



# SunPCi™ III 3.2 Product Notes

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# SunPCi III 3.2 Product Notes

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These Product Notes contain the latest information and the known issues for the SunPCi™ III 3.2 release. This document describes the following topics:

- “Access to Late-Breaking News” on page 1
- “What Is in This Package?” on page 1
- “Viewing the Documentation PDF Files” on page 2
- “New Features in SunPCi III 3.2” on page 3
- “SunPCi III 3.2 Supported Systems” on page 3
- “Solaris Patch Information” on page 5
- “Known Issues With This Release” on page 6
- “Documentation Updates” on page 13

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## Access to Late-Breaking News

Updated and last-minute information for the SunPCi III 3.2 release can be found at the following Web site:

<http://www.sun.com/desktop/products/sunpci>

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## What Is in This Package?

The SunPCi III 3.2 CD contains the following:

- SunPCi III 3.2 software package
- Virtual Networking Computing (VNC) source code
- VNC package

- *SunPCi III Quick Start Installation Guide* in Adobe Acrobat Portable Document Format (PDF)
- *SunPCi III 3.2 User's Guide* in PDF format
- *SunPCi III 3.2 Product Notes* (this document) in PDF format

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## Viewing the Documentation PDF Files

English and localized versions of the documentation are in the `DOCS` directory on the SunPCi III 3.2 CD in PDF (Adobe Acrobat) format. The CD includes the following documentation:

- **SunPCi III 3.2 User's Guide** – Describes how to configure the SunPCi III software to use one or more SunPCi III cards, how to install the Microsoft Windows and Linux software on a SunPCi card, and how to troubleshoot SunPCi issues.
- **SunPCi III Quick Start Installation Guide** – Describes how to install one or more SunPCi III cards and SunPCi III software.
- **SunPCi III 3.2 Product Notes** – Describes late-breaking issues related to the SunPCi III product.

The following table is an index of the directories containing the localized documentation in the `DOCS` directory on the SunPCi III 3.2 CD.

**TABLE 1** Directories of Localized Documentation

Directory Name	Language	Directory Name	Language
c	English	ja	Japanese
de	German	ko	Korean
es	Spanish	sv	Swedish
fr	French	zh	Simplified Chinese
it	Italian	zh_TW_Big5	Traditional Chinese

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**Note** – The SunPCi documentation was not localized for the 3.2 release. The most recent localized documents for SunPCi III were prepared with the SunPCi 3.0.1 release. These localized documents are included on the SunPCi III 3.2 CD.

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To view the documentation PDF files, follow these steps:

**1. Insert the SunPCi III 3.2 CD into the system CD-ROM drive.**

A File Manager window opens.

**2. In the File Manager window, double-click the `Docs` directory where the PDF files for your locale are stored on your SunPCi III 3.2 CD.**

**3. Double-click the Adobe Acrobat PDF file you want to open.**

After a few seconds, the Adobe Acrobat splash screen opens, followed by the Adobe Acrobat program displaying the file you double-clicked.

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**Note** – If needed, you can download Adobe Acrobat Reader for free from the Adobe Web site: <http://www.adobe.com/products/acrobat/alternate.html>

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## New Features in SunPCi III 3.2

SunPCi III 3.2 contains the following new features:

- Support for Red Hat Linux 9 operating system
- Bug fixes

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## SunPCi III 3.2 Supported Systems

The following sections list the Microsoft Windows and Linux operating systems, the Solaris™ operating environments, and the UltraSPARC™ systems that SunPCi III 3.2 supports.

### Microsoft Windows and Linux Operating Systems

The SunPCi III 3.2 product supports the following operating systems:

- Microsoft Windows XP Professional (Windows XP Professional) Service Pack 1a
- Microsoft Windows 2000 Professional (Windows 2000 Professional) Service Pack 4
- Microsoft Windows 2000 Server Edition (Windows 2000 Server) Service Pack 4
- Microsoft Windows Server 2003 (Windows Server 2003) No Service Pack
- Red Hat Linux 9 Standard and Professional edition (Kernel 2.4.20-6)

- Red Hat Linux 9 Download Edition (Kernel 2.4.20-8)

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**Note** – SunPCi III 3.2 does not support Microsoft Windows 95, Microsoft Windows 98, Microsoft Windows ME, or Microsoft Windows NT. SunPCi III 3.2 does, however, support the upgrade of Microsoft Windows NT to a supported operating system.

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**Note** – Only the supported Linux versions work with SunPCi III 3.2.

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## Solaris Operating Environments

The SunPCi III 3.2 product supports the following Solaris operating environments:

- Solaris 7
- Solaris 8
- Solaris 9

## UltraSPARC Systems

**TABLE 2** Supported UltraSPARC Systems for SunPCi III 3.2

UltraSPARC System	SunPCi III Cards
Sun Blade™ 100 and 150	1
Sun Blade 1000, 1500, and 2000	2*
Sun Enterprise™ 450	3**
Sun Enterprise 220R, 250, and 420R	1***
Sun Fire™ V210 and V240	1
Sun Fire 280R	1***
Sun Fire V440 and V480	2*

\* You can install and use up to 3 SunPCi III cards if you do not use the optional USB/Firewire Card and Backplate and use less than 1 Gbyte of memory for each card.

\*\* You can install and use up to 5 SunPCi III cards if you do not use the optional USB/Firewire Card and Backplate and use less than 1 Gbyte of memory for each card.

\*\*\*You can install and use up to 2 SunPCi III cards if you do not use the optional USB/Firewire Card and Backplate and use less than 1 Gbyte of memory for each card.

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# Solaris Patch Information

To ensure that your SunPCi system runs properly, you need to download and install the latest Solaris software patches. Without the patches installed, the SunPCi software might exhibit problems during installation and regular operation.

If you have a Sun™ Creator3D graphics accelerator card (called the Fast Frame Buffer or FFB) or Sun Elite3D graphics accelerator card (called the Advanced Frame Buffer or AFB) installed in your system, you need to download and install certain Solaris software patches so the frame buffer is compatible with SunPCi software.

For information on how to install Solaris software patches, refer to your Solaris documentation.

The following table lists the patches required with each version of the Solaris operating environment and card type. If more than one patch is listed for a particular card type, download and follow the patch instructions to install all of the recommended patches.

**TABLE 3** Graphics Accelerator Card Patches

Solaris Version	Graphics Card Type (Device Name)	Patch Number**
Solaris 7	All	108376-xx
	Elite3D (afb0@)	106144-xx 106148-xx
	Creator3D (ffb0@)	106144-xx 106145-xx 106146-xx 106148-xx
	PGX/M64	106146-xx
	Raptor	107716-xx
	Solaris 8 (Shipped 2/02)*	None
Solaris 9	None	

\* For earlier versions of Solaris 8, refer to the Sun Web site (<http://www.sun.com>) for additional information.

\*\* Patches have a base number, but the dash number is continually updated. Find the patch that is *the most recent version*, unless otherwise instructed.

**TABLE 4** Other Solaris Patch Information

Solaris Version	Patch Purpose	Patch Number*
Solaris 8	To avoid a UNIX panic when inserting a DVD	112325-xx
Solaris 7, 8, 9	An OpenGL software patch required when running Linux	113886-xx (32-bit) 113887-xx (64-bit)

\* Patches have a base number, but the dash number is continually updated. Find the patch that is *the most recent version*, unless otherwise instructed.

## Obtaining Patches From Sun

If you have a service contract with Sun, you can download patches from the SunSolve<sup>SM</sup> Online Web site:

<http://sunsolve.sun.com/pub-cgi/show.pl?target=home>

If you are a member of the Sun Developer community, you can search and download patches from the Access1<sup>SM</sup> Web site:

<http://access1.sun.com/cgi-bin/query.cgi>

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## Known Issues With This Release

This section describes the known issues with the SunPCi III 3.2 release. You can also refer to the *SunPCi III 3.2 User's Guide*, Appendix A "Troubleshooting," for additional information about Linux issues.

### Linux Specific Issues

The following sections describe specific Red Hat Linux 9 issues in the SunPCi III 3.2 release.

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**Note** – It is strongly recommended that you only download the latest and most stable version of each application used with Linux.

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## Avoid Scanning Partitions for Bad Blocks

During installation of Linux, when you specify partitions, an option is available to scan a partition for bad blocks prior to installation. Under certain conditions this option causes the installation to stop and fail since the bad blocks check might fail at the end of partition.

To avoid this issue, do not choose invoking the badblocks utility during installation.

This is a known Linux bug and a bug has been filed with Red Hat.

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**Note** – Even after Linux installation, the badblocks option might fail since partitions generated during installation might be incorrect.

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## Solaris Function Keys of Cut, Copy, and Paste Do Not Work on Solaris Keyboards

Solaris Cut, Copy, and Paste function keys on Solaris keyboards do not work with Linux applications.

To work around this issue, use the drop-down menus for Cut, Copy, and Paste in Linux applications since they work correctly. You can also use right-click to access the options of Cut, Copy, and Paste.

Also, not all Linux applications use the default Microsoft Windows keyboard shortcuts for Cut, Copy, and Paste. You have to check each Linux application to see what keyboard shortcut is used for Cut, Copy, and Paste, although the right-click option generally works with most Linux applications.

## Cannot Eject CD From Solaris When Mounted Through Linux

In Linux, you cannot eject a CD using Solaris software once the CD is mounted by Linux.

To eject the CD using Solaris by pressing the Meta-E key combination, you must first unmount the CD in Linux. Ejecting the CD using Linux will also unmount the CD prior to ejecting it.

For best results, only eject a CD mounted in Linux from within the Linux window.

## USB Keyboards and Mice Only Work With External Monitor

When running Linux on a system monitor, USB keyboards and mice do not function properly because all input is handled by the local X server, not by real or emulated devices attached to the SunPCi card. To use input devices directly attached to the SunPCi card, you must use the external monitor.

## Specify the X Input Method for Num Lock and Caps Lock to Work Properly in GNOME

In GNOME, when typing in various fields, such as in the GNOME terminal, calculator, and various dialog boxes, the Num Lock and Caps Lock keys might not work properly.

To work properly for each application, right-click and change the Input Method from “Default” to “X Input Method.” You have to make this update within each application.

This issue only applies to the GNOME applications and the `gdmgreeter` login screen running on the system monitor. This issue does not apply to the KDE application, standard X applications (such as `xterm`), or any applications running on external monitors.

## Audio Sometimes Might Not Work

In Linux, audio drivers and audio output randomly fail in some Linux applications. The audio drivers in Red Hat Linux 9 sometimes do not play or record properly.

This is a known Linux bug and is currently under investigation.

## Installing Linux in Multi-Card Environment Requires Closing Microsoft Windows Server 2003

When installing Linux in a multi-card environment, you must close any open sessions of Microsoft Windows Server 2003, since there might be a conflict with the installation.

Failure to close Microsoft Windows Server 2003 before starting the installation of Linux results in a failed installation.

After completing the Linux installation, both Microsoft Windows Server 2003 and Linux can run simultaneously.

## Fully Functional and Configured Network Required for Linux Graphical Interface to Work on System Monitor

In order for the X server to work, you must have a fully functional network connection to both the SunPCi III card and the host workstation. If there is no network connection, the X server will not start up. The X server allows you to then use the Linux graphical interface.

These requirements apply only to installations that use a system monitor. If you configure Linux to use an external monitor to view SunPCi III, this issue is not applicable.

## Not Installing Networking During Linux Installation Limits Usability

If you do not follow the directions exactly in the *SunPCi III 3.2 User's Guide* on configuring the networking for Linux, you will have several problems, including being unable to use the Linux graphical interface on the system monitor.

If you do not configure networking, you have to perform the following task to recover and fix Linux properly.

**1. Find the ifcfg-eth0 file at the following location:**

```
/etc/sysconfig/network-scripts/
```

**2. Open the ifcfg-eth0 file and verify that the file is configured as detailed below.**

**a. For a Static IP address:**

```
DEVICE=eth0
ONBOOT=yes
BOOTPROTO=none
USERCTL=no
PEERDNS=no
TYPE=Ethernet
IPADDR=xxx.xxx.xxx.xxx*
NETMASK=xxx.xxx.xxx.xxx*
GATEWAY=xxx.xxx.xxx.xxx*
NETWORK=xxx.xxx.xxx.xxx*
BROADCAST=xxx.xxx.xxx.xxx*
```

\*Enter the information, such as an IP address, for your own network for each of these fields.

### b. For DHCP:

```
USERCTL=no
PEERDNS=no
TYPE=Ethernet
DEVICE=eth0
BOOTPROTO=dhcp
ONBOOT=yes
```

3. Update the `ifcfg-eth0` file as needed.
4. Save the `ifcfg-eth0` file.
5. Make sure that the `/etc/sysconfig/networking/devices/filename` directory is a hard link to the `/etc/sysconfig/network-scripts/ifcfg-eth0` directory.

## Linux Does Not Open If Installation Is Interrupted

If the Linux installation does not start properly after initial installation, you have two solutions:

- Delete and re-create the C: drive.
- Exit SunPCi and edit the `.ini` file so it looks like the following text:

```
[Drives]
A drive=/opt/SUNWspci3/drivers/linux/rh9.0/redhat-
9.0_install_drive
```

After editing the `.ini` file, restart SunPCi and you should be able to open Linux.

In Linux, if the installation process is aborted anytime during installation, the diskimage created will not work. You must delete the disk image, and use the Create a New Emulated Drive option to restart the installation process.

When creating and installing Linux, always attach and create the diskimage at the same time. Do not try to create another drive before the Linux installation is complete or you will not be able to use the Linux diskimage.

## System Monitor Display Configuration Message

When you attempt to change your display settings on your system monitor, the following message might appear:

```
Display settings changed. You need to log out and restart the
X server for the changes to take effect.
```

Configuration was written to `/etc/X11/XF86Config`, original configuration was saved as `/etc/X11/XF86Config.backup`.

If you are using your system monitor, you can ignore this message, log out, and then log in again, and the requested display changes should be effective. This message is intended for the external monitor.

If this message appears when you are using an external monitor, it states that it is making a copy of the `XF86Config` file and when you log out and then log in again, and the requested display changes should be effective.

## Do Not Attempt to Change to External Monitor Using Display Settings Only

You cannot switch from the system monitor to the external monitor by using the Display Settings option.

You have to exit the SunPCi session and restart SunPCi using the `-v` option to change from the system monitor to the external monitor.

Refer to the Red Hat Linux 9 chapter in the *SunPCi III 3.2 User's Guide* for information about changing the video display.

## Using VNC With Linux Might Not Work

If you use Linux with VNC, sometimes VNC might not work properly.

To avoid this issue, you should only bring up Linux with run level 3 in VNC and the console login when running Linux. To bring up the console login only, you can change the run level in the `/etc/inittab` directory by updating the following:

```
id:5:initdefault
```

to

```
id:3:initdefault
```

Do not use VNC to launch applications in Linux. For additional VNC information, refer to the *SunPCi III 3.2 User's Guide*.

## Do Not Use the Solaris GNOME Desktop If You Use the Linux GNOME Desktop in SunPCi

You cannot use the Solaris and Linux GNOME desktops at the same time if you created Linux user accounts which mount Solaris home directories at log in. Linux user accounts created with local home directories will not experience this problem.

If you attempt to run the GNOME desktop for both operating systems at the same time, either operating system might not work properly because the format of the GNOME preference files are not compatible across both platforms and changes made by one system may corrupt the preferences for the other. Removing the `.gconf` directory and its contents from the user's home directory restores GNOME to its defaults if the files are corrupted.

To avoid this issue, if you are using the GNOME Linux desktop with SunPCi, use the Solaris CDE (Common Desktop Environment).

This is a known issue with GNOME.

## Windows Specific Issues

The following sections describe specific Microsoft Windows issues in the SunPCi III 3.2 release.

### Display Setting Change Forces Display to Route to External Monitor

While using Windows 2000 Professional, if you are using the system monitor and have VIA video drivers installed, then change the display setting, but do not save the new display setting, your primary monitor changes from internal to external.

To fix this issue, you can either restart Windows or refer to the *SunPCi III 3.2 User's Guide*, specifically the section in the Windows 2000 chapter titled, "How to Switch External Video Back to the System Monitor" for instructions.

### Blank System Monitor After Switching Back From External Video Issue in Windows 2000 and Windows XP Professional

If you attempt to change from an external monitor to the system monitor without using the `-v` command, the change fails and your system monitor becomes blank.

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**Note** – This issue only happens if you first attempt to switch to an external monitor without gracefully shutting down SunPCi and then restarting using the `-v` command.

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To recover from this situation, do the following:

**1. From the File menu in SunPCi, choose Exit.**

The SunPCi Exit dialog box opens with the choice of Exit, Shutdown x86 OS and Exit SunPCi, or Cancel.

**2. Click Shutdown x86 OS and Exit SunPCi to exit Microsoft Windows and the SunPCi application.**

Microsoft Windows and SunPCi close gracefully.

**3. At the Solaris system prompt, restart the SunPCi III software normally:**

```
% /opt/SUNWspci3/bin/sunpci
```

The SunPCi III software starts, and Microsoft Windows opens on the system monitor.

Refer to the appropriate operating system chapter in the *SunPCi III 3.2 User's Guide* for information about changing the video display.

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## Documentation Updates

This section describes updates in the SunPCi III 3.2 documentation.

For the release of SunPCi III 3.2, the *SunPCi III 3.2 User's Guide* (817-3630-10) and the *SunPCi III Quick Start Installation Guide* (817-4343-10) were updated in English only. The most recent localized documents for SunPCi III were prepared with the SunPCi 3.0.1 release. These localized documents are included on the SunPCi III 3.2 CD.

## SunPCi III Quick Start Installation Guide

The following section describes updates to the *SunPCi III Quick Start Installation Guide*.

## Two Files for the Quick Start Installation Guide

In all language versions of the *SunPCi III Quick Start Installation Guide*, the PDF version of the document is divided into two files.

For example, the English-language version of the *SunPCi III Quick Start Installation Guide* is named the following:

- `install_guideA.pdf` (front panel)
- `install_guideB.pdf` (back panel)

An example of the translated documentation, such as the Swedish-language version of the *SunPCi III Quick Start Installation Guide*, is named the following:

- `install_guideA_sv.pdf` (front panel)
- `install_guideB_sv.pdf` (back panel)

## Other SunPCi III Documentation Updates

Two new documents for specific SunPCi III issues are available.

- **Installing Optional Hardware for the Preinstalled SunPCi III Product**  
(817-3276-10) – Gives you instructions on how to install the optional hardware available when SunPCi III comes preinstalled on your system.
- **Sun Blade 2000 and SunPCi III Cards: Installing the Required Card Guide**  
(817-3695-10) – Gives you instructions on how to install a specific card guide/retaining clip to secure SunPCi III cards in Sun Blade 2000 systems.