinese, French, German, Italian, Japanese, Korean, and Spanish.

English documentation is revised more frequently and might be more up-to-date than the translated documentation.

Documentation, Warranty, Support, and Training URLs

Sun Function	URL	Description
Documentation	http://docs.sun.com	Sun documentation
Warranty	http://www.sun.com/service/support/warranty/index.html	View specific details regarding your warranty
Support	http://www.sun.com/support/	Obtain technical support, including patches
Training	http://www.sun.com/training/	Learn about Sun courses and educational offerings

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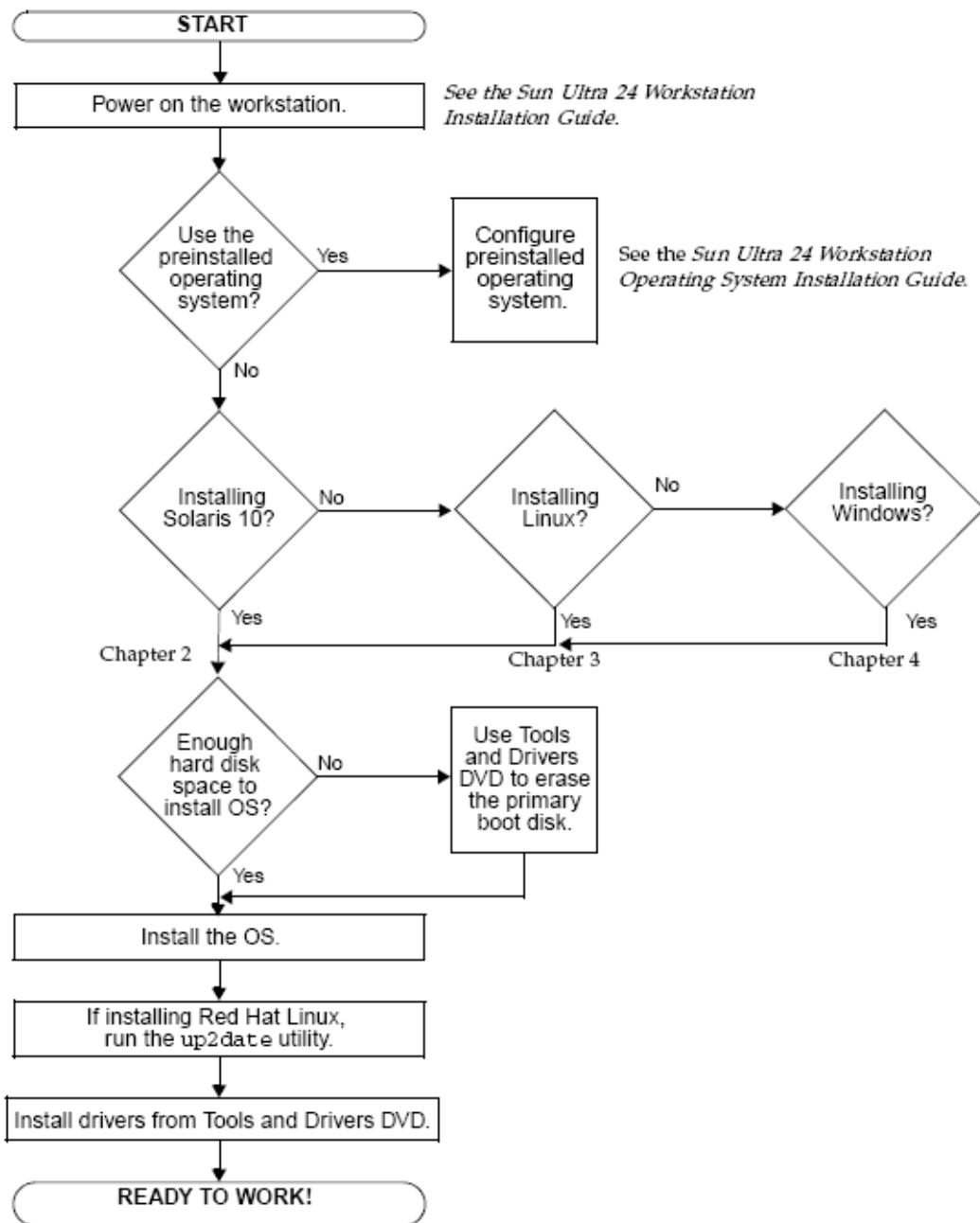
Installation Overview

This guide provides information about installing an operating system (OS) on your workstation, if you do not want to use the preinstalled Solaris OS.

- For Solaris OS installation instructions, see [Chapter 2](#).
- For Linux OS installation instructions, see [Chapter 3](#).
- For Windows OS installation instructions, see [Chapter 4](#).
- For Linux and Solaris remote images, see [Appendix A](#).

[FIGURE 1-1](#) shows the process flow for installing an operating system on your workstation.

FIGURE 1-1 Installation Flow Diagram



Installing Solaris

This chapter provides information about installing the Solaris OS on your workstation, if you do not want to use the preinstalled Solaris OS.

This chapter includes the following sections:

- [Section 2.1, “Choosing and Updating the Operating System” on page 2-2.](#)
- [Section 2.2, “Setting the BIOS for Solaris” on page 2-2.](#)
- [Section 2.3, “Setting the LSI RAID Configuration” on page 2-2](#)
- [Section 2.4, “Erasing the Currently-Installed OS” on page 2-3.](#)
- [Section 2.5, “Installing the Solaris OS” on page 2-4.](#)
- [Section 2.6, “Installing Drivers” on page 2-4.](#)

2.1 Choosing and Updating the Operating System

The Solaris OS is preinstalled on the workstation. Previous versions of the Solaris OS are not supported.

If you choose to replace the currently-installed version of the Solaris OS, you can download the Solaris OS from the following web site:

<http://www.sun.com/software/solaris/>

2.2 Setting the BIOS for Solaris

SATA is configured as IDE in the BIOS by default.

- If the BIOS was not changed, you do not need to perform this setup.
- If the Configured SATA as option in the BIOS has been changed from the default, do the following:
 1. **Power on the workstation.**
 2. **Press the F2 key at the Sun logo screen to enter the BIOS Setup menu.**
 3. **Go to Advanced => Integrated Devices.**
 4. **Change the Configured SATA as option to IDE.**
 5. **Press the F10 key to save your changes and exit the BIOS.**

2.3 Setting the LSI RAID Configuration

To configure a RAID array in LSI:

1. **During the BIOS portion of the boot, press control-C to open the LSI configuration tool.**
2. **Select the SAS controller you want, and press Enter.**
3. **Select RAID properties.**

4. Select the type of RAID array you would like.
5. Select the volumes you would like to include in the RAID.

Note – Do not mix SAS and SATA volumes within a given RAID.

6. When the array is set up, save changes and exit.

Note – After you create IM and IME RAID arrays, the system will perform an automatic reset to enable the write cache feature.

2.4 Erasing the Currently-Installed OS

To erase the currently-installed OS, you can use the Tools and Drivers DVD to erase partitions on the boot hard drive. If you use the Erase Primary Boot Hard Disk option, it erases all partitions except the diagnostic partition.

2.4.1 About the Diagnostic Partition

The system diagnostic software requires the diagnostic partition to write its test scripts. Otherwise, the only output is the display on the diagnostic screen.

The procedures in this section do not remove the diagnostic partition.

If you accidentally remove the diagnostic partition, you can re-create and mount it using the Create Diagnostic Partition option on the Tools and Drivers DVD. See the *Sun Ultra 24 Workstation Service Manual* for instructions.

2.4.2 Erasing Currently-Installed OS Procedure



Caution – The Erase Primary Boot Hard Disk option erases all partitions and all user data on the hard drive, except the diagnostic partition. Be sure to back up all data on the hard drive before performing this action.

To erase all partitions on primary boot hard drive except the diagnostic partition:

1. Back up all the data that you want to save on the hard drive.

2. Insert the Tools and Drivers DVD into the workstation.
3. When the main menu appears, select the following option from the Tools and Drivers DVD main menu:

3. Erase Primary Boot Hard Disk

This option erases all partitions currently located on the primary hard drive, except for the diagnostic partition. The diagnostic partition, if it is present, remains untouched.

2.5 Installing the Solaris OS

To install the Solaris OS, see the instructions online at:
<http://docs.sun.com/app/docs/doc/817-0544>.

To install a previously created remote image, see [Section A.2, “Installing Solaris From a JumpStart™ Server”](#) on page A-2.

2.6 Installing Drivers

After installing the OS, run the installation script provided on the Tools and Drivers DVD to install the drivers that correspond to your OS.

The Tools and Drivers DVD is included with your workstation.

Note – The Tools and Drivers DVD also contains the tools to recreate and mount the diagnostic partition. You should not have to do this unless you accidentally erased it. See the *Sun Ultra 24 Workstation Service Manual* for details.

Perform this procedure to install drivers if you are performing a new installation of the Solaris OS.

Note – You do not need to reinstall the drivers if you are restoring a backed-up copy of the preinstalled version of the OS.

Perform this procedure to install the drivers.

1. Log in to the system as superuser.

2. **Insert the Tools and Drivers DVD into the DVD drive.**

The CD is automounted by the Solaris OS.

3. **Change to the `/cdrom/cdrom0/drivers/sx86` directory by typing the following command:**

```
# cd /cdrom/cdrom0/drivers/sx86
```

4. **Run the installation script by typing the following command:**

```
# ./install.sh
```

The system drivers are installed.

The script prompts you to reboot the system for changes to take effect.

5. **Press the Y key to reboot, or the N key to allow a manual reboot.**
6. **Remove the CD from the DVD drive.**
7. **When prompted for networking information on your system, enter the networking information for your server.**

Installing Linux

This chapter provides information about installing the Linux OS on your workstation, if you do not want to use the preinstalled Solaris OS.

This chapter includes the following sections:

- [Section 3.1, “Choosing and Updating the Operating System” on page 3-2.](#)
- [Section 3.2, “Setting the BIOS for Linux” on page 3-2](#)
- [Section 3.3, “Setting the LSI RAID Configuration” on page 3-3](#)
- [Section 3.4, “Erasing the Currently-Installed OS” on page 3-3](#)
- [Section 3.5, “Installing the Linux OS” on page 3-4](#)
- [Section 3.6, “Installing Drivers” on page 3-4.](#)

3.1 Choosing and Updating the Operating System

The following Linux operating systems (or later versions) are supported for this workstation:

- Red Hat Enterprise Linux 4 WS Update 5, 32-bit and 64-bit
- Red Hat Enterprise Linux 5 Client Update 0, 32-bit and 64-bit
- SUSE 9 SP3 64-bit only
- SUSE Linux Enterprise Desktop 10 SP1 64-bit only

You can order Red Hat Enterprise Linux WS or SUSE Linux Enterprise Desktop for the workstation from the following Sun web site:

<http://www.sun.com/software/linux/index.html>

3.2 Setting the BIOS for Linux

SATA is configured as IDE in the BIOS by default. If the Configured SATA as option in the BIOS was not changed from the default, do the following:

1. **Power on the workstation.**
2. **Press the F2 key at the Sun logo screen to enter the BIOS Setup menu.**
3. **Go to Advanced => Integrated Devices.**
4. **Change the Configured SATA as option.**
 - If your Linux OS has onboard SATA support, change the Configured SATA as option to AHCI.
 - If your Linux OS does not have onboard SATA support, change the Configured SATA as option to IDE.
5. **Press the F10 key to save your changes and exit the BIOS.**

3.3 Setting the LSI RAID Configuration

To configure a RAID array in LSI:

1. During the BIOS portion of the boot, press Control-C to open the LSI configuration tool.
2. Select the SAS controller you want and press Enter.
3. Select RAID properties.
4. Select the type of RAID array you would like.
5. Select the volumes you would like to include in the RAID.

Note – Do not mix SAS and SATA volumes within a given RAID.

6. When the array is set up, save changes and exit.

Note – After you create IM and IME RAID arrays, the system will perform an automatic reset to enable write the cache feature.

3.4 Erasing the Currently-Installed OS

To erase the currently-installed OS, you can use the Tools and Drivers DVD to erase partitions on the boot hard drive. If you use the Erase Primary Boot Hard Disk option, it erases all partitions except the diagnostic partition.

3.4.1 About the Diagnostic Partition

The system diagnostic software requires the diagnostic partition to write its test scripts. Otherwise, the only output is the display on the diagnostic screen.

The procedures in this section do not remove the diagnostic partition.

If you accidentally remove the diagnostic partition, you can re-create and mount it using the Create Diagnostic Partition option on the Tools and Drivers DVD. See the *Sun Ultra 24 Workstation Service Manual* for instructions.

3.4.2 Erasing Currently-Installed OS Procedure



Caution – The Erase Primary Boot Hard Disk option erases all partitions and all user data on the hard drive, except the diagnostic partition. Be sure to back up all data on the hard drive before performing this action.

To erase all partitions on the boot hard drive, except the diagnostic partition:

1. **Back up all data that you want to save on the hard drive.**
2. **Insert the Tools and Drivers DVD into the workstation.**
3. **When the main menu appears, choose the following option from the Tools and Drivers DVD main menu:**

3. Erase Primary Boot Hard Disk

This option erases all partitions currently located on the primary hard drive, except for the diagnostic partition. The diagnostic partition, if it is present, remains untouched.

3.5 Installing the Linux OS

Install Linux from distribution media, as described in your Linux documentation.

- If you are installing the Red Hat Enterprise Linux OS, after installing the OS but before installing the video drivers, run the `up2date` utility.
- If you have already installed the NVIDIA video drivers, run the `install.sh` script after running `up2date`.

3.6 Installing Drivers

After installing the OS, run the installation script provided on the Tools and Drivers DVD to install the drivers that correspond to your OS.

The Tools and Drivers DVD is included with your workstation.

Note – The Tools and Drivers DVD also contains the tools to recreate and mount the diagnostic partition. You should not have to do this unless you accidentally erased it. See the *Sun Ultra 24 Workstation Service Manual* for details.

3.6.1 Installing the Linux Drivers

To install the Linux drivers:

1. **Log in to the system as superuser.**
2. **Insert the Tools and Drivers DVD into the DVD drive and type:**

```
# cd /mountpoint/drivers/linux/operating_system
```

Where:

mountpoint is the directory to which the DVD is mounted.

operating_system is the type of Linux installed on the workstation.

- If the directory does not exist, the DVD did not automount. You will need to mount the DVD and change to the correct directory as shown in [Step 3](#) and [Step 4](#).
 - If you were able to access the *operating_system* directory, go to [Step 5](#).
3. **If the DVD does not automount, open a terminal window and mount the DVD by typing the following command:**

```
# mount -o ro /dev/cdrom /mountpoint
```

Where *mountpoint* is the appropriate mount point for the OS and optical drive type.

For example:

```
# mount -o ro /dev/cdrom /mnt/dvdrom
```

4. **Change to the */mountpoint/drivers/linux/operating_system* directory.**

Where:

mountpoint is the directory to which the DVD is mounted.

operating_system is the type of Linux installed on the workstation.

For example:

```
# cd /mnt/dvdrom/drivers/linux/red_hat
```

5. **Run the installation script by typing the following command:**

```
# ./install.sh
```

This script does not execute if the Xserver is running.

- If the script exits and you receive an error message, go to [Step 6](#).

- If the script executes correctly, go to [Step 7](#).
- 6. If the script exits and you receive an error message, perform the following procedure to disable the X server:
 - a. Type the following at the system prompt:
% `init 3`
 - b. Log in as superuser.
 - c. Repeat [Step 4](#) and [Step 5](#).
- 7. Eject the DVD after the driver installation is complete.
- 8. Reboot the workstation.

Installing the Windows OS and Drivers

The Sun Ultra 24 Workstation is WHQL certified to run the following Windows operating systems:

- Windows XP SP2, 32-bit and 64-bit (WHQL certified)
- Windows 2003 Enterprise Server R2 SP2 32 and 64-bit (WHQL certified)
- Windows Vista Ultimate 32 and 64-bit (WHQL certified)

You have several options for installing Windows:

- Install Windows using a Windows CD, and manually load drivers during and after the OS installation.
- Use the 2003Reburn and XpReburn scripts to create a Windows CD that includes the platform and Intel SATA and RAID drivers, then use the newly created CD to install the OS. (You must install video and audio drivers separately.)
- Create a RIS image of the Windows OS and drivers, then install the OS from a RIS server.

Note – For instructions to create a RIS image of the Windows OS, see the Readme file on the Tools and Drivers DVD.

The order of Windows XP OS and driver installation is as follows:

1. If necessary, set the BIOS for Window. See [Section 4.1, “Setting the BIOS for the Windows OS”](#) on page 4-2.
2. If required, remove the preinstalled Solaris OS. See [Section 4.2, “Understanding the Diagnostic Partition”](#) on page 4-4 and [Section 4.3, “Erasing Partitions on the Boot Hard Disk Drive”](#) on page 4-4.
3. Install the OS using one of the following sections.

- Section 4.4, “Installing Windows Manually” on page 4-5.
- Section 4.5, “Using the XpReburn Script to Create a Windows CD that Includes Drivers” on page 4-9.

Note – Do not delete the diagnostic partition when you perform the OS installation. If the diagnostic partition is erased, the *Sun Ultra 24 Workstation Service Manual* provides instructions for using the Create Diagnostic Partition option on the Sun Ultra 24 Workstation Tools and Drivers DVD.

Note – Windows XP cannot mount the diagnostic partition. A workaround is detailed in the *Sun Ultra 24 Workstation Service Manual*.

4.1 Setting the BIOS for the Windows OS

This section describes how to set the system BIOS and Intel Matrix Storage Manager option ROM for the Windows OS and Intel SATA and RAID.

4.1.1 Setting the System BIOS for Windows OS and Intel SATA and RAID

To configure the system BIOS for a Windows OS and, optionally, Intel RAID:

1. **Power on the workstation.**
2. **Perform the following steps to set the system BIOS for Windows:**
 - a. **Press the F2 key at the Sun logo screen to enter the BIOS Setup menu.**
 - b. **Go to Advanced => Integrated Devices.**
 - c. **Change the Configured SATA as option to AHCI for ICH9R SATA or RAID for Intel RAID.**
3. **Press the F10 key to save your changes and exit the system BIOS.**

4.1.2 Setting the Intel Matrix Storage Manager Option ROM

To configure the Intel Matrix Storage Manager option ROM:

Note – After creating the RAID volume, you might have to configure the BIOS to boot from the newly created RAID volume.

1. **Reboot the workstation.**
2. **Press the Control I to enter the Intel Matrix Storage Manager option ROM.**
3. **Select menu option 1. Create RAID Volume and go through selections:**
 - a. **Name your RAID volume.**
 - b. **Select the RAID level (0, 1, 5, 10).**
 - c. **Select the disks for the array.**
 - d. **Select the strip size (default: 128KB).**
 - e. **Select the volume capacity (default: total size of disks).**
 - f. **Select Create Volume to finish creating the RAID volume.**
4. **Select 5 to exit the Intel Matrix Storage Manager option ROM.**

Note – You will need to re-write the MBR on the RAID volume. You can do this by booting the Tools and Drivers DVD, and selecting 4. `Exit to DOS` at the main menu. In DOS, type `fdisk`. When prompted that the hard disk sector zero has no boot sector ID, press the `y` key to initialize the disk.

4.1.3 Setting the LSI RAID Configuration

To configure a RAID array in LSI:

1. **During the BIOS portion of the boot, press Control-C to open the LSI configuration tool.**
2. **Select the SAS controller you want and press Enter.**
3. **Select RAID properties.**
4. **Select the type of RAID array you would like.**

5. Select the volumes you would like to include in the RAID.

Note – Do not mix SAS and SATA volumes within a given RAID.

6. When the array is set up, save changes and exit.

Note – After you create IM and IME RAID arrays, the system will perform an automatic reset to enable the write cache feature.

4.2 Understanding the Diagnostic Partition

Diagnostics (system test) software is included on the Tools and Drivers DVD. Instructions for using the diagnostics software are provided in the *Sun Ultra 24 Workstation Service Manual*.

A diagnostic partition is required for the test scripts to write their log files. Without a diagnostic partition, the only output is the display on the diagnostic screens.

The diagnostic partition is preinstalled on the Sun Ultra 24 Workstation. You do not need to reinstall the diagnostic partition unless you removed it.

If you removed the diagnostic partition, you can re-create it using the Create Diagnostic Partition option on the Tools and Drivers DVD. See the *Sun Ultra 24 Workstation Service Manual* for instructions.

Note – Windows XP cannot mount the diagnostic partition. A workaround is detailed in the *Sun Ultra 24 Workstation Service Manual*, 820-2480.

4.3 Erasing Partitions on the Boot Hard Disk Drive

To erase all partitions on the boot hard drive, except the diagnostic partition, use the Erase Primary Boot Hard Disk option on the Tools and Drivers DVD main menu.



Caution – The Erase Primary Boot Hard Disk option erases all partitions and all user data on the hard drive, except the diagnostic partition. Be sure to back up all data on the hard drive before performing this action.

To erase the primary boot hard drive.

1. **Back up all data that you want to save on the hard drive.**
2. **Insert the Tools and Drivers DVD into the workstation.**
3. **When the main menu appears, select the following option from the Tools and Drivers DVD main menu:**
 3. Erase Primary Boot Hard Disk

This option erases all partitions currently located on the primary hard drive, except for the diagnostic partition. The diagnostic partition, if it is present, remains untouched.
4. **When prompted, confirm that you wish to delete the partitions.**
5. **When prompted, press any key to reboot the system.**

4.4 Installing Windows Manually

This section describes a manual installation of Windows, including the optional NVRAID drivers, platform drivers, and display drivers. This section does not describe the complete Windows installation process.

This section contains the following subsections:

- [Section 4.4.1, “Creating an Intel SATA and RAID Drivers Diskette” on page 4-5](#)
- [Section 4.4.2, “Installing Windows Using the Diskette” on page 4-6](#)
- [Section 4.4.3, “Installing Windows Vista Using the Floppy Diskette” on page 4-7](#)
- [Section 4.4.4, “Installing NVIDIA Graphics and RealTek Audio Driver” on page 4-7](#)

4.4.1 Creating an Intel SATA and RAID Drivers Diskette

This section describes the process to create a diskette containing the Intel RAID drivers. You will use this diskette during the Windows installation process.

Requirements

To install the Intel RAID drivers using a boot diskette, you need the following:

- Windows system with a CD-ROM drive
- A blank diskette
- A Sun Ultra 24 Workstation Tools and Drivers DVD
- For RAID configuration, a USB diskette drive (2003/XP/Vista) or USB flash (for Vista only)
- A Windows 2003/XP/Vista Installation media (non-OEM version)

Creating the Diskette

To create an Intel RAID diskette for Windows 32-bit and 64-bit, you need a Windows system with a DVD drive and a diskette drive.

1. **On a Windows workstation, insert the Tools and Drivers DVD.**
2. **Change to the following directory on the DVD. Enter:**
`C:\> cd d:\utilities\`
3. **Extract the OSReburn_x.x.zip.**
where:
 OS is XP or 2003
 x.x is the version number.
4. **Insert a blank diskette into the workstation.**
5. **Extract the intel_ahci_xx.zip file to the floppy diskette drive.**
where xx is 32 or 64 for 32-bit or 64-bit.

4.4.2 Installing Windows Using the Diskette

To install Windows 2003 or XP with the Intel AHCI/RAID drivers on the Sun Ultra 24 Workstation:

1. **Attach a USB diskette drive to the workstation.**
2. **Insert a Windows 2003/XP 32-bit or 64-bit installation CD into the DVD drive.**
3. **When prompted, press the F6 key to install third-party SCSI or RAID drivers.**
4. **Press the S key then Enter to specify additional drivers, then insert the diskette.**

5. Select the Intel ICH9 SATA AHCI Controller for SATA or Intel ICH9 SATA RAID Controller for RAID.
6. Press Enter to continue the Windows 2003/XP installation.
7. After the OS installation is complete, install the NVIDIA graphics and RealTek audio drivers as described in [Section 4.4.4, “Installing NVIDIA Graphics and RealTek Audio Driver”](#) on page 4-7.

4.4.3 Installing Windows Vista Using the Floppy Diskette

To install Windows Vista with the Intel AHCI/RAID drivers on the Sun Ultra 24 Workstation:

1. Attach a USB diskette or flash drive to the workstation
2. Insert a Windows Vista 32-bit or 64-bit installation DVD into the DVD drive.
3. Boot from the DVD drive.
4. Follow the onscreen instructions, and load the AHCI/RAID driver from the USB or flash drive when Setup prompts you to load the driver
5. Select the Intel ICH9 SATA AHCI Controller for SATA or Intel ICH9 SATA RAID Controller for RAID
6. Click Next to load the driver and continue the installation.
7. After the OS installation is complete, install the NVIDIA graphics and RealTek audio drivers as described in [Section 4.4.4, “Installing NVIDIA Graphics and RealTek Audio Driver”](#) on page 4-7.

4.4.4 Installing NVIDIA Graphics and RealTek Audio Driver

Perform this procedure, after you install the Windows OS, to install the NVIDIA graphics and RealTek audio drivers.

1. Insert the Tools and Drivers DVD into the DVD drive.
2. If required, perform the following steps to install the NVIDIA graphics drivers:

- a. **Change to the directory on the Tools and Drivers DVD by typing the following command:**

```
C:\> cd D:\drivers\windows\video\OS
```

Where *OS* is 2003, XP, or Vista.
 - b. **Run the executable file.**
 - c. **Follow the instructions in the installation software.**
3. **If required, perform the following steps to install RealTek audio drivers:**
- a. **Change to the directory on the Tools and Drivers DVD by typing the following command:**

```
C:\> cd D:\drivers\windows\audio\OS
```

Where *OS* is 2003, XP, or Vista.
 - b. **Run the executable file.**
 - c. **Follow the instructions in the installation software.**
4. **Reboot the workstation.**

4.5 Using the XpReburn Script to Create a Windows CD that Includes Drivers

The 2003Reburn or XpReburn script creates an installation CD-ROM for Windows, or an ISO CD image, that incorporates Intel platform-specific and Intel RAID drivers.

You can use the CD-ROM created by 2003 or XpReburn to install the Windows OS without having to separately install platform-specific and RAID drivers.

The Tools and Drivers DVD includes the 2003 and XpReburn scripts. Further information about 2003 and XpReburn is available in the `readme.txt` file within the `/utilities/OSReburn_x.x.zip` file (where *OS* is either 2003 or XP, and *x.x* is the version number).

4.5.1 Requirements

To use 2003Reburn and XpReburn to create a Windows OS installation CD, you need the following:

- A system running Solaris 10, RHEL, or SUSE
- CD burner
- Blank CD-R or CD-RW
- Windows 2003 or XP CD (retail media only – not OEM version)
- The Sun Ultra 24 Workstation Tools and Drivers DVD

4.5.2 Using 2003Reburn or XpReburn

To create a Windows 2003 or XP installation CD with the Sun Ultra 24 Workstation and Intel RAID drivers:

1. **On a Solaris OS, Red Hat, or SUSE system, insert the Tools and Drivers DVD.**
2. **As superuser, create a temporary directory with at least 1.2 GB of space.**

For example:

```
# mkdir /files
```

3. **Copy the 2003 or Xp Reburn_***version***.zip file to that directory.**
Where *version* is the current version of 2003 or XpReburn.
For example:

```
# cp /utilities/XpReburn_1.0.zip /files
```
4. **Eject the Tools and Drivers DVD and insert your retail Windows 2003 or XP CD.**
5. **Unzip the 2003 or Xp Reburn_***version***.zip file. For example:**

```
# unzip -q XpReburn_1.0.zip
```
6. **Run the 2003 or XpReburn script. For example:**

```
# ./files/XpReburn
```
7. **After the ISO image is created, insert a blank CD-R or CD-RW to burn the image.**
8. **After the CD is created, insert the CD into the workstation and boot from it.**
9. **After the OS installation is complete, install the graphics and audio drivers as described in [Section 4.4.4, "Installing NVIDIA Graphics and RealTek Audio Driver"](#) on page 4-7.**

Installing Linux and Solaris OS Remote Images

A.1 Installing LINUX From a PXE Server

The following procedure assumes that a PXE server is set up on the same network as the system and that PXE images are loaded on the server.

To boot from a PXE server:

1. **During the BIOS portion of the system boot, press the F8 key to display the boot menu.**
2. **Select the Intel Boot Agent IBA GE boot option.**
3. **Select the image that you want to install.**
4. **Reboot when the the installation is complete.**
5. **Follow the directions for manually installing drivers from the Tools and Drivers DVD.**

A.2 Installing Solaris From a JumpStart™ Server

Note – Before you begin, build and place on the JumpStart server a Solaris image that includes the Intel Ethernet Drivers (e1000g). The Solaris OS does not include e1000g drivers. For more information about JumpStart installations, see *Solaris 10 7/07 Installation Guide: Custom JumpStart and Advanced Installations*, 819-5778.

Perform this procedure to install Solaris. To reinstall the preinstalled Solaris OS, see the *Sun Ultra 24 Workstation Service Manual*, 820-2480.

1. **During the BIOS portion of the boot, press the F8 key to display the boot menu.**
2. **Select the Intel Boot Agent IBA GE boot option.**
3. **The system automatically starts the installation process and reboots when it is complete.**

Install drivers as described in [Section 2.6, “Installing Drivers”](#) on page 2-4, unless your JumpStart image is configured to preload the drivers.