# Solaris 9 4/03 Release Notes

Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054
U.S.A.

Part No: 817–0488–11
April 2003


030425@5533

# Contents

# Preface

The *Solaris 9 4/03 Release Notes* contain installation problem details and other information that was not available until immediately before the release of the Solaris™ 9 4/03 operating environment.

---

**Note –** The Solaris operating environment runs on two platforms, SPARC® and x86. The Solaris environment also runs on 64-bit and 32-bit address spaces. The information in this document pertains to both platforms and address spaces unless otherwise specified in a special chapter, section, note, bulleted item, figure, table, or example.

---

## Who Should Use This Book

These notes are for users and system administrators who install and use the Solaris 9 4/03 operating environment.

## Related Books

You might need to refer to the following manuals when you install Solaris software:

- *Solaris 9 Start Here*
- *Solaris 9 Installation Guide*
- *Solaris 9 4/03 Release Notes*, which are available through the following media:
  - The *Solaris 9 4/03 Release and Installation Collection* on the Solaris 9 4/03 Documentation CD
  - Print documentation that accompanies the product (installation issues and bugs only)
  - `http://docs.sun.com` (the most up-to-date information)
- *Solaris 9 System Administrator Collection*
- *What's New in the Solaris 9 4/03 Operating Environment*

For information on current CERT advisories, see the official CERT Web site at `http://www.cert.org`.

For some hardware configurations, you might need supplemental hardware-specific instructions for installing the Solaris operating environment. If your system requires hardware-specific actions at certain points, the manufacturer of your hardware has provided supplemental Solaris installation documentation. Refer to those materials, such as *Solaris 9 Sun Hardware Platform Guide*, for hardware-specific installation instructions.

---

**Note –** Sun is not responsible for the availablity of third-party Web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other material on or available from such sites or resources. Sun will not be responsible or liable for any damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods, or services that are available on or through any such sites or resources.

---

## Accessing Sun Documentation Online

The docs.sun.com[SM] Web site enables you to access Sun technical documentation online. You can browse the docs.sun.com archive or search for a specific book title or subject. The URL is `http://docs.sun.com`.

## Ordering Sun Documentation

Sun Microsystems offers select product documentation in print. For a list of documents and how to order them, see "Buy printed documentation" at http://docs.sun.com.

## Typographic Conventions

The following table describes the typographic changes used in this book.

**TABLE P–1** Typographic Conventions

| Typeface or Symbol | Meaning | Example |
|---|---|---|
| `AaBbCc123` | The names of commands, files, and directories; on-screen computer output | Edit your `.login` file.<br>Use `ls -a` to list all files.<br>`machine_name% you have mail.` |
| **`AaBbCc123`** | What you type, contrasted with on-screen computer output | `machine_name%` **`su`**<br>`Password:` |
| *AaBbCc123* | Command-line placeholder: replace with a real name or value | To delete a file, type **`rm`** *filename*. |

**TABLE P–1** Typographic Conventions *(Continued)*

| Typeface or Symbol | Meaning | Example |
|---|---|---|
| *AaBbCc123* | Book titles, new words, or terms, or words to be emphasized. | Read Chapter 6 in *User's Guide*.<br>These are called *class* options.<br>You must be *root* to do this. |

## Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

**TABLE P–2** Shell Prompts

| Shell | Prompt |
|---|---|
| C shell prompt | `machine_name%` |
| C shell superuser prompt | `machine_name#` |
| Bourne shell and Korn shell prompt | `$` |
| Bourne shell and Korn shell superuser prompt | `#` |

CHAPTER 1

# Installation Issues

This chapter describes problems that relate to the installation of the Solaris 9 4/03 operating environment.

The following installation bug descriptions have been added to this chapter since this document was published on the Solaris 9 4/03 Documentation CD and in the Installation Kiosk on the Solaris 9 4/03 Installation CD.



## Issues You Need to Know About Before Installing Solaris 9 4/03 Software

### SPARC: Booting From the Solaris 9 4/03 DVD

The Solaris 9 4/03 operating environment is now available on DVD. To install or upgrade from DVD, insert the Solaris 9 4/03 DVD into the DVD-ROM drive and boot the system from the `ok` prompt with the following command.

```
ok boot cdrom
```

### x86: Solaris 9 4/03 Installation CD Partition Issue

If the Solaris Web Start 3.0 program on the Solaris 9 4/03 Installation CD is unable to locate a Solaris `fdisk` partition on a system, you must create a Solaris `fdisk` partition on your `root` disk.

**Caution –** If you change the size of an existing `fdisk` partition, all data on that partition is automatically deleted. Back up your data before you create a Solaris `fdisk` partition.

The Solaris Web Start 3.0 program requires two `fdisk` partitions to perform an installation.

- Solaris `fdisk` partition

  This is the typical Solaris `fdisk` partition.

- x86 boot `fdisk` partition

  This is a 10–Mbyte `fdisk` partition that enables x86-based systems to boot the miniroot that is placed on the newly created swap slice. The swap slice is located on the Solaris `fdisk` partition.

**Note –** The installation program on the Solaris 9 4/03 Installation CD creates the x86 boot partition, removing 10 Mbytes from the Solaris `fdisk` partition. This removal prevents any existing `fdisk` partitions from being altered.

This partition should not be created manually.

This requirement also prevents you from using the Solaris 9 4/03 Installation CD to upgrade from the Solaris 2.6 or Solaris 7 releases to the Solaris 9 4/03 operating environment. For more information, refer to "Upgrade Issues" on page 25.

### x86: Change in Default Boot-Disk Partition Layout

In the Solaris 9 4/03 operating environment, the Solaris Web Start and `suninstall` installation programs use, by default, a new boot-disk partition layout to accommodate the Service partition on Sun™ LX50 systems. This installation program enables you to preserve an existing Service partition.

The new default includes the following partitions:

- First partition – Service partition (existing size on system)
- Second partition – x86 boot partition (approximately 11 Mbytes)
- Third partition – Solaris partition (remaining space on the boot disk)

If you want to use this default layout, select Default when the Solaris Web Start or `suninstall` program asks you to choose a boot-disk layout.

**Note –** If you install the Solaris 9 4/03 (x86 Platform Edition) operating environment on a system that does not currently include a Service partition, the Solaris Web Start and `suninstall` programs do not create a new Service partition by default. If you want to create a Service partition on your system, see "x86: Service Partition Not Created by Default on Systems With No Existing Service Partition" on page 17.

You can also choose to manually edit the disk partition layout by using the `fdisk` utility. You might want to manually edit the boot-disk partitions under the following conditions:

- You want to preserve an existing Sun Linux partition on the system.
- You need to create a Solaris partition, but want to preserve other existing partitions on the disk.

**Note –** If your system contains an upgradable version of the Solaris operating environment, but does not contain an x86 boot partition, you might not be able to upgrade by using the Solaris Installation CD. To upgrade a system with no x86 boot partition to the Solaris 9 4/03 operating environment, use the `suninstall` installation program on the Solaris 9 4/03 Software 1 of 2 CD.

### SPARC: Default Solaris JumpStart Profile Might Not Install Multiple Locales on Small Disks

If you use the default Solaris JumpStart™ profile on the Solaris 9 4/03 media to install multiple locales on a system with a small disk, the installation might fail. This problem might occur under the following conditions.

- You use the default Solaris JumpStart profile to install any locale other than the C locale on a system with a 2.1-Gbyte disk.
- You use the default Solaris JumpStart profile to install two or more locales on a system with a 4-Gbyte disk.

### x86: Service Partition Not Created by Default on Systems With No Existing Service Partition

If you install the Solaris 9 4/03 operating environment on a system that does not currently include a Service partition, the installation program might not create a Service partition by default. If you are including a Service partition on the same disk as the Solaris partition, you must re-create the Service partition before you install the operating environment.

If you installed the Solaris 8 2/02 operating environment on a Sun LX50 system, the installation program might not have preserved the Service partition. If you did not manually edit the `fdisk` boot-partition layout to preserve the Service partition, the installation program deleted the Service partition during the installation.

**Note –** If you did not specifically preserve the Service partition when you installed the Solaris 8 2/02 operating environment, you cannot re-create the Service partition and upgrade to the Solaris 9 4/03 operating environment. You must perform an initial installation of the software.

**Workaround:** If you are including a Service partition on the disk that contains the Solaris partition, choose one of the following workarounds.

- To use the Solaris Web Start installation program to install from the Solaris 9 4/03 Installation CD, follow these steps.

  1. Delete the contents of the disk.
  2. Before you install, create the Service partition by using the Sun LX50 Diagnostics CD.

     For information on how to create the Service partition, see the *Sun LX50 Server User's Manual* and the Sun LX50 Knowledge Base at `http://cobalt-knowledge.sun.com`.
  3. Insert the Solaris 9 4/03 Installation CD in the CD-ROM drive.
  4. Begin the installation.

     When the installation program detects the Service partition, the following message is displayed:

     ```
     The default layout for the bootdisk is one x86 Boot partition
     and a Solaris partition on the remaining space. The Service fdisk
     partition, if one exists, is also preserved by default.

     Select one of the following to continue:

     1) Use the default layout
     2) Run fdisk to manually edit the disk
     3) Exit

     Please make a selection: [?]
     ```
  5. Type 1 to use the default layout.

     The installation program preserves the Service partition and creates the x86 boot partition and the Solaris partition.

     **Note –** The Solaris Web Start installation program creates the x86 boot partition by removing 10 Mbytes from the Solaris `fdisk` partition. This utility prevents any existing `fdisk` partitions from being altered. Do not create this partition manually.
  6. Complete the installation.

- To install from a network installation image or from the Solaris 9 4/03 DVD over the network, follow these steps.

  1. Delete the contents of the disk.
  2. Before you install, create the Service partition by using the Sun LX50 Diagnostics CD.

     For information on how to create the Service partition, see the *Sun LX50 Server User's Manual* and the Sun LX50 Knowledge Base at `http://cobalt-knowledge.sun.com`.
  3. Boot the system from the network.

     The Customize `fdisk` Partitions screen is displayed.
  4. To load the default boot-disk partition layout, click Default.

     The installation program preserves the Service partition and creates the x86 boot partition and the Solaris partition.

     For more information on booting from the network, see the *Solaris 9 Installation Guide*.

- To use the `suninstall` program to install from the Solaris 9 4/03 Software 1 of 2 CD or from a network installation image on a boot server, follow these steps.

  1. Delete the contents of the disk.
  2. Before you install, create the Service partition by using the Sun LX50 Diagnostics CD.

     For information on how to create the Service partition, see the *Sun LX50 Server User's Manual* and the Sun LX50 Knowledge Base at `http://cobalt-knowledge.sun.com`.
  3. Boot the system.

     The installation program prompts you to choose a method for creating the Solaris partition.
  4. Select the `Use rest of disk for Solaris partition` option.

     The installation program preserves the Service partition and creates the Solaris partition.
  5. Complete the installation.

     For more information on booting from the network, see the *Solaris 9 Installation Guide*.

### x86: Solaris Device Configuration Assistant Boot Diskette Is Not Available

The Solaris 9 Device Configuration Assistant is not delivered as a boot diskette in the Solaris 9 4/03 release. To boot the Device Configuration Assistant, choose one of the following options.

- If your system's BIOS supports CD booting, boot from the Solaris 9 4/03 (x86 Platform Edition) Installation CD, the Solaris 9 4/03 Software (x86 Platform Edition) 1 of 2 CD, or the Solaris 9 4/03 Software (x86 Platform Edition) DVD.

- Create a boot diskette by copying the boot-diskette image to a diskette. The boot-diskette image is available at the following locations.
  - Solaris 9 4/03 Software (x86 Platform Edition) 2 of 2 CD
  - The Solaris Developer Connection Web site at `http://soldc.sun.com/support/drivers/dca_diskettes`

  Copy the image to a diskette, then boot the system from the diskette.
- If your system supports Preboot Execution Environment (PXE) booting and an install image is available on the network, boot from the network.

  Enable the system to use PXE by using the system's BIOS setup tool or the network adapter's configuration setup tool.

For more information, see the *Solaris 9 Installation Guide*.

### x86: Update the DPT PM2144UW Controller BIOS to the Latest Revision Before Upgrading to the Solaris 9 4/03 Operating Environment

The Solaris 9 4/03 operating environment includes a feature that enables you to install large partitions. The DPT PM2144UW controller's BIOS must support logical block addressing (LBA). The latest revision of the BIOS fully supports LBA access. You might need to update other DPT controller models to support LBA.

**Workaround:** Prior to upgrading your system to the Solaris 9 4/03 operating environment, ensure that the DPT PM2144UW controller's BIOS is the latest available version from DPT.

To determine if your system has a DPT controller, perform the following steps:

1. Run the `prtconf -D`.
2. If the name `dpt` is displayed, run the card's configuration utility to obtain information about the model and BIOS revision.
3. Upgrade DPT PM2144UW controllers by flashing the BIOS or by installing the latest BIOS EPROM that you have obtained from DPT. See `http://www.dpt.com` for the latest BIOS images for all DPT controllers.

You can now upgrade the system.

### x86: Do Not Upgrade Hewlett-Packard (HP) Vectra XU Series Systems With BIOS Version GG.06.13

The Solaris 9 4/03 operating environment includes a feature that enables you to install large partitions. The system BIOS must support logical block addressing (LBA). BIOS Version GG.06.13 does not support LBA access. The Solaris boot programs cannot manage this conflict. This issue can also affect other HP Vectra systems.

If you perform this upgrade, your HP system can no longer boot. Only a blank black screen with a flashing underscore cursor is displayed.

**Workaround:** Do not upgrade HP Vectra XU Series systems with the latest BIOS Version GG.06.13 to the Solaris 9 4/03 operating environment because it no longer supports these systems.

You can still boot your system by using the boot diskette or boot CD because the boot paths do not use the hard disk code. Then select the hard disk as your bootable device instead of the network or CD-ROM drive.

## Bugs You Need to Know About Before Installing Solaris 9 4/03 Software

### x86: `suninstall` Exits When Choosing to Save Service Partition and Create Solaris Partition (4832216)

If you use the `suninstall` installation program to install the Solaris 9 4/03 (x86 Platform Edition) operating environment on a system with an existing service partition, the installation program might exit. This problem occurs under the following conditions:

- You use the `suninstall` program to install the Solaris 9 4/03 operating environment.
- During the installation, you choose to lay out a disk with an existing service partition, but no Solaris `fdisk` partition.
- On the `Create Solaris fdisk Partition` panel, you choose the `Save service partition, create Solaris fdisk partition` option.

**Workaround:** Choose one of the following workarounds.

- To manually create a Solaris `fdisk` partition during the `suninstall` program, follow these steps:
  1. When the `suninstall` installation program asks you to choose a method to create the Solaris `fdisk` partition, choose the `Manually create fdisk partitions` option.
  2. Preserve the service partition and create the Solaris `fdisk` partition.
  3. Complete the installation.
- To manually create a Solaris `fdisk` partition by using the `fdisk` command, follow these steps:
  1. Exit from the `suninstall` installation program by pressing the F5 function key.
  2. Open a terminal window.

     See the `fdisk`(1M) man page for more information on creating `fdisk` partitions.
  3. Restart the `suninstall` installation program by typing the following command:

     ```
     # suninstall
     ```

4. Complete the installation.

### x86: Installations Might Fail on Systems With 3Com 3c905C Network Interface Cards (4791458)

If you perform a network installation on a system with a 3Com 3c905C network interface card, the following error message might be displayed:

```
elxl%d: no active connection found; please connect
```

After this error message is displayed, the installation might continue, or the installation might hang.

**Workaround:** Choose one of the following workarounds.

- Use a different network interface to perform the network installation.
- Use the Solaris 9 4/03 DVD or CD media to install the system.

For more information on how to perform an installation from the network, see the *Solaris 9 Installation Guide*.

### x86: PXE Network Boot Does Not Execute Successfully on Sun LX50 Systems (4725108)

If you use the Preboot Execution Environment (PXE) network boot to install the Solaris 9 4/03 operating environment on a Sun™ LX50 system, the network boot might fail. The following message is displayed:

```
error: Assertion failure: - "rp->flags & RESF_ALT", "ur.c" line 80

The root filesystem is not mounted and the configuration assistant
has exited prematurely. Booting is unlikely to succeed.
CTL-ALT-DEL may be used to reset the machine.

Failover to boot interpreter - type ctrl-d to resume boot
```

**Workaround:** Choose one of the following workarounds.

- If you do not need to use PXE network boot, follow these steps.
  1. Boot the system by using one of the following media.
     - Solaris 9 4/03 Installation CD
     - Solaris 9 4/03 Software 1 of 2 CD
     - Solaris Device Configuration Assistant (DCA) on a boot diskette

       See the *Solaris 9 Installation Guide* for more information on booting from the Solaris DCA.
  2. When the DCA prompts you to choose a network device, select the appropriate network device to use to boot the system.

- If you want to use PXE network boot, disable the serial console in the system's BIOS during the installation. For instructions on how to modify the BIOS on Sun LX50 systems, see the *Sun LX50 Server Manual* at `http://www.sun.com/servers/entry/lx50/documentation2.html`.

### Boot From Solaris DVD Fails on Systems With Toshiba SD-M1401 DVD-ROM (4467424)

If your system has a Toshiba SD-M1401 DVD-ROM drive with firmware revision 1007, the system cannot boot from the Solaris 9 4/03 DVD.

**Workaround:** Apply patch 111649–03, or later version, to update the Toshiba SD-M1401 DVD-ROM drive's firmware. Patch 111649–03 is included on the Solaris 9 4/03 Supplement CD in the following directory.

```
DVD_Firmware/Patches
```

See the README file in this directory for instructions on how to install the patch. Be sure to read and follow all the cautions and warnings in this README file before you install the patch.

### Cannot Access Data on Solaris 9 4/03 DVD in Solaris 2.6 and Solaris 7 Operating Environments (4511090)

If your system is running the Solaris 2.6 or Solaris 7 operating environment, Volume Management incorrectly mounts the Solaris 9 4/03 DVD. The DVD can be mounted, but the data is inaccessible. As a result, you cannot set up an install server, perform a Live Upgrade, or access any data on the media.

**Workaround:** Choose one of the following workarounds.

- Apply the patches appropriate for your system.

  **TABLE 1–1** DVD Patches for the Solaris 2.6 and Solaris 7 Operating Environments

| Release | Patch ID |
|---|---|
| Solaris 2.6 operating environment | 107618-03 |
| Solaris 7 operating environment | 107259-03 |
| Solaris 2.6 operating environment | 107619-03 |
| Solaris 7 operating environment | 107260-03 |

- Manually mount the Solaris 9 4/03 DVD. Do not use Volume Management to mount the DVD. Follow these steps.

  1. Become superuser.
  2. Stop Volume Management.

     ```
     # /etc/init.d/volmgt stop
     ```

3. Manually mount the DVD.

```
# mkdir /mnt1
# mount -F hsfs -o ro /dev/dsk/c0t6d0s0 /mnt1
```

4. Verify that the DVD is mounted and the data is accessible.

```
# cd /mnt1
# ls
```

The system returns the following information if the DVD is correctly mounted.

```
Copyright  Solaris_9
```

## Installation Bugs

### SPARC: Systems With Multiple Interfaces Recognize All Interfaces as Usable After Installation or Upgrade (4640568)

If you install or upgrade to the Solaris 9 4/03 operating environment on a system with multiple network interfaces, the system recognizes all system interfaces as usable. Interfaces that are not plugged in to the network or that are not intended for use appear in the output of the `ifconfig -a` command. Additionally, interfaces with identical Ethernet addresses might be assigned identical IP addresses. The following error message is displayed.

```
ifconfig: setifflags: SIOCSLIFFLAGS: qfe3: Cannot assign requested address
```

This problem also occurs on systems that have the `local-mac-address` PROM variable set to `false`. The problem occurs because all interfaces are configured with the same IP address.

**Workaround:** Choose one of the following workarounds.

- To plumb only the configured interface, reboot the system after the initial boot.
- To assign a different IP address to each network interface, set the `local-mac-address` PROM variable to `true` in one of the following ways.
  - At the `ok` prompt, type the following command.

    ```
    ok setenv local-mac-address? true
    ```

  - In a terminal window, type the following command as superuser.

    ```
    # eeprom local-mac-address?=true
    ```

## Installation Bugs That Occur During an Installation From Solaris 9 4/03 Software 1 of 2 CD

### Warnings Might Occur When a File System Is Created (4189127)

When a file system is created during installation, one of the following warning messages might be displayed.

```
Warning: inode blocks/cyl group (87) >= data blocks (63) in last
cylinder group. This implies 1008 sector(s) cannot be allocated.
```

Or:

```
Warning: 1 sector(s) in last cylinder unallocated
```

The warning occurs when the size of the file system that you created does not equal the space on the disk that is being used. This discrepancy can result in unused space on the disk that is not incorporated into the indicated file system. This unused space is not available for use by other file systems.

**Workaround:** Ignore the warning message.

## Bug That Occurs During an Installation or an Upgrade

### Invalid Error Message Encountered When Installing Solaris WBEM Providers Package `SUNWwbpro` (4824518)

When you install the Solaris 9 4/03 operating environment, the following error message is recorded in the `/var/sadm/system/logs/install_log` file:

```
/tmp/Solaris_Application.mof: No such file or directory
```

If you upgrade to the Solaris 9 4/03 operating environment, the same error message is recorded in the `/var/sadm/system/logs/upgrade_log` file.

The message is encountered during the installation of the Solaris WBEM Providers Package (`SUNWwbpro`).

**Workaround:** Ignore the error message. This message does not affect the installation of the package. The error occurs because the installation program attempts to delete a temporary file that does not exist.

## Upgrade Issues

### Cannot Access Storage Area Networks Through `SUNWsan` With Solaris 9 4/03 Operating Environment

If your Solaris 8 system is connected to storage area networks (SANs), check with your support engineer before you upgrade to the Solaris 9 4/03 operating environment. Solaris 8 systems with the `SUNWsan` package installed might require special procedures to upgrade to the Solaris 9 4/03 operating environment. To find out if the `SUNWsan` package is installed on the system, type the following command in a terminal window.

```
# pkginfo SUNWsan
```

If the `SUNWsan` package is installed, the following information is displayed.

```
    system      SUNWsan       SAN Foundation Kit
```

### x86: Cannot Use Solaris 9 4/03 (x86 Platform Edition) Installation CD to Upgrade x86 Systems to the Solaris 9 4/03 Operating Environment

You cannot use Solaris 9 4/03 (x86 Platform Edition) Installation CD to upgrade x86-based systems from the Solaris 2.6 or Solaris 7 operating environment to the Solaris 9 4/03 operating environment because of the x86 boot-partition requirement. Use the Solaris 9 4/03 Software (x86 Platform Edition) 1 of 2 CD to upgrade from the Solaris 2.6 or Solaris 7 operating environment to the Solaris 9 4/03 operating environment on x86-based systems.

### Solaris Management Console 2.1 Software Is Not Compatible With Solaris Management Console 1.0, 1.0.1, or 1.0.2 Software

Solaris Management Console 2.1 software is not compatible with Solaris Management Console 1.0, 1.0.1, or 1.0.2 software. If you are upgrading to the Solaris 9 4/03 operating environment, and you have Solaris Management Console 1.0, 1.0.1, or 1.0.2 software installed, you must first uninstall the Solaris Management Console software before you upgrade. Solaris Management Console software might exist on your system if you installed the SEAS 2.0 overbox, the SEAS 3.0 overbox, or the Solaris 8 Admin Pack.

**Workaround:** Choose one of the following workarounds.

- Before you upgrade, use the `/usr/bin/prodreg` command to perform a full uninstall of Solaris Management Console software.
- If you did not uninstall Solaris Management Console 1.0, 1.0.1, or 1.0.2 software before you upgraded to the Solaris 9 4/03 operating environment, you must first remove all Solaris Management Console 1.0, 1.0.1, or 1.0.2 packages. Use the `pkgrm` command for package removal instead of the `prodreg` command. Carefully follow the order of package removal. Complete the following steps.

  1. Become superuser.
  2. Type the following command.

     ```
     # pkginfo | grep "Solaris Management Console"
     ```

     If the description does not start with "Solaris Management Console 2.1," the package names in the output identify a Solaris Management Console 1.0 package.
  3. Use the `pkgrm` command to remove all instances of Solaris Management Console 1.0 packages in the following order.

**Note –** Do not remove any package that has "Solaris Management Console 2.1" in its description. For example, `SUNWmc.2` might indicate Solaris Management Console 2.1 software.

If the `pkginfo` output displays multiple versions of Solaris Management Console 1.0 packages, use the `pkgrm` command to remove both packages. Remove the original package and then remove the package that has been appended with a number. For example, if the `SUNWmcman` and `SUNWmcman.2` packages appear in the `pkginfo` output, first remove the `SUNWmcman` package and then remove the `SUNWmcman.2` package. Do not use the `prodreg` command.

```
# pkgrm SUNWmcman
# pkgrm SUNWmcapp
# pkgrm SUNWmcsvr
# pkgrm SUNWmcsvu
# pkgrm SUNWmc
# pkgrm SUNWmcc
# pkgrm SUNWmcsws
```

4. In a terminal window, type the following command.

```
# rm -rf /var/sadm/pkg/SUNWmcapp
```

The Solaris Management Console 2.1 software should now function properly. For future maintenance, or if the Solaris Management Console 2.1 software does not function properly, remove the Solaris Management Console 2.1 software. Reinstall the software by completing the following steps.

1. Use the `pkgrm` command to remove all Solaris Management Console 2.1 packages and dependent packages in the following order.

**Note –** If your installation has multiple instances of Solaris Management Console 2.1 packages, such as `SUNWmc` and `SUNWmc.2`, first remove `SUNWmc`, and then `SUNWmc.2`. Do not use the `prodreg` command.

```
# pkgrm SUNWpmgr
# pkgrm SUNWrmui
# pkgrm SUNWlvmg
# pkgrm SUNWlvma
# pkgrm SUNWlvmr
# pkgrm SUNWdclnt
# pkgrm SUNWmga
# pkgrm SUNWmgapp
# pkgrm SUNWmcdev
# pkgrm SUNWmcex
# pkgrm SUNWwbmc
# pkgrm SUNWmc
```

```
# pkgrm SUNWmcc
# pkgrm SUNWmccom
```

2. Insert the Solaris 9 4/03 Software 1 of 2 CD into your CD-ROM drive. Type the following in a terminal window.

```
# cd /cdrom/sol_9_403_sparcia/s0/Solaris_9/Product
# pkgadd -d . SUNWmccom SUNWmcc SUNWmc SUNWwbmc SUNWmcex SUNWmcdev \
  SUNWmgapp SUNWmga SUNWdclnt SUNWlvmr SUNWlvma SUNWlvmg SUNWpmgr \
  SUNWrmui
```

All previous Solaris Management Console versions are removed. The Solaris Management Console 2.1 software is now functional.

## Installation Bugs That Occur During an Upgrade

### Upgrade Fails to Install `SUNWceudt` Package (4826785)

If you upgrade from the Solaris 9, Solaris 9 9/02, or Solaris 9 12/02 operating environment to the Solaris 9 4/03 release, the following errors occur when you use the `pkgchk` command with the `-n` option:

```
ERROR: /usr/dt/appconfig/types/cs_CZ.ISO8859-2/datatypes.dt
pathname does not exist
ERROR: /usr/dt/appconfig/types/cs_CZ.ISO8859-2/develop.dt
pathname does not exist
ERROR: /usr/dt/appconfig/types/cs_CZ.ISO8859-2/dtfile.dt
pathname does not exist
ERROR: /usr/dt/appconfig/types/cs_CZ.ISO8859-2/dtmail.dt
pathname does not exist
ERROR: /usr/dt/appconfig/types/cs_CZ.ISO8859-2/dtpad.dt
pathname does not exist
ERROR: /usr/dt/appconfig/types/cs_CZ.ISO8859-2/print.dt
pathname does not exist
ERROR: /usr/dt/appconfig/types/cs_CZ.ISO8859-2/uxstd.dt
pathname does not exist
```

**Workaround:** Use the Solaris 9 4/03 DVD or the Solaris 9 4/03 Software 1 of 2 CD to add back the `SUNWceudt` package. Follow these steps:

1. Become superuser.
2. Remove the `SUNWceudt` package.

```
# pkgrm SUNWceudt
```

3. Change directories to the product directory.

```
# cd path-to-Solaris-9/Product
```

4. Add the `SUNWceudt` package.

```
# pkgadd   -d 'pwd' SUNWceudt
```

### Manually Register `VDiskMgr.jar` File Delivered by Patch 114711-01 or 114712-01 After Upgrading (4818306)

If you applied on your system patch 114711-01 (SPARC Platform Edition), or patch 114712-01 (x86 Platform Edition) , you must manually register the `VDiskMgr.jar` file delivered with these patches after you upgrade to the Solaris 9 4/03 operating environment. If you do not manually register the `VDiskMgr.jar` file that is delivered with the patch, the existing `VDiskMgr.jar` file remains on your system. In addition, the patch does not fully fix the problem.

To determine if either of these patches is installed on your system, type one of the following commands:

- SPARC systems:

```
# patchadd -p | grep '114711-01'
```

- x86 systems:

```
# patchadd -p | grep '114712-01'
```

**Workaround:** Manually register the `VDiskMgr.jar` file delivered with the two specified patches after you upgrade to the Solaris 9 4/03 operating environment. Follow these steps:

1. Become superuser.
2. Replace the existing `VDiskMgr.jar` file with the `.jar` file delivered with the patch.

```
 # /usr/sadm/bin/smcregister tool -n \
com.sun.admin.diskmgr/VDiskMgr.jar \
/usr/sadm/lib/diskmgr/VDiskMgr.jar \
/usr/sadm/lib/dismgr/VDiskMgr_classlist.txt \
/usr/sadm/lib/diskmgr/VDiskMgrInfo.xml > /dev/null 2>$1
```

3. Replace the existing VDiskMgr in the tools box with the VDiskMgr tool delivered in the patch.

```
# /usr/sadm/bin/smcregister toolbox add -f tool \
com.sun.admin.diskmgr.client.VDiskMgr \
-F "/Storage/" >/dev/null 2>&1
```

4. Stop the WBEM server.

```
# /etc/init.d/init.wbem stop
```

5. Restart the WBEM server.

```
# /etc/init.d/init.wbem start
```

### SPARC: Solaris Management Console Applications Dependent on Managed Object Format (MOF) Files Might Fail After Upgrade (4825349)

If you upgrade from the Solaris 9 operating environment to the Solaris 9 9/02, Solaris 9 12/02, or Solaris 9 4/03 release, the upgrade does not reregister existing Managed Object Format (MOF) files. During the upgrade, the old `/var/sadm/wbem/logr`

directory is saved as the /var/sadm/wbem/logru3 directory. The registered MOF files are not reregistered after the upgrade. As a result, Solaris Management Console applications that depend on MOF files will fail.

The following error message is displayed when you use the console Mounts and Disks tools:

```
CIM_ERR_NOT_FOUND
```

**Workaround:** Manually register the missing MOF files. The MOF files are available in the /var/sadm/wbem/logru3 directory. Complete the following steps:

1. Become superuser.
2. Manually register the MOF files.

   ```
   # /usr/sadm/bin/mofreg -r tag mof-file
   ```

   where *tag* is the directory located in the /var/sadm/wbem/logru3/unregDir/ directory and *mof–file* is the MOF file located in the tag directory.

   For example:

   ```
   # /usr/sadm/bin/mofreg -r svm \
   /var/sadm/wbem/logru3/unregDir/svm/svm/Solaris_Vm1.0.mof
   ```
3. Stop the WBEM server.

   ```
   # /etc/init.d/init.wbem stop
   ```
4. Restart the WBEM server.

   ```
   # /etc/init.d/init.wbem start
   ```

### Installer Text Display Problem When Using Solaris Live Upgrade (4736488)

When using the Solaris Live Upgrade luupgrade(1M) command with the -i option to complete an upgrade of an inactive boot environment, the text that the installers display might be unreadable in some languages. The text is corrupted when the installers request fonts that do not exist on the older release that is on the current boot environment.

**Workaround:** Choose one of the following workarounds.

- Use a combined network installation image to do the install.
- Enable the C locale by setting the environment variable on your system.
  - If you are using the Bourne shell or Korn shell, follow these steps.
    1. Set the C locale.

       ```
       # LANG=C; export LANG
       ```
    2. Begin the installation.
  - If you are using the C shell, follow these steps.

1. Type the following.

   # **csh**

2. Set the C locale.

   # **setenv LANG C**

3. Begin the installation.

### SPARC: `luupgrade` Command Cannot Add Patches When a Patch List File Is Specified (4679511)

If you use the `-s` option with the `luupgrade` command to add patches with a directory and a patch list file, the patches are not added. A message similar to the following message is displayed:

```
/usr/sbin/luupgrade [52]:         3 patch-list-file: bad number
```

In the previous message, *patch-list-file* is the patch list file you specified for the `luupgrade` command to use to add patches.

**Workaround:** To add patches that specify a patch list file, perform the following steps.

1. Become superuser.
2. Mount the boot environment that you are patching.

   # `lumount` *boot-envir-name mount-point*

3. Add the patches to the boot environment.

   # **/usr/sbin/patchadd -R** *mount-point* **-M** *patch-path patch-list-file-name*

   In the previous command, *patch-path* is the path name of a directory that contains patches to add. The *patch-list-file-name* is the file that contains the list of patches you are adding.

4. Unmount the boot environment.

   # **luumount** *boot-envir-name*

### SPARC: Removal of `SUNWjxcft` Package Records Error During Upgrade (4525236)

When you upgrade from the Solaris 8 operating environment to the Solaris 9 or the Solaris 9 4/03 operating environment, a problem is encountered when the `SUNWjxcft` package is removed. The following error message is recorded in the `upgrade_log` file:

```
Removing package SUNWjxcft:
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TTbitmaps/fonts.upr
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TTbitmaps/fonts.scale
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TTbitmaps/fonts.alias
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TT/fonts.upr
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TT/fonts.scale
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TT/fonts.alias
```

```
Removal of <SUNWjxcft> was successful
```

**Workaround:** Ignore the error message.

### Upgrading From Solaris 8 Operating Environment Might Create Redundant Kerberos Privacy Mechanisms (4672740)

In the Solaris 9 4/03 operating environment, the Kerberos version 5 global mechanism includes privacy support. Therefore, the Kerberos domestic mechanism is not needed. If you installed the Kerberos domestic mechanism that is located in `/usr/lib/gss/do/mech_krb.so.1` on a Solaris 8 system, remove the Kerberos domestic mechanism, then upgrade the system to the Solaris 9 4/03 operating environment.

**Workaround:** Follow these steps before you upgrade to the Solaris 9 4/03 operating environment.

1. Type the following command to determine if the Kerberos domestic mechanism is installed on the system.

   ```
   % pkginfo | fgrep ' SUNWk5'
   ```

   - If the output of this command includes any `SUNWk5` package names, the Kerberos domestic mechanism is installed on the system. Go to step 2.
   - If the output does not include any `SUNWk5` package names, the Kerberos domestic mechanism is not installed on the system. Skip the rest of these steps. Upgrade the system.
2. Back up the `/etc/nfssec.conf` and `/etc/gss/qop` files by typing the following command.

   ```
   % tar -cf /var/tmp/krb_config_files.tar /etc/nfssec.conf /etc/gss/qop
   ```
3. Verify that the files are backed up by typing the following command.

   ```
   % tar -tf /var/tmp/krb_config_files.tar
   ```
4. Remove each package that is listed in the output of step 1.

   ```
   % pkgrm package-name package-name package-name
   ```
5. Upgrade to the Solaris 9 4/03 operating environment.

   The upgrade program updates the global Kerberos mechanism code and enables Kerberos privacy support.
6. In a text editor, change the following lines in the `/etc/gss/mech` file.

   - Uncomment the following line.

     ```
     kerberos_v5     1.2.840.113554.1.2.2    gl/mech_krb5.so gl_kmech_krb5
     ```

     If necessary, add the previous line to the `/etc/gss/mech` file.
   - Remove the following line.

     ```
     kerberos_v5     1.2.840.113554.1.2.2    do/mech_krb5.so do_kmech_krb5
     ```

- Restore the `/etc/nfssec.conf` and `/etc/gss/qop` files by typing the following command.

  ```
  % tar -xf /var/tmp/krb_config_files.tar
  ```

### Upgrading to Solaris 9 4/03 Operating Environment Might Disable Existing Secure Shell Daemon (`sshd`) (4626093)

If you upgrade to the Solaris 9 4/03 operating environment on a system that is running a third-party Secure Shell, such as OpenSSH, from the `/etc/init.d/sshd` daemon, the upgrade disables the existing Secure Shell daemon. During an upgrade, the Solaris 9 4/03 upgrade software overwrites the contents of `/etc/init.d/sshd`.

**Workaround:** Choose one of the following workarounds.

- If you do not want the Secure Shell protocol server program on your system, do not install the `SUNWsshdr` and `SUNWsshdu` packages during the upgrade.
- If you do not want the Secure Shell protocol server or client programs on your system, do not install the Secure Shell Cluster (`SUNWCssh`) during the upgrade.

### Upgrade Fails if `/export` Is Near Capacity (4409601)

If the `/export` directory is near full capacity and you upgrade to the Solaris 9 4/03 operating environment, space requirements for `/export` are miscalculated. The upgrade then fails. This problem commonly occurs if a diskless client is installed, or if third-party software is installed in the `/export` directory. The following message is displayed:

```
WARNING: Insufficient space for the upgrade.
```

**Workaround:** Before you upgrade, choose one of the following workarounds.

- Rename the `/export` directory temporarily, until the upgrade is completed.
- Temporarily comment out the `/export` line in the `/etc/vfstab` file until the upgrade is completed.
- If `/export` is a separate file system, then unmount `/export` before you perform the upgrade.

### Upgrading Diskless Client Servers and Clients (4363078)

If your system currently supports diskless clients that were installed with the Solstice AdminSuite™ 2.3 Diskless Client tool, you must perform two steps. First, delete all existing diskless clients that are the same Solaris version and architecture as the server. Then, install or upgrade to the Solaris 9 4/03 operating environment. For specific instructions, see the *System Administration Guide: Basic Administration*.

If you attempt to install the Solaris 9 4/03 operating environment over existing diskless clients, the following error message might be displayed:

```
The Solaris Version (Solaris version-number) on slice <xxxxxxxx> cannot
be upgraded.
There is an unknown problem with the software configuration installed
```

```
on this disk.
```

In this error message, *version-number* refers to the Solaris version that is currently running on your system. <*xxxxxxxx*> refers to the slice that is running this version of the Solaris operating environment.

## Installation Bugs That Occur After an Upgrade

### SPARC: Removing Patches After Upgrade Might Corrupt WBEM Repository (4820614)

The WBEM Repository CIM database can be corrupted under the following conditions:

- You apply a revision of patch 112945 for a Solaris 9 Update Release to a system that is running the Solaris 9 operating environment.
- You then remove the patch that was applied to the system.

If the WBEM Repository is corrupted, the following error message is displayed in the Solaris Management Console Log Viewer:

```
CIM_ERR_FAILED:
/usr/sadm/lib/wbem/../../../../var/sadm/wbem/logr/
preReg/PATCH113829install/Solaris_Application.mof,18,ERR_SEM,
ERR_EXC_SET_CLASS,CIM_ERR_FAILED:Other Exception:
java.io.StreamCorruptedException: invalid stream header
```

**Workaround:** Choose one of the following workarounds.

- Follow these steps to prevent the WBEM Repository from being corrupted.
  1. Become superuser.
  2. Before you apply the patch, back up the WBEM Repository.

     # **cp -r /var/sadm/wbem/logr** *path*/**logr**

     where *path* is the path to the backup WBEM Repository.
  3. If the WBEM Repository is corrupted after you back out the patch, stop the WBEM server.

     # **/etc/init.d/init.wbem stop**
  4. Restore the backup WBEM Repository.

     # **cp -rf** *path*/**logr /var/sadm/wbem/logr**
  5. Restart the WBEM server.

     # **/etc/init.d/init.wbem start**
- Follow these steps to create a new WBEM Repository.

**Note –** This workaround does not restore the WBEM data if the WBEM Repository is corrupted. Any data that was added to the repository during the installation is lost.

1. Become superuser.
2. Stop the WBEM server.

   # **/etc/init.d/init.wbem stop**
3. Remove the files from the `/logr` directory.

   # **rm /var/sadm/wbem/logr/***
4. Remove the `/notFirstTime` directory.

   # **rmdir notFirstTime**
5. Start the WBEM server.

   # **/etc/init.d/init.wbem start**
6. Manually compile any proprietary Managed Object Format (MOF) files.

   # **/usr/sadm/bin/mofcomp** *MOF-filename*

## 64–Bit Solaris Issues

### SPARC: Sun UltraSPARC System (`Sun4U`) Might Need Boot Flash PROM Update

**Note –** If your system is already running 64-bit ready firmware, then the flash PROM update is not required.

If you want to run the 64-bit Solaris operating environment on an UltraSPARC® system, you might need to update its flash PROM firmware. The Solaris 9 4/03 installation programs enable you to add 64-bit support. This 64-bit support is selected by default when you install on Sun UltraSPARC systems. A 64-bit system only boots in the 64-bit mode by default if it has a CPU speed of 200 MHz or greater.

**Note –** If you choose to run the 32-bit Solaris operating environment on any Sun™ or UltraSPARC system, the flash PROM update is not needed.

The following table lists the UltraSPARC (Sun4U™) systems that are affected and the minimum firmware versions that are needed. *System type* is the equivalent of the output of the `uname -i` command. You can determine which firmware version you are running by using the `prtconf -V` command.

**TABLE 1–2** Minimum Firmware Versions Required to Run 64–Bit Solaris Operating Environment on UltraSPARC Systems

| System Type From `uname -i` | Minimum Firmware Version From `prtconf -V` |
|---|---|
| SUNW,Ultra-1-Engine | 3.10.0 |
| SUNW,Ultra-1 | 3.11.1 |
| SUNW,Ultra-2 | 3.11.2 |
| SUNW,Ultra-4 | 3.7.107 |
| SUNW,Ultra-Enterprise | 3.2.16 |

**Note –** If a system is not listed in the previous table, it does not need a flash PROM update.

For instructions on how to perform the flash PROM update by using the Solaris CD, refer to the *Solaris 9 on Sun Hardware Collection*. If you do not have this manual, you can obtain it at `http://docs.sun.com`.

## Documentation CD Issue

### Cannot Install Documentation Packages With Names Longer Than Nine Characters on Documentation Servers Running the Solaris 2.6, 7, and 8 Operating Environments

Some localized documentation collections in PDF format have package names that are longer than nine characters. To install these PDF collections on servers that are running the Solaris 7 or 8 operating environment, you must first install two patches.

**Note –** No patches exist at the time of this release for Solaris 2.6 servers.

**Workaround:** For instructions on how to install these patches, see the Solaris Documentation Important Information file on the documentation media, Solaris 9 4/03 Documentation CD 1 of 2, 2 of 2, or DVD. This file is located in the following directory:

*mount-point*`/README/`*locale*`/install_`*locale*`.html`

For example, the English file on the Solaris 9 4/03 Documentation CD 1 of 2 is located in the following directory:

```
sol_9_doc_1of2/README/C/install_C.html
```

## Documentation CD Installation Bugs

### Uninstall Mode of Solaris 9 4/03 Documentation CD `uninstaller` Utility Does Not Work Properly (4675797)

If you run the Solaris 9 4/03 Documentation CD `uninstaller` in Uninstall All mode, the `uninstaller` removes only those documentation packages that are installed by default.

**Workaround:** Run the uninstaller in Uninstall Partial mode. Select the specific packages you want to uninstall.

### Documentation CD Verify Panel Might Not Page in Command-Line Interface Mode (4520352)

If you use the Solaris 9 4/03 Documentation CD installer program with the `nodisplay` option, the verify panel might not page correctly.

**Workaround:** Do not specify the `nodisplay` option with the Solaris 9 4/03 Documentation CD installer program. Use the graphical user interface (GUI) mode to install the Solaris 9 4/03 Documentation CD.

## Localization Issue That Occurs During Installation

### Additional Related Locales Might Be Installed

When you select a locale for your installation, additional related locales might also be installed. This change in behavior occurs in the Solaris 9 4/03 operating environment because all full locales, with message translations, and the Asian and Japanese partial locales, locale enabler, have been repackaged based on language support for locales. Other partial locales are still packaged and installed based on geographic region, such as Central Europe.

## Localization Bugs That Occur During Installation

### Solaris 9 Beta Refresh Chinese CDE Font Packages Do Not Upgrade to Solaris 9 4/03 Operating Environment (4653908)

If you upgrade to the Solaris 9 4/03 operating environment on a system that runs the Solaris 9 Beta Refresh operating environment with Simplified Chinese or Traditional Chinese locale support, the upgrade is not completed successfully. The Simplified Chinese and Traditional Chinese CDE font localization packages (`SUNWcdft` or `SUNWhdft`) do not upgrade to the appropriate Solaris 9 4/03 packages. The following error message is displayed.

```
Removing package SUNWcdft:
/a/var/sadm/pkg/SUNWcdft/install/postremove:
  /a/usr/dt/config/xfonts/zh_CN.EUC: does not exist
/a/var/sadm/pkg/SUNWcdft/install/postremove:
```

```
  /a/usr/dt/config/xfonts/zh_CN.GBK: does not exist
/a/var/sadm/pkg/SUNWcdft/install/postremove:
  /a/usr/dt/config/xfonts/zh_CN.UTF-8: does not exist
pkgrm: ERROR: postremove script did not complete successfully
```

**Workaround:** Before you upgrade to the Solaris 9 4/03 operating environment, remove the appropriate Solaris 9 Beta Refresh `postremove` files.

```
# rm /var/sadm/pkg/SUNWcdft/install/postremove
# rm /var/sadm/pkg/SUNWhdft/install/postremove
```

### Upgrading Systems Running Solaris 8 Operating Environment With Full Thai/Russian/Polish/Catalan Support Leaves Invalid Packages on System (4650059)

An upgrade to the Solaris 9 4/03 operating environment on a system that runs the Solaris 8 operating environment with the Solaris 8 Language Supplement CD installed, results in several invalid packages. Thai, Russian, Polish, and Catalan locale packages remain on the system. These locale packages have an `ARCH=sparcall` value and are not removed during the upgrade to the Solaris 9 4/03 operating environment.

**Workaround:** Before you upgrade to the Solaris 9 4/03 operating environment, use the Solaris Product Registry application to remove the Solaris 8 Languages Supplement CD packages.

CHAPTER 2

# Solaris Runtime Issues

This chapter describes runtime issues that are known to be problems.

The following runtime bug descriptions have been added to this chapter since this document was published on the Solaris 9 4/03 Documentation CD and in the Installation Kiosk on the Solaris 9 4/03 Installation CD.


- "Home Directory Not Created for User Accounts Added With Solaris Management Console After Upgrade (4803524)" on page 43


## Smart Card Bugs

### System Does Not Respond to Smart Card (4415094)

If `ocfserv` terminates and the display is locked, the system remains locked even when a smart card is inserted or removed.

**Workaround:** Perform the following steps to unlock your system.

1. Perform a remote login to the machine on which the `ocfserv` process terminated.
2. Become superuser.
3. Kill the `dtsession` process by typing the following in a terminal window.

```
# pkill dtsession
```

`ocfserv` restarts and smart card login and capability are restored.

### Edit Config File Menu Item in Smartcards Management Console Does Not Work (4447632)

The Edit Config File menu item in the Smartcards Management Console does not edit smart card configuration files that are located in `/etc/smartcard/opencard.properties`. If the menu item is selected, a warning is displayed that indicates not to continue unless requested by technical support.

**Workaround:** Do not use the Edit Config File menu item in the Smartcards Management Console. For information on smart card configuration, see the *Solaris Smartcard Administration Guide*.

## Common Desktop Environment (CDE) Bugs

### `mp` Print Command Fails in European and Russian Unicode/UTF-8 Locales if American English, Chinese, or Korean Unicode/UTF-8 locales Not Installed (4805695)

If you install any of the following European or Russian Unicode/UTF-8 locales, and do not also install the American English, Chinese, or Korean Unicode/UTF-8 locales, the `mp` print command fails.

- de_DE.UTF-8
- fr_FR.UTF-8
- it_IT.UTF-8
- es_ES.UTF-8
- sv_SE.UTF-8
- ru_RU.UTF-8

The `mp` print command will abort the print job and display the following error message:

```
mp: config file line: 46, cannot stat font file
(/usr/openwin/lib/locale/zh.GBK/X11/fonts/TrueType/songti.ttf)
```

---

**Note –** This error also occurs in other CDE desktop applications: dtmail and dtpad, for example.

---

For more information about the `mp` print command, see the `mp`(1) man page.

**Workaround:** Choose from one of the following workarounds.

- For a new installation or upgrade to the Solaris 9 4/03 operating environment, select and install one or more of the following American English, Chinese, or Korean Uniocde/UTF-8 locales:
  - en_US.UTF-8
  - zh_CN.UTF-8
  - zh_HK.UTF-8
  - zh_TW.UTF-8
  - ko_KR.UTF-8
- If you have already completed the installation or upgrade, manually add the `SUNWgttf` package that is located on the the Solaris 9 4/03 Software 1 of 2 CD or netimage. Complete the following steps:
  1. Log in to the system as superuser.

2. Insert the Solaris 9 4/03 Software 1 of 2 CD.
3. Change to the `/cdrom/sol_9*/s0/Solaris_9/Product` directory.

   ```
   # cd /cdrom/sol_9*/s0/Solaris_9/Product
   ```

4. Add the `SUNWgttf` package.

   ```
   # pkgadd -d . SUNWgttf
   ```

### x86: CDE Startup Applications Might Display in the `root-window` Input Method Style (4770994)

If you start a Common Desktop Environment (CDE) desktop session on a Sun™ LX50 in a Chinese locale, CDE applications that execute at startup might come up with the `root-window` input method style, instead of the expected `over-the-spot` input method style.

**Workaround:** Add the line, `sleep 1`, at the end of the `/usr/dt/config/Xsession.d/0020.dtims` script and start a new CDE desktop session.

### CDE Removable Media Auto Run Capability Removed (4634260)

The Removable Media auto run capability in the CDE desktop environment has been temporarily removed from the Solaris 9 4/03 operating enviroment.

**Workaround:** To use the auto run function for a CD-ROM or another removable media volume, you must do one of the following:

- Run the `volstart` program from the top level of the removable media file system.
- Follow the instructions that are included with the CD for access from outside of CDE.

### SPARC: `dtmail` Crashes When Launched From the Command Line if FontList Option Is Specified (4677329)

`dtmail` crashes after connecting with the IMAP server if the `FontList` option is specified when `dtmail` is launched from the command line. See the following example.

```
/usr/dt/bin/dtmail -xrm "Dtmail*FontList: -*-r-normal-*:"
```

The following error message is displayed.

```
Segmentation Fault
```

This problem occurs in both the C and ja locales.

**Workaround:** Do not specify the `FontList` option when you launch `dtmail` from the command line.

### CDE Mailer Appears to Hang While Displaying Email With Long Lines (4418793)

If you try to read an email message with many long lines in any of the Solaris 9 4/03 Unicode or UTF-8 locales, CDE Mailer (`dtmail`) appears to hang. The message does not display immediately.

**Workaround:** Choose one of the following workarounds.

- Enlarge the `dtmail` Mailbox window to accommodate 132 columns.
- Disable the Complex Text Layout feature by following these steps.

  1. Become superuser.
  2. Change directories to your system's locale directory.

     ```
     # cd /usr/lib/locale/locale-name
     ```

     In the previous example, *locale-name* refers to the name of your system's Solaris 9 4/03 Unicode or UTF-8 locale.
  3. Rename the locale layout engine category.

     ```
     # mv LO_LTYPE LO_LTYPE-
     ```

     **Note –** Rename the category for the locale layout engine to the original name (`LO_LTYPE`) before you apply any patches to the locale layout engine.

### Solaris PDASync Cannot Delete Last Entry From the Desktop (4260435)

After you delete the last item from the desktop, the item is restored from the handheld device to the desktop when you synchronize your handheld device. Examples of items that you might delete, and then have restored, are the last appointment in your Calendar or the last address in the Address Manager.

**Workaround:** Manually delete the last entry from the handheld device prior to synchronization.

### Solaris PDASync Does Not Support Data Exchange With the Multibyte Internationalized PDA Device (4263814)

If you exchange multibyte data between a PDA device and Solaris CDE, the data might be corrupted in both environments.

**Workaround:** Back up your data on your personal computer with the PDA backup utility before you run the Solaris™ PDASync application. If you accidentally exchange multibyte data and corrupt that data, restore your data from the backup.

## System Administration Bugs

### Home Directory Not Created for User Accounts Added With Solaris Management Console After Upgrade (4803524)

If you upgrade from the Solaris 9 9/02 or Solaris 9 12/02 release to the Solaris 9 4/03 operating environment, and then create a new user account, the home directory for that account is not created.

If you use the `smuser` command-line interface (CLI) to create the user account, a `"null"` error is displayed in the terminal window immediately following completion of the CLI execution.

If you created the user account by using the Solaris Management Console graphical user interface (GUI), no error message is displayed.

**Workaround:** After you upgrade to the Solaris 9 4/03 operating environment, complete the following steps to reregister the `jar` file.

---

**Note –** You will need to delete and re-create any user accounts that were added after the system was upgraded to this release.

You can delete the user account before or after you reregister the `jar` file. However, before creating any new user accounts, you must complete the workaround.

---

1. Become superuser.
2. Reregister the `jar` file.

```
# /usr/sadm/bin/smcregister library -n VUserMgrLib.jar \
/usr/sadm/lib/usermgr/VUserMgrLib.jar \
/usr/sadm/lib/usermgr/VUserMgrLib_classlist.txt ALL
```

3. Stop the WBEM server.

```
# /etc/init.d/init.wbem stop
```

4. Restart the WBEM server.

```
# /etc/init.d/init.wbem start
```

After you complete this workaround, the home directory, typically `/export/home/`*username*, is successfully created when you add a new user account.

For more information, see the `smuser`(1M) man page.

### `/etc/named.conf` File Causes Solaris Management Console Operations on User and Group Accounts to Fail (4777931)

If you use Solaris Management Console to perform operations on a User or Group account on a system that serves as a DNS server, and the `/etc/named.conf` file exists on that system, errors occur.

The following errors occur when you perform these operations from the GUI or when you use `smuser` and `smgroup`, which are command-line interfaces for the console.

The console launches a new dialog box or the `smuser` command exits with the following error messages when operated on a User:

```
"The attempt to view Users or Roles has failed due to an unexpected
error.
        This was caused by the following error: CIM_ERR_FAILED."
```

The console launches a new dialog box or the `smgroup` command exits with the following error message when operated on a Group:

```
"Attempted Read of Group IDs failed with unexpected CIM error:
        CIM_ERR_FAILED."operations from the GUI or command-line interface.
```

**Workaround:** Choose from one of the following workarounds.

- To solve this problem by restarting the DNS server, follow these steps:
  1. Become superuser.
  2. Move the `named.conf` file to a different directory. For example:

     ```
     # mv /etc/named.conf /var/named/named.conf
     ```
  3. Restart the DNS server.

     ```
     # pkill -9 in.named
     ```

     ```
     # /usr/sbin/in.named /var/named/named.conf
     ```
- To solve this problem by restarting the WBEM server, follow these steps:
  1. Become superuser.
  2. Using a text editor, edit the `/usr/sadm/lib/wbem/WbemUtilityServices.properties` file.

     Replace the `/etc/named.conf` string with `/tmp/`*new-filename*.

     ---

     **Note –** Ensure that the file name that you choose does not already exist on the system.

     ---
  3. Stop WBEM server.

     ```
     # /etc/init.d/init.wbem stop
     ```
  4. Start the WBEM server

     ```
     # /etc/init.d/init.wbem start
     ```

For more information, see the `smuser`(1M) and the `smgroup`(1M) man pages.

### x86: Pressing the F4 Key During BIOS Bootup Fails to Boot the Service Partition (4782757)

You are booting a Sun LX50 which has a Service partition and the Solaris 9 4/03 (x86 Platform Edition) operating environment is installed. You are given the option of pressing the F4 function key to boot the Service partition. However, pressing F4 causes the screen to go blank and the system fails to boot the Service partition.

**Workaround:** Do not press the F4 key when the BIOS Bootup Screen is displayed. After a time-out period, the Current Disk Partition Information screen is displayed. Select the number in the Part# column that corresponds to `type=DIAGNOSTIC` and press the Return key. The system boots the Service partition.

### UltraSPARC II CP Event Message in Solaris 9 4/03 Operating Environment Not Always Produced (4732403)

In the Solaris 9 4/03 operating environment, on UltraSPARC II based systems, the CP Event message that accompanies some Uncorrectable Memory Error messages is not always produced. These systems include the Sun Enterprise™ 10000 and Sun Enterprise 6500/6000/5500/5000/ 4500/4000/3500/3000 systems. The result is that some information needed to identify a failing CPU might not always be present.

**Workaround:** For the latest information regarding this issue, check the SunSolve Web site at `http://sunsolve.sun.com`.

### Solaris WBEM Services 2.5 Daemon Cannot Locate `com.sun` Application Programming Interface Providers (4619576)

The Solaris WBEM Services 2.5 daemon cannot locate providers that are written to the `com.sun.wbem.provider` interface or to the `com.sun.wbem.provider20` interface. Even if you create a `Solaris_ProviderPath` instance for a provider that is written to these interfaces, the Solaris WBEM Services 2.5 daemon does not locate the provider.

**Workaround:** To enable the daemon to locate such a provider, stop and restart the Solaris WBEM Services 2.5 daemon.

```
# /etc/init.d/init.wbem stop

# /etc/init.d/init.wbem start
```

---

**Note –** If you use the javax API to develop your provider, you do not need to stop and restart the Solaris WBEM Services 2.5 daemon. The Solaris WBEM Services 2.5 daemon dynamically recognizes javax providers.

---

### Some `com.sun` Application Programming Interface Method Invocations Fail Under XML/HTTP Transport Protocol (4497393, 4497399, 4497406, 4497411)

If you choose to use the `com.sun` application programming interface rather than the javax application programming interface to develop your WBEM software, only CIM remote method invocation (RMI) is fully supported. Other protocols, such as XML/HTTP, are not guaranteed to work completely with the `com.sun` application programming interface.

The following table lists examples of invocations that execute successfully under RMI but fail under XML/HTTP.

| Method Invocation | Error Message |
|---|---|
| `CIMClient.close()` | `NullPointerException` |
| `CIMClient.execQuery()` | `CIM_ERR_QUERY_LANGUAGE_NOT_SUPPORTED` |
| `CIMClient.getInstance()` | `CIM_ERR_FAILED` |
| `CIMClient.invokeMethod()` | `XMLERROR: ClassCastException` |

### Cannot Modify File-System Mount Properties With Solaris Management Console Mounts and Shares Tool (4466829)

The Solaris Management Console Mounts and Shares tool cannot modify mount options on system-critical file systems such as / (root), `/usr`, and `/var`.

**Workaround:** Choose one of the following workarounds.

- Use the remount option with the mount command.

  # **`mount -F`** *file-system-type* **`-o remount,`***additional-mount-options* **`\`**
  *device-to-mount mount-point*

  **Note –** Mount property modifications that are made by using the `-remount` option with the `mount` command are not persistent. In addition, all mount options that are not specified in the *additional-mount-options* portion of the previous command inherit the default values that are specified by the system. See the man page `mount_ufs`(1M) for more information.

- Edit the appropriate entry in the `/etc/vfstab` file to modify the file-system mount properties, then reboot the system.

### CIM_ERR_LOW_ON_MEMORY Error Occurs When Trying to Add Data With WBEM (4312409)

The following error message is displayed when memory is low:

`CIM_ERR_LOW_ON_MEMORY`

You cannot add more entries when the Common Information Model (CIM) Object Manager is low on memory. You must reset the CIM Object Manager Repository.

**Workaround:** To reset the CIM Object Manager Repository, follow these steps.

1. Become superuser.
2. Stop the CIM Object Manager.

   ```
   # /etc/init.d/init.wbem stop
   ```

3. Remove the JavaSpaces™ log directory.

   ```
   # /bin/rm -rf /var/sadm/wbem/log
   ```

4. Restart the CIM Object Manager.

   ```
   # /etc/init.d/init.wbem start
   ```

---

**Note –** When you reset the CIM Object Manager Repository, you lose any proprietary definitions in your data store. You must recompile the MOF files that contain those definitions by using the `mofcomp` command. See the following example.

```
# /usr/sadm/bin/mofcomp -u root -p root-password your-mof-file
```

---

## Solaris Volume Manager Issue

### Solaris Volume Manager `metattach` Command Might Fail

If you have a Solaris Volume Manager mirrored root (/) file system in which the file system does not start on cylinder 0, all submirrors you attach must also not start on cylinder 0.

If you attempt to attach a submirror starting on cylinder 0 to a mirror in which the original submirror does not start on cylinder 0, the following error message is displayed.

```
can't attach labeled submirror to an unlabeled mirror
```

**Workaround:** Choose one of the following workarounds.

- Ensure that both the root file system and the volume for the other submirror start on cylinder 0.
- Ensure that both the root file system and the volume for the other submirror do not start on cylinder 0.

**Note –** By default, the JumpStart installation process starts swap at cylinder 0 and the root (/) file system somewhere else on the disk. Common system administration practice is to start slice 0 at cylinder 0. Mirroring a default JumpStart installation with root on slice 0, but not cylinder 0, to a typical secondary disk with slice 0 that starts at cylinder 0, can cause problems. This mirroring results in an error message when you attempt to attach the second submirror. For more information about the default behavior of Solaris installation programs, see the *Solaris 9 Installation Guide*.

## Solaris Volume Manager Bugs

### Solaris Volume Manager `metahs -e` Command Fails on Copper Cable Storage Boxes When Failed Hot Spare Disk Has Been Swapped Out (4644106)

The `metahs -e` command might fail if you encounter the following circumstances.

1. A hot-spare device encounters a problem, such as an induced error, when using the `metaverify` test utility.
2. Solaris Volume Manager software attempts to activate the hot spare when an error occurs on a metadevice. The hot spare is marked `broken`.
3. The system is brought down. The failed disk that contains the hot spare is replaced with a new disk at the same location.
4. When the system is booted, Solaris Volume Manager software does not recognize the new hot spare.
5. The `metahs -e` command is used to enable the hot spare on the new disk.

The following message is displayed.

```
WARNING: md: d0: open error of hotspare (Unavailable)
```

The failure occurs because the Solaris Volume Manager software does not internally recognize the new hot-spare disk that was swapped into the same physical location. The Solaris Volume Manager software continues to display the device ID of the disk that is no longer in the system.

**Note –** This failure is not known to occur on a Photon or storage enclosures where the device number changes when a disk is replaced.

**Workaround:** Choose one of the following workarounds.

- Follow these steps to update the device ID for the hot-spare disk in the Solaris Volume Manager state database.
  1. Become superuser.

2. Type the following command to update the device ID for the hot-spare disk.

   # **metadevadm -u** *logical-device-name*

3. Type the following command to make the new hot-spare disk available.

   # **metareplace -e** *logical-device-name*

- Follow these steps to manage hot spares and hot-spare pools on the system.

1. Become superuser.
2. Type the following command to delete the entry for the hot-spare slice.

   # **metahs -d hsp***hot-spare-pool-number logical-device-name*

3. Type the following command to create a new entry for the hot-spare slice at the same location with the correct device ID.

   # **metahs -a hsp***hot-spare-pool-number logical-device-name*

### Solaris Volume Manager `metadevadm` Command Fails if Logical Device Name No Longer Exists (4645721)

You cannot replace a failed drive with a drive that has been configured with the Solaris Volume Manager software. The replacement drive must be new to Solaris Volume Manager software. If you physically move a disk from one slot to another slot on a Photon, the `metadevadm` command fails. This failure occurs when the logical device name for the slice no longer exists. However, the device ID for the disk remains present in the metadevice replica. The following message is displayed.

```
Unnamed device detected. Please run 'devfsadm && metadevadm -r to resolve.
```

---

**Note –** You can access the disk at the new location during this time. However, you might need to use the old logical device name to access the slice.

---

**Workaround:** Physically move the drive back to its original slot.

### Solaris Volume Manager `metarecover` Command Fails to Update `metadb` Namespace (4645776)

If you remove and replace a physical disk from the system, and then use the `metarecover -p -d` command to write the appropriate soft partition specific information to the disk, an open failure results. The command does not update the metadevice database namespace to reflect the change in disk device identification. This condition causes an open failure for each such soft partition that is built on top of the disk. The following message is displayed.

```
Open Error
```

**Workaround:** Create a soft partition on the new disk instead of using the `metarecover` command to recover the soft partition.

**Note –** If the soft partition is part of a mirror or RAID 5, use the `metareplace` command without the `-e` option to replace the old soft partition with the new soft partition.

```
# metareplace dx mirror or RAID 5  old_soft_partition  new_soft_partition
```

## Networking Bugs

### Configuring Multiple Tunnels Between Two IP Nodes With Filtering Enabled Might Result in Packet Loss (4152864)

If you configure multiple IP tunnels between two IP nodes, and enable `ip_strict_dst_multihoming` or other IP filters, packet loss might result.

**Workaround:** Choose one of the following workarounds.

- First, configure a single tunnel between the two IP nodes. Add addresses to the tunnel by using the `ifconfig` command with the `addif` option.
- Do not enable `ip_strict_dst_multihoming` on tunnels between two IP nodes.

## Security Bugs

### Unlocking CDE Screenlock Removes Kerberos Version 5 Credentials (4674474)

If you unlock a locked CDE session, all your cached Kerberos version 5 (`krb5`) credentials might be removed. The result is you might not be able to access various system utilities. This problem occurs under the following conditions.

- In the `/etc/pam.conf` file, the `dtsession` services for your system are configured to use the `krb5` module by default.
- You lock your CDE session, and then try to unlock the session.

If this problem occurs, the following error message is displayed.

```
lock screen: PAM-KRB5 (auth): Error verifying TGT with host/host-name:
Permission denied in replay cache code
```

**Workaround:** Add the following non-`pam_krb5` `dtsession` entries to the `/etc/pam.conf` file.

```
dtsession auth requisite pam_authtok_get.so.1
dtsession auth required  pam_unix_auth.so.1
```

With these entries in the `/etc/pam.conf` file, the `pam_krb5` module does not run by default.

### `cron`, `at`, and `batch` Cannot Schedule Jobs for Locked Accounts (4622431)

In the Solaris 9 4/03 operating environment, locked accounts are treated in the same way as expired or nonexistent accounts. As a result, the `cron`, `at`, and `batch` utilities cannot schedule jobs on locked accounts.

**Workaround:** To enable locked accounts to accept `cron`, `at`, or `batch` jobs, replace the password field of a locked account (`*LK*`) with the string `NP`, for no password.

## Additional Software Bug

### SPARC: Veritas Volume Manager Might Fail on Systems Running Solaris 9 4/03 Operating Environment (4642114)

If you try to perform various tasks with Veritas Volume Manager on a system that is running the Solaris 9 4/03 operating environment, the `vxddladm addjob` or `vxddladm addsupport` utilities might produce a core dump.

**Workaround:** Follow these steps.

1. Become superuser.
2. Verify that the `/var/ld/ld.config` file and `/usr/bin/crle` utility exist on the system.
3. Type the following commands in a terminal window.

```
# /usr/bin/cp /var/ld/ld.config /var/ld/ld.config.save
# /usr/bin/crle -E LD_LIBRARY_PATH=/usr/lib
# appropriate-vxddladm-command
# /usr/bin/mv /var/ld/ld.config.save /var/ld/ld.config
```

## Documentation CD Issues

### iPlanet Directory Server 5.1 Documentation Links Do Not Work Properly

In the iPlanet™ Directory Server 5.1 Collection (Solaris Edition), links titled DocHome and links between separate books do not work. If you select these links, your browser displays a Not Found error.

**Workaround:** To navigate between iPlanet Directory Server 5.1 documents on your system, go to the iPlanet Directory Server 5.1 Collection (Solaris Edition) page at http://docs.sun.com. Click the link to the document you want to view.

### `SUNWsdocs` Package Necessary to Remove Other Documentation Packages

If you remove the `SUNWsdocs` package, then try to remove other documentation packages, the removal fails. This problem occurs because the `SUNWsdocs` package is installed with any collection and provides the browser entry point.

**Workaround:** If you removed the `SUNWsdocs` package, reinstall the `SUNWsdocs` package from the documentation media and then remove the other documentation packages.

## Documentation CD Bugs

### European Locale PDF Documents Available Only Through C Locale (4674475)

In the Solaris 9 4/03 operating environment, and other UNIX-based systems, PDF documents on the Solaris 9 4/03 Documentation 1 of 2 CD are not accessible in the following European locales.

- `de` (German)
- `es` (Spanish)
- `fr` (French)
- `it` (Italian)
- `sv` (Swedish)

This problem occurs because of a limitation with Adobe Acrobat Reader. For more information on this problem, see the Adobe Technote site at `http://www.adobe.com:80/support/techdocs/294de.htm`.

**Workaround:** Choose one of the following workarounds.

- In the Solaris 9 4/03 operating environment, and other UNIX-based systems, set the environment variable `LC_ALL` to `C` `acroread`. For example, in the C shell, type the following command in a terminal window.

  ```
  % env LC_ALL=C acroread
  ```

- Upgrade to Adobe Acrobat Reader 5.0 or later version.

### Removing Solaris 9 4/03 Documentation Packages Might Unexpectedly Uninstall Some Solaris 9 4/03 Documentation Collections (4641961)

Some Solaris 9 4/03 documentation collections might be unexpectedly removed from your system if the following occurs.

1. You install both the Solaris 9 4/03 Documentation 1 of 2 and 2 of 2 CDs on your system.
2. You then use the `prodreg` utility or the Solaris 9 4/03 Documentation CD installer program to remove certain documentation packages.

The Solaris 9 4/03 Documentation CD 1 of 2 and 2 of 2 have three collections in common. If you remove the packages that contain these collections from either of the Solaris 9 4/03 Documentation 1 of 2 or 2 of 2 CD installations, the package is removed for both installations.

The following table lists the packages that might be removed unexpectedly.

**TABLE 2–1** Solaris 9 4/03 Documentation Packages Contained on Both Solaris 9 4/03 Documentation CDs

| HTML Package Names | PDF Package Names | Collection Description |
|---|---|---|
| SUNWaadm | SUNWpaadm | Solaris 9 System Administrator Collection |
| SUNWdev | SUNWpdev | Solaris 9 Developer Collection |
| SUNWids | SUNWpids | iPlanet Directory Server 5.1 Collection |

**Workaround:** Choose one of the following workarounds.

- If the uninstall process unexpectedly removed these documentation packages, and you want these packages on your system, reinstall the packages from the Solaris 9 4/03 Documentation 1 of 2 or 2 of 2 CDs.
- To avoid this problem, use the `pkgrm` utility to remove the packages that you want to eliminate from your system.

## Localization Issue

### Hardware for Estonian Keyboard Type 6, French Canadian Keyboard Type 6, and Polish Programmers Keyboard Type 5 Not Available in Solaris 9 4/03 Operating Environment

Software support for three additional keyboard layouts have been added to the Solaris 9 software for this release: Estonian keyboard Type 6, French Canadian keyboard Type 6, and Polish programmers keyboard Type 5.

This software gives users in Estonia, Canada, and Poland greater flexibility for keyboard input by modifying standard U.S. keyboard layouts to their own language needs.

Currently, no hardware is available for the three additional keyboard layout types.

**Workaround:** To take advantage of this new keyboard software, modify the `/usr/openwin/share/etc/keytables/keytable.map` file in one of the following ways:

- For the Estonian Type 6 keyboard:
  1. Change the US6.kt entry to Estonia6.kt in the `/usr/openwin/share/etc/keytables/keytable.map` file. The modified entry should read as follows:

     ```
     6                       0          Estonia6.kt
     ```

  2. Add the following entries to the `/usr/openwin/lib/locale/iso8859-15/Compose` file:

```
<scaron>              : "/xa8"              scaron

<scaron>              : "/xa6"              scaron

<scaron>              : "/270"              scaron

<scaron>              : "/264"              scaron
```

3. Reboot the system for the changes to take effect.

- For the French Canadian Type 6 keyboard:

1. Change the US6.kt entry to Canada6.kt in the `/usr/openwin/share/etc/keytables/keytable.map` file. The modified entry should read as follows:

```
6                           0             Canada6.kt
```

2. Reboot the system for the changes to take effect.

- If you are using the existing Polish Type 5 keyboard layout:

1. Change the Poland5.kt entry to Poland5_pr.kt in the `/usr/openwin/share/etc/keytables/keytable.map` file. The modified entry should read as follows:

```
4                   52            Poland5_pr.kt
```

---

**Note –** If you are using a keyboard with dip-switches, make sure the switches are set to the correct binary value for the Polish keytable entry (binary 52) before rebooting the system.

---

2. If you are using a standard U.S. Type 5 keyboard, change the US5.kt entry to Poland5_pr.kt in the `/usr/openwin/share/etc/keytables/keytable.map` file. The modified entry should read as follows:

```
4                           33            Poland5_pr.kt
```

3. Reboot the system for the changes to take effect.

## Localization Bugs

### SPARC: Shift-U Does Not Work as Expected in Arabic Locales (4303879)

To generate the diacritic character in Arabic locales, type the Arabic character, then Shift-U.

### Sorting in the European `UTF-8` Locales Does Not Function Correctly (4307314)

Sorting in the European `UTF-8` locales does not work properly.

**Workaround:** Before you attempt to sort in a `FIGGS` `UTF-8` locale, set the *LC_COLLATE* variable to the ISO–1 equivalent.

```
# echo $LC_COLLATE
>  es_ES.UTF-8
# LC_COLLATE=es_ES.IS08859-1
# export LC_COLLATE
```

Then start sorting.

## Sun ONE Application Server Bugs

### Default Browser Is Incompatible With Sun ONE Application Server 7 (4741123)

When you attempt to use the Sun ONE Application Server Administrative UI with the Solaris 9 4/03 operating environment default browser, the following error message is displayed:

```
Unsupported Browser: Netscape 4.78

It is recommended that you upgrade your browser to Netscape 4.79 or
Netscape 6.2 (or later) to run the Sun One Application Server
Administrative UI. Those who choose to continue and not upgrade may
notice degraded performance or unexpected behavior.
```

---

**Note –** If you are running the version of Sun ONE Application Server Administrative UI that is included in the Solaris 9 4/03 operating environment, you will need to use Netscape 4.79 or Netscape 7.0.

---

**Workaround:** Use `/usr/dt/appconfig/SUNWns/netscape` instead of `/usr/dt/bin/netscape`.

### SPARC: Access Control List Editing Not Supported on Some Versions of Netscape Navigator (4750616)

Sun ONE Application Server Access Control List (ACL) editing is not supported on some versions of Netscape Navigator™. If you attempt to edit ACL entries while using either Netscape Navigator version 6.x or Netscape Navigator version 7.x, you might encounter intermittent problems.

For example:

- The browser window disappears.

- The ACL edit screen does not display when launched.

**Workaround:** Choose one of the following workarounds.

- Use the supported 4.79 version of Netscape Navigator or Microsoft Internet Explorer, version 6.0.
- Manually edit the ACL file. For details on ACL file formatting, see the *Sun ONE Application Server 7 Administrator's Guide*.

### Accessing an Oracle 9.1 Database With an Oracle 9.2 Client Might Cause Data Corruption (4707531)

If you use an Oracle® 9.2 client to access an Oracle 9.1 database, data corruption might occur when a number column follows a timestamp column.

The problem might be caused by using the `ojdbc14.jar` file with an Oracle 9.1 database. Applying the patch might assist in addressing the situation on Solaris 32-bit machines, that run an Oracle 9.1 database. This JDBC™ driver is for Oracle working with JDK™ 1.4.

**Workaround:** Obtain the patch that Oracle might make available from the Oracle Web site for Bug 2199718 and apply it to your server.

### SPARC: Administration Interface Reports Verifier Error When Viewing Persistence Manager Factory Resource Created From the Command Line (4733109)

A verifier error is reported for a Persistence Manager Factory resource that was created by using the command-line interface. The following error is displayed when the resource is viewed in the Sun ONE Application Server Administration interface.

```
ArgChecker Failure: Validation failed for jndiName: object must be non-null
```

**Workaround:** Perform the following steps to create a new Persistence Management Factory resource.

1. Create a jdbc-connection pool with data source information to connect to a database.
2. Create a jdbc-resource to make the connection pool available via a Java Naming and Directory Interface™ (J.N.D.I.) lookup.
3. Create a persistence-management resource with the jdbc-resource that was created in Step 2.

### SPARC: `any` Value in Address Attribute of iiop-listener Element in `server.xml` File Is Not Supported (4743366)

The `any` value in the address attribute of the iiop-listener element in the `server.xml` file allows for listening on all interfaces that are available on a system. This support includes both IPv4 and IPv6 interfaces. However, the Sun ONE Application Server default configuration uses an address value of `0.0.0.0` in the iiop-listener element. This default configuration does not listen on IPv6 interfaces. The configuration only listens on all IPv4 interfaces on a system.

**Workaround:** Use the `::` value in the address attribute of the iiop-listener element in the `server.xml` file to listen on all IPv4 and IPv6 interfaces on a system.

### SPARC: Application Server Fails to Restart When Converting to an SSL-Enabled Environment (4723776)

If you attempt to restart the Sun ONE Application Server after installing a certificate and enabling security, the restart fails. A message indicates that the server failed to receive a password.

When SSL is not enabled, passwords are not cached, which results in the failure of restart. The `restart` command does not support the transition from non-SSL to SSL enabled mode.

---

**Note –** This problem only occurs the first time the server is restarted. Subsequent restarts work fine.

---

**Workaround:** Choose one of the following workarounds.

- If you have encountered this problem. click the Start button.
- To avoid this problem, perform the following steps instead of clicking the Restart button.

  1. Click the Stop button.
  2. Click the Start button.

### SPARC: Application Server Might Crash During Dynamic Reloading (4750461)

If an application has many Enterprise JavaBeans™ components, the server might crash during dynamic reloading of the application. The dynamic reloading feature is used in the development environment to quickly test minor changes to an application. The crash is caused by attempting to use more file descriptors than are available.

**Workaround:** Follow these steps.

1. Increase the file descriptors limit by adding lines, in this format, to the `/etc/system` file.

- set rlim_fd_max=8192
- set rlim_fd_cur=2048

Depending on the size of the application, the values can be set higher or lower.

2. Reboot the system.

### Console Output Is Corrupted if the System's Default Encoding Is Not UTF-8 (4757859)

If the system's default encoding is not UTF-8, the Application Server's output might cause multibyte characters to display incorrectly.

**Workaround:** Open the `server.log` file in your browser.

### External Certificate Nickname Does Not Display in Administration Interface Nickname List (4725473)

If you install an external certificate through the Sun ONE Application Administration interface, a problem is encountered when you attempt to enable SSL for the http-listener by using the certificate that is installed on the external cryptographic module. Although the installation of the certificate is successful, the certificate nickname does not display in the Administration interface.

**Workaround:** Complete the following steps.

1. Log in to the system where the Sun ONE Application Server software is installed as an Administrative User.
2. Link the http-listener to the certificate that is installed on the external cryptographic module by using the `asadmin` command. For more information on the `asadmin` command, see the `asadmin`(1AS) man page.

```
# asadmin create-ssl --user admin user--password password --host host name \
--port port --type http-listener --certname nobody@apprealm:Server-Cert \
--instance instance --ssl3enabled=true \
--ssl3tlsciphers +rsa_rc4_128_md5 http-listener-1
```

The previous command establishes the link between the certificate and the server instance. The command does not install the certificate. The certificate was installed through the Administration interface.

---

**Note –** Although the certificate is linked with http-listener, the http-listener will be listening in non SSL mode.

---

3. Enable the http-listener to listen in SSL mode. Use the following command.

```
# asadmin set --user admin user --password password --host host name \
--port port server1.http-listener.http-listener-1.securityEnabled=true
```

The previous command switches the server instance listening state from non-SSL to SSL. After you complete the previous steps, the certificate is displayed in the Administration interface.

You can now use the Administration interface to edit the http-listener as needed.

### SPARC: `flexanlg` Command Might Cause Open Failure Error (4742993)

If you are running the Sun ONE Application Server software in the Solaris 9 4/03 operating environment, and you use the `flexanlg` command from `/usr/appserver/bin`, the following open failure error is displayed.

```
ld.so.1: /usr/appserver/bin/flexanlg: fatal: libplc4.so:open failed:
No such file or directory
killed
```

**Workaround:** Complete these steps.

1. Add the following entry to the LD_LIBRARY_PATH file.

   `/usr/lib/mps`

2. Run the `flexanlg` command.

   % **`/usr/appserver/bin/flexanlg`**

### IPv6-only Clients Cannot Connect to the Application Server (4742559)

---

**Note –** If IPv6 is not used in your network, this problem does not apply to you.

---

By default, the Sun ONE Application Server 7 instances and Admin Server instances use IPv4. IPv4 is supported by all operating environments on which the Sun ONE Application Server is available. On platforms where IPv6 is supported, the Sun ONE Application Server configuration changes are required for conformance.

---

**Note –** If these configuration changes are to be made, you must be absolutely sure of IPv6 support. If the IPv6 related configuration is applied to a system that has only IPv4 support, Application Server instances might not start.

---

**Workaround:** Perform the following configuration changes:

1. Start the Admin Server.
2. Start the Admin Console by connecting to the Admin Server HTTP host or port in a browser.
3. Select the server instance to configure for IPv6, for example, server1.
4. Expand the HTTP Listeners node in the tree view.
5. Select the HTTP Listener to configure for IPv6, for example, http-listener1.

6. Change the value of the IP Address field to **ANY** in the General section.
7. In the Advanced section, change the value of the Family field to **INET6**.

   Setting the Family field to INET6 does not disable IPv4 functionality unless an IPv6 address is selected for IP address. Selecting an IP address of ANY matches any IPv4 or IPv6 address.
8. Click Save.
9. Select your server instance from the left pane.
10. Click Apply Changes.
11. Click Stop.
12. Click Start.

    The server restarts and implements your changes.

### Modified Samples Are Not Updated Until Redeployed (4726161)

If users attempt to deploy a sample more than once after making small changes and repackaging the application, the following error message is displayed.

```
Already Deployed
```

This issue affects most of the samples because they use the `Ant` utility and the `common.xml` file, which have the `deploy` target. Thus, this combined use mixes deployment of applications with registration of resources.

**Workaround:** Choose one of the following workarounds.

- For the majority of the sample applications that use the `Ant` utility `build.xml` files, which include the `common.xml` file, type the following command.

  ```
  % asant deploy_common
  ```
- For all other sample applications, type the following commands.

  ```
  % asant undeploy

  % asant deploy
  ```

### SPARC: Nonzero Transaction Setting Causes Slow Local Transactions (4700241)

The Local Transaction Manager does not support transactions with definite timeouts. If you set the timeout-in-seconds attribute in the transaction-service element to a value greater than 0, all local transactions are processed as global transactions. A timeout value of 0 means that the transaction manager waits indefinitely if it does not hear from a participating data source.

---

**Note –** If the Data source driver does not support global transactions, a local transaction might fail.

---

**Workaround:** Reset the timeout-in-seconds value to its default of 0.

### Oracle JDBC Driver Optimizations Not Being Initiated (4732684)

To utilize Oracle JDBC optimizations with Container-Managed Persistence (CMP) beans, the `classes12.zip` must be specified in the classpath-suffix attribute of the `server.xml` file. Do not place the `classes12.zip` file in the `instance/lib/` directory, the default for third-party libraries.

**Workaround:** Add the `classes12.zip` file to the classpath-suffix attribute of the `server.xml` file.

### Permission Problems Occur During Dynamic Reloading and Invocation of Applications (4756981)

If the Admin Server is owned by root and the server instance is owned by a nonroot user, permission problems might occur during dynamic reloading and invocation of applications.

**Workaround:** After deploying and redeploying the module or application (with or without the precompile option), change the directory owner from root to the nonroot user for the following directories. The nonroot user is the same as the instance owner.

The directory ownership change should be applied recursively to each of the directories, based on application type, in the following list:

- *domain-root*/*server-instance*/applications/j2ee-apps/*application-name*
- *domain-root*/*server-instance*/applications/j2ee-modules/*module-name*
- *domain-root*/*server-instance*/generated/ejb/j2ee-apps/*application-name*
- *domain-root*/*server-instance*/generated/jsp/j2ee-apps/*application-name*
- *domain-root*/*server-instance*/generated/jsp/j2ee-modules/*module-name*

1. Become superuser.
2. Type the following command for each of the directories that apply to your situation.

   ```
   # chown -R non-root-instance-owner  directory-name
   ```

### RMI-IIOP Clients Do Not Work for IPv6 Addresses Where DNS Address Lookups Fail for the IPv6 Address (4743419)

If a DNS lookup for an IPv6 address fails, clients of Remote Method Invocation-Internet Inter-ORB Protocol (RMI-IIOP) do not work for IPv6 addresses.

**Workaround:** Domain Name Service (DNS) should be set up at the deployment site, in order to look up an IPv6 address.

### Value in the `Only show entries with` Field in the View Event Log Becomes Corrupted If the Application or System Is Not Using UTF-8 Encoding (4763655)

If the user types multibyte characters in the `Only show entries with` field and searches the event log, the value in the `Only show entries with` field becomes corrupted when the search result is displayed. The problem is caused by the conversion of the message format from UTF-16 to UTF-8.

**Workaround:** None.

## Sun ONE Application Server Security Bug

### The Application Server Starts All Instances as Root Allowing Nonroot Users Root Access (4780076)

Several issues are associated with Application Server startup when the Sun ONE Application Server is installed as part of a Solaris installation:

- All application server and administrative server instances are started automatically during Solaris system startup. In many environments, not all the instances are expected to be started automatically during Solaris system startup. Starting every defined instance can adversely impact the memory available on a system.
- When application server instances and administrative server instances are started automatically, the startup script for each instance is executed as root. Execution of nonroot-owned instance startup scripts can give nonroot user's access to the root user through modification of the instance-level startup scripts.

During the installation of the Sun ONE Application Server, the `/etc/init.d/appserv` script and symbolic links to the `S84appserv` and `K05appserv` scripts in the `/etc/rc*.d/` directories are installed. These scripts cause all application server instances and administrative server instances, defined as part of the application server installation, to be started and stopped automatically during Solaris system startup and shutdown.

The `/etc/init.d/appserv` script contains the following section of code.

```
case "$1" in
'start')
    /usr/sbin/asadmin start-appserv
    ;;
'stop')
    /usr/sbin/asadmin stop-appserv
    ;;
```

Execution of the `asadmin start-appserv` command causes the administration server instance and all application server instances, defined in all administrative domains, to be started during Solaris system startup. Because the system startup and shutdown scripts are executed as root, the startup script for each application server and administrative server instance is also executed as root. The instance-level startup

script is named `startserv` and is located at `instance-dir/bin/startserv`. Because instances can be owned by users other than root, the startserv scripts could be modified by the nonroot user to execute commands as the root user.

If an instance is using a privileged network port, the instance's startserv script must be executed as root. However, `run as user` is typically set in the instance's configuration to force the instance to run as the specified user after the instance has been initially started by the root user.

**Workaround:** Perform one of the following workarounds, depending on your environment.

- If your environment does not require all application server and administrative server instances to be started as root, then comment out execution of the `asadmin start-appserv` and `asadmin stop-appserv` commands in the `/etc/init.d/appserv` script.
- If your environment requires starting either specific administrative domains or specific instances within one or more administrative domains, you can modify or create a script to automate that process. Note that "specific administrative domains" include the administrative server instance and all application server instances of each domain.

  Perform one of the following steps.

  - Modify the `/etc/init.d/appserv` script to start the domains or instances of interest.
  - Define new `/etc/rc*.d/` scripts that conform to the needs of your environment.

**Startup Considerations:** When modifying the Solaris operating environment startup scripts to automatically start either specific application server administrative domains or specific application server instances, consider the following.

- **Starting a specific domain** – If you want to start the administrative server instance and all application server instances of a specific administrative domain as the root user, modify the `/etc/rc*.d/` scripts as follows.

```
case "$1" in
'start')
   /usr/sbin/asadmin start-domain --domain production-domain
   ;;
'stop')
   /usr/sbin/asadmin stop-domain --domain production-domain
   ;;
```

- **Starting a specific application server instance as a nonroot user** – Modify the `/etc/rc*.d/` scripts to use the `su` command with the `-c` option.

```
case "$1" in
'start')
   su - usera -c "/usr/sbin/asadmin start-instance --domain test-domain
instance-a"
   su - userb -c "/usr/sbin/asadmin start-instance --domain test-domain
```

```
instance-b"
   ;;
'stop')
   su - usera -c "/usr/sbin/asadmin stop-instance --domain test-domain
instance-a"
   su - userb -c "/usr/sbin/asadmin stop-instance --domain test-domain
instance-b"
   ;;
```

See the *Sun ONE Application Server 7 Administrator's Guide* for more information on the `startup` and `shutdown` commands that are available through the `asadmin` command-line interface.

## Sun ONE Directory Server (Formerly iPlanet Directory Server) Issues

### Setup Issue

When typing Distinguished Names during installation, use the UTF-8 character set encoding. Other encodings are not supported. Installation operations do not convert data from local character set encoding to UTF-8 character set encoding. LDIF files that are used to import data must also use UTF-8 character set encoding. Import operations do not convert data from local character set encoding to UTF-8 character set encoding.

### Schema Issues

The schema provided with the Sun Open Net Environment (Sun ONE) Directory Server (formerly iPlanet Directory Server) 5.1 differs from the schema that is specified in RFC 2256 for the `groupOfNames` and `groupOfUniquenames` object classes. In the schema provided, the `member` and `uniquemember` attribute types are optional. RFC 2256 specifies that at least one value for these types must be present in the respective object class.

The `aci` attribute is an operational attribute that is not returned in a search unless you explicitly request the attribute.

### Replication Issue

Multimaster replication over WAN is currently not supported.

### Server Plug-in Issues

Sun ONE Directory Server 5.1 provides the UID Uniqueness plug-in. By default, the plug-in is not activated. To ensure attribute uniqueness for specific attributes, create a new instance of the Attribute Uniqueness plug-in for each attribute. For more information on the Attribute Uniqueness plug-in, refer to the *iPlanet Directory Server 5.1 Administrator's Guide* at `http://docs.sun.com`.

The Referential Integrity plug-in is now off by default. To avoid conflict resolution loops, the Referential Integrity plug-in should only be enabled on one master replica in a multimaster replication environment. Before enabling the Referential Integrity plug-in on servers that issue chaining requests, analyze your performance resource, time, and integrity needs. Integrity checks can consume significant memory and CPU resources.

### Roles and Class of Service Issue

The `nsRoleDN` attribute is used to define a role. This attribute should not be used for evaluating role membership in a user's entry. When evaluating role membership, look at the `nsrole` attribute.

### Indexing Issue

If VLV indexes encompass more than one database, the VLV indexes do not work correctly.

## Sun ONE Directory Server Bugs

### Cannot Inactivate Users Through Console (4521017)

If you launch the Sun ONE Directory Server 5.1 Console and create a new user or new role as inactive, the newly created user or newly created role is not inactivated. Users and roles cannot be created through the Console as inactive.

**Workaround:** To create an inactive user or inactive role, follow these steps:

1. Create the new user or new role.
2. Double-click the newly created user or newly created role, or select the newly created user or newly created role. Click the Properties item from the Object menu.
3. Click the Account tab.
4. Click the Inactivate button.
5. Click OK.

The newly created user or newly created role is inactivated.

### Cannot Configure Directory With a Root Suffix That Contains Spaces (4526501)

If you specify a base DN that contains a space, for example, **`o=U.S. Government,C=US`** at Sun ONE Directory Server 5.1 configuration time, the resulting DN is truncated to **`Government,C=US`**. At configuration time, the DN should be typed as **`o=U.S.%20Government,C=US`**.

**Workaround:** To correct the base DN entry, follow these steps.

1. Select the top directory entry in the left side of the navigation pane of the Servers and Applications tab on the Console.

2. Edit the suffix in the User directory subtree field.
3. Click OK.

### Password Policy Information Is Not Synchronized Between Servers (4527608)

If you update a nonmaster directory server with password policy information, the information is not replicated to all other servers. This information includes account lockouts.

**Workaround:** Manage password policy information manually on each server.

### Account Lockout Remains Effective After the User Password Is Changed (4527623)

If Account Lockout is effective and the user password is changed, Account Lockout remains effective.

**Workaround:** Reset the `accountUnlockTime`, `passwordRetryCount`, and `retryCountResetTime` lockout attributes to unlock the account.

### Console Backup Immediately After Installation Fails (4531022)

If you install the Sun ONE Directory Server 5.1, start the console, initialize the directory with an LDIF file, and then back up the server, the Console reports the backup was successful. However, the backup has actually failed.

**Workaround:** Perform the following tasks from the Console after you initialize the database:

1. Stop the server.
2. Restart the server.
3. Perform the backup.

### Server Ignores Case-Sensitive Syntax When Normalizing DN Attributes (4630941)

You cannot use the LDAP naming services to create automount path names that are identical, except for case results in nonunique path names. The directory server does not allow creation of entries if the naming attribute is defined with case-sensitive syntax and an entry already exists with the same name but a different case.

---

**Note –** `/home/foo` and `/home/Foo` paths cannot coexist.

---

For example, if entry `attr=foo,dc=mycompany,dc=com` exists, the server does not allow the creation of `attr=Foo,dc=mycompany,dc=com`. A corollary of this problem is that when LDAP naming services are used, automount path names have to be unique, regardless of their case.

**Workaround:** None.

### Stopping the Server During Export, Backup, Restore, or Index Creation Crashes the Server (4678334)

If the server is stopped during export, backup, restore or index creation, the server crashes.

**Workaround:** Do not stop the server during these types of operations.

### Replication Unable to Use Self-Signed Certificate (4679442)

If you attempt to configure replication over Secure Socket Layer (SSL) with certificate-based authentication, replication does not work if either of the following conditions exist:

- The supplier's certificate is self-signed.
- The supplier's certificate is only capable of behaving as an SSL server certificate that is unable to play the role of the client during an SSL handshake.

**Workaround:** None.

CHAPTER 3

# Late-Breaking News

This chapter includes information on new features that arrived too late to be included in the Solaris 9 4/03 documentation set. For information on new features in the Solaris 9 4/03 operating environment, refer to the *What's New in the Solaris 9 4/03 Operating Environment* at `http://docs.sun.com`.

The following feature description has been added to this chapter since this document was published on the Solaris 9 Documentation CD and in the Installation Kiosk on the Solaris 9 Installation CD.



## Installing a Solaris Flash Differential Archive by Using Solaris Live Upgrade

### Overview

Solaris Live Upgrade provides a method of upgrading a system while it continues to operate. While your current boot environment is running, you can duplicate the boot environment and then upgrade the duplicate. The original system configuration remains fully functional and unaffected by the upgrade or installation of a Solaris Flash archive. When you are ready, you can activate the new boot environment by rebooting the system. If a failure occurs, you can quickly revert to the original boot environment with a simple reboot, thereby eliminating the normal downtime of the test and evaluation process.

After you have created an inactive boot environment with Solaris Live Upgrade, the new boot environment can be upgraded. Installing a Solaris Flash archive onto an inactive boot environment is one method of upgrading the boot environment. A Solaris Flash archive installation overwrites all the files on the new boot environment. Installing a differential archive updates a boot environment with only minor changes. The differential archive contains the differences between two system images, the unchanged-master-system image and an updated-master-system image. During the

installation of a differential archive, only the files that are indicated in the archive are added, changed, or deleted on the boot environment. Using a differential archive provides a quick way of updating a clone system with small changes.

For information about creating a Solaris Flash differential archive, see the *Solaris 9 Installation Guide*.

- For overview and planning information, see "Solaris Flash (Overview and Planning)" in *Solaris 9 Installation Guide*.
- For task information, see "Creating Solaris Flash Archives (Tasks)" in *Solaris 9 Installation Guide*.

### ▼ *To Create a Profile for Use By Solaris Live Upgrade*

After the differential archive is created, it can be installed on the new boot environment by using Solaris Live Upgrade. Solaris Live Upgrade requires a profile that provides the upgrade parameters. The profile is then accessed by the `luupgrade` command.

1. **Use a text editor to create a text file.**
2. **Add profile keywords and values that provide upgrade parameters. The following keywords can be used for a differential archive.**

**TABLE 3–1** Solaris Live Upgrade Profile Keywords and Descriptions

| Profile Keyword | Description |
|---|---|
| (Required) `install_type` | Defines the installation type. The value for a Solaris Flash differential archive is `flash_update`. |
| (Required) `archive_location` | Retrieves a Solaris Flash archive from a designated location. |
| (Optional) `no_master_check` | Ignores checking the clone system to make sure that it was built from the original master system. |
| (Optional)`local_customization` | Designates the directory where you have stored custom scripts to preserve local configurations on the clone system. |
| (Optional) `forced_deployment` | Deletes all new files to bring the clone system to the expected state. |
| (Optional) `no_content_check` | Ignores file-by-file validation that ensures the clone system is a duplicate of the master system . |

3. **Save the profile in a directory on the local system.**

4. **Ensure that root owns the profile and that the permissions are set to `644`.**

5. **(Optional) Test the profile.**

   To use the `luupgrade` command to install the differential archive, see Chapter 33, "Upgrading With Solaris Live Upgrade (Tasks)" in *Solaris 9 Installation Guide*, in the section, "To Upgrade With a Profile by Using Solaris Live Upgrade".

   **EXAMPLE 3–1** Solaris Live Upgrade Profile

   The following example of a profile is to be used by Solaris Live Upgrade to install a differential archive on a clone system. Only files that are specified by the differential archive are added, deleted, or changed. The Solaris Flash archive is retrieved from an NFS server. Because the image was built by the original master system, the clone system is not checked for a valid system image. This profile is to be used with the Solaris Live Upgrade `luupgrade` command and the `-u` and `-j` options.

```
# profile keywords         profile values
# ----------------         -------------------
 install_type               flash_update
 archive_location           nfs installserver:/export/solaris/flasharchive/solaris9archive
 no_master_check
```

CHAPTER 4

# End-of-Software Support Statements

This chapter lists end-of-support statements.

## Features Removed From the Solaris 9 Operating Environment

### `adb` Map Modifiers and Watchpoint Syntax

The `adb` utility is implemented as a link to the new `mdb` utility in this release of the Solaris operating environment.

The `mdb`(1) man page describes the features of the new debugger, including its `adb` compatibility mode. Even in this compatibility mode, differences between `adb`(1) and `mdb` exist. These differences include the following:

- The text output format of some subcommands is different in `mdb`. Macro files are formatted by using the same rules, but scripts that depend on the output of other subcommands might need to be modified.
- The watchpoint-length specifier syntax in `mdb` is different from the syntax that is described in `adb`. The `adb` watchpoint commands `:w`, `:a`, and `:p` enable an integer length (in bytes) to be inserted between the colon and the command character. In the `mdb`(1) man page, the count should be specified after the initial address as a repeat count.

  The `adb` command `123:456w` is specified in the mdb man page as `123,456:w`.
- The `/m`, `/*m`, `?m`, and `?*m` format specifiers are not recognized or supported by `mdb`.

### AnswerBook2 Server

The AnswerBook2™ server is no longer included in this release. Existing AnswerBook2 servers can run on the Solaris 9 operating environment. Solaris documentation is available on the Solaris Documentation CD in online formats. All Solaris documentation is also always available at `http://docs.sun.com`.

### `aspppd` Utility

The `aspppd` utility is no longer included in this release. Instead, use the`pppd`(1M) utility with Solaris PPP 4.0 utility that is included in the Solaris 9 operating environment.

### `ATOK8` Japanese Input Method

The `ATOK8` Japanese input method is no longer supported in this release. The `ATOK12` Japanese input method is included in the Solaris 9 operating environment. The `ATOK12` Japanese input method provides functionality that is similar to the `ATOK8`, with the addition of several enhancements.

### `crash` Utility

The `crash` utility is no longer supported in this release. In the Solaris 9 operating environment, the `mdb`(1) utility provides a function that is similar to the `crash` utility. The `mdb` utility also examines system crash dump files. The `crash` utility's interface has been structured around implementation details, such as slots, that have no relation to the Solaris operating system implementation.

"Transition From" in *Solaris Modular Debugger Guide* provides information for users who are making the transition from using `crash` to using `mdb`.

### Crash Dump Options for Solaris `ipcs` Command

The capability of applying the `ipcs`(1) command to system crash dumps by using the `-C` and `-N` command-line options is no longer supported in this release. Equivalent capability is now provided by the `mdb`(1) `::ipcs` debugger command.

### `cs00` Japanese Input Method

The `cs00` Japanese input method is no longer supported in the Solaris 9 operating environment. Related interfaces, such as the `xci` interface, the Japanese Feature Package (JFP) `libmle` API, and the `mle` command, are also no longer supported in the Solaris 9 operating environment.

If you upgrade to the Solaris 9 operating environment from a previous release, the existing public user dictionary `/var/mle/ja/cs00/cs00_u.dic` is removed.

Two Japanese input methods, `ATOK12` and `Wnn6`, are supported in the Solaris 9 operating environment. For more information on the `ATOK12` and `Wnn6` input methods, see the *International Language Environments Guide*.

### x86: `devconfig` Command

The `devconfig` command is no longer supported in this release.

### x86: Device and Driver Software Support

The following table lists devices and driver software that are no longer supported in this release.

**TABLE 4–1** Devices and Driver Software

| Name of Physical Device | Name of Driver | Type of Card |
|---|---|---|
| Mylex/Buslogic FlashPoint Ultra PCI SCSI | `flashpt` | SCSI HBA |
| Madge Token Ring Smart 16/4, Madge Token Ring Smart 16/4 PCI BM Mk2, Madge Token Ring Smart 16/4 PCI BM Mk1, and Madge Token Ring PCI Presto | `mtok` | Network |
| Compaq Integrated NetFlex-3 10/100 T PCI, Compaq NetFlex-3/P, Compaq NetFlex-3 DualPort 10/100 TX PCI, Compaq Netelligent 10 T PCI, and Compaq Netelligent 10/100 TX PCI | `cnft` | Network |

### Early Access (EA) Directory

The name of the `EA` directory has been changed to `ExtraValue` in the Solaris 9 operating environment.

### Emulex MD21 Disk Controller for ESDI Drives

The MD21 disk controller for ESDI drives is no longer supported in the Solaris 9 operating environment.

### `enable_mixed_bcp` Tunable

The `enable_mixed_bcp` tunable is no longer supported in this release. In Solaris releases prior to the Solaris 9 operating environment, the `/etc/system` variable `enable_mixed_bcp` could be set to `0` to disable dynamic linking of partially statically linked SunOS™ 4.0 and compatible executables. The system used dynamic linking for these executables by default. In the Solaris 9 operating environment, dynamic linking is always used for these executables, and the `enable_mixed_bcp` tunable has been removed from the system. This change does not affect binary compatibility for SunOS 4.0 and compatible executables in any way.

### x86: Intel 486–Based Systems

The Solaris operating environment is no longer supported on Intel 486–based systems.

### `japanese` Locale Name Alternate

The `japanese` locale name alternate of the `ja` Japanese Extended UNIX Code (EUC) locale is no longer supported in this release. This locale name facilitated migration from the Solaris 1.0 release and compatible releases. You can use `ja` or `ja_JP.eucJP` as the Japanese EUC locale with the Solaris 9 operating environment. The Solaris 1.0 BCP (JLE) application and compatible versions can still run in the Solaris 9 operating environment without any changes.

### Java Software Developer's Kit (SDK) 1.2.2

Version 1.2.2 of the Java™ SDK (`SUNWj2dev`) is no longer included in the Solaris 9 release. Near-equivalent capability is supported by Java 2 Standard Edition, versions 1.4 and compatible versions. Current and previous versions of JDK and Java runtime environment (JRE) are available for download from `http://java.sun.com`.

### JDK 1.1.8 and JRE 1.1.8

Version 1.1.8 of the JDK and version 1.1.8 of the JRE are no longer supported in this release. Near-equivalent capability is supported by Java 2 Standard Edition, versions 1.4 and compatible versions. Current and previous versions of JDK and JRE are available for download from `http://java.sun.com`.

### OpenWindows Toolkits for Developers

Development in the OpenWindows™ XView™ and OLIT toolkits is no longer supported in this release. Developers are encouraged to migrate to the Motif toolkit. Applications that were developed with the OpenWindows XView and OLIT toolkits can still run on the Solaris 9 operating environment.

### OpenWindows Environment for Users

The OpenWindows environment is no longer supported in this release. The Common Desktop Environment (CDE) is the default desktop environment that is included in the Solaris 9 operating environment. Applications that use the OpenWindows XView and OLIT toolkits can still run on the Solaris 9 operating environment in CDE.

### Priority Paging and Related Kernel Tunables (`priority_paging/cachefree`)

The `priority_paging` and `cachefree` tunable parameters are not supported in the Solaris 9 release. These parameters have been replaced with an enhanced file-system caching architecture that implements paging policies that are similar to priority paging, but always enabled. Attempts to set these parameters in the `/etc/system` file result in boot-time warnings such as the following:

```
sorry, variable 'priority_paging' is not defined in the 'kernel'
sorry, variable 'cachefree' is not defined in the 'kernel'
```

If you upgrade to the Solaris 9 release or `pkgadd` the `SUNWcsr` packages, and your `/etc/system` file includes the `priority_paging` or `cachefree` parameters, the following occurs:

1. The following message is displayed if the `priority_paging` or `cachefree` parameters are set in the `/etc/system` file:

   ```
   NOTE: /etc/system has been modified since it contains references to
   priority paging tunables. Please review the changed file.
   ```

2. Comments are inserted in the `/etc/system` file before any line that sets `priority_paging` or `cachefree`. For example, if `priority_paging` is set to 1, this line is replaced with the following lines:

```
* NOTE: As of Solaris 9, priority paging is unnecessary and
* has been removed. Since references to priority paging-related tunables
* will now result in boot-time warnings, the assignment below has been
* commented out. For more details, see the Solaris 9 Release Notes, or
* the "Solaris Tunable Parameters Reference Manual".

* set priority_paging=1
```

### `s5fs` File System

The `s5fs` file system is no longer supported in this release. The `s5fs` file system supports the installation of Interactive UNIX applications, which is no longer required in the Solaris operating environment.

### `sendmail` Utility Features

Some features of the sendmail utility are no longer supported in this release. The affected features are modifications that are mostly nonstandard and specific to Sun. These features include special syntax and special semantics for V1/Sun configuration files, the remote mode feature, the `AutoRebuildAliases` option, and the three sun-reverse-alias features.

More information about these features and migration issues is located at `http://www.sendmail.org/vendor/sun/solaris9.html`.

### `SUNWebnfs` Package

The `SUNWebnfs` package is no longer included on the Solaris operating environment media.

The library and documentation are available for download from `http://www.sun.com/webnfs`.

### `sun4d`–Based Servers

The following servers that are based on the `sun4d` architecture are no longer supported in this release.

- SPARCserver™ 1000
- SPARCcenter 2000

Hardware options that are dependent on the `sun4d` architecture are no longer supported in this release.

### `SUNWrdm` Package

The `SUNWrdm` package, which formerly contained text release notes, is no longer included on the Solaris Software CD in this release.

For release notes, refer to the Release Notes on the Solaris Documentation CD, the printed Installation Release Notes, or the most current release notes that are available on `http://docs.sun.com`.

## Features That Might Be Removed in a Future Release

### `AdminTool` Command

AdminTool (`admintool`), including `swmtool`, might not be supported in a future release.

### Asian Short `dtlogin` Names

The following Asian short locale names might not be listed in the `dtlogin` language list in a future release.

- `zh`
- `zh.GBK`
- `zh.UTF-8`
- `ko`
- `ko.UTF-8`
- `zh_TW`

The Solaris 8, Solaris 9 , and Solaris 9 4/03 releases provide new ISO-standard locale names, including:

- `zh_CN.EUC`
- `zh_CN.GBK`
- `zh_CN.UTF-8`
- `ko_KR.EUC`
- `ko_KR.UTF-8`
- `zh_TW.EUC`

### Obsolete Device Driver Interfaces (DDI)

Some device driver interfaces (DDI) might not be supported in a future release of the Solaris operating environment.

The following table lists DDI interfaces that might not be supported in a future release, along with the preferred DDI interface alternatives.

| Obsolete Interface | Preferred Interface |
|---|---|
| `mmap(9E)` | `devmap(9E)` |
| `identify(9E)` | `set to nulldev(9F)` |
| `copyin(9F)` | `ddi_copyin(9F)` |
| `copyout(9F)` | `ddi_copyout(9F)` |
| `ddi_dma_addr_setup(9F)` | `ddi_dma_addr_bind_handle(9F)` |
| `ddi_dma_buf_setup(9F)` | `ddi_dma_buf_bind_handle(9F)` |

| Obsolete Interface | Preferred Interface |
|---|---|
| ddi_dma_curwin(9F) | ddi_dma_getwin(9F) |
| ddi_dma_free(9F) | ddi_dma_free_handle(9F) |
| ddi_dma_htoc(9F) | ddi_dma_addr[buf]_bind-handle(9F) |
| ddi_dma_movwin(9F) | ddi_dma_getwin(9F) |
| ddi_dma_nextseg(9F) | ddi_dma_nextcookie(9F) |
| ddi_dma_nextwin(9F | ddi_dma_nextcookie(9F) |
| ddi_dma_segtocookie(9F) | ddi_dma_nextcookie(9F) |
| ddi_dma_setup(9F) | ddi_dma_*_handle(9F) |
| ddi_dmae_getlim(9F) | ddi_dmae_getattr(9F) |
| ddi_getiminor(9F) | getminor(9F) |
| ddi_getlongprop(9F) | ddi_prop_lookup(9F) |
| ddi_getlongprop_buf(9F) | ddi_prop_lookup(9F) |
| ddi_getprop(9F) | ddi_prop_get_int(9F) |
| ddi_getproplen(9F) | ddi_prop_lookup(9F) |
| ddi_iopb_alloc(9F) | ddi_dma_mem_alloc(9F) |
| ddi_iopb_free(9F) | ddi_dma_mem_free(9F) |
| ddi_mem_alloc(9F) | ddi_dma_mem_alloc(9F) |
| ddi_mem_free(9F) | ddi_dma_mem_free(9F) |
| ddi_map_regs(9F) | ddi_regs_map_setup(9F) |
| ddi_mapdev(9F) | devmap_setup(9F) |
| ddi_mapdev_intercept(9F) | devmap_load(9F) |
| ddi_mapdev_nointercept(9F) | devmap_unload(9F) |
| ddi_prop_create(9F) | ddi_prop_update(9F) |
| ddi_prop_modify(9F) | ddi_prop_update(9F) |
| ddi_segmap(9F) | see devmap(9E) |
| ddi_segmap_setup(9F) | devmap_setup(9F) |
| ddi_unmap_regs(9F) | ddi_regs_map_free(9F) |
| free_pktiopb(9F) | scsi_free_consistent_buf(9F) |
| get_pktiopb(9F) | scsi_alloc_consistent_buf(9F) |

| Obsolete Interface | Preferred Interface |
|---|---|
| makecom_g0(9F) | scsi_setup_cdb(9F) |
| makecom_g0_s(9F) | scsi_setup_cdb(9F) |
| makecom_g1(9F) | scsi_setup_cdb(9F) |
| makecom_g5(9F) | scsi_setup_cdb(9F) |
| scsi_dmafree(9F) | scsi_destroy_pkt(9F) |
| scsi_dmaget(9F) | scsi_init_pkt(9F) |
| scsi_pktalloc(9F) | scsi_init_pkt(9F) |
| scsi_pktfree(9F) | scsi_destroy_pkt(9F) |
| scsi_resalloc(9F) | scsi_init_pkt(9F) |
| scsi_resfree(9F) | scsi_destroy_pkt(9F) |
| scsi_slave(9F) | scsi_probe(9F) |
| scsi_unslave(9F) | scsi_unprobe(9F) |
| ddi_peek{c,s,l,d}(9F) | ddi_peek{8,16,32,64}(9F) |
| ddi_poke{c,s,l,d}(9F) | ddi_poke{8,16,32,64}(9F) |
| in{b,w,l}(9F) | ddi_get{8,16,32}(9F) |
| out{b,w,l}(9F) | ddi_put{8,16,32}(9F) |
| repins{b,w,l}(9F) | ddi_rep_get{8,16,32}(9F) |
| repouts{b,w,l}(9F) | ddi_rep_put{8,16,32}(9F) |
| GLOBAL_DEV | Specify 0 |
| NODEBOUND_DEV | Specify 0 |
| NODESPECIFIC_DEV | Specify 0 |
| ENUMERATED_DEV | Specify 0 |
| DDI_IDENTIFIED | not needed |
| DDI_NOTIDENTIFIED | not needed |

For more information, see the *man pages section 9: DDI and DKI Driver Entry Points* and the *man pages section 9: DDI and DKI Kernel Functions*.

### Device Management Entries in `power.conf` File

The Device Management entries in the `power.conf` file might not be supported in a future release. Similar capability is provided by the Automatic Device Power Management entries in the Solaris 9 operating environment.

For more information, see the `power.conf`(4) man page.

### Device Support and Driver Software

The following table lists devices and driver software that might not be supported in a future release.

**TABLE 4–2** Device and Driver Software

| Name of Physical Device | Name of Driver | Type of Card |
|---|---|---|
| AMI MegaRAID host bus adapter, first generation | `mega` | SCSI RAID |
| Compaq 53C8x5 PCI SCSI, and Compaq 53C876 PCI SCSI | `cpqncr` | SCSI HBA |
| Compaq SMART-2/P Array Controller and Compaq SMART-2SL Array Controller | `smartii` | SCSI RAID controller |

### Federated Naming Service XFN Libraries and Commands

The Federated Naming Service (FNS), which is based on the X/Open XFN standard, might not be supported in a future release.

### GMT Zoneinfo Time Zones

The `/usr/share/lib/zoneinfo/GMT[+-]*` time zones might not be supported in a future release. These files might be removed from `/usr/share/lib/zoneinfo`. Replace usage of the zoneinfo time zones with the equivalent `Etc/GMT[-+]*` file. See the man pages `zoneinfo`(4) and `environ`(5) for more information.

### SPARC: Graphic Driver Support

Software support for the following graphic devices might not be supported in a future release of the Solaris operating environment.

| Device | Driver |
|---|---|
| MG1,MG2 | bwtwo |
| CG3 | cgthree |
| SX/ CG14 | sx, cgfourteen |
| TC | cgeight |
| TCX | tcx |

### JRE 1.2.2

Version 1.2.2 of the Java runtime environment (JRE) might not be supported in a future release. Similar capability is supported by Java 2 Standard Edition, version 1.4 and compatible versions. Current and previous versions of JRE are available for download from `http://java.sun.com`.

### Kerberos Version 4 Client

The Kerberos version 4 client might be removed from a future release. This client includes the Kerberos version 4 support in the`kinit`(1), `kdestroy`(1),`klist`(1), `mount_nfs`(1M), `mount_nfs`(1M), and `kerbd` commands. The Kerberos version 4 client also includes support in the `kerberos (3KRB)` library, and in the ONC RPC programming API `kerberos_rpc (3KRB)`.

### Korean CID Fonts

Korean CID fonts might not be supported in a future release. You can use the Korean TrueType fonts that are included in the Solaris operating environment as a replacement for Korean CID fonts.

### Lightweight Directory Access Protocol (LDAP) Client Library

LDAP client library, `libldap.so.3`, might not be included in a future release. The current version of this library, `libldap.so.5`, is compliant with the `draft-ietf-ldapext-ldap-c-api-05.txt` revision of the `ldap-c-api` draft from the Internet Engineering Task Force (IETF).

### Obsolete Lightweight Process (LWP) Interfaces

The following LWP interfaces might not be supported in a future release:

- `_lwp_create(2)`
- `_lwp_detach(2)`
- `_lwp_exit(2)`
- `_lwp_getprivate(2)`
- `_lwp_makecontext(2)`
- `_lwp_setprivate(2)`
- `_lwp_wait(2)`

These interfaces are not part of a common model with multithreading enabled by default. The interfaces have worked as expected only when used in applications that are not linked with libthread.

### Nameless Interface Groups Feature

The Nameless Interface Groups feature, enabled by `ndd /dev/ip ip_enable_group_ifs`, might not be supported in a future release. Use the supported IP Network Multipathing feature, which provides similar capability. IP multipathing groups can be formed by using the group keyword of the `ifconfig` command.

For more information, see the ndd(1M) and ifconfig(1M) man pages.

### Netstat -k Option

The unsupported -k option of netstat, which reports on all named kstats on the running OS instance, might be removed in a future release. Use the supported kstat command, which provides similar capability. The kstat command was introduced in the Solaris 8 operating environment.

For more information, see the kstat(1M) man page.

### NIS+ Name Service Type

Network Information Service Plus (NIS+) might not be supported in a future release. Tools to aid in the migration from NIS+ to LDAP are available in the Solaris 9 operating environment. For more information, visit http://www.sun.com/directory/nisplus/transition.html.

### pam_unix Module

The pam_unix(5) module might not be supported in a future release. Similar capability is provided by pam_authtok_check(5), pam_authtok_get(5), pam_authtok_store(5), pam_dhkeys(5), pam_passwd_auth(5), pam_unix_account(5), pam_unix_auth(5), and pam_unix_session(5).

### Perl Version 5.005_03

Perl version 5.005_03 might not be supported in a future release. In the Solaris 9 operating environment, the default version of Perl has been changed to a version that is not binary compatible with the earlier version (5.005_03). However, the earlier version of Perl is still retained for compatibility. Customer-installed modules need to be rebuilt and reinstalled against the new version. Modify any scripts that require the use of version 5.005_03 to explicitly use the 5.005_03 version of the interpreter (/usr/perl5/5.005_03/bin/perl) instead of the default version (/bin/perl, /usr/bin/perl, or /usr/perl5/bin/perl).

### Power Management I/O Control Commands

The following power management I/O control (ioctls) commands might not be supported in a future release.

- PM_DISABLE_AUTOPM
- PM_REENABLE_AUTOPM
- PM_SET_CUR_PWR
- PM_GET_CUR_PWR
- PM_GET_NORM_PWR

The following alternative ioctls are supported in the Solaris 9 4/03 operating environment.

- PM_DIRECT_PM

- PM_RELEASE_DIRECT_PM
- PM_GET_CURRENT_POWER
- PM_SET_CURRENT_POWER
- PM_GET_FULL_POWER

For more information on these alternative ioctls, see the ioctl(2) man page.

### 64-bit SPARC: ptrace(2) Interface in libc

The 64-bit version of the ptrace(2) interface that is included in libc might not be supported in a future release. The proc() interface replaces this functionality. For more information, see the proc(4) man page.

### sendmailvars and the L and G sendmail.cf commands

The sendmailvars database that is listed in nsswitch.conf(4) might not be supported in a future release. This feature could not be enabled without using the L or G sendmail.cf commands. This change brings the Sun version of sendmail into closer compliance with the version from sendmail.org.

### Solaris 32-bit Sun4U Kernel

Many installations of the Solaris 7, 8, and 9 software use the default 64-bit kernel to support 32-bit and 64-bit applications. Customers who use the 32-bit kernel on UltraSPARC systems should read this notice.

In the Solaris 7, 8 and 9 operating environments, all systems that are based on the UltraSPARC I and UltraSPARC II processors provide administrators the choice of booting a 32-bit kernel or a 64-bit kernel. The UltraSPARC III and later systems support only the 64-bit kernel.

In a future release of the Solaris operating environment, the 32-bit kernel might not be available for the UltraSPARC I and UltraSPARC II systems.

The primary impact of these changes is to systems that rely on third-party, 32-bit kernel modules: firewalls, kernel-resident drivers, and replacement file systems, for example. These systems must be updated to use 64-bit versions of those modules.

Another impact of these changes is that UltraSPARC systems that contain UltraSPARC I processors with clocks that run at 200 MHz or lower frequencies might not be supported in a future release.

To identify the system's kernel type, use the isainfo(1) command.

```
% isainfo –kv
```

To identify the system's processor clock rate, use the psrinfo(1M) command.

```
% psrinfo –v | grep MHz
```

### Solaris Static System Libraries

This announcement applies only to 32-bit static-system libraries and statically linked utilities. 64-bit static system libraries and utilities have never been provided.

Support for 32-bit Solaris static-system libraries and statically linked utilities might not be provided in a future release. Of particular note, support for the static C library (`/usr/lib/libc.a`) might not be provided in a future release.

Applications that are linked with existing static system libraries might not work in a future release. Only applications that are dynamically linked with the system libraries that provide the Solaris application binary interface (ABI) are designed for future compatibility.

Applications that depend on the behavior of system traps might not work in a future release. Applications that link with libraries that depend on the behavior of system traps, typically libraries providing substitute ABI functions, also might not work in a future release.

### Solaris Volume Manager Transactional Volume

Solaris Volume Manager's Transactional Volumes (trans metadevices) might not be supported in a future release to reduce redundancy on the Solaris feature set. Similar capability is provided by UFS Logging, included in the Solaris 8 operating environment, and compatible versions.

### Solstice Enterprise Agents

Solstice Enterprise Agents might not be supported in a future release.

### SPC Driver

The SPC driver might not be supported in a future release.

### Standalone Router Discovery

The `/usr/sbin/in.rdisc` implementation of the IPv4 ICMP Router Discovery protocol might not be supported in a future release of the Solaris software. A near-equivalent version of this protocol, which is implemented as a component of `/usr/sbin/in.routed`, supports an enhanced administrative interface. The `/usr/sbin/in.routed` component supports the implementation of Routing Information Protocol (RIP) version 2. The `/usr/sbin/in.routed` component also has the ability to distinguish Mobile IP advertisements from Router Discovery messages.

### `sun4m` Hardware

`sun4m` hardware might not be supported in a future release of the Solaris operating environment.

### Ultra AX and SPARCengine Ultra AXmp Graphics Card

Support for the Ultra™ AX and the SPARCengine Ultra AXmp graphics card might not be provided in a future release of the Solaris operating environment.

### XIL Interface

The XIL™ interface might not be supported in a future release. An application that uses XIL causes the following warning message to be displayed.

```
WARNING:  XIL OBSOLESCENCE
     This application uses the Solaris XIL interface
     which has been declared obsolete and may not be
     present in version of Solaris beyond Solaris 9.
     Please notify your application supplier.
     The message can be suppressed by setting the environment variable
     "_XIL_SUPPRESS_OBSOLETE_MSG.
```

### `xutops` Print Filter

The `xutops` print filter might not be supported in a future release. Similar capability is provided by the `mp`(1) print filter in the Solaris 9 4/03 operating environment.

CHAPTER 5

# Documentation Issues

This chapter describes known documentation problems.

## Documentation Errata

### Document Affected: Appendix A, "Solaris Schema", in *Solaris WBEM Developer's Guide*

Appendix A, Solaris Schema, in the new *Solaris WBEM Developer's Guide* mentions MOF file references that have been updated from the MOF files previously documented in the *Solaris WBEM SDK Developer's Guide*. The new *Solaris WBEM Developer's Guide* should not have included references to the new `Solaris_DMGT1.0.mof` file or the `Solaris_VM2.0.mof` file. These two files were not a part of this release.

### Document Affected: "Solaris Developer Documentation" in the *Solaris 9 4/03 About What's New Collection*

The description of the new *Solaris WBEM Developer's Guide* mentions that MOF file references have been updated in the appendix of this new book, from the MOF files documented previously in the *Solaris WBEM SDK Developer's Guide*. However, the new WBEM Developer's Guide and the What's New book should not have included references to the new `Solaris_DMGT1.0.mof` file or the `Solaris_VM2.0.mof` file. These two files were not a part of this release.

### Document Affected: *Solaris WBEM Developer's Guide*

In the Solaris CIM schema, the following classes and properties are tagged with the `Deprecated` qualifier.

- `Solaris_LogRecord` class
- `Solaris_LogService` class
- `Solaris_LogServiceSetting` class
- `Solaris_LogServiceSetting` class
- `OptionsEnabled` property in `Solaris_IPProtocolEndpoint` class

Use suitable alternatives to these deprecated classes and properties. Refer to the class description qualifiers to determine the correct class and the correct property alternatives.

**Document Affected: "Writing a Client Program" in** *Solaris WBEM Developer's Guide*

"Writing a Client Program" provides information about creating WBEM clients that use the RMI protocol with the `javax.com.sun.client` API. If you want to connect to a server that is running the Solaris 8 operating environment, you must include the `/usr/sadm/lib/wbem/cimapi.jar` file in the client's `CLASSPATH`. The `cimapi.jar` file includes the `com.sun.wbem` classes that are required to communicate with a server that is running the Solaris 8 operating environment.

**Document Affected:** *Sun ONE Application Server 7 Developer's Guide*

---

**Note –** This documentation pertains to the use of indexed deployment directories.

---

The numbering scheme part of a deployed application's directory name has been implemented as an indexing mechanism. This mechanism enables a developer to modify a JAR or class file associated with the deployed application. This mechanism is significant to the Windows platform because of a sharing violation error that occurs during an attempt to overwrite a loaded file, Windows places a file lock on the loaded file. The file is loaded into the server instance or the IDE during session startup. With the sharing violation error, two options are possible:

- Compile the updated class file (originally part of that JAR file) and place it first in the classpath in order to be loaded before the older classes. Then allow for the Sun ONE Application Server to reload this application (as long as reload is active).
- Update the JAR file, create a new EAR file, and redeploy the application.

---

**Note –** Redeployment of the application on the Solaris platform is not necessary because no file-locking constraints exist.

---

When changing an already deployed application on the Windows platform for IDE setup, ANT file copy, or compile or other operations, be aware of another change. A new directory is created with an incremented index number as the workaround for the file-locking constraint. For example, on the Solaris platform the J2EE application, helloworld, is deployed to the Sun ONE Application Server with the following directory structure:

```
appserv/domains/domain1/server1/applications/j2ee-
apps/helloworld_1
```

A change is then to be made to a servlet that is part of this deployed application (for example, `HelloServlet.java`). The Sun ONE Studio IDE is started, the source file for this servlet is changed and compiled with the `javac` target set to the previously mentioned directory. With the source compiled in the proper location, a reload file exists for this application. The reload flag in `server.xml` is set to true, and with the server instance running, the changes become effective without reassembly of the application and redeployment.

For the Windows platform, the JAR or class file cannot be altered and updated because of the file-locking issue. Therefore, you can resolve this issue on Windows in one of two ways:

- Compile the changed source file and prepend the class file or JAR in the classpath in order to make the source changes effective.
- Make the changes to the helloworld source, assemble it, and redeploy it without undeploying the previous deployment of helloworld.

The second option is the preferred method because this option results in the use of the incremented index number appended to the deployed application's directory name. After a second deployment of helloworld, the directory structures would resemble the following:

```
appserv/domains/domain1/server1/applications/j2ee-
apps/helloworld_1
```

```
appserv/domains/domain1/server1/applications/j2ee-
apps/helloworld_2
```

The second deployment of helloworld would be deployed under `helloworld_2`.

APPENDIX **A**

# Solaris 9 4/03 Operating Environment Patch List

The patches that are listed in this appendix have been applied to the Solaris 9 4/03 operating environment in one of the following ways:

- SolStart

  These patches are located in the `/var/sadm/patch` directory on an installed system.

- Freshbits technology

  These patches were applied when the Solaris 9 4/03 operating environment was created. Therefore, these patches are not located in the `/var/sadm/patch` directory.

The `showrev -p` command provides a list of all patches that were applied to the installed system, regardless of how they were applied. The Solaris 9 4/03 operating environment includes a known and tested level of patches. However, patches cannot be backed out of the Solaris 9 4/03 operating environment.

---

**Note –** The Solaris 9 4/03 operating environment contains special patches that perform tasks that are specific to the Solaris update release installation images. These patches are specific to each Solaris operating environment update release and do not apply to other systems or releases of the Solaris operating environment. Do not attempt to download or install these patches on other systems or installations of the Solaris operating environment.

---

## SPARC Patch List

- **111703-03 – SunOS 5.9: /usr/ccs/bin/sccs and /usr/ccs/bin/make patch**

```
4654328 4222874 4514485 4483221 4504348 4631517 4654957
```

- **111711-03 – 32-bit Shared library patch for C++**

```
4618537 4619221 4660290 4668167 4679619 4680478 4686364 4709155 4710815 4302954 4698028
4699194 4704604 4708982 4745600 4747931 4749398 4749628 4750936 4756106
```

- **111712-03 – 64-Bit Shared library patch for C++**

```
4618537 4660290 4668167 4679619 4680478 4686364 4709155 4710815 4302954 4698028 4699194
4704604 4708982 4745600 4747931 4749398 4749628 4750936 4756106
```

- **111722-02 – SunOS 5.9: Math Library (libm) patch**

```
4652341 4664522 4810765
```

- **112233-05 – SunOS 5.9: Kernel Jumbo Patch**

```
4114317 4201022 4254013 4360843 4382913 4462509 4466085 4484338 4491038 4496935 4498831
4500536 4511634 4521521 4521525 4522402 4525533 4527648 4532512 4533078 4533108 4533270
4533712 4618812 4619870 4623395 4627510 4627620 4629569 4630754 4633008 4633015 4636049
4637031 4638346 4638608 4638981 4640282 4640982 4642754 4643857 4644123 4644346 4644731
4647361 4648171 4649851 4650210 4651201 4653044 4655634 4659588 4664740 4666799 4669486
4672677 4672730 4674788 4675827 4676535 4676707 4677620 4682258 4682918 4686943 4687362
4691127 4691670 4693350 4693574 4698325 4698684 4701854 4702559 4707874 4708822 4709147
4709805 4711013 4711133 4712247 4713409 4714245 4714688 4717581 4718366 4719361 4719365
4720790 4725524 4726041 4729479 4731198 4735093 4739920 4742711 4745795 4748411 4749934
4756968 4757023 4757311 4757718 4772038 4772938 4779758 4780672 4781113 4785538 4786613
4804524 4714062
```

- **112540-07 – SunOS 5.9: Expert3D IFB Graphics Patch**

```
4652111 4645735 4650501 4316968 4515693 4494062 4497748 4649811 4652804 4654897 4659006
4663042 4624812 4663732 4664981 4651919 4697564 4703423 4668373 4655393 4675933 4698167
4691212 4617170 4720843 4731406 4733511 4773758 4744109
```

- **112565-11 – SunOS 5.9: XVR-1000 GFB Graphics Patch**

```
4636225 4640002 4629777 4638125 4635704 4643375 4587680 4636721 4639155 4643767 4637546
4636748 4641167 4641177 4636866 4636788 4636846 4637796 4652512 4669035 4668381 4670095
4674533 4679353 4685579 4708069 4664996 4671387 4675252 4679830 4699753 4703545 4730199
4717529 4676118 4739840 4734313 4758471 4759742 4745719 4766223 4674551 4772063 4772398
4768264 4775646 4771302 4781933 4783131 4790859 4792390 4772798 4649442
```

- **112601-04 – SunOS 5.9: PGX32 Graphics**

```
4502887 4633850 4688024 4728662
```

- **112617-02 – CDE 1.5: rpc.cmsd patch**

```
4641721 4687131
```

- **112620-03 – SunOS 5.9: Elite3D AFB Graphics Patch**

```
4651358 4714683 4747203 4750896 4685879
```

- **112621-05 – SunOS 5.9: Creator and Creator3D: FFB Graphics Patch**

```
4663332 4651358 4714683 4747203 4750896 4685879 4649465
```

- **112622-08 – SunOS 5.9: M64 Graphics Patch**

```
4531901 4632595 4668719 4672129 4682681 4452851 4633941 4684877 4692693 4737335 4749353
4769331 4735033
```

- **112661-04 – SunOS 5.9: IIIM and X Input & Output Method patch**

```
4593130 4412147 4726723 4629783 4721656 4721661 4742096 4691874 4650804 4774826 4645171
4643078 4664772 4604634 4617694 4617691 4471922 4691871 4686165 4515546 4772485 4777933
```

```
4776987
```

- **112764-06 – SunOS 5.9: Sun Quad FastEthernet qfe driver**

```
4807151 4790953 4772916 4760845 4681502 4738051 4727494 4704689 4717401 4719739 4451757
4367043 4411205 4664588 4655451 4292608 4645631
```

- **112771-10 – Motif 1.2.7 and 2.1.1: Runtime library patch for Solaris 9**

```
4512887 4663311 4664492 4679034 4615922 4661767 4699202 4741124 4757112 4743372 4712265
4750419 4717502 4764309 4787387
```

- **112783-01 – X11 6.6.1: xterm patch**

```
4636452 4657934
```

- **112785-13 – X11 6.6.1: Xsun patch**

```
4649617 4651949 4642632 4644622 4531892 4692623 4700844 4712590 4710958 4710402 4703884
4638864 4729267 4675755 4677235 4729905 4763009 4707069 4709009 4760672 4734353 4762797
4740125 4732113 4676222 4753720 4736505 4780894 4633549 4798375 4742744
```

- **112787-01 – X11 6.6.1: twm patch**

```
4659947
```

- **112804-01 – CDE 1.5: sdtname patch**

```
4666081
```

- **112805-01 – CDE 1.5: Help volume patch**

```
4666089
```

- **112806-01 – CDE 1.5: sdtaudiocontrol patch**

```
4666089
```

- **112807-04 – CDE 1.5: dtlogin patch**

```
4667119 4648724 4750889 4761698 4807292 4720523
```

- **112808-03 – OpenWindows 3.6.3: Tooltalk patch**

```
4668701 4707187 4713445
```

- **112809-02 – CDE:1.5 Media Player (sdtjmplay) patch**

```
4663628 4731319
```

- **112810-04 – CDE 1.5: dtmail patch**

```
4712584 4715670 4786715 4714769 4715322
```

- **112811-01 – OpenWindows 3.7.0: Xview Patch**

```
4690979
```

- **112812-01 – CDE 1.5: dtlp patch**

```
4646929
```

- **112817-06 – SunOS 5.9: Sun GigaSwift Ethernet 1.0 driver patch**

```
4658962 4651090 4648346 4647988 4645885 4637950 4629291 4675241 4640855 4686107 4686121
4686126 4704372 4696480 4703803 4699088 4698533 4687821 4678583 4704413 4703839 4707612
4702980 4690650 4690643 4730696 4728208 4724811 4717637 4717385 4681554 4708816 4678908
4710796 4735212 4708099 4735224 4735240 4746230 4739846 4738499 4753634 4754360 4753629
4763533 4762837
```

- **112834-02 – SunOS 5.9: patch scsi**

```
4628764 4656322 4656416
```

- **112835-01 – SunOS 5.9: patch /usr/sbin/clinfo**

```
4638788
```

- **112836-02 – SunOS 5.9: patch scsa2usb**

```
4660516 4756231
```

- **112837-01 – SunOS 5.9: patch /usr/lib/inet/in.dhcpd**

```
4621740
```

- **112838-05 – SunOS 5.9: pcicfg Patch**

```
4407705 4496757 4711639 4716448 4717617
```

- **112839-04 – SunOS 5.9: patch libthread.so.1**

```
4254013 4533712 4647410 4647927 4667173 4795308
```

- **112840-03 – SunOS 5.9: patch platform/SUNW,Sun-Fire-15000/kernel/drv/sparcv9/axq**

```
4619267 4652995 4756231
```

- **112841-06 – SunOS 5.9: drmach patch**

```
4652995 4659588 4664749 4669462 4696700 4769147
```

- **112854-02 – SunOS 5.9: icmp Patch**

```
4511634 4647983
```

- **112868-07 – SunOS 5.9: OS Localization message patch**

```
4658681 4685336 4706059 4681374 4733193 4734495 4736248 4775204 4767999 4809660
```

- **112874-14 – SunOS 5.9: patch libc**

```
1258570 4192824 4221365 4248430 4254013 4318178 4390053 4444569 4503048 4510326 4518988
4530367 4533712 4635556 4661997 4669963 4683320 4694626 4700602 4704190 4709984 4749274
4756113 4767215 4770160 4772960
```

- **112875-01 – SunOS 5.9: patch /usr/lib/netsvc/rwall/rpc.rwalld**

```
4664537
```

- **112902-11 – SunOS 5.9: kernel/drv/ip Patch**

```
4396697 4417647 4425786 4479794 4488694 4502640 4511634 4592876 4639079 4644731 4645471
4647361 4648388 4649557 4656795 4658216 4660167 4662169 4662866 4673676 4682913 4688392
4688398 4688704 4691577 4694560 4712511 4749268 4763402 4784039
```

- **112903-03 – SunOS 5.9: tun Patch**

```
4396697 4417647 4425786 4479794 4592876 4648388 4660167 4688392 4688398 4688704 4694560
```

- **112904-02 – SunOS 5.9: tcp Patch**

```
4645471 4687850
```

- **112905-02 – SunOS 5.9: ippctl Patch**

```
4644731 4647361 4712511
```

- **112906-01 – SunOS 5.9: ipgpc Patch**

```
4644731 4647361
```

- **112907-01 – SunOS 5.9: libgss Patch**

```
4197937 4220042 4642879
```

- **112908-07 – SunOS 5.9: gl_kmech_krb5 Patch**

```
4197937 4220042 4521000 4526202 4630574 4642879 4657596 4666887 4671577 4690212 4691352
4727224 4743181 4744280
```

- **112911-03 – SunOS 5.9: ifconfig Patch**

```
4396697 4417647 4425786 4479794 4488694 4592876 4648388 4660167 4661975 4676731 4688392
4688398 4688704 4694560
```

- **112912-01 – SunOS 5.9: libinetcfg Patch**

```
4396697 4417647 4425786 4479794 4592876 4648388
```

- **112913-01 – SunOS 5.9: fruadm Patch**

```
4505850
```

- **112915-01 – SunOS 5.9: snoop Patch**

```
1148813 1240645 4075054 4327168 4341344 4396697 4417647 4425786 4475921 4479794 4532805
4532808 4532860 4559001 4587434 4592876 4635766 4637330 4637788 4648299 4648388
```

- **112916-01 – SunOS 5.9: rtquery Patch**

```
1148813 1240645 4075054 4327168 4341344 4475921 4532805 4532808 4532860 4559001 4587434
4635766 4637330 4637788 4648299
```

- **112917-01 – SunOS 5.9: ifrt Patch**

```
4645471
```

- **112918-01 – SunOS 5.9: route Patch**

```
1148813 1240645 4075054 4327168 4341344 4475921 4532805 4532808 4532860 4559001 4587434
4635766 4637330 4637788 4645471 4648299
```

- **112919-01 – SunOS 5.9: netstat Patch**

```
4645471
```

- **112920-02 – SunOS 5.9: libipp Patch**

```
4644731 4647361 4712511
```

- **112921-01 – SunOS 5.9: libkadm5 Patch**

```
4197937 4220042 4642879
```

- **112922-01 – SunOS 5.9: krb5 lib Patch**

```
4197937 4220042 4642879
```

- **112923-02 – SunOS 5.9: krb5 usr/lib Patch**

```
4197937 4220042 4642879 4703622
```

- **112924-01 – SunOS 5.9: kdestroy kinit klist kpasswd Patch**

```
4197937 4220042 4642879
```

- **112925-02 – SunOS 5.9: ktutil kdb5_util kadmin kadmin.local kadmind Patch**

```
4197937 4220042 4642879 4646370
```

- **112926-03 – SunOS 5.9: smartcard Patch**

```
4366894 4524620 4629775 4635010 4635082 4635106 4636389 4639842 4642726 4646472 4646476
4646497 4647454 4647542 4649161 4655166 4676018 4682730 4683241
```

- **112927-01 – SunOS 5.9: IPQos Header Patch**

```
4644731 4647361
```

- **112928-01 – SunOS 5.9: in.ndpd Patch**

```
4396697 4417647 4425786 4479794 4592876 4648388
```

- **112929-01 – SunOS 5.9: RIPv2 Header Patch**

```
1148813 1240645 4075054 4327168 4341344 4475921 4532805 4532808 4532860 4559001 4587434
4635766 4637330 4637788 4648299
```

- **112941-06 – SunOS 5.9: sysidnet Utility Patch**

```
4519228 4678406 4683519 4698391 4698500 4704974 4711830 4719195 4759857 4787789
```

- **112943-07 – SunOS 5.9: Volume Management Patch**

```
4429002 4478237 4508734 4516578 4576802 4632847 4637525 4645142 4648750 4656914 4656931
4660125 4664713 4696741 4704081 4715667 4730706 4739995 4764186 4773530 4791015
```

- **112945-14 – SunOS 5.9: wbem Patch**

```
4486297 4496120 4626762 4639638 4641801 4641818 4641851 4643267 4644880 4645051 4645080
4645105 4645146 4645315 4645581 4645811 4647508 4648811 4649058 4654765 4655882 4656941
4658145 4674537 4682188 4686244 4696284 4699585 4700539 4701067 4720857 4739720 4742164
4742960 4754758 4759233 4766098 4766971 4768461 4769053 4769612 4769791 4769795 4769860
4769889 4770013 4770017 4770024 4770027 4771207 4771466 4771469 4771476 4773485 4781761
4786712 4786891 4792126 4795642 4809906 4813116
```

- **112951-04 – SunOS 5.9: patchadd and patchrm Patch**

```
4421583 4529289 4623249 4625879 4639323 4678605 4706994 4723617 4725419 4728892 4731056
4737767 4744964 4750803 4759158
```

- **112954-04 – SunOS 5.9: uata Driver Patch**

```
4432931 4506478 4643720 4776171
```

- **112955-01 – SunOS 5.9: patch kernel/fs/autofs kernel/fs/sparcv9/autofs**

```
4471199 4631449
```

- **112958-02 – SunOS 5.9: patch pci.so**

```
4657365 4779758 4695771
```

- **112959-01 – SunOS 5.9: patch libfru**

```
4643255 4661738
```

- **112960-06 – SunOS 5.9: patch libsldap ldap_cachemgr**

```
4357827 4614945 4624458 4630226 4645604 4648140 4648146 4658625 4660019 4677591 4682120
4683522 4720818 4723361 4751386 4776571
```

- **112961-01 – SunOS 5.9: patch platform/SUNW,Ultra-Enterprise/kernel/drv/sysctrl**

```
4638234
```

- **112963-05 – SunOS 5.9: linker patch**

```
4526752 4529912 4533195 4546416 4616944 4621479 4622472 4624658 4630224 4633860 4638070
4642829 4651493 4651709 4654406 4655066 4662575 4664855 4668517 4669582 4671493 4696204
4701749 4706503 4707808 4710814 4716929 4730433 4739660 4743413 4744337 4745932 4746231
4754751 4755674 4772927 4774727
```

- **112964-03 – SunOS 5.9: ksh using control Z under ksh does not work well with vi**

```
4223444 4702798 4750637
```

- **112965-01 – SunOS 5.9: patch /kernel/drv/sparcv9/eri**

```
4467555 4467562 4479894 4496082 4518457 4528597 4546894 4599774 4637678
```

- **112966-01 – SunOS 5.9: patch /usr/sbin/vold**

```
4638163
```

- **112967-04 – SunOS 5.9: /kernel/drv/nca Patch**

```
4487572 4629396 4631903 4650210 4681040
```

- **112968-01 – SunOS 5.9: patch /usr/bin/renice**

```
4502191
```

- **112969-02 – SunOS 5.9: vold slows down the boot process**

```
4592827 4715363
```

- **112970-03 – SunOS 5.9: patch libresolv.so.2**

```
4646349 4700305 4708913 4777715
```

- **112971-03 – SunOS 5.9: patch kernel/fs/cachefs**

```
4368576 4398885 4493561 4615194
```

- **112972-02 – SunOS 5.9: patch /usr/lib/libssagent.so.1 /usr/lib/libssasnmp.so.1**

```
4395096 4633918 4643121 4691177
```

- **112975-01 – SunOS 5.9: patch /kernel/sys/kaio**

```
4682197
```

- **112985-03 – SunOS 5.9: Volume Management Localization message patch**

```
4692900 4775188 4804590
```

- **112987-01 – SunOS 5.9: patch /platform/sun4u/kernel/tod/sparcv9/todsg**

```
4618950
```

- **112998-02 – SunOS 5.9: patch /usr/sbin/syslogd**

```
4243984 4424387 4558909 4665297 4670382 4670414 4670468 4674435 4705713
```

- **113020-01 – SunOS 5.9: SUNW_LOC changes needed and Thai date format updated**

```
4674651 4683429
```

- **113021-01 – SunOS 5.9: yesstr, nostr nl_langinfo() strings incorrect**

```
4660271
```

- **113023-01 – SunOS 5.9: Broken preremove scripts in S9 ALC packages**

```
4707449
```

- **113024-04 – SunOS 5.9: wrsm Driver Patch**

```
4114317 4519289 4619267 4633655 4634907 4636186 4644822 4661403 4661424 4680447 4683307
4684649 4694445 4699257 4703343 4719669 4737372 4738280 4772117
```

- **113025-01 – SunOS 5.9: libpsvcpolicy_psr.so.1 Patch**

```
4640559
```

- **113026-05 – SunOS 5.9: /kernel/drv/md Patch**

```
4373671 4462054 4508010 4525396 4615383 4615387 4631270 4632281 4634737 4640578 4643091
4648067 4653481 4655532 4662172 4665951 4666299 4668224 4668960 4669927 4678627 4680610
4683907 4690701 4690983 4698878 4701093 4705486 4705513 4710390 4711969 4714648 4714923
4715369 4715443 4718706 4720138 4723547 4725693 4733518 4740375 4774716 4780601 4802281
4814438
```

- **113027-01 – SunOS 5.9: libfrureg.so.1 Patch**

```
4687199
```

- **113028-01 – SunOS 5.9: patch /kernel/ipp/flowacct**

```
4645622 4658416
```

- **113029-03 – SunOS 5.9: libaio.so.1 librt.so.1 and abi_libaio.so.1 Patch**

```
4222093 4491712 4529739 4529831 4529893 4635940 4635945 4636591 4665847
```

- **113030-02 – SunOS 5.9: /kernel/sys/doorfs Patch**

```
4659950 4699850
```

- **113031-01 – SunOS 5.9: /usr/bin/edit Patch**

```
4635504
```

- **113032-01 – SunOS 5.9: /usr/sbin/init Patch**

```
4503048
```

- **113033-03 – SunOS 5.9: patch /kernel/drv/isp and /kernel/drv/sparcv9/isp**

```
4521066 4657311 4661696 4672156 4682951 4729861
```

- **113038-03 – SunOS 5.9: JFP manpages patch**

```
4808428 4809083 4695070 4742031 4688476 4710452 4717366
```

- **113046-01 – SunOS 5.9: fcp Patch**

```
4529255
```

- **113061-01 – SunOS 5.9: UTF-8 locale UMLE patch**

```
4614828 4668356 4668371
```

- **113068-03 – SunOS 5.9: hpc3130 patch**

```
4672995 4799299
```

- **113070-01 – SunOS 5.9: ftp patch**

```
4658282
```

- **113071-01 – SunOS 5.9: patch /usr/sbin/acctadm**

```
4696138
```

- **113072-05 – SunOS 5.9: patch /usr/sbin/format**

```
4334693 4622990 4670999 4689757 4716238 4726667 4766161 4781880 4785642 4791416
```

- **113073-02 – SunOS 5.9: ufs_log patch**

```
1101554 4409244 4651323
```

- **113074-04 – SunOS 5.9: ngdr.conf patch**

```
4654448 4712441
```

- **113075-01 – SunOS 5.9: pmap patch**

```
4660871
```

- **113076-02 – SunOS 5.9: dhcpmgr.jar Patch**

```
4643257 4673713 4687991 4731988
```

- **113077-04 – SunOS 5.9: patch su driver**

```
4666211 4707716 4709299 4734045 4766657
```

- **113085-02 – SunOS 5.9: Thai font enhancement**

```
4688066 4708093 4747781
```

- **113086-01 – SunOS 5.9: iconv modules between zh_CN.euc and UTF-8 are incompatible**

```
4672806
```

- **113087-01 – SunOS 5.9: Cannot use other fonts to display Asian characters in xterm**

```
4692528
```

- **113088-01 – SunOS 5.9: SPECIAL PATCH: Safe default permission violations**

```
4671052
```

- **113089-01 – SunOS 5.9: SPECIAL PATCH: Bad postremove script of SUNWkuxft**

```
4706829
```

- **113090-01 – SunOS 5.9: SPECIAL PATCH: Bad postinstall script of SUNWcdft**

```
4714477
```

- **113096-02 – X11 6.6.1: OWconfig patch**

```
4684184 4682788 4707897
```

- **113098-04 – X11 6.6.1: X RENDER extension patch**

```
4684184 4737595 4750162 4749332 4770510
```

- **113113-01 – SunOS 5.9: Problem with depend file of SUNWhdcl with HK locales in S9**

```
4670820
```

- **113125-01 – SunOS 5.9: missing libc_psr.so.1 symlink**

```
4704023
```

- **113145-02 – SunOS 5.9: Naturetech /platform links are not exist**

```
4707235
```

- **113146-02 – SunOS 5.9: Apache Security Patch**

```
4705227 4759882 4737442 4768221
```

- **113167-01 – SunOS 5.9: JFP xhost manpage patch**

```
4700173
```

- **113168-02 – SunOS 5.9: JFP Japanese TrueType Font**

```
4674655 4704720
```

- **113218-07 – SunOS 5.9: patch pcipsy**

```
4114317 4640542 4655634 4669486 4674788 4678396 4682258 4697219 4704996 4713409 4713787
4721396 4726041 4769411
```

- **113219-01 – SunOS 5.9: patch /platform/SUNW,Ultra-Enterprise/kernel/drv/fhc**

```
4114317
```

- **113220-01 – SunOS 5.9: patch /platform/sun4u/kernel/drv/sparcv9/upa64s**

```
4114317
```

- **113221-02 – SunOS 5.9: libprtdiag_psr.so.1 Patch**

```
4664349 4665239 4697505
```

- **113222-02 – SunOS 5.9: patch /kernel/misc/nfssrv and /kernel/misc/sparcv9/nfssrv**

```
4531662 4658316 4683308
```

- **113223-01 – SunOS 5.9: idn Patch**

```
4524236
```

- **113224-01 – SunOS 5.9: efdaemon Patch**

```
4633009
```

- **113225-01 – SunOS 5.9: 2002c Timezone Patch**

```
4649654 4683487
```

- **113226-01 – SunOS 5.9: hme Driver Patch**

```
4364929
```

- **113228-01 – SunOS 5.9: 64 bit locale links missing in Solaris 9**

```
4664306
```

- **113240-03 – CDE 1.5: dtsession patch**

```
4701185 4743546 4763733
```

- **113244-01 – CDE 1.5: dtwm patch**

```
4743546
```

- **113273-01 – SunOS 5.9: /usr/lib/ssh/sshd Patch**

```
4708590
```

- **113274-01 – SunOS 5.9: libdhcputil Patch**

```
4118738
```

- **113275-02 – SunOS 5.9: procfs Patch**

```
4254013 4533712 4664249
```

- **113276-03 – SunOS 5.9: md_trans Patch**

```
1101554 4373671 4409244 4462054 4696312 4714648 4715443 4720138 4742084
```

- **113277-08 – SunOS 5.9: sd and ssd Patch**

```
4027074 4313732 4334693 4336105 4358054 4360365 4375499 4412239 4500536 4527668 4622990
4624524 4645691 4651339 4651386 4651679 4654850 4655315 4656322 4656416 4672504 4673243
4716238 4722426 4725656 4728530 4734019 4734033 4744131 4758953 4770566 4773941 4819633
```

- **113278-01 – SunOS 5.9: NFS Daemon Patch**

```
4492876
```

- **113279-01 – SunOS 5.9: klmmod Patch**

```
4492876
```

- **113280-01 – SunOS 5.9: patch /usr/bin/cpio**

```
4646589 4661824 4674849 4677773 4679533 4679805 4688928
```

- **113281-01 – SunOS 5.9: patch /usr/lib/netsvc/yp/ypbind**

```
4515621
```

- **113318-04 – SunOS 5.9: patch /kernel/fs/nfs and /kernel/fs/sparcv9/nfs**

```
4044295 4427971 4465488 4658316 4664740 4680195 4725574 4816496
```

- **113319-07 – SunOS 5.9: patch /usr/lib/libnsl.so.1**

```
1226166 4192824 4248430 4390053 4517003 4648085 4680691 4690775 4691127 4700602 4710928
4727726 4753610 4756113 4772960
```

- **113320-03 – SunOS 5.9: patch se driver**

```
4626537 4655495 4730608 4735231 4755417
```

- **113321-03 – SunOS 5.9: patch sf and socal**

```
4451550 4492895 4589401 4643768 4657427
```

- **113322-01 – SunOS 5.9: patch uucp**

```
4686442
```

- **113323-01 – SunOS 5.9: patch /usr/sbin/passmgmt**

```
4687515
```

- **113325-01 – SunOS 5.9: patch powerd**

```
4678303 4697189 4697205
```

- **113326-01 – SunOS 5.9: tar Patch**

```
4662552
```

- **113327-01 – SunOS 5.9: pppd Patch**

```
4684948
```

- **113328-01 – SunOS 5.9: tmpfs Patch**

```
4682537
```

- **113329-01 – SunOS 5.9: lp Patch**

```
4640166
```

- **113330-01 – SunOS 5.9: rpcbind Patch**

```
1226166 4690775
```

- **113331-01 – SunOS 5.9: usr/lib/nfs/rquotad Patch**

```
4683311
```

- **113332-04 – SunOS 5.9: libc_psr.so.1 Patch**

```
4666069
```

- **113334-01 – SunOS 5.9: udfs Patch**

```
4548887 4651869 4655796 4714259
```

- **113335-01 – SunOS 5.9: devinfo Patch**

```
4522638
```

- **113361-02 – SunOS 5.9: Sun Gigabit Ethernet 3.0 driver patch**

```
4671573 4527681 4759414 4656013 4718277 4650055 4707744
```

- **113374-02 – X11 6.6.1: xpr patch**

```
4704388
```

- **113390-01 – SunOS 5.9 : CTYPE errors in "ar" locale**

```
4728460
```

- **113391-01 – SunOS 5.9 : S9 : CTYPE errors in "He_IL"/"he" locales**

```
4728469
```

- **113400-01 – SunOS 5.9: zh_CN.GBK is incomplete for 64 bit**

```
4762909
```

- **113403-02 – SunOS 5.9: Tamil/Kannada/Gujarati/Bengali support**

```
4769446 4752426 4767689 4767747
```

- **113405-02 – SunOS 5.9: sync with 4751190 for th_TH.UTF-8 locales**

```
4751190
```

- **113407-02 – SunOS 5.9: Added Five stroke input method support in S9U3**

```
4741018 4783961 4749970 4749975
```

- **113409-01 – SunOS 5.9: SPECIAL PATCH: Missing locales in SUNW_LOC in s9u3**

```
4780217
```

- **113424-01 – CDE 1.5: message patch to add IM title in the workspace menu**

```
4731995
```

- **113432-06 – SunOS 5.9: Introduction Fujitsu SPARC64-V platforms patch**
- **113434-06 – SunOS 5.9: /usr/snadm/lib Library and Differential Flash Patch**

```
4385866 4391400 4501772 4642585 4655075 4660835 4707022 4723051 4724529 4734649 4744624
4750446 4753030 4759768 4760694 4761562 4761681 4763919 4767378 4767678 4768717 4793554
4812304
```

- **113445-02 – SunOS 5.9: schpc Patch**

```
4640542 4697219 4704996 4779758 4695771
```

- **113446-02 – SunOS 5.9: dman Patch**

```
4640542 4697219 4704996 4707993
```

- **113447-01 – SunOS 5.9: libprtdiag_psr Patch**

```
4640542 4697219 4704996
```

- **113449-01 – SunOS 5.9: gld Patch**

```
4667724
```

- **113451-03 – SunOS 5.9: IKE Patch**

```
4508547 4628774 4628901 4653051 4666686 4673333 4687237 4704460 4739746 4741543 4745493
4745709
```

- **113453-03 – SunOS 5.9: sockfs Patch**

```
4640282 4640982 4653919 4681040 4711013
```

- **113454-05 – SunOS 5.9: ufs Patch**

```
1101554 4409244 4490164 4507281 4512855 4640210 4662795 4663287 4714988 4734635 4764514
4766103
```

- **113456-01 – SunOS 5.9: adb modules**

```
1101554 4409244
```

- **113457-01 – SunOS 5.9: ufs headers**

```
1101554 4409244
```

- **113459-01 – SunOS 5.9: udp patch**

```
4511634
```

- **113464-02 – SunOS 5.9: IPMP Headers Patch**

```
4373671 4462054 4661975 4676731 4710160 4714648 4715443 4720138
```

- **113467-01 – SunOS 5.9: seg_drv & seg_mapdev Patch**

```
4533078 4533108 4630754 4638608 4644346 4648171
```

- **113470-01 – SunOS 5.9: winlock Patch**

```
4533078 4533108 4630754 4638608 4644346 4648171
```

- **113471-02 – SunOS 5.9: truss Patch**

```
4254013 4533078 4533108 4533712 4630754 4638608 4644346 4648171
```

- **113472-01 – SunOS 5.9: madv & mpss lib Patch**

```
4533078 4533108 4630754 4638608 4644346 4648171
```

- **113475-02 – SunOS 5.9: usr/lib/security crypt Patch**

```
4192824 4248430 4390053 4700602 4715561
```

- **113476-05 – SunOS 5.9: usr/lib/passwdutil.so.1 pam_ldap Patch**

```
4192824 4248430 4357827 4390053 4658625 4660019 4670947 4677591 4682120 4683522 4700602
4709300 4743707 4747441 4751394 4754634 4756113
```

- **113477-02 – SunOS 5.9: SPECIAL PATCH: class action replacement scripts**

```
4712441
```

- **113480-02 – SunOS 5.9: usr/lib/security/pam_unix.so.1 Patch**

```
4192824 4248430 4390053 4700602 4756113
```

- **113482-01 – SunOS 5.9: sbin/sulogin Patch**

```
4192824 4248430 4390053 4700602
```

- **113483-02 – SunOS 5.9: usr/lib/netsvc/yp/rpc.yppasswd Patch**

```
4192824 4248430 4283355 4390053 4700602
```

- **113484-02 – SunOS 5.9: WBEM SDK Localization message patch**

```
4733195
```

- **113485-01 – SunOS 5.9: DHCP Manager Localization message patch**

```
4733194
```

- **113488-01 – SunOS 5.9: Field Replacement Unit ID Platform & Access Library Patch**

```
4703981 4715000
```

- **113489-02 – SunOS 5.9: sbd & sbdp Patch**

```
4641546 4696700
```

- **113490-01 – SunOS 5.9: Audio Device Driver Patch**

```
4660099 4670245 4701098
```

- **113492-01 – SunOS 5.9: fsck Patch**

```
4640210 4693730 4714988 4734635
```

- **113493-01 – SunOS 5.9: libproc.so.1 Patch**

```
4725696
```

- **113494-01 – SunOS 5.9: iostat Patch**

```
4511098 4679590
```

- **113495-01 – SunOS 5.9: cfgadm Library Patch**

```
4433415 4672974
```

- **113496-01 – SunOS 5.9: inetd Patch**

```
4383820
```

- **113503-01 – SunOS 5.9: GigaSwift Ethernet 1.0 special postinstall script patch**

```
4735162
```

- **113513-02 – X11 6.6.1: platform support for new hardware**

```
4731970 4726510
```

- **113538-05 – SunOS 5.9: ngdr Patch**

```
4613988 4661605 4669462 4675057 4696700 4746505 4756231 4759384 4779758
```

- **113541-02 – X11 6.6.1: XKB patch**

```
4689365 4633549
```

- **113571-02 – SunOS 5.9: eFCode & fcgp2 Patch**

```
4495650 4692542
```

- **113572-01 – SunOS 5.9: docbook-to-man.ts Patch**

```
4649171
```

- **113573-01 – SunOS 5.9: libpsvc Patch**

```
4487110 4718737
```

- **113574-02 – SunOS 5.9: SUNW,Sun-Fire-880 libpsvc Patch**

```
4487110 4718737
```

- **113575-03 – SunOS 5.9: sendmail Patch**

```
4678365 4697068 4704672 4704675 4706596 4706608 4706632 4706660 4720281 4725387 4728227
4737586 4756570 4798135 4808977 4809539
```

- **113576-01 – SunOS 5.9: /usr/bin/dd Patch**

```
4632818
```

- **113577-01 – SunOS 5.9: /usr/kernel/sched/FX Patch**

```
4701391
```

- **113578-01 – SunOS 5.9: inetboot Patch**

```
4670609
```

- **113579-01 – SunOS 5.9: ypserv/ypxfrd Patch**

```
4737417
```

- **113580-01 – SunOS 5.9: mount Patch**

```
4715028
```

- **113581-01 – CDE 1.5: message patch to add to /usr/dt/bin/dtlp**

```
4646929
```

- **113584-01 – SunOS 5.9: yesstr, nostr nl_langinfo() strings incorrect in S9**

```
4745109
```

- **113713-02 – SunOS 5.9: pkginstall Patch**

```
4720211 4786593
```

- **113716-01 – SunOS 5.9: sar & sadc Patch**

```
4627454 4723484
```

- **113717-06 – SunOS 5.9: SPECIAL PATCH: For EDITABLE files**

```
4712441
```

- **113718-01 – SunOS 5.9: usr/lib/utmp_update Patch**

```
4705891
```

- **113720-01 – SunOS 5.9: rootnex Patch**

```
4692542
```

- **113742-01 – SunOS 5.9: smcpreconfig.sh Patch**

```
4704611
```

- **113746-01 – SunOS 5.9: uxlibc Localization message patch**

```
4760256
```

- **113762-02 – X11 6.6.1: xdm patch**

```
4748474 4707057 4707069 4721898 4740125
```

- **113764-02 – X11 6.6.1: keyboard patch**

```
4716868 4237479 4633549
```

- **113789-01 – CDE 1.5: dtexec patch**

```
4759425
```

- **113796-02 – CDE 1.5: Tooltalk feature patch**

```
4722127 4741187 4744289 4784893
```

- **113798-01 – CDE 1.5: libDtSvc feature patch**

```
4720526
```

- **113799-01 – SunOS 5.9: solregis Patch**

```
4762680
```

- **113813-02 – SunOS 5.9: Gnome Integration Patch**

```
4752366 4770721
```

- **113831-02 – SunOS 5.9: Estonian decimal point character incorrect**

```
4733239
```

- **113839-01 – CDE 1.5: sdtwsinfo feature patch**

```
4729180
```

- **113841-01 – CDE 1.5: answerbook feature patch**

```
4729199
```

- **113861-01 – CDE 1.5: dtksh feature patch**

```
4729959
```

- **113863-01 – CDE 1.5: dtconfig feature patch**

```
4732757
```

- **113868-01 – CDE 1.5: PDASync patch**

```
4653758 4705576 4642465
```

- **113896-01 – SunOS 5.9: en_US.UTF-8 locale patch**

```
4746498 4749928 4633291 4758189 4761039 4753468 4757704 4765728 4765666 4751190 4751699
4767922 4768220
```

- **113902-03 – SunOS 5.9: Asian UTF-8 iconv modules enhancement**

```
4702278 4750690 4772950
```

- **113904-02 – SunOS 5.9: 7 indic scripts support in Asian UTF-8 locales**

```
4768804 4752112 4752144 4790423
```

- **113906-01 – SunOS 5.9: Fixed some functional problems in Chinese locales**

```
4731208 4677334
```

- **113908-01 – SunOS 5.9: SPECIAL PATCH: Missing locales in SUNW_LOC for SUNWinttf**
- **113909-01 – SunOS 5.9: SPECIAL PATCH:Broken preremove script in S9U3 Asia BCP pkgs**

```
4780225
```

- **113911-01 – SunOS 5.9: BCP applications hangs with NIS in asian locales**

```
4784597
```

- **113923-02 – X11 6.6.1: security font server patch**

```
4764193
```

- **113964-04 – SunOS 5.9: usr/sbin/6to4relay patch**

```
1148813 1240645 4075054 4327168 4341344 4475921 4532805 4532808 4532860 4559001 4587434
4635766 4637330 4637788 4639729 4648299 4660167 4661975 4673190 4676731 4688392 4688398
4688704 4690565 4694560 4699047 4701276 4705755 4726444 4728056 4728423 4804064
```

- **113971-01 – SunOS 5.9: ATOK12 patch**

```
4770994
```

- **113973-01 – SunOS 5.9: adb Patch**

```
4664740
```

- **113975-01 – SunOS 5.9: ssm Patch**

```
4709170
```

- **113977-01 – SunOS 5.9: awk/sed pkgscripts Patch**

```
4737594
```

- **113978-01 – SunOS 5.9: syseventconfd Patch**

```
4737409 4745393
```

- **113981-02 – SunOS 5.9: devfsadm Patch**

```
4334693 4517655 4622990 4703964 4716238 4734853
```

- **113984-01 – SunOS 5.9: iosram Patch**

```
4721302
```

- **113993-02 – SunOS 5.9: mkfs Patch**

```
4708464 4721124
```

- **114003-01 – SunOS 5.9: bbc driver Patch**

```
4706975
```

- **114004-01 – SunOS 5.9: sed Patch**

```
4727485
```

- **114006-01 – SunOS 5.9: tftp Patch**

```
4656587
```

- **114008-01 – SunOS 5.9: cachefsd Patch**

```
1250956 4110712 4230685 4338920 4467621 4507274 4616030 4698882 4698886 4740460
```

- **114010-01 – SunOS 5.9: m4 Patch**

4174383

- **114014-01 – SunOS 5.9: libxml Patch**

4665029 4668974 4702333

- **114016-01 – tomcat security patch**

4759554

- **114020-01 – SunOS 5.9: Synching Euro UTF-8s to include Indic scripts**

4773318

- **114033-01 – SunOS 5.9: Fixing hebrew input method problems**

4755447

- **114037-01 – SunOS 5.9: patch for supporting indic script**

4774476

- **114039-01 – SunOS 5.9: Bug fix for dtpad column in Euro UTF-8 locales**

4773166

- **114125-01 – SunOS 5.9: IKE should support hardware assist for certs and Oakley**

4666686 4673333 4687237 4704460 4739746 4745493 4745709

- **114126-01 – SunOS 5.9: todds1287 patch**

4692023

- **114127-01 – SunOS 5.9: abi_libefi.so.1 Patch**

4334693 4622990 4716238

- **114128-01 – SunOS 5.9: sd_lun patch**

4334693 4622990 4716238

- **114129-01 – SunOS 5.9: multi-terabyte disk support -libuuid patch**

4334693 4622990 4716238

- **114130-01 – SunOS 5.9: multi-terabyte disk support - liba5k.so.2 patch**

4334693 4622990 4716238

- **114131-01 – SunOS 5.9: multi-terabyte disk support - libadm.so.1 patch**

4334693 4622990 4716238

- **114132-01 – SunOS 5.9: fmthard patch**

4334693 4622990 4716238

- **114133-01 – SunOS 5.9: mail Patch**

4705717

- **114135-01 – SunOS 5.9: at utility Patch**

4776480

- **114153-01 – SunOS 5.9: Japanese SunOS 4.*x* Binary Compatibility(BCP) patch**

```
4775198 4775194
```

- **114165-01 – CDE 1.5: SUNWsregu Localization message patch**

```
4762680
```

- **114211-01 – SunOS 5.9: WBEM Localization message patch**

```
4786427 4767999
```

- **114215-02 – SunOS 5.9: Install/admin Localization message patch**

```
4788175 4804609
```

- **114217-01 – SunOS 5.9: Install/admin Localization message patch**

```
4788175
```

- **114219-02 – CDE 1.5: sdtimage patch**

```
4746059 4728421
```

- **114221-02 – SunOS 5.9: UR bug fixes**

```
4791189 4789202
```

- **114224-01 – SunOS 5.9: csh Patch**

```
4479584
```

- **114226-01 – SunOS 5.9: zsh driver Patch**

```
4639552
```

- **114227-01 – SunOS 5.9: yacc Patch**

```
4735960
```

- **114229-01 – SunOS 5.9: action_filemgr.so.1 Patch**

```
4714071
```

- **114231-01 – SunOS 5.9: rpcmod Patch**

```
4662762
```

- **114233-01 – SunOS 5.9: rsm Patch**

```
4679690 4700142 4728023 4754589
```

- **114235-01 – SunOS 5.9: libsendfile.so.1 Patch**

```
4640982 4711013
```

- **114244-01 – SunOS 5.9: some characters can't be shown in GBK and GB18030 locales**

```
4771032
```

- **114274-02 – SunOS 5.9: Add missing euro entries to UTF-8 fontpaths**

```
4789856 4798658 4762506
```

- **114282-01 – CDE 1.5: libDtWidget patch**

4776648

- **114312-01 – CDE1.5: GNOME/CDE Menu for Solaris 9**

4748729

- **114321-01 – SunOS 5.9: Patch Manager Localization message patch**

4795479

- **114325-01 – SunOS 5.9: psvcobj Patch**

4658782

- **114326-02 – SunOS 5.9: /usr/lib/dcs Patch**

4683247 4775925

- **114329-01 – SunOS 5.9: /usr/bin/pax Patch**

4766460

- **114331-01 – SunOS 5.9: power Patch**

4776968 4785495

- **114332-02 – SunOS 5.9: c2audit & *libbsm.so.1 Patch**

4457028 4499864 4712958 4761401

- **114335-01 – SunOS 5.9: usr/sbin/rmmount Patch**

4705226

- **114338-01 – SunOS 5.9: todm5819 Patch**

4721451

- **114339-01 – SunOS 5.9: wrsm header files Patch**

4619267 4661424 4694445 4738280

- **114340-01 – SunOS 5.9: SUNW_filesys_rcm.so Patch**

4655205

- **114344-01 – SunOS 5.9: kernel/drv/arp Patch**

4777791

- **114347-01 – SunOS 5.9: etc/init.d/efcode Patch**

4788809

- **114349-01 – SunOS 5.9: sbin/dhcpagent Patch**

4721209

- **114352-03 – SunOS 5.9: /etc/inet/inetd.conf Patch**

4761190

- **114356-01 – SunOS 5.9: /usr/bin/ssh Patch**

4685658

- **114359-01 – SunOS 5.9: mc-us3 Patch**

```
4697555
```

- **114360-01 – SunOS 5.9: platform/sun4u/cprboot Patch**

```
4634031
```

- **114361-01 – SunOS 5.9: /kernel/drv/lofi Patch**

```
4302817 4331110 4335489 4342447 4348291 4361731 4389001 4446576 4477843 4505225 4526709
4628272 4649233
```

- **114363-01 – SunOS 5.9: sort Patch**

```
4725245
```

- **114368-01 – SunOS 5.9: luxadm patch**

```
4334693 4622990 4716238
```

- **114369-01 – SunOS 5.9: prtvtoc patch**

```
4334693 4622990 4716238
```

- **114370-01 – SunOS 5.9: libumem.so.1 patch**

```
4518988 4694626 4709984
```

- **114371-01 – SunOS 5.9: UMEM - libumem (mdb components) patch**

```
4518988 4694626 4709984
```

- **114372-01 – SunOS 5.9: UMEM - llib-lumem patch**

```
4518988 4694626 4709984
```

- **114373-01 – SunOS 5.9: UMEM - abi_libumem.so.1 patch**

```
4518988 4694626 4709984
```

- **114374-01 – SunOS 5.9: Perl patch**

```
4675538 4724626 4768924
```

- **114375-02 – SunOS 5.9: Enchilada/Stiletto - PICL & FRUID**

```
4490112 4510864 4599397 4679229 4692005 4692053 4710160 4710161 4713409 4726041 4733895
4733898 4760403 4776134
```

- **114376-02 – SunOS 5.9: Enchilada/Stiletto - platform links**

```
4713409 4726041 4780672
```

- **114377-03 – SunOS 5.9: Enchilada/Stiletto - BSC comms support**

```
4713409 4764078 4781113 4819633
```

- **114378-02 – SunOS 5.9: Enchilada/Stiletto TOD driver**

```
4713409 4781113 4819633
```

- **114379-01 – SunOS 5.9: Enchilada/Stiletto - libprtdiag support**

```
4713409 4726041
```

- **114380-01 – SunOS 5.9: Enchilada/Stiletto - rmc_comm/rmcadm/rmclomv/librsc support**

```
4726041
```

- **114381-03 – SunOS 5.9: rmc_comm/rmcadm/rmclomv/librsc patch**

```
4726041 4733895 4762548 4775419 4781113 4819633
```

- **114382-01 – SunOS 5.9: Enchilada/Stiletto - bge driver**

```
4726041
```

- **114383-02 – SunOS 5.9: Enchilada/Stiletto - pca9556 driver**

```
4726041 4781113 4819633
```

- **114384-02 – SunOS 5.9: Enchilada/Stiletto - mc-us3i driver**

```
4726041 4781113 4819633
```

- **114385-02 – SunOS 5.9: Enchilada/Stiletto - pmugpio pmubus driver**

```
4726041 4781113 4819633
```

- **114386-02 – SunOS 5.9: todm5819p_rmc driver patch**

```
4726041 4781113 4819633
```

- **114387-02 – SunOS 5.9: Enchilada/Stiletto - scadm support**

```
4448914 4726041 4733895
```

- **114388-01 – SunOS 5.9: dmfe driver patch**

```
4463714 4498135 4643212 4646439
```

- **114389-01 – SunOS 5.9: devinfo doesn't work on disks with EFI labels**

```
4745581
```

- **114390-01 – SunOS 5.9: Slot 1 DR - GPTWOCFG patch**

```
4779758
```

- **114391-01 – SunOS 5.9: Slot 1 DR - Efcode Patch**

```
4659144 4779758
```

- **114392-01 – SunOS 5.9: Slot 1 DR - Efcode Patch**

```
4682824 4779758
```

- **114393-02 – SunOS 5.9: cpc Patch**

```
4819633
```

- **114394-02 – SunOS 5.9: trapstat Patch**

```
4819633
```

- **114395-03 – SunOS 5.9:**

```
4819633
```

- **114418-02 – SunOS 5.9: cpr patch**

```
4807341 4819633
```

- **114470-02 – SunOS 5.9: XVR-4000 Graphics Patch**

```
4796037 4797704 4796973 4799777 4792452 4801660 4800526 4812003 4802530 4804995 4808067
4796917
```

- **114473-03 – SunOS 5.9: Introduction Fujitsu SPARC64-V platforms patch**
- **114482-02 – SunOS 5.9: flarcreate Patch**

```
4385866 4391400 4655075 4753030 4767378 4767678 4768717 4801439
```

- **114495-01 – CDE 1.5: dtprintinfo patch**

```
4788209
```

- **114497-01 – CDE 1.5: dtsession patch**

```
4788212
```

- **114501-01 – SunOS 5.9: drmproviders.jar Patch**

```
4712814
```

- **114503-03 – SunOS 5.9: usr/sadm/lib/usermgr/VUserMgr.jar Patch**

```
4762502 4803524
```

- **114507-01 – SunOS 5.9: date problems in he_IL.UTF-8 locale**

```
4791206
```

- **114509-01 – SunOS 5.9: cs_CZ Locale not usable**

```
4793388
```

- **114510-01 – SunOS 5.9: Introduction Fujitsu SPARC64-V platforms patch**
- **114513-02 – SunOS 5.9: patch for Japanese and English X man pages**

```
4811454 4797892 4801395
```

- **114516-01 – SunOS 5.9: patch for English sdtudctool man pages for S9UR3**

```
4808428
```

- **114520-04 – SunOS 5.9: SPECIAL PATCH: For postinstall script**

```
4786712 4809906
```

- **114561-01 – X11 6.6.1: X splash screen patch**

```
4807285
```

- **114607-01 – SunOS 5.8: SPECIAL PATCH: pkginfo replacement scripts (S9U3)**
- **114636-02 – SunOS 5.9: KCMS security fix**

```
4661008 4774256
```

- **114711-01 – SunOS 5.9: usr/sadm/lib/diskmgr/VDiskMgr.jar Patch**

```
4818306
```

## x 86 Patch List

- **111713-01 – Shared library patch for C++ _x86**

```
4302954 4698028 4699194 4704604 4708982 4745600 4747931 4749398 4749628 4750936 4756106
```

- **111728-01 – SunOS 5.9_x86: Math Library (libm) patch**

```
4810765
```

- **112234-05 – SunOS 5.9_x86: Kernel Patch**

```
4201022 4254013 4491038 4533712 4627620 4640282 4640982 4653044 4664740 4676535 4698684
4708822 4711013 4714688 4735093 4742711 4748411 4757311 4714062 4786613
```

- **112662-02 – SunOS 5.9_x86: IIIM and X Input & Output Method patch**

```
4593130 4412147 4726723 4629783 4721656 4721661 4742096 4691874 4650804 4774826 4772485
4777933 4776987
```

- **112786-04 – X11 6.6.1_x86: Xsun patch**

```
4760672 4734353 4707069 4709009 4762797 4740125 4732113 4676222 4753720 4736505 4780894
4633549 4798375 4742744
```

- **113099-01 – X11 6.6.1_x86: X RENDER extension patch**

```
4749332 4770510
```

- **113241-03 – CDE 1.5_x86: dtsession patch**

```
4701185 4743546 4763733
```

- **113245-01 – CDE 1.5_x86: dtwm patch**

```
4743546
```

- **113375-01 – X11 6.6.1_x86: xpr patch**

```
4704388
```

- **113404-02 – SunOS 5.9_x86: Tamil/Kannada/Gujarati/Bengali support**

```
4769446 4752426 4767689 4767747
```

- **113406-02 – SunOS 5.9_x86: sync with 4751190 for th_TH.UTF-8 locales**

```
4751190
```

- **113408-02 – SunOS 5.9_x86: Added Five stroke input method support in S9U3**

```
4741018 4783961 4749970 4749975
```

- **113542-01 – X11 6.6.1_x86: XKB patch**

```
4633549
```

- **113590-01 – SunOS 5.9_x86: JFP manpages patch**

```
4808428 4809083 4695070 4742031 4688476 4710452 4717366
```

- **113719-02 – SunOS 5.9_x86: libnsl & rpc.nispasswdd Patch**

```
4710928 4727726
```

- **113763-02 – X11 6.6.1_x86: xdm patch**

```
4748474 4707057 4707069 4721898 4740125
```

- **113765-02 – X11 6.6.1_x86: keyboard patch**

```
4716868 4237479 4633549
```

- **113790-01 – CDE 1.5_x86: dtexec patch**

```
4759425
```

- **113797-02 – CDE 1.5_x86: Tooltalk feature patch**

```
4722127 4741187 4744289 4784893
```

- **113832-02 – SunOS 5.9_x86: Estonian decimal point character incorrect**

```
4733239
```

- **113838-01 – CDE 1.5_x86: libDtSvc feature patch**

```
4720526
```

- **113840-01 – CDE 1.5_x86: sdtwsinfo feature patch**

```
4729180 4773801
```

- **113842-01 – CDE 1.5_x86: answerbook feature patch**

```
4729199
```

- **113846-01 – CDE 1.5_x86: sdtjmplay feature patch**

```
4731319
```

- **113862-01 – CDE 1.5_x86: dtksh feature patch**

```
4729959
```

- **113864-01 – CDE 1.5_x86: dtconfig feature patch**

```
4732757
```

- **113867-05 – Motif 1.2.7_x86 and 2.1.1_x86: Runtime library patch for Solaris 9**

```
4741124 4757112 4743372 4712265 4750419 4764309 4787387
```

- **113869-01 – CDE 1.5_x86: PDASync patch**

```
4653758 4705576 4642465
```

- **113870-03 – CDE 1.5_x86: dtmail patch**

```
4715670 4786715 4714769 4715322
```

- **113897-01 – SunOS 5.9_x86: en_US.UTF-8 locale patch**

```
4746498 4749928 4633291 4758189 4761039 4753468 4757704 4765728 4765666 4751190 4751699
4767922 4768220
```

- **113903-03 – SunOS 5.9_x86: Asian UTF-8 iconv modules enhancement**

```
4702278 4750690 4772950
```

- **113905-02 – SunOS 5.9_x86: 7 indic scripts support in Asian UTF-8 locales**

```
4768804 4752112 4752144 4790423
```

- **113907-01 – SunOS 5.9_x86: Fixed some functional problems in Chinese locales**

```
4731208 4677334
```

- **113910-01 – SunOS 5.9_x86: Thai font enhancement**

```
4747781
```

- **113924-02 – X11 6.6.1_x86: security font server patch**

```
4764193
```

- **113966-02 – SunOS 5.9_x86: OS Localization message patch**

```
4736248 4775204 4767999 4809660
```

- **113968-02 – SunOS 5.9_x86: Volume Management Localization message patch**

```
4775188 4804590
```

- **113969-01 – SunOS 5.9_x86: uxlibc Localization message patch**

```
4760256
```

- **113970-01 – SunOS 5.9_x86: DHCP Manager Localization message patch**

```
4733194
```

- **113974-01 – SunOS 5.9_x86: adb Patch**

```
4664740
```

- **113979-01 – SunOS 5.9_x86: syseventconfd Patch**

```
4737409 4745393
```

- **113986-01 – SunOS 5.9_x86: linker Patch**

```
4730433 4739660 4743413 4744337 4745932 4746231 4754751 4755674 4772927 4774727
```

- **113987-03 – SunOS 5.9_x86: nfs Patch**

```
4044295 4465488 4664740 4680195 4725574 4816496
```

- **113988-04 – SunOS 5.9_x86: libc Patch**

```
4221365 4254013 4518988 4530367 4533712 4669963 4694626 4709984 4749274 4767215
```

- **113990-02 – SunOS 5.9_x86: gl_kmech_krb5 Patch**

```
4526202 4630574 4727224 4743181 4744280
```

- **113991-01 – SunOS 5.9_x86: sar & sadc Patch**

```
4627454 4723484
```

- **113992-04 – SunOS 5.9_x86: ip Patch**

```
4660167 4662866 4688392 4688398 4688704 4694560 4749268 4763402 4784039
```

- **113994-04 – SunOS 5.9_x86: md_sp Patch**

```
4373671 4462054 4508010 4631270 4632281 4634737 4648067 4655532 4666299 4668224 4668960
4669927 4678627 4680610 4690701 4690983 4698878 4701093 4705486 4705513 4710390 4711969
```

```
4714648 4714923 4715369 4715443 4720138 4723547 4725693 4733518 4740375 4774716 4780601
4802281 4814438
```

- **113995-01 – SunOS 5.9_x86: doorfs Patch**

```
4699850
```

- **113996-01 – SunOS 5.9_x86: utmp_update Patch**

```
4705891
```

- **113998-01 – SunOS 5.9_x86: mkfs Patch**

```
4721124
```

- **113999-02 – SunOS 5.9_x86: devfsadm Patch**

```
4334693 4517655 4622990 4703964 4716238 4734853
```

- **114002-01 – SunOS 5.9_x86: awk & sed Patch**

```
4435976 4737594
```

- **114005-01 – SunOS 5.9_x86: sed Patch**

```
4727485
```

- **114007-01 – SunOS 5.9_x86: tftp Patch**

```
4656587
```

- **114009-01 – SunOS 5.9_x86: cachefsd Patch**

```
1250956 4110712 4230685 4338920 4467621 4507274 4616030 4698882 4698886 4740460
```

- **114011-01 – SunOS 5.9_x86: m4 Patch**

```
4174383
```

- **114012-01 – SunOS 5.9_x86: sockfs Patch**

```
4640282
```

- **114015-01 – SunOS 5.9_x86: libxml patch**

```
4665029 4668974 4702333
```

- **114017-01 – SunOS 5.9_x86: tomcat security patch**

```
4759554
```

- **114021-01 – SunOS 5.9_x86: Synching Euro UTF-8s to include Indic scripts**

```
4773318
```

- **114034-02 – 5.9_x86: Fixing hebrew/arabic dtlogin/input method problems**

```
4755447 4770382 4791206
```

- **114038-01 – SunOS 5.9_x86: patch for supporting indic script**

```
4774476
```

- **114040-01 – SunOS 5.9_x86: Bug fix for dtpad column in Euro UTF-8 locales**

```
4773166
```

- **114124-05 – SunOS 5.9: SPECIAL PATCH: For EDITABLE files**

```
4712441 4805954
```

- **114134-01 – SunOS 5.9_x86: mail Patch**

```
4705717
```

- **114136-01 – SunOS 5.9_x86: at utility Patch**

```
4776480
```

- **114137-02 – SunOS 5.9_x86: sendmail Patch**

```
4697068 4706596 4706608 4706632 4706660 4728227 4737586 4756570 4798135 4808977 4809539
```

- **114145-01 – SunOS 5.9_x86: Apache Security Patch**

```
4737442 4759882 4768221
```

- **114166-01 – CDE 1.5_x86: SUNWsregu Localization message patch**

```
4762680
```

- **114185-01 – CDE 1.5_x86: rpc.cmsd patch**

```
4687131
```

- **114191-02 – SunOS 5.9_x86: sysidnet Utility Patch**

```
4519228 4678406 4683519 4698391 4698500 4704974 4711830 4719195 4759857 4787789
```

- **114192-04 – SunOS 5.9_x86: Volume Management Patch**

```
4429002 4478237 4508734 4516578 4576802 4632847 4637525 4645142 4648750 4656914 4656931
4660125 4664713 4696741 4704081 4715667 4730706 4739995 4764186 4773530 4791015
```

- **114193-07 – SunOS 5.9_x86: wbem Patch**

```
4486297 4496120 4626762 4639638 4641801 4641818 4641851 4643267 4644880 4645051 4645080
4645105 4645146 4645315 4645581 4645811 4647508 4648811 4649058 4654765 4655882 4656941
4658145 4674537 4682188 4686244 4696284 4699585 4700539 4701067 4720857 4739720 4742164
4742960 4754758 4759233 4766098 4766971 4768461 4769053 4769612 4769791 4769795 4769860
4769889 4770013 4770017 4770024 4770027 4771207 4771466 4771469 4771476 4773485 4781761
4786712 4786891 4792126 4795642 4809906 4813116
```

- **114194-01 – SunOS 5.9_x86: patchadd and patchrm Patch**

```
4421583 4529289 4623249 4625879 4639323 4678605 4706994 4723617 4725419 4728892 4731056
4737767 4744964 4750803 4759158
```

- **114196-05 – SunOS 5.9_x86: /usr/snadm/lib Library and Differential Flash Patch**

```
4385866 4391400 4501772 4642585 4655075 4660835 4707022 4723051 4724529 4734649 4744624
4750446 4753030 4759768 4760694 4761562 4761681 4763919 4767378 4767678 4768717 4793554
4812304
```

- **114199-01 – SunOS 5.9_x86: smcpreconfig.sh Patch**

```
4704611
```

- **114200-01 – SunOS 5.9_x86: solregis Patch**

```
4762680
```

- **114201-01 – SunOS 5.9_x86: Gnome Integration Patch**

```
4752366 4770721
```

- **114210-03 – CDE 1.5_x86: dtlogin patch**

```
4750889 4761698 4807292 4720523
```

- **114212-01 – SunOS 5.9_x86: WBEM Localization message patch**

```
4786427 4767999
```

- **114216-02 – SunOS 5.9_x86: Install/admin Localization message patch**

```
4788175 4804609
```

- **114218-01 – SunOS 5.9_x86: Install/admin Localization message patch**

```
4788175
```

- **114220-02 – CDE 1.5_x86: sdtimage patch**

```
4746059 4728421
```

- **114222-02 – SunOS 5.9_x86: UR bug fixes**

```
4791189 4789202
```

- **114225-01 – SunOS 5.9_x86: csh Patch**

```
4479584
```

- **114228-01 – SunOS 5.9_x86: yacc Patch**

```
4735960
```

- **114230-01 – SunOS 5.9_x86: action_filemgr.so.1 Patch**

```
4714071
```

- **114232-01 – SunOS 5.9_x86: rpcmod Patch**

```
4662762
```

- **114234-01 – SunOS 5.9_x86: rsm Patch**

```
4679690 4700142 4728023 4754589
```

- **114236-01 – SunOS 5.9_x86: libsendfile.so.1 Patch**

```
4640982 4711013
```

- **114237-01 – SunOS 5.9_x86: libaio Patch**

```
4636591
```

- **114238-01 – SunOS 5.9_x86: dhcpmgr.jar Patch**

```
4731988
```

- **114240-01 – SunOS 5.9_x86: cachefs Patch**

```
4368576
```

- **114241-02 – SunOS 5.9_x86: libsldap.so.1 Patch**

4624458 4720818 4723361 4776571

- **114242-01 – SunOS 5.9_x86: passwdutil.so.1 & pam_authtok Patch**

4743707 4747441 4751394 4754634

- **114243-01 – SunOS 5.9_x86: st driver Patch**

4027074 4336105 4412239 4728530 4734019 4734033

- **114245-01 – SunOS 5.9_x86:some characters can't be shown in GBK and GB18030 locale**

4771032

- **114275-02 – SunOS 5.9_x86: Add missing entries to UTF-8 fontpaths**

4789856 4798658 4762506

- **114283-01 – CDE 1.5_x86: libDtWidget patch**

4776648

- **114313-01 – CDE1.5_x86: GNOME/CDE Menu for Solaris 9_x86**

4748729

- **114322-01 – SunOS 5.9_x86: Patch Manager Localization message patch**

4795479

- **114324-03 – SunOS 5.9_x86: pcplusmp Patch**

4503704 4677371 4761647 4807473

- **114328-01 – SunOS 5.9_x86: nss_ldap.so.1 Patch**

4751386

- **114330-01 – SunOS 5.9_x86: pax Patch**

4766460

- **114334-02 – SunOS 5.9_x86: c2audit & *libbsm.so.1 Patch**

4457028 4499864 4712958 4761401

- **114336-01 – SunOS 5.9_x86: usr/sbin/rmmount patch**

4705226

- **114337-01 – SunOS 5.9_x86: kernel/drv/tcp patch**

4687850

- **114341-01 – SunOS 5.9_x86: usr/lib/rcm/modules/SUNW_filesys_rcm.so patch**

4655205

- **114342-01 – SunOS 5.9_x86: usr/lib/netsvc/yp/rpc.yppasswdd patch**

4283355

- **114343-01 – SunOS 5.9_x86: ksh patch**

4750637

- **114345-01 – SunOS 5.9_x86: kernel/drv/arp patch**

```
4777791
```

- **114348-02 – SunOS 5.9_x86: /usr/sbin/in.routed patch**

```
4639729 4673190 4699047 4705755 4726444 4728056 4728423
```

- **114350-01 – SunOS 5.9_x86: sbin/dhcpagent patch**

```
4721209
```

- **114353-03 – SunOS 5.9_x86: /etc/inet/inetd.conf Patch**

```
4761190
```

- **114354-01 – SunOS 5.9_x86: libresolv patch**

```
4700305 4777715
```

- **114355-01 – SunOS 5.9_x86: sort patch**

```
4725245
```

- **114357-01 – SunOS 5.9_x86: usr/bin/ssh patch**

```
4685658
```

- **114358-01 – SunOS 5.9_x86: usr/lib/snmp/snmpdx patch**

```
4691177
```

- **114362-01 – SunOS 5.9_x86: lofi patch**

```
4302817 4331110 4335489 4342447 4348291 4361731 4389001 4446576 4477843 4505225 4526709
4628272 4649233
```

- **114419-02 – SunOS 5.9_x86: Multiterabyte Disk Support - abi_libefi.so.1 patch**

```
4334693 4622990 4716238 4809406
```

- **114420-01 – SunOS 5.9_x86: multi-terabyte disk support - libuuid patch**

```
4334693 4622990 4716238
```

- **114421-01 – SunOS 5.9_x86: Multiterabyte Disk Support - libadm.so.1 patch**

```
4334693 4622990 4716238
```

- **114422-01 – SunOS 5.9_x86: Multiterabyte Disk Support - fmthard patch**

```
4334693 4622990 4716238
```

- **114423-04 – SunOS 5.9_x86: format patch**

```
4334693 4622990 4716238 4726667 4766161 4781880 4785642 4791416 4814438
```

- **114424-01 – SunOS 5.9_x86: Multiterabyte Disk Support - prtvtoc patch**

```
4334693 4622990 4716238
```

- **114425-01 – SunOS 5.9_x86: md_trans patch**

```
4373671 4462054 4714648 4715443 4720138
```

- **114426-01 – SunOS 5.9_x86: header files patch**

```
4373671 4462054 4714648 4715443 4720138
```

- **114427-01 – SunOS 5.9_x86: Umem - libumem.so.1 patch**

```
4518988 4694626 4709984
```

- **114428-01 – SunOS 5.9_x86: Umem - libumem patch**

```
4518988 4694626 4709984
```

- **114429-01 – SunOS 5.9_x86: Umem - llib-lumem patch**

```
4518988 4694626 4709984
```

- **114430-01 – SunOS 5.9_x86: Umem - abi-libumeme.so.1**

```
4518988 4694626 4709984
```

- **114431-01 – SunOS 5.9_x86: Multiterabyte Disk Support - sd & ssd patch**

```
4334693 4622990 4716238
```

- **114432-02 – SunOS 5.9_x86: stack overflow - libthread.so.1 patch**

```
4254013 4533712 4795308
```

- **114433-01 – SunOS 5.9_x86: stack overflow - truss patch**

```
4254013 4533712
```

- **114434-01 – SunOS 5.9_x86: stack overflow - procfs patch**

```
4254013 4533712
```

- **114435-01 – SunOS 5.9_x86: ke hardware - libike patch**

```
4666686 4673333 4687237 4704460 4739746 4745493 4745709
```

- **114436-01 – SunOS 5.9_x86: ike hardware - config.sample patch**

```
4666686 4673333 4687237 4704460 4739746 4745493 4745709
```

- **114437-02 – SunOS 5.9_x86: 6to4 router - usr/sbin/6to4relay patch**

```
4660167 4688392 4688398 4688704 4694560 4804064
```

- **114438-01 – SunOS 5.9_x86: 6to4 router - tun patch**

```
4660167 4688392 4688398 4688704 4694560
```

- **114439-01 – SunOS 5.9_x86: Perl patch**

```
4675538 4724626 4768924
```

- **114440-01 – SunOS 5.9_x86: devinfo Patch**

```
4745581
```

- **114441-01 – SunOS 5.9_x86: Slot 1 DR - Hotplug**

```
4659144 4779758
```

- **114442-01 – SunOS 5.9_x86: 6to4 router - ifconfig patch**

```
4660167 4688392 4688398 4688704 4694560
```

- **114483-02 – SunOS 5.9_x86: flarcreate Patch**

```
4385866 4391400 4655075 4753030 4767378 4767678 4768717 4801439
```

- **114496-01 – CDE 1.5_x86: dtprintinfo patch**

```
4788209
```

- **114498-01 – CDE 1.5_x86: dtsession patch**

```
4788212
```

- **114502-01 – SunOS 5.9_x86: drmproviders.jar Patch**

```
4712814
```

- **114504-03 – SunOS 5.9_x86: usr/sadm/lib/usermgr/VUserMgr.jar Patch**

```
4762502 4803524
```

- **114514-02 – SunOS 5.9_x86: patch for Japanese and English X man pages**

```
4811454 4797892 4801395
```

- **114517-01 – SunOS 5.9_x86: patch for English sdtudctool man pages for S9UR3**

```
4808428
```

- **114521-04 – SunOS 5.9_x86: SPECIAL PATCH: For postinstall script**

```
4786712 4809906
```

- **114562-01 – X11 6.6.1_x86: X splash screen patch**

```
4807285
```

- **114563-01 – SunOS 5.9_x86: ufs patch**

```
4490164
```

- **114568-01 – SunOS 5.9_x86: usr/sadm/install/bin/pkginstall Patch**

```
4786593
```

- **114637-02 – SunOS 5.9_x86: KCMS security fix**

```
4661008 4774256
```

- **114712-01 – SunOS 5.9_x86: usr/sadm/lib/diskmgr/VDiskMgr.jar Patch**

```
4818306
```