



SunVTS™ 6.0 Patch Set 2 Release Notes

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SunVTS 6.0 Patch Set 2 Release Notes

The SunVTS 6.0 Patch Set (PS) 2 software is compatible with the Solaris 10 Operating System and future compatible releases.

For the latest version of this document (819-2949-10), go to:
<http://www.sun.com/documentation>

Note – Serial Parallel Controller Test (*spiftest*) will be removed in the next release of SunVTS.

x86 and 64-Bit Solaris Support

Starting with Solaris 10, the SunVTS infrastructure and core diagnostics are available for x86 Solaris platforms. Starting with Solaris 10 7/05, SunVTS x86 diagnostics are supported in the AMD 64-bit environment for the SunVTS kernel (*vt.sk*). All x86 diagnostics except the System Test (*systemst*) are ported to 64-bit.

SunVTS is supported and tested on the following Sun x86 platforms:

- Sun Fire V60x
- Sun LX50
- Sun Fire B100x
- Sun Fire B200x
- Sun Fire V20z
- Sun Fire V40z

You must install the x86 version of the SunVTS packages 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`

SunVTS Tests:

- CD DVD Test (`cddvdtest`)
- CPU Test (`cputest`)
- Disk and Floppy Drives Test (`disktest`)
- Data Translation Look-aside Buffer (`dtlbttest`)
- Floating Point Unit Test (`fputest`)
- InfiniBand Host Channel Adapter (`ibhctest`)
- Level 1 Data Cache Test (`l1dcachetest`)
- Ethernet Loopback Test (`netlbttest`)
- Network Hardware Test (`nettest`)
- Physical Memory Test (`pmemtest`)
- RAM test (`ramtest`)
- Serial Port Test (`serialtest`)
- System Test (`systemtest`)
- Universal Serial Board Test (`usbttest`)
- Virtual Memory Test (`vmemtest`)

Getting SunVTS Package and Version Information

Use the following command to receive SunVTS 5.1 package information:

```
# pkginfo -c 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
```

In addition, you can use the SunVTS standard command line argument, `-v`, to receive version information.

Open Issues

Possible Installation Issue

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

Using `disktest` (Bug ID 6272059 and RFE ID 6266502)

`disktest` does not currently support DOS formatted floppy disks, and causes a segmentation fault if tested on them. Support for DOS formatted floppy disks will be added in a future release of SunVTS.

Using `disktest` (Bug ID 6277348)

If the environment variable `BYPASS_FS_PROBE` is set to 0, `disktest` could cause a segmentation fault on systems with a large number of disk partitions. This fault occurs when a probe process attempts to register unmounted partitions.

When `BYPASS_FS_PROBE` is set to 0, `disktest` probe attempts to mount partitions before registering them. During this process, `disktest` assigns mount names that are too large, causing a segmentation fault with error messages similar to the following:

```
# ./sunvts
sunvts:
Can't start vtstk properly. Stop.
# ./vtstk -d
Compile long options Error Ignored for: Partition, Segmentation
Fault
```

Workaround: Do not set `BYPASS_FS_PROBE` to 0—if this variable is set to 0, reassign a non-zero value before starting SunVTS. Or, manually mount the unmounted disk partitions using smaller mount names.

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.

SAI/P and SPIF Hardware for Solaris 10

SAI/P and SPIF hardware is not currently supported on Solaris 10. The Serial Parallel Controller Test (`spiftest`) and Serial Asynchronous Interface (PCI) Test (`saipstest`) will be supported once the SAI/P and SPIF hardware is supported on Solaris 10. This support is expected to be available soon.

Using `cddvdtest` (Bug 6220163)

`cddvdtest` 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 `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.

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 netlbttest (RFE 6283493)

netlbttest could fail on Sun Fire B100x/B200x blade servers with the bge driver. If this failure occurs, error messages similar to the following are displayed:

```
06/06/05 10:59:12 machine SunVTS6.1: VTSID 0 dtlbttest.INFO dtlb:
Version: dtlbttest 6.1 2005/06/02
06/06/05 10:59:12 machine SunVTS6.1: VTSID 8007 dtlbttest.FATAL dtlb:
"CPU type Athlon is not supported"
06/06/05 10:59:12 machine SunVTS6.1: VTSID 7012 vtsk.INFO : *Failed test*
dtlb(dtlbttest)          passes: 0  errors: 1

06/06/05 16:10:14 machine SunVTS6.0 01/19/05(patch): VTSID 3
netlbttest.VERBOSE bge0: "pkt count =800"
06/06/05 16:10:14 machine SunVTS6.0 01/19/05(patch): VTSID 3
netlbttest.VERBOSE bge0: "pkt count =900"
06/06/05 16:10:14 machine SunVTS6.0 01/19/05(patch): VTSID 3
netlbttest.VERBOSE bge0: "pkt count =1000"
06/06/05 16:10:14 machine SunVTS6.0 01/19/05(patch): VTSID 4
netlbttest.VERBOSE bge0: "Transmitted1000 pkts, received (correctly)
1000 pkts"
06/06/05 16:10:14 machine SunVTS6.0 01/19/05(patch): VTSID 5
netlbttest.VERBOSE bge0: "RunningMAC loopback test."
    read back only -1 bytes!
    read back only -1 bytes!
06/06/05 16:12:36 machine SunVTS6.0 01/19/05(patch): VTSID 6003
netlbttest.ERROR bge0:      "Failed to get the link up. Probable_Cause(s):
<Loopback cable not
connected.> <Faulty loopback cable.> Recommended_Action(s): <Check and
replace, if necessary, the
loopback cable.> <If problem persists, call your authorized
sun service provider.>
```

Using `disktest` (RFE 6266502)

Currently, `disktest` can only test drives running the Solaris Operating System and cannot test drives or partitions with filesystems such as Linux or Windows. `disktest` will have this capability in a future release of SunVTS.

Using `vmemtest` (Bug ID 6274872)

In a 64-bit environment, `vmemtest` could cause a core dump with any of the selected subtests if the Mode option is set to Page. A Segmentation Fault error message is displayed before the core dump occurs. In 32-bit environments, this error does not occur. This error will be fixed in a future release of SunVTS.

Workaround: Do not select Page for the Mode option in a 64-bit environment.

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

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

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.