



SunVTS 5.1 Patch Set 9 Release Notes

Sun Microsystems, Inc.
www.sun.com

Part No. 819-1896-10
March 2005 Revision A

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SunVTS 5.1 Patch Set 9 Release Notes

SunVTS 5.1 Patch Set 9 New Features and Known Issues

The following new features and known issues apply to the SunVTS™ 5.1 PS9 product.

New Features and Tests for This Release

The SunVTS 5.1 PS9 software is compatible with the Solaris 8 2/02, Solaris 8 HW 12/02, Solaris 8 HW 5/03, Solaris 8 HW 7/03, Solaris 8 2/04, Solaris 9, Solaris 9 9/02, Solaris 9 12/02, Solaris 9 4/03, Solaris 9 8/03, Solaris 9 12/03, Solaris 9 4/04, and Solaris 9 9/04 operating systems.

The following new test was added in this release:

- Graphics Frame Buffer Test (`graphicstest`) is a new test.

In a future release of SunVTS, some of the existing SunVTS diagnostics might be consolidated into a single test binary. The existing test binaries for such consolidated tests will be removed and a new consolidated binary will be delivered. The likely candidates for consolidation include the following:

Optical media tests: `cdtest`, `dvdtest`, `cddvdrwtest`

USB port tests: `usbaudiotest`, `usbkbttest`, `usbppptest`

Serial port tests: `sptest`, `sutest`

Parallel port tests: `bpptest`, `ecpptest`

The following tests will be discontinued in the next major release of SunVTS:

- Advanced Frame Buffer Test (`afbtest`)
- Alarm Card Test for Netra CT Systems (`alarm2test`)
- Alarm Card Test (`alarmtest`)
- Color Graphics Frame Buffer Test (`cg14test`)
- Frame Buffer, GX, GXplus, and TurboGX Options Test (`cg6test`)
- Sun StorEdge A5x00 Test (`enatest`)
- Sun StorEdge 1000 Enclosure Test (`enctest`)
- Environmental Test (`env4test`)
- Frame Buffer Test (`fbtest`)
- Fast Frame Buffer Test (`ffbtest`)
- Graphics Frame Buffer Test (`gfbtest`)
- PGX32 Frame Buffer Test (`gfxtest`)
- Sun Enterprise Cluster 2.0 Network Hardware Test (`scitest`)
- Environmental Sensing Card Test (`sentest`)
- Soc+ Host Adapter Card Test (`socaltest`)
- Sun Fire Link Interconnect Test (`wrsmtest`)
- Sun™ XVR-4000 Graphics Accelerator Test (`zulutest`)

Note – The SunPCi™ II Test (`sunpci2test`) tests both the SunPCi II and SunPCi III cards in SunVTS 5.1 PS2.

Note – All new features, tests, and test enhancements that are released in SunVTS 5.1 PS9 are documented in the *SunVTS 5.1 Patch Set 9 Documentation Supplement* (819-1895-10) available at: <http://www.sun.com/products-n-solutions/hardware/docs/Software/Diagnostics/index.html>

Refer to the *SunVTS 5.1 Patch Set 9 Documentation Supplement* for details about the new features and tests offered in this release.

Note – The name of the Remote System Control test (`rsctest`) has been changed to System Service Processor test (`ssptest`) in SunVTS 5.1 PS1. The reason for this change is that `ssptest` tests the Advanced Lights-Out Management (ALOM) hardware in addition to both Remote System Control 1.0 and 2.0 hardware.

Online Help Documentation

The online help documentation available with the SunVTS 5.1 software includes a chapter describing the RAM test (`ramtest`). This test is supported only in SunVTS 5.1 Patch Set 4 (PS4) onward.

SunVTS 5.1 Test Reference Manual Errata

This section lists corrections to errors in the Supported Test Modes tables of the following test chapters in the SunVTS 5.1 Test Reference Manual:

- Compact Disk Test (`cdtest`)
 - Online test mode is supported in SunVTS 5.1.
- CPU Test (`cputest`)
 - Online test mode is supported in SunVTS 5.1.
- Disk and Floppy Drives Test (`disktest`)
 - Online test mode is supported in SunVTS 5.1.
- DVD Test (`dvdtest`)
 - Online test mode is supported in SunVTS 5.1.
- ECP 1284 Parallel Port Printer Test (`ecpptest`)
 - Online test mode is not supported in SunVTS 5.1.
- Sun StorEdge A5x00 Test (`enatest`)
 - Functional and Online test modes are supported in SunVTS 5.1.
- Sun StorEdge 1000 Enclosure Test (`enctest`)
 - Online test mode is supported in SunVTS 5.1.
- Environmental Test (`env2test`)
 - Online and Exclusive test modes are not supported in SunVTS 5.1.
- Environmental Test (`env4test`)
 - Connection test mode is supported in SunVTS 5.1
- Floating Point Unit Test (`fputest`)
 - Online and Exclusive test modes are supported in SunVTS 5.1.
- Cache Consistency Test (`mpconstest`)
 - Only Exclusive test mode is supported in SunVTS 5.1.
- Multiprocessor Test (`mpptest`)
 - Only Exclusive test mode is supported in SunVTS 5.1.

- Qlogic 2202 Board Test (`qlctest`)
Only Exclusive and Connection test modes are supported in SunVTS 5.1.
- Serial Ports Test (`sptest`)
Online test mode is not supported in SunVTS 5.1.
- System Service Processor Test (`ssptest`)
Exclusive test mode is supported in SunVTS 5.1.
Functional test mode is not supported in SunVTS 5.1
- SunHSI Board Test (`sunlink`)
Online test mode is not supported in SunVTS 5.1.
- System Test (`systest`)
Connection test mode is not supported in SunVTS 5.1.
- Tape Drive Test (`tapetest`)
Online test mode is not supported in SunVTS 5.1.
- S24 Frame Buffer Test (`tcxtest`)
Connection test mode is supported in SunVTS 5.1.

SunVTS 5.1 User's Guide Errata

In Appendix A, SunVTS Window and Dialog Box Reference, Table A-11 indicates the incorrect default value of 0 (zero) for the Max Errors field of the example `systest` Test Parameter Options dialog box in Figure A-11. The correct default value of the Max Errors field of the `systest` Test Parameter Options dialog box is 1 (one) as indicated in Figure A-11.

Also in Appendix A, Table A-13 indicates the incorrect default value of 0 (zero) for the Max System Errors field of the example `systest` Threshold Options dialog box in Figure A-13. The correct default value of the Max System Errors field of the `systest` Threshold Options dialog box is 1 (one) as indicated in Figure A-13.

Possible Installation Issues

You might encounter an installation problem when you attempt to install SunVTS with an installation program other than the `pkgadd` command as described in the following subsections.

If SunVTS 5.1 software is installed in the default /opt directory, you cannot install a subsequent SunVTS 5.1 Patch Set release in a different directory on the same system. When this duplicate installation is attempted with pkgadd, the following error message occurs:

```
pkgadd: ERROR: SUNWvts is already installed at /opt. Cannot create
a duplicate installation.
```

The reason for this error is that the base package revision is the same for both SunVTS 5.1 and any subsequent SunVTS 5.1 Patch Set release. When a SunVTS 5.1 Patch Set release is installed in the default /opt directory which already has SunVTS 5.1 software installed, the installation completes successfully with the following warning message:

```
This appears to be an attempt to install the same architecture and
version of a package which is already installed. This
installation will attempt to overwrite this package.
```

Installation Package Dependency Issue for Solaris 8 (RFE ID 4823716)

From SunVTS 5.1, the SunVTS software depends on XML packages that are not included with the Solaris 8 2/02 distribution. For Solaris 9, all of the prerequisite packages are installed with the End User Solaris Software Group as a minimum.

Note – The additional XML packages are available on the Solaris 8 HW 12/02 through Solaris 8 2/04 Software Supplement CD-ROMs and not on the Solaris 8 2/02 Software Supplement CD-ROM. Although SunVTS 5.1 installation is supported on Solaris 8 2/02, the XML packages are not included in the Solaris 8 2/02 distribution.

You may install SunVTS 5.1 on Solaris 8 2/02, Solaris 8 HW 12/02, Solaris 8 HW 5/03, Solaris 8 HW 7/03, or Solaris 8 2/04. If you choose to install SunVTS 5.1 or later on any of these releases, you must separately install the required XML packages (SUNW1xml[32-bit] and SUNW1xmlx[64-bit]) from either the Solaris 8 HW 12/02, Solaris 8 HW 5/03, Solaris 8 HW 7/03, or Solaris 8 2/04 Software Supplement CD-ROM.

Note – SunVTS 4.6, which is delivered on the Solaris 8 2/02 Software Supplement CD-ROM, does not have the XML packages dependency and is supported on Solaris 8 2/02. SunVTS 5.1 is also supported on Solaris 8 2/02 if the XML packages are installed from the Solaris 8 HW 12/02 through Solaris 8 2/04 Software Supplement CD-ROM.

For Solaris 8 releases:

1. Install the minimum End User Solaris Software Group.
2. Install the XML packages `SUNWlxml(32 bit)` and `SUNWlxmlx(64 bit)` from either the Solaris 8 HW 12/02, Solaris 8 HW 5/03, Solaris 8 HW 7/03, or Solaris 8 2/04 Software Supplement CD-ROM.

Note – These XML packages are not available in the Solaris 8 2/02 distribution.

3. Install `SUNWzlib(32 bit)` and `SUNWzlibx(64 bit)` packages from the Entire Solaris Software Group from either the Solaris 8 2/02, Solaris 8 HW 12/02, Solaris 8 HW 5/03, Solaris 8 HW 7/03, or Solaris 8 2/04 Software CD-ROM.

Note – The XML packages depend on the `SUNWzlib(32 bit)` and `SUNWzlibx(64 bit)` packages which are not part of the End User Solaris Software Group for Solaris 8 2/02, Solaris 8 HW 12/02, Solaris 8 HW 5/03, Solaris 8 HW 7/03, or Solaris 8 2/04.

4. Install the optional `SUNWcpc(x)/SUNWcpcu(x)` packages only if you want to enable displaying certain performance counters for certain CPU and memory tests. Otherwise, these packages need not be installed.

The `SUNWcpc(x)/SUNWcpcu(x)` packages are included in the Entire Solaris Software Group for Solaris 8 2/02, Solaris 8 HW 12/02, Solaris 8 HW 5/03, Solaris 8 HW 7/03, and Solaris 8 2/04. These packages are not included in the End User Solaris Software Group for Solaris 8 2/02, Solaris 8 HW 12/02, Solaris 8 HW 5/03, Solaris 8 HW 7/03, nor Solaris 8 2/04.

To install SunVTS for Solaris 9 and later releases:

1. Install the End User Solaris Software Group (or any software group).
The XML packages (`SUNWlxml[32-bit]` and `SUNWlxmlx[64-bit]`) and the `SUNWzlib` packages (`SUNWzlib[32 bit]` and `SUNWzlibx[64 bit]`) are part of the End User Solaris Software Group (and Entire Solaris Software Groups) for Solaris 9 releases.
2. Install the optional `SUNWcpc(x)/SUNWcpcu(x)` packages only if you want to enable displaying certain performance counters for certain CPU and memory tests. Otherwise, these packages need not be installed.

The SUNWcpc(x)/SUNWcpcu(x) packages are part of the Entire Solaris Software Group and not the End User Solaris Software Group.

Installation Issue: Security and Web Start 2.0 (Bug ID 4362563)

When you install SunVTS using Web Start 2.0, you are not prompted to enable the Sun Enterprise Authentication Mechanism™ (SEAM) Kerberos v5, SunVTS security feature. The installation defaults in a way that installs SunVTS without this high level of security. If you do not want the high-level security, there is no problem.

Workaround: To enable the high-level SEAM security, use the `pkgadd` command to install SunVTS packages as described in the *SunVTS 5.1 User's Guide*.

Installation Recommendation: Install and Uninstall Using the Same Program

Use the same tool or utility for installation and removal of the SunVTS software. If you use `pkgadd` for installation, use `pkgrm` to uninstall; if you use Web Start for installation, use the Product Registry to uninstall.

Possible Runtime Issues

Using `cddvdtest` (Bug ID 4994898)

`fputest` could fail to test DVD+RW media. When `cddvdtest` is run on DVD+RW media, the test could cause media write failures. If this occurs, error messages similar to the following are displayed:

```
message: "FAILED at 0. on writing track 1"
```

Workaround: Replace the media with a blank copy.

Using `fputest` (Bug ID 4994898)

`fputest` does not appear on sun4m machines due to conflicting shared probe libraries.

Workaround: None.

Testing CPUs During Dynamic Reconfiguration (RFE ID 5109778)

If a CPU is taken offline for dynamic reconfiguration after SunVTS is invoked, the SunVTS kernel (`vt.sk`) receives out of date information about the online CPUs. This incorrect information causes the GUI to show "RED" and no message is printed. The run on error option (`-r`) does not work if this occurs.

Workaround: None.

SunVTS Does not Support Processor Sets

If processor sets are defined, you must first delete the processor sets before running SunVTS.

Workaround: None.

Using `fwcamtest` (Bug ID 5062974)

`fwcamtest` could hang with the following error message: "Termination of tests could be hung. Deselect tests to bring sunvts to an idle status." If `dcamtest` is deselected, all records regarding the test are removed. Display of the video does not go away after deselecting and quitting SunVTS. Black video output is seen from the video window.

Using `env5test` (Bug ID 5066195)

In rare occasions, `env5test` might hang when SunVTS is stopping. This causes SunVTS to not exit properly.

Workaround: There are two workarounds for this problem: 1.) From the SunVTS GUI, deselect the test by unchecking the box next to the test entry. 2.) Choose a fixed number of passes for `env5test` to run.

Adding Boards With Dynamic Reconfiguration (DR) to Sun Fire 15K Systems (Bug ID 4959606)

On Sun Fire 15K systems, adding new boards with DR might cause some of the processor and memory related tests to perform ineffectively. Specifically, `cmttest` might fail to recognize the CMT processors on the new board. Similar failures might also occur in `l2sramtest`, `l1dcachetest`, `dtlbttest`, `ramtest`, `bustest`, `mpetest`, and `fputest`.

Workaround: Reboot the system after adding a new board with DR.

`pfptest` Fails When Used in the GNOME Desktop Environment (Bug ID 4938281)

`pfptest` might fail when performed in the GNOME desktop environment on a Sun XVR-100 graphics accelerator if the test is performed in the default console window.

This failure does not occur in the Solaris 8 2/02 and Solaris 8 HW 3/03 operating environments. If this failure occurs, you see an error message similar to the following:

```
pfb3(pfptest)                passes: 26 errors: 12
```

Using `ecpptest` (Bug ID 4482992)

An `ecpp`/parallel port driver issue might cause `ecpptest` to fail. The failure rate is three out of 130 machines; the time to fail is about 10 hours.

Note – This driver issue exists only in Solaris 8 software.

Using `sutest` and `disktest` Simultaneously (Bug ID 4858028)

Sun Blade 100 and 150 systems with SunVTS can produce errors when the serial port controller (southbridge) is also handling other traffic as data access from and to the IDE hard disk. With SunVTS simultaneously running `sutest` and `disktest` on Sun Blade 100 and 150 systems, you might see `sutest` report failures.

Workaround: Do not perform `sutest` and `disktest` simultaneously.

Using `pkginfo -c sunvts` Command

The command `pkginfo -c sunvts` does not produce any output in SunVTS 5.1. This situation correctly implements the `-c` option of the `pkginfo` command.

Workaround: Use the following command to receive SunVTS 5.1 package information:

```
# pkginfo -l SUNWvts SUNWvtsx SUNWvtsmn
```

You can also use either of the following commands to receive additional SunVTS 5.1 package information:

```
# pkginfo | grep vts  
# showrev -p | grep vts
```

Using sutest (Bug ID 4750344)

Performing `sutest` on a port that is being used as console causes `sutest` to fail.

Workaround: Do not perform `sutest` on a port that is being used as a console.