SunVTS 6.0 Release Notes

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SunVTS 6.0 Release Notes

SunVTS 6.0 Open Issues

The following issues apply to the SunVTS™ 6.0 product.

Note – SunVTS 5.1 is not supported in the Solaris 10 Operating System.

New Features and Tests for This Release

The SunVTS 6.0 software is compatible with the Solaris 10 Operating System and future compatible releases. The following new features are added to the SunVTS 6.0 release.

x86 Solaris Support

Starting with Solaris 10, the SunVTS infrastructure and a few core diagnostics are available for x86 Solaris platforms. The current x86 support is for the 32-bit operating system only.

You must install the x86 version of the SunVTS packages to be able to perform SunVTS on x86 platforms. The software packages use the same names as in the SPARC environment. The SunVTS packages delivered separately for both x86 and SPARC Solaris platforms are as follows:

- `SUNWvts` – Contains the SunVTS core framework that includes the kernel and user interface.
- `SUNWvtsmn` – Contains the SunVTS online manual pages

- `SUNWvtsr` Contains the SunVTS framework configuration files in the root partition (Superuser).
- `SUNWvtsts` – Contains the SunVTS test binaries.

The SunVTS components available for x86 Solaris platforms are as follows.

Infrastructure:

- `sunvts`
- `vtsk`
- `vts_cmd`
- `vtstty`
- `vtsui`
- `vtsprobe`

Diagnostics:

- Optical Disk Drive Test (`cddvdtest`)
- CPU Test (`cputest`)
- Disk and Floppy Drives Test (`disktest`)
- Data Translation Look-aside Buffer Test (`dtlbtest`)
- Floating Point Unit Test (`fputest`)
- Ethernet Loopback Test (`netlbtest`)
- Network Hardware Test (`nettest`)
- Physical Memory Test (`pmemtest`)
- Serial Ports Test (`serialtest`)
- System Test (`systest`)
- USB Device Test (`usbtest`)
- Virtual Memory Test (`vmemtest`)

32- and 64-bit Support With x86 Platforms

Three SunVTS tests support 64-bit x86 Solaris for the AMD64 based Sun platforms. By default, these files are installed in the `/bin/64` directory under the base SunVTS install location.

The following tests support 64-bit architecture on x86 Solaris.

- `pmemtest` - Physical Memory Test
- `ramtest` - Memory DIMMs (RAM) Test
- `vmemtest` - Virtual Memory Test

Currently, SunVTS does not provide 64-bit infrastructure support for x86 Solaris. For 64-bit x86 support, these tests can be performed as standalone with the Command Line Interface (CLI) only. To view the command-line options use the `-u` (usage) option as follows:

- `./pmemtest -u`
- `./ramtest -u`

- `./vmemtest -u`

Refer to the `README.64` file for more information.

Test Consolidation

The test binaries for the following tests are replaced with a new consolidated binary.

- Optical Disk Drive Test (`cddvdtest`) consolidates the optical media tests: `cdtest`, `dvdtest`, `cddvdrwtest`
- USB Device Test (`usbtest`) consolidates the USB port tests: `usbaudiotest`, `usbkbtest`, `usbpppptest`
- Serial Ports Test (`serialtest`) consolidates the serial port tests: `sptest` and `sutest`
- Parallel Port Printer Test (`pptest`) consolidates the parallel port tests: `bpptest`, `ecpptest`

Note – In a future release of SunVTS some additional diagnostics, such as environmental tests, might be consolidated into a single test.

Discontinued Tests

The following tests are discontinued in this 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 as of SunVTS 5.1 PS2.

Note – All new features, tests, and test enhancements that are released in SunVTS 6.0 are documented in the *SunVTS 6.0 Test Reference Manual* (817-7665-10), and *SunVTS 6.0 User's Guide*, (817-7664-10). This document is included on the Solaris Documentation DVD; in the extra value (EV) directory; and is available at: `http://docs.sun.com`

Note – The name of the Remote System Control test (`rsctest`) has been changed to System Service Processor test (`ssptest`) as of SunVTS 5.1 Patch Set 1. 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.

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 for Both x86 and SPARC Platforms

`sunpci2test` Supports SunPCi-3 Cards in Solaris 10

`sunpci2test` now supports the SunPCi-3 cards. Solaris 10 supports SunPCi-3 Version 3.2.2 with Patch 118591-01 only. Solaris 10 does not support the SunPCi-2 card.

Using `cddvdtest` (Bug ID 6220163)

`cddvdtest` may fail when used for testing CD/DVD RW drives with Read/Write media.

Workaround: Either use a blank media for testing, or insert a CD-ROM media into the drive and restart SunVTS. The user interface will then invoke the test with readonly options.

Using `usbtest` (Bug ID 6207760)

Performing `usbtest` on systems with audio cards could cause the test to report errors that are not incremented in the error count. Error messages similar to the following are displayed in the `vtsk.err` file.

```
Dec 10 18:43:40 npgfx-1 SunVTS6.0: [VTSID 10006 usbtest.probe]
WARNING: audio probe error:
Dec 10 18:43:40 npgfx-1 SunVTS6.0: [VTSID NONE usbtest.probe]
Failed to open /dev/sound/2 (Invalid argument)."
Probable_Cause(s): <Faulty USB device or motherboard hardware.>
<System software problem.> Recommended_Action(s): <Examine system
message files (/var/adm/messages) for other information.>
Dec 10 18:43:40 npgfx-1 SunVTS6.0: [VTSID NONE usbtest.probe]
```

Workaround: None

Using `usbtest` (Bug ID 6197522)

`usbtest` could fail with error messages in "Test Messages" and in the `sunvts.err` file, but "failures" does not get incremented and the test reports passes instead.

Additionally, `usbtest` could report error messages similar to the following on a system without a printer attached.

```
11/18/04 14:28:55 machinename SunVTS6.0build73: VTSID 6000 usbtest.
  ERROR printers/0:   "Cannot get printer_info for /dev/printers/0"

11/18/04 14:29:07 machinename SunVTS6.0build73: VTSID 8100 usbtest.
  ERROR printers/0: "ECPPIOC_GETDEVID failed (I/O error)"
  Probable_Cause(s):
    (1)Faulty printer or cable.
    (2)Faulty ecpp device or motherboard hardware.
    (3)System software problem.
  Recommended_Action(s):
    (1) Check printer cable connectivity
```

Workaround: None.

Launching the WebStart Installer Could Fail (Bug ID 6220305)

When launching the `installer`, the `web_installer` GUI appears, but the "Component Selection" and "Ready to Install" windows contain nothing, and the process is blocked.

Workaround: None.

`pcramtest` is Not a Supported Test (Bug ID 6216804)

The `pcramtest` appears in the `SUNWvts` pakcage; however this test is not supported.

Workaround: Do not perform `pcramtest`.

Using `serialtest` 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 `serialtest` and `disktest` on Sun Blade 100 and 150 systems, you might see `serialtest` report failures.

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

Using Online Help in the `vtsui` Interface (Bug ID 6206107)

By default, the online help feature uses the Netscape browser instead of Mozilla. When selecting online help from the vtsui interface, the following error message is displayed:

```
Could not invoke netscape to display SunVTS online help.
Please set the Netscape Path in your machine.
Press Any Key to dismiss this window.
```

Workaround: Launch Mozilla and open the following file:

```
/opt/SUNWvts/lib/locale/C/help/help.html
```

Using Online Help HTML files in the `vtsui` Interface (Bug ID 6217364)

The SunVTS 6.0 `SUNWvtsmn` package contains HTML files from the SunVTS 6.0 Test Reference Manual and User's Guide. However, updates were made to the SunVTS 6.0 Test Reference Manual that are not reflected in the version of the HTML files located in the `SUNWvtsmn` package.

Workaround: Use the SunVTS 6.0 Test Reference Manual available at `http://docs.sun.com/app/docs/coll/1140.1`

Using the SunVTS Scheduler (Bug ID 6176355)

When saving schedules with the SunVTS Scheduler, the following characters cannot be used in the schedule name: t, d, p, and h. If these characters are used when saving a schedule, an error message similar to the following is displayed.

```
"ERROR:Invalid Character "t" in Schedule Name.
```

Workaround: None.

Using `netlbtest` (Bug ID 5054858)

When SunVTS is stopped, `netlbtest` might not exit properly when it is running in external loopback mode on a Gigabit Ethernet network interface.

Workaround: Deselect `netlbtest` from SunVTS GUI and kill the `netlbtest` process manually.

SunVTS Does not Support Processor Sets

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

Workaround: None.

Netra CT 820 Server Support

The Netra CT 820 Server is not currently supported in Solaris 9 or Solaris 10 Operating Systems.

Possible Runtime Issues for x86 Platforms

Using `systest` (Bug ID 6206510)

32-bit SunVTS software performed with the x86 binary on a 64-bit Solaris Operating System causes a `systest` error. The SunVTS 6.0 x86 version supports the 32-bit SunVTS binary only. If a 32-bit SunVTS binary is used on a 64-bit Solaris Operating System and `systest` is performed with the `vtsui` or the `vtstty` interface, `systest` fails immediately. `systest` does not display the right error message, for example:

```
12/08/04 14:19:23 machinename SunVTS6.0: VTSID 8010 systest.FATAL system:
"kvm_open() failed: Error 0."Probable_Cause(s): <Attempted to use a 32-bit
version of the libkvm interfaces to open a 64-bit kernel image.>
Recommended_Action(s): <Run the 64-bit version of the test.>
12/08/04 14:19:24 ctech75 SunVTS6.0: VTSID 7012 vtsk.INFO : *Failed test*
 system(systest)          passes: 0  errors: 1
```

Workaround: for `systest` by using command line interface with option `mem=disable`.

Possible Runtime Issues for SPARC Platforms

Using `env5test` (Bug ID 6176527) and `i2ctest` (Bug ID 6176554)

`env5test` and `i2ctest` could fail due to a Solaris 10 Operating System PICL initialization issue. When PICL is stopped and started, the tests pass appropriately.

Workaround: Enter the following commands directly after the Solaris Operating System is booted:

```
# cvsadm disable /system/picl
# cvsadm enable /system/picl
```

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`, `dtlbtest`, `ramtest`, `bustest`, `mptest`, and `fputest`.

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

Using `pptest` (Bug ID 6180140)

`pptest` could hang when performed in the Functional test mode with the Printer subtest enabled in the Test Parameter Options dialog box.

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.

`pfbtest` Fails When Used in the Gnome Desktop Environment (Bug ID 4938281)

`pfbtest` 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 systems. If this failure occurs, you see an error message similar to the following:

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

Workaround: Most graphics tests fail when running under Gnome; enter the `xscreensaver-command -exit` command before performing graphics test under the Gnome desktop environment to avoid these failures.