



# Sun Ultra™ 20 Workstation Release Notes

---

Sun Microsystems, Inc.  
www.sun.com

Part No. 819-2147-19  
April 2007, Revision A

Submit comments about this document at: <http://www.sun.com/hwdocs/feedback>

Copyright © 2006-2007 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.sun.com/patents> and one or more additional patents or pending patent applications in the U.S. and in other countries.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, Java, Solaris, Sun Ultra, and NetBeans are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

AMD, Opteron, the AMD logo, the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. The PostScript logo is a trademark or registered trademark of Adobe Systems, Incorporated.

Use of any spare or replacement CPUs is limited to repair or one-for-one replacement of CPUs in products exported in compliance with U.S. export laws. Use of CPUs as product upgrades unless authorized by the U.S. Government is strictly prohibited.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

---

Copyright © 2006-2007 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, Etats-Unis. Tous droits réservés.

Sun Microsystems, Inc. détient les droits de propriété intellectuelle relatifs à la technologie incorporée dans le produit qui est décrit dans ce document. En particulier, et ce sans limitation, ces droits de propriété intellectuelle peuvent inclure un ou plus des brevets américains listés à l'adresse <http://www.sun.com/patents> et un ou les brevets supplémentaires ou les applications de brevet en attente aux Etats - Unis et dans les autres pays.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, Java, Solaris et NetBeans Sun Ultra sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays.

AMD, Opteron, the AMD logo, the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. Le logo PostScript est une marque de fabrique ou une marque déposée de Adobe Systems, Incorporated.

L'utilisation de pièces détachées ou d'unités centrales de remplacement est limitée aux réparations ou à l'échange standard d'unités centrales pour les produits exportés, conformément à la législation américaine en matière d'exportation. Sauf autorisation par les autorités des Etats-Unis, l'utilisation d'unités centrales pour procéder à des mises à jour de produits est rigoureusement interdite.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



Adobe PostScript

# Sun Ultra 20 Workstation Release Notes

---

This document contains known issues and late-breaking information for the Sun Ultra™ 20 Workstation.

For the latest version of these release notes and other Sun Ultra 20 Workstation documentation, visit the following URL:

[http://www.sun.com/products-n-solutions/hardware/docs/Workstation\\_Products/Workstations/ultra\\_20/](http://www.sun.com/products-n-solutions/hardware/docs/Workstation_Products/Workstations/ultra_20/)

- “General Information” on page 3
  - “Support for the Sun Ultra 20 Workstation” on page 3
  - “Documentation URL” on page 3
  - “Supported Operating Systems” on page 3
  - “Accessing and Updating BIOS Versions” on page 4

Please note the following issues and considerations for the Sun Ultra 20 Workstation:

- “Hardware/BIOS Issues” on page 5
  - “CMOS Checksum Error When Plugging-in AC Power Cord” on page 5
  - “Load Optimized Defaults After Installing New BIOS” on page 5
  - “CMOS Checksum Error When Updating the BIOS” on page 6
  - “BIOS Setting Might Change When Updating BIOS” on page 6
  - “Power Interruptions” on page 6
  - “Power LED” on page 6
  - “USB CD/DVD Drive and Supplemental CD” on page 7
  - “System Won’t Boot with 2 GB x 4 and IOMMU set to 64MB” on page 7
  - “Excluding Devices from Boot Menu in BIOS v2.2.3” on page 7
  - “Update to BIOS v2.2.3 if DMI Table Includes IPMI Card Entry” on page 8
  - “Sun Crypto Accelerator 6000 Board” on page 8
  - “NVIDIA Graphics Cards” on page 9
  - “ATEN DVI Video Switch Not Supported” on page 9
- “Linux Issues” on page 10

- “Supported Linux Operating Systems” on page 10
- “Nvidia Video Driver 9755 Available” on page 10
- “Security Advisory for NVIDIA 1.0-8774 Linux and Solaris Drivers” on page 11
- “Red Hat 3 Versions Might Not Fully Support All USB Storage Devices” on page 11
- “White Screen When Using the NVIDIA FX1400 Card With RHEL 4 U1 and U2” on page 11
- “RHEL 4 Installation With FX1400” on page 11
- “Blank Screen With RHEL 4 U2 (32-bit) After Running the `install.sh` Script” on page 13
- “RHEL 3 and RHEL 4 Do Not Support IEEE 1394” on page 13
- “RHEL 3 and Microphone Operation” on page 14
- “RHEL 4 (32-Bit) Message” on page 14
- “Audio Driver Used in SUSE Certification” on page 14
- “SLES 9 Dual Core Processor Issues” on page 14
- “SLES 9 SP1 Mouse Recognition” on page 16
- “Windows Issues” on page 17
  - “Supported Windows Operating Systems” on page 17
  - “Windows XP Reburn Version 1.4 Available” on page 17
  - “S4 Sleep State and 4 GB of Memory” on page 17
  - “Mirrored RAID in Windows XP” on page 17
- “Solaris Issues” on page 19
  - “Nvidia Video Driver 9755 Available” on page 19
  - “Solaris 10 Telnet Vulnerability Issue” on page 19
  - “Security Advisory for NVIDIA 1.0-8774 Linux and Solaris Drivers” on page 20
  - “Solaris 10 6/06 NVIDIA Drivers 8756 or Later Required” on page 20
  - “Solaris 10 6/06 ZFS Support” on page 20
  - “White Screen After Running `install.sh` With NVIDIA FX1400 Graphics Card” on page 20
  - “Solaris 10 Screen Resolution” on page 20
- “Diagnostics Issues” on page 21
  - “Pc-Check Version 6.05d Available” on page 21
  - “Pc-Check Memory Benchmark Test Hangs Keyboard and Mouse” on page 21
  - “Corrupted Floppy Diskette Drive Model Number” on page 21
  - “Pc-Check Stress Test” on page 22
  - “Mirrored NVRaid Causes System Stress Test Failure” on page 22
  - “Pc-Check Full Test Might Hang the System” on page 22

---

# General Information

## Support for the Sun Ultra 20 Workstation

For support information for the Sun Ultra 20 Workstation visit the following URL:

<http://www.sun.com/desktop/workstation/ultra20/support.xml>

## Documentation URL

The following is a list of Sun Ultra 20 Workstation Documentation:

- 819-2151 *Where to Find Sun Ultra 20 Workstation*
- 819-2146 *Sun Ultra 20 Workstation User Guide*
- 819-2147 *Sun Ultra 20 Workstation Release Notes*
- 819-2148 *Sun Ultra 20 Workstation Getting Started Guide*
- 819-2149 *Sun Ultra 20 Workstation Safety and Compliance Guide*
- 819-2150 *Sun Ultra 20 Workstation Setup Guide*

[http://www.sun.com/products-n-solutions/hardware/docs/Workstation\\_Products/Workstations/ultra\\_20/index.htm](http://www.sun.com/products-n-solutions/hardware/docs/Workstation_Products/Workstations/ultra_20/index.htm)

## Supported Operating Systems

- Solaris 10 6/06 and 11/06
- RHEL 3 WS (32-bit and 64-bit)
- RHEL 4 WS (32-bit and 64-bit)
- SUSE SLES 9 SP3 (32-bit and 64-bit)
- Windows XP Professional (32-bit) SP2
- Windows XP Professional x64 Edition SP0

For more information, visit the following URL:

<http://www.sun.com/desktop/workstation/ultra20/>

# Accessing and Updating BIOS Versions

The BIOS versions mentioned in this document are available on the following versions of the Sun Ultra 20 Workstation Supplemental ISO Images:

- BIOS v2.2.9 is available on Sun Ultra 20 Workstation Supplemental ISO Image 1.7
- BIOS v2.2.7 is available on Sun Ultra 20 Workstation Supplemental ISO Image 1.6
- BIOS v2.2.4 is available on Sun Ultra 20 Workstation Supplemental ISO Image 1.5
- BIOS v2.2.3 is available on Sun Ultra 20 Workstation Supplemental ISO Image 1.4
- BIOS v2.2.1 is available on Sun Ultra 20 Workstation Supplemental ISO Image 1.3
- BIOS v2.1.7 is available on Sun Ultra 20 Workstation Supplemental ISO Image 1.2

The Sun Ultra 20 Workstation Supplemental ISO Images are available at the following URL:

<http://www.sun.com/desktop/workstation/ultra20/downloads.jsp>

---

# Hardware/BIOS Issues

The following hardware and BIOS issues apply to the Sun Ultra 20 Workstation, regardless of the installed operating system. For more information on BIOS versions, see [“Accessing and Updating BIOS Versions” on page 4](#).

## CMOS Checksum Error When Plugging-in AC Power Cord

The system might report a CMOS checksum error after the AC power cord is plugged-in. BIOS v2.2.7 (or later), available on Sun Ultra 20 Workstation Supplemental ISO Image 1.6, is required to resolve this issue. For more information, see [“Accessing and Updating BIOS Versions” on page 4](#).

- 1. Insert the Supplemental CD into the DVD drive.**

- 2. Reboot the system.**

The Supplemental CD menu appears.

- 1. Press 2 to flash the system BIOS.**

## Load Optimized Defaults After Installing New BIOS

If you update the BIOS, you must load the optimized defaults.

- 1. After you flash the BIOS, reboot the system.**

- 2. Press the F2 key during boot.**

You will enter the BIOS setup screen.

- 3. Select the Load Optimized Defaults option.**

- 4. Press the Y key and Enter at the confirmation screen.**

- 5. Press the F10 key to save changes and exit.**

# CMOS Checksum Error When Updating the BIOS

The system might report a CMOS checksum error after you update the BIOS version using the Supplemental ISO image CD. If this happens, load Optimized Defaults. For information on loading Optimized Defaults, see [“Load Optimized Defaults After Installing New BIOS” on page 5](#).

# BIOS Setting Might Change When Updating BIOS

After you update to the BIOS version on the Supplemental CD, the BIOS might reset to the default BIOS settings. Any changes you made might be lost, requiring that you enter your settings again. Access the BIOS setup screens to check, and if necessary, enter your settings.

- 1. After you flash the BIOS, reboot the system.**
- 2. Press the F2 key when you have a choice of pressing F1 or F2 to continue.**  
You will enter the BIOS setup screen.
- 3. Make any setting changes you require.**
- 4. Press the F10 key to save changes and exit.**

# Power Interruptions

If the power to the system is interrupted for some reason other than through the normal shutoff procedures, wait 10 seconds or more before powering on the system. This will ensure that the standby power has time to shut off.

# Power LED

If you power on the system, and then power it off again before you see the large Sun logo, the power LED on the front of the system might remain on.

To correct this, turn off the AC power with the switch at the back of the system next to the AC power cord.



## USB CD/DVD Drive and Supplemental CD

The Sun Ultra Workstation Supplemental CD will not boot from a USB-connected CD or DVD drive. Use the onboard DVD drive to boot the Supplemental CD. This issue is resolved in BIOS v2.1.7 and later. For more information, see [“Accessing and Updating BIOS Versions” on page 4](#).

## System Won't Boot with 2 GB x 4 and IOMMU set to 64MB

The system will not boot if memory is configured with four 2 GB DIMMs and if IOMMU is set (in the BIOS) to 64MB. To resolve this issue update to BIOS v1.1.6, which is available on Sun Fire X2100 Supplemental ISO image 1.7. See, [“Accessing and Updating BIOS Versions” on page 4](#).

## Excluding Devices from Boot Menu in BIOS v2.2.3

When running BIOS v2.2.3, devices removed from the BIOS/Advanced BIOS Features/Boot Device menu are not available in the boot menu. Additionally, the Boot Other Devices Enabled option does not select all devices. Choose one of the two options to resolve these issue:

- Update to BIOS v2.2.4 this issue is fixed in BIOS v2.2.4 (and later). For more information, see [“Accessing and Updating BIOS Versions” on page 4](#).
- Follow this procedure to exclude devices from the boot menu.

---

**Note** – Access the Boot Menu, by pressing F8 during the boot.

---

1. Press the F2 key during system boot to enter the BIOS setup screen.
2. In the Advanced settings menu, remove the device from the Boot device list.
3. Disable the Boot Other Devices option.
4. Set a Supervisor password.

5. Set the Security option to System.
6. Press the F10 key to save your settings and exit.

## Update to BIOS v2.2.3 if DMI Table Includes IPMI Card Entry

If the DMI table includes an IPMI card entry update to BIOS v2.2.3 (or later). To determine if an IPMI card entry exists, use the `dmidecode` command in Linux or the `smbios` command in Solaris. An entry similar to the following displays if an IPMI card entry exists:

```
Handle 0x0027
DMI type 38, 18 bytes.
IPMI Device Information
Interface Type: KCS (Keyboard Control Style)
Specification Version: 1.5
I2C Slave Address: 0x10
NV Storage Device: Not Present
Base Address: 0x00000000000000CA2 (I/O)
Register Spacing: Successive Byte Boundaries
Handle 0x0028
DMI type 127, 4 bytes.
```

For more information on updating the BIOS, see [“Accessing and Updating BIOS Versions” on page 4](#).

## Sun Crypto Accelerator 6000 Board

The Sun Crypto Accelerator 6000 Board (X6000A) requires BIOS v2.2.3 or later. See [“Accessing and Updating BIOS Versions” on page 4](#).

## NVIDIA Graphics Cards

If you have the NVIDIA FX1400, NVS280, NVS285, or FX3450 graphics cards installed in the Sun Ultra 20 Workstation, please note the following:

- These cards have two DVI connectors, one for a primary monitor and one for a secondary monitor. If you are only using one monitor, you might need to test each connector to see which one works with the monitor.
- When using these cards with the Solaris™ 10 Operating System, the dual monitor function might not work properly. If this is the case, you can still use the onboard ATI video device for one monitor and the primary connector on the NVIDIA card for the other monitor.

Refer to Appendix B in the *Sun Ultra 20 Workstation User Guide* for further information on using dual monitors with the Sun Ultra 20 Workstation.

## ATEN DVI Video Switch Not Supported

Due to a hardware incompatibility, the ATEN DVI Video switch is not supported.

---

# Linux Issues

The following issues apply to Sun Ultra 20 Workstations running a Linux operating system:

- [“Supported Linux Operating Systems” on page 10](#)
- [“Nvidia Video Driver 9755 Available” on page 10](#)
- [“Security Advisory for NVIDIA 1.0-8774 Linux and Solaris Drivers” on page 11](#)
- [“Red Hat 3 Versions Might Not Fully Support All USB Storage Devices” on page 11](#)
- [“White Screen When Using the NVIDIA FX1400 Card With RHEL 4 U1 and U2” on page 11](#)
- [“RHEL 4 Installation With FX1400” on page 11](#)
- [“Blank Screen With RHEL 4 U2 \(32-bit\) After Running the `install.sh` Script” on page 13](#)
- [“RHEL 3 and RHEL 4 Do Not Support IEEE 1394” on page 13](#)
- [“RHEL 3 and Microphone Operation” on page 14](#)
- [“RHEL 4 \(32-Bit\) Message” on page 14](#)
- [“Audio Driver Used in SUSE Certification” on page 14](#)
- [“SLES 9 Dual Core Processor Issues” on page 14](#)
- [“SLES 9 SP1 Mouse Recognition” on page 16](#)

## Supported Linux Operating Systems

- Red Hat Enterprise Linux (RHEL) 3 (32-bit and 64-bit)
- Red Hat Enterprise Linux (RHEL) 4 (32-bit and 64-bit)
- SUSE Enterprise Server (SLES) 9, SP 3 (32-bit and 64-bit)

Unless otherwise noted, the issues listed in this section apply to the above operating system updates. For more information on supported operating systems, refer to [“Supported Operating Systems” on page 3](#)

## Nvidia Video Driver 9755 Available

The Nvidia video driver 9755 is available on the Sun Fire X2100 Supplemental ISO image 1.7. For information on obtaining the latest Supplemental ISO image, see [“Accessing and Updating BIOS Versions” on page 4](#).

# Security Advisory for NVIDIA 1.0-8774 Linux and Solaris Drivers

A Security Advisory for the 8774 Nvidia graphics driver for Solaris and Linux is posted at:

<http://download2.rapid7.com/r7-0025/>

To resolve this issue update to the minimum 1.0-8776 driver, which is available on the Supplemental ISO Image 1.5. Additionally, Nvidia has released new drivers which resolve this issue. You can get the drivers and the installation procedures at:

<http://www.nvidia.com/object/unix.html>

## Red Hat 3 Versions Might Not Fully Support All USB Storage Devices

RHEL 3 systems might not recognize some storage devices after a hot removal and insertion or after a reboot.

If this occurs, try rebooting the workstation again.

## White Screen When Using the NVIDIA FX1400 Card With RHEL 4 U1 and U2

If you are installing RHEL4 U1 or RHEL4 U2, with the NVIDIA FX1400 card, you might encounter a white screen during the installation process. If this happens, do the following:

- 1. Install the operating system in text mode or select the VESA graphics driver during the installation.**
- 2. After installation is complete, run the `install.sh` file on the Sun Ultra 20 Supplemental CD to install the updated NVIDIA display drivers.**

This bug has been fixed in the open source `nv` driver.

## RHEL 4 Installation With FX1400

If you plan to install RHEL 4 Update 0 on a Sun Ultra 20 Workstation when a NVIDIA FX1400 video card is installed, choose one of the two options:

- Install to RHEL 4 U1 instead.
- Use the following workaround with RHEL 4 Update 0.



---

**Caution** – Failure to use this workaround will result in video corruption, making it impossible to continue the installation.

---

1. **Boot the workstation and press the F2 key at the Sun logo screen to display the BIOS Setup screen.**
2. **Under the PnP/PCI Configurations menu, set the Change Init Display First option to PCI Slot.**
3. **Press the F10 key to save the change and exit the BIOS.**
4. **Insert the Red Hat 4 Update 0 64-bit disc 1 to start the installation.**
5. **Reboot the workstation after the installation is complete.**
6. **Press the F2 key at the Sun logo screen to display the BIOS Setup screen.**
7. **Under the PnP/PCI Configurations menu, set the Change Init Display First option to PCIEx.**
8. **Press the F10 key to save the change and exit the BIOS.**

A dialog box displays with the message: I cannot start X server...
9. **Select No in the dialog box.**

A dialog box displays with the message: Would you like me to run the X configuration program?...
10. **Select No in the dialog box.**

A dialog box displays with the message: I will disable this X server for now...
11. **Click OK in the dialog box.**
12. **Log into the workstation as superuser.**
13. **Type the following commands to run `install.sh`:**

```
# mount /dev/cdrom /media/cdrecorder
# cd /media/cdrecorder/drivers/linux/red_hat
# ./install.sh
```
14. **When the script has run, type `startx` to start the X server.**

# Blank Screen With RHEL 4 U2 (32-bit) After Running the `install.sh` Script

When running the `install.sh` script from the Supplemental ISO image CD with RHEL 4 U2, you might get a blank screen after rebooting the workstation. This applies only to the RHEL 4 U2 (32-bit), kernel v2.6.9-22, which is the default kernel for RHEL 4 U2.

Before running the `install.sh` script, do the following:

1. **Download the 2.6.9-22-3 (or later) kernel update from the following site:**

<http://people.redhat.com/~jbaron/rhel4/RPMS.kernel/>

2. **Install both the kernel and kernel-devel rpms.**
3. **Reboot the workstation.**
4. **Run `install.sh` from the Supplemental CD.**

This kernel update fixes the following issues:

- Xserver fails to start after running `install.sh`.
- Killing `glxgears` or other applications results in a system lock up.

## RHEL 3 and RHEL 4 Do Not Support IEEE 1394

The IEEE 1394 interface is not supported in the RHEL 3 or RHEL 4 operating system. If you have installed the RHEL 3 WS or RHEL 4 WS operating system on the Sun Ultra 20 Workstation, you must complete the following procedure if you want to enable the 1394 port.

1. **Insert the RHEL 3 WS CD 3 into the Sun Ultra 20 Workstation.**
2. **Install the following rpm:**

```
rpm -ivh kernel-unsupported-2.4.21-4.EL.kernel.rpm
```

Where *kernel* is the Red Hat kernel that you are running.

3. **Add the following alias to the `/etc/modules.conf` directory:**

```
alias ieee1394-controller ohci1394
```

---

**Note** – If you do not type the alias correctly, RHEL 3 might hang.

---

4. **Download the `rescan-scsi-bus.sh` script from the following URL:**

<http://www.linux1394.org/scripts/rescan-scsi-bus.sh>

## 5. Reboot the workstation.

The 1394 device is *not* enumerated until you run the script in Step 6.

## 6. Type the following to run `rescan-scsi-bus.sh`

```
# sh /rescan-scsi-bus.sh
```

The device(s) appear in a hardware browser or the `/proc/scsi/scsi` directory.

# RHEL 3 and Microphone Operation

Red Hat Enterprise Linux 3 does not support the microphone function.

# RHEL 4 (32-Bit) Message

After running the `install.sh` script on Red Hat Enterprise Linux 4 (32-bit), you might encounter the following message:

```
disk /dev/dm-0 doesn't contain a valid partition table
```

You can safely ignore this message.

# Audio Driver Used in SUSE Certification

The audio driver used for SUSE operating system certification is located in the following directory on the latest version of the Sun Ultra 20 Workstation Supplemental ISO image:

```
drivers/linux/chipset
```

For more information on the Sun Ultra 20 Workstation Supplemental ISO image, see [“Accessing and Updating BIOS Versions” on page 4](#).

You can also download the driver at [www.nvidia.com](http://www.nvidia.com).

# SLES 9 Dual Core Processor Issues

The following issues apply to specific versions of the SLES 9 operating system. These are known issues:

- A dual core Sun Ultra 20 Workstation running SLES 9 SP2 64-bit panics the kernel when configured with 4 GB of memory. The possible workarounds are:
  - Use the 32-bit kernel versions of SLES 9 SP2.



- Change the memory configuration to less than 4 GB memory.
  - A dual core Sun Ultra 20 Workstation running SLES 9 SP0 or SP1 will hang or panic the kernel. To resolve this issue, you must use SLES 9 SP2 (32-bit or 64-bit).
  - A dual core Sun Ultra 20 Workstation running SLES 9 SP1 or SP2 (32-bit) will only use a single core.
- A patch on the Supplemental CD fixes this issue. See [“Workaround for SLES 9 SP2 Dual Core Issue” on page 15](#) for instructions on installing the patch.

## Workaround for SLES 9 SP2 Dual Core Issue

### 1. Do one of the following, depending on whether you have already installed SLES 9 SP2:

- *If you have not installed SLES 9 yet:* Install SLES 9 SP2 from the distribution media.
  - Make sure you install the kernel source RPMs.
  - If there isn't an explicit checkbox for this during package selection, use the module search feature in the SLES installer and search for kernel-source.  
The kernel source package should be listed in the search results; check it so that the source RPMs are installed.
- *If you've already installed SLES 9 SP2 without the source RPM:*
  - Use YaST2's Install and Remove Software feature to select the kernel source and gcc RPMs and install them.
  - Alternatively, you can install the source RPM manually by installing CD #2 from the SLES 9 SP2 distribution.  
The source RPM is in `suse/i586/kernel-source-version.i586.rpm`.  
Where *version* is the version of the kernel.

### 2. Login to the system as root (superuser).

### 3. With the kernel source RPMs installed, change directory to `/usr/src/linux-version` and copy the included patch (`sun.patch`) from the Supplemental CD to the `/usr/src/linux-version` directory.

```
# cp /suppl_x.x/sun.patch /usr/src/linux-version/
```

Where `suppl_x.x` is the directory on the *x.x* version Supplemental CD and *version* is the version of the kernel.

### 4. Apply the patch to the kernel source by executing the following command.

```
# patch -p1 -g0 --verbose --dry-run < sun.patch
```

This will test the patch without making any changes to the installed kernel source.

5. **Verify that the patch program does not report any failures (it may warn about carriage returns but that is not critical).**

If any failures are reported, try to reinstall SLES 9, then repeat this procedure.

6. **Assuming that there aren't any failures, apply the patch for real by executing the same command without the `--dry-run` option.**

```
# patch -p1 -g0 --verbose < sun.patch
```

7. **Copy the file `/proc/config.gz` to `/usr/src/linux-version`, unzip `config.gz`, and rename the resulting config file to `.config`.**

```
# cp /proc/config.gz /usr/src/linux-version
# cd /usr/src/linux-version/
# gunzip config.gz
# mv config .config
```

8. **Execute the following make commands:**

```
# make oldconfig
# make all
# make modules_install
# make install
```

A new kernel replaces the old kernel as a boot option on the grub boot loader menu.

9. **Reboot the system and select the new kernel when grub starts.**

## SLES 9 SP1 Mouse Recognition

SLES 9 SP1 requires the user to recognize the mouse each time the system is booted. To recognize the mouse when booting the workstation:

1. **Do one of the following:**

- Click Yes in the SUSE hardware detection message dialog box.
- If message box does not appear, open up a terminal and type the following command:

```
# yast2
```

2. **In the YaST Control Center, click Select Mouse Model under the Hardware section.**

3. **In the Mouse Configuration Wizard, select the mouse type that best describes your mouse.**

Intellimouse Explorer (USB) is recommended.

4. **Use the Test button to apply and test the selected settings.**

5. **Use the Accept button to apply the selected settings and exit the program.**

---

# Windows Issues

The following issues apply to Sun Ultra 20 Workstations running supported version of Windows XP software:

- [“Supported Windows Operating Systems” on page 17](#)
- [“Windows XP Reburn Version 1.4 Available” on page 17](#)
- [“S4 Sleep State and 4 GB of Memory” on page 17](#)
- [“Mirrored RAID in Windows XP” on page 17](#)

## Supported Windows Operating Systems

- Windows XP Professional (32-bit) SP2
- Windows XP Professional x64 Edition SP0

Unless otherwise noted, the issues listed in this section apply to the above operating system updates. For more information on supported operating systems, refer to [“Supported Operating Systems” on page 3](#).

## Windows XP Reburn Version 1.4 Available

Windows XP reburn v1.4 is available on the Sun Fire X2100 Supplemental ISO image 1.7. For information on obtaining the latest Supplemental ISO image, see [“Accessing and Updating BIOS Versions” on page 4](#).

## S4 Sleep State and 4 GB of Memory

When using the Windows XP 64-bit Operating System, the sleep state S4 does not work properly with 4 GB of memory. See the following Microsoft web site for more information:

<http://support.microsoft.com/default.aspx?scid=kb;en-us;888575>

## Mirrored RAID in Windows XP

Note the following when using a mirrored RAID configuration with Windows XP:

- NVIDIA RAID drivers must be installed using the XpReburn script found on the Sun Ultra 20 Workstation Supplemental CD.
- If you are installing Windows XP to a bootable RAID array, do not install the chipset drivers directly from the Supplemental CD. Install the chipset drivers by running the XpReburn script.
- Using Hitachi disks as mirrored RAID devices might cause data loss. This will be fixed in a future release.

See *Sun Ultra 20 Workstation Getting Started Guide*, 819-2148, Chapter 2, for more information on installing RAID drivers for Windows XP.

---

## Solaris Issues

The following issues apply to the Sun Ultra 20 Workstation running the Solaris 10 6/06 or 11/06 Operating Systems:

- [“Nvidia Video Driver 9755 Available”](#) on page 19
- [“Solaris 10 Telnet Vulnerability Issue”](#) on page 19
- [“Security Advisory for NVIDIA 1.0-8774 Linux and Solaris Drivers”](#) on page 20
- [“Solaris 10 6/06 NVIDIA Drivers 8756 or Later Required”](#) on page 20
- [“Solaris 10 6/06 ZFS Support”](#) on page 20
- [“White Screen After Running `install.sh` With NVIDIA FX1400 Graphics Card”](#) on page 20
- [“Solaris 10 Screen Resolution”](#) on page 20

### Nvidia Video Driver 9755 Available

The Nvidia video driver 9755 is available on the Sun Fire X2100 Supplemental ISO image 1.7. For information on obtaining the latest Supplemental ISO image, see [“Accessing and Updating BIOS Versions”](#) on page 4.

### Solaris 10 Telnet Vulnerability Issue

Solaris 10 6/06 and 11/06 has security vulnerability in the `in.telnetd(1M)` daemon that might allow unauthorized remote users to gain access to a Solaris Host. Patch-ID# 120069-02 addresses this issue. The patch is available on the Sun Fire X2100 Supplemental ISO image 1.7. For information obtaining the latest Supplemental ISO image, see [“Accessing and Updating BIOS Versions”](#) on page 4.

Apply the patch manually or run the `install.sh` script on all Solaris 10 6/06 and 11/06 systems. For more information, refer to Sun Security Alert 102802. You can also access this patch (and related patches) at:

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

## Security Advisory for NVIDIA 1.0-8774 Linux and Solaris Drivers

For information on this issue, see [“Security Advisory for NVIDIA 1.0-8774 Linux and Solaris Drivers” on page 11.](#)

## Solaris 10 6/06 NVIDIA Drivers 8756 or Later Required

Solaris 10 6/06 may panic if the NVIDIA drivers version 8172 are installed. Ensure that version 8756 or later is installed.

## Solaris 10 6/06 ZFS Support

For Solaris 10 6/06, ZFS support requires BIOS v2.2.3 or later. See [“Accessing and Updating BIOS Versions” on page 4.](#)

## White Screen After Running `install.sh` With NVIDIA FX1400 Graphics Card

After running `install.sh` on Solaris 10 HW 1/06, the screen may turn white after reboot. If this happens, reboot the workstation again.

## Solaris 10 Screen Resolution

If your screen resolution is not correct, right-click on the desktop and select the Change Desktop Resolution option to change the resolution.

---

# Diagnostics Issues

The following issues apply to the Sun Ultra 20 Workstation Pc-Check diagnostics software:

- [“Pc-Check Version 6.05d Available” on page 21](#)
- [“Pc-Check Memory Benchmark Test Hangs Keyboard and Mouse” on page 21](#)
- [“Corrupted Floppy Diskette Drive Model Number” on page 21](#)
- [“Pc-Check Stress Test” on page 22](#)
- [“Mirrored NV RAID Causes System Stress Test Failure” on page 22](#)
- [“Pc-Check Full Test Might Hang the System” on page 22](#)

## Pc-Check Version 6.05d Available

Pc-Check v6.05d is available on the Sun Fire X2100 Supplemental ISO image 1.7. For information on obtaining the latest Supplemental ISO image, see [“Accessing and Updating BIOS Versions” on page 4](#).

## Pc-Check Memory Benchmark Test Hangs Keyboard and Mouse

The keyboard and mouse will not respond when running the Pc-Check memory benchmark test. To resolve this issue update to BIOS v1.1.7, which is available on Sun Fire X2100 Supplemental ISO image 1.7. See, [“Accessing and Updating BIOS Versions” on page 4](#).

## Corrupted Floppy Diskette Drive Model Number

The Pc-Check display output for the Floppy Drive's Model Name will show up corrupted when *no* USB floppy diskette drive is connected to the Sun Ultra 20 Workstation.

The display output for the Floppy Drive's Model Name will show correctly when a USB floppy diskette drive *is* connected to the workstation.

## Pc-Check Stress Test

If your workstation contains 4 GB of memory, the Pc-Check System Stress test will fail. Do not run this test if you have 4 GB of memory on your workstation. This issue is resolved in versions Pc-Check versions 6.0c, 6.0d, and later.

## Mirrored NVRaid Causes System Stress Test Failure

The Pc-Check Diagnostic software system stress test fails if drives are configured as an NVRaid in a mirror.

## Pc-Check Full Test Might Hang the System

If the Ultra 20 workstation hangs while you are running the `full.tst`, then deselect either the video memory test or the microtopology test and rerun the `full.tst`.