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# Solaris™ 7 Reference Manual Supplement for Sun Hardware

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Part No.:805-4439-10  
October 1998, Revision A

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Adobe PostScript

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# Preface

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The *Solaris 7 Reference Manual Supplement for Sun Hardware* contains manual pages (man pages) for software provided to Sun hardware customers with the Solaris 7 product. These supplement the man pages provided in the general *Solaris 7 Reference Manual*.

Before you can access some of the information published in this book through the `man` command, you may need to install software from the Sun Microsystems Computer Systems Supplement CD for your Solaris release. In most cases, when you install a software cluster from the Sun Microsystems Computer Systems Supplement CD, man pages about the software in that cluster will be automatically installed. For information about installing the man page software, refer to the *Solaris 7 Sun Hardware Platform Guide*.

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## How This Book Is Organized

This manual contains man pages in alphabetical order within each man page category. Supplemental man pages are included for the following category:

- Maintenance Commands (1M)

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**Note** – The man pages included in this supplement all apply to the SunVTS software provided on the Supplement CD.

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<b>NAME</b>	sunvts – Invokes the SunVTS kernel and its user interface
<b>SYNOPSIS</b>	<b>sunvts</b> [ <b>-lepqstv</b> ] [ <b>-o</b> <i>option_file</i> ] [ <b>-f</b> <i>log_dir</i> ] [ <b>-h</b> <i>hostname</i> ]
<b>AVAILABILITY</b>	<b>SUNWvts</b>
<b>DESCRIPTION</b>	The <b>sunvts</b> command is used to invoke the SunVTS user interface and kernel on the same system. It could be used to start the user interface on the local system and connect to the SunVTS kernel on the remote system. By default, it displays CDE Motif graphic interface for CDE environment, OpenLook graphic interface for OpenWindows environment, or TTY interface for non-windowing system.
<b>OPTIONS</b>	<ul style="list-style-type: none"> <li><b>-l</b> Displays SunVTS OpenLook graphic interface.</li> <li><b>-e</b> Disables the security checking feature.</li> <li><b>-f</b> <i>log_dir</i> Specifies an alternative log_file directory. The default log_file directory is <b>/var/opt/SUNWvts/logs</b>.</li> <li><b>-h</b> <i>hostname</i> Starts the SunVTS user interface on the local system, which connects to or invokes the SunVTS kernel on the specified host after security checking succeeds.</li> <li><b>-o</b> <i>option_file</i> Starts the SunVTS kernel with the test options loaded from the specified <i>option_file</i>, which by default is located in <b>/var/opt/SUNWvts/options</b>.</li> <li><b>-p</b> Starts the SunVTS kernel <b>vtsk (1M)</b> such that it does not probe the test system's devices.</li> <li><b>-q</b> Automatically quits both the SunVTS kernel and the user interface when testing stops.</li> <li><b>-s</b> Automatically starts testing from a selected group of tests. The flag must be used with the <b>-o</b> <i>option_file</i> flag.</li> <li><b>-t</b> Starts <b>vts tty (1M)</b>, a TTY based interface, instead of CDE or OpenLook interface.</li> <li><b>-v</b> Displays version information from <b>vtsui(1M)</b> and <b>vtsk(1M)</b>.</li> </ul>
<b>NOTES</b>	If <b>vtsk (1M)</b> is already running on the test system, the <b>sunvts</b> command ignores the <b>-e</b> , <b>-o</b> , <b>-f</b> , <b>-q</b> , <b>-p</b> , and <b>-s</b> options.
<b>SEE ALSO</b>	<b>vtsk(1M)</b> , <b>vts tty(1M)</b> , <b>vtsui(1M)</b> , <b>vtsui.ol(1M)</b> , <b>vtsprobe(1M)</b>

<b>NAME</b>	vtsk – SunVTS diagnostic kernel
<b>SYNOPSIS</b>	<b>vtsk</b> [ <b>-epqsv</b> ] [ <b>-o options_file</b> ] [ <b>-f logfile_directory</b> ]
<b>AVAILABILITY</b>	<b>SUNWvts</b>
<b>DESCRIPTION</b>	<p>The <b>vtsk</b> command starts up the SunVTS diagnostic kernel as a background process. There can only be one copy of <b>vtsk</b> running at a time. Only the superuser can execute this command.</p> <p>Normally, <b>vtsk</b> is automatically started up by the <b>sunvts (1M)</b> command if it is not already running. <b>vtsk</b> will also be invoked by <b>inetd (1M)</b> when there is a connection request from vtsui or vtsui.ol. In that case, the security file, <b>.sunvts_sec</b>, will be checked for the permission before running vtsk on the target host specified by <b>vtsui(1M)</b> or <b>vtsui.ol(1M)</b>.</p>
<b>OPTIONS</b>	<ul style="list-style-type: none"> <li><b>-e</b> Enables the security checking for all connection requests.</li> <li><b>-p</b> Starts SunVTS diagnostic kernel, but does not probe system configuration.</li> <li><b>-q</b> Quits both the SunVTS diagnostic kernel and the attached User Interfaces when the testing is completed.</li> <li><b>-s</b> Runs enabled tests immediately after started.</li> <li><b>-v</b> Display SunVTS diagnostic kernel's version information only.</li> <li><b>-o options_file</b> Starts the SunVTS diagnostic kernel and sets the test options according to the option file named <i>options_file</i>.</li> <li><b>-f logfile_directory</b> Specifies an alternative logfile directory, other than the default.</li> </ul>
<b>EXIT STATUS</b>	<p>The following exit values are returned:</p> <ul style="list-style-type: none"> <li><b>0</b> Successful completion.</li> <li><b>-1</b> An error occurred.</li> </ul>
<b>FILES</b>	<ul style="list-style-type: none"> <li><b>/var/opt/SUNWvts/options</b> default option file directory.</li> <li><b>/var/opt/SUNWvts/logs</b> default log file directory.</li> </ul>
<b>SEE ALSO</b>	<b>sunvts(1M), vtsui(1M), vtsui.ol(1M), vtstty(1M), vtsprobe(1M)</b>



<b>NAME</b>	vtsprobe – prints the device probe information from the SunVTS kernel
<b>SYNOPSIS</b>	<b>vtsprobe</b> [ <b>-m</b> ] [ <b>-h</b> <i>hostname</i> ]
<b>AVAILABILITY</b>	<b>SUNWvts</b>
<b>DESCRIPTION</b>	<b>vtsprobe</b> is a utility that displays the device and configuration information contained in the SunVTS kernel. The output includes the SunVTS assigned group for the device, the device name, the device instance, the testname attached to this device, and the configuration information obtained from the device-specific test probe.
<b>OPTIONS</b>	<p><b>-m</b> Specifies manufacturing mode, which displays the probe information in a format that is easy to read using script files.</p> <p><b>-h</b> <i>hostname</i> Specifies the <i>hostname</i> to connect to and get the device and configuration information. If not specified, the current host will be used.</p>
<b>USAGE</b>	After the SunVTS kernel is up and running, you may type <b>vtsprobe</b> at the shell prompt to get the probe output. (See the <b>sunvts (1M)</b> man page for more information on how to start up SunVTS.
<b>EXAMPLE</b>	<p>Running <b>vtsprobe</b> on a sun4m SPARCclassic produces the following output:</p> <pre>% vtsprobe  Processor(s)   system(system)     System Configuration=sun4m SPARCclassic     System clock frequency=50 MHz     SBUS clock frequency=25 MHz   fpu(fputest)     Architecture=sparc     Type=TI TMS390S10 or TMS390S15 microSPARC chip  Memory   kmem(vmem)     Total: 143120KB   mem(pmem)     Physical Memory size=24 Mb  SCSI-Devices(esp0)   c0t2d0(rawtest)     Capacity: 638.35MB     Controller: esp0     Vendor: MICROP     SUN Id: 1588-15MBSUN0669     Firmware Rev: SN0C</pre>

```
Serial Number: 1588-15MB103
c0t2d0(fstest)
  Controller: esp0
c0t3d0(rawtest)
  Capacity: 404.65MB
  Controller: esp0
  Vendor: SEAGATE
  SUN Id: ST1480 SUN0424
  Firmware Rev: 8628
  Serial Number: 00836508
c0t3d0(fstest)
  Capacity: 404.65MB
  Controller: esp0
  Vendor: SEAGATE
  SUN Id: ST1480 SUN0424
  Firmware Rev: 8628
  Serial Number: 00836508
c0t3d0(fstest)
  Controller: esp0
c0t6d0(cdtest)
  Controller: esp0
tape1(tapetest)
  Drive Type: Exabyte EXB-8500 8mm Helical Scan
Network
  isdn0(isdntest)
    NT Port TE Port
  le0(nettest)
    Host_Name: ctech84
    Host Address: 129.146.210.84
    Host ID: 8001784b
    Domain Name: scsict.Eng.Sun.COM
Comm.Ports
  zs0(sptest)
    Port a -- zs0 /dev/term/a : /devices/ ... a
    Port b -- zs1 /dev/term/b : /devices/ ... b
Graphics
  cgthree0(fbtest)

OtherDevices
  bpp0(bpptest)
    Logical name: bpp0
  sound0(audio)
    Audio Device Type: AMD79C30
  sound1(audio)
    Audio Device Type: DBRI Speakerbox
```

**spd0(spctest)**  
**Logical name: spd0**

**NOTES** The output of **vtsprobe** is highly dependent on the device being correctly configured into the system (so that a SunVTS probe for the device can be run successfully on it) and on the availability of a device-specific test probe.

If the device is improperly configured or if there is no probing function associated with this device, **vtsprobe** cannot print any information associated with it.

**SEE ALSO** **sunvts(1M)**, **vtsk(1M)**, **vtsui(1M)**, **vtsui.ol(1M)**, **vtstty(1M)**

<b>NAME</b>	vtstty – TTY interface for SunVTS																
<b>SYNOPSIS</b>	<b>vtstty</b> [ <b>-qv</b> ] [ <b>-h</b> <i>hostname</i> ]																
<b>AVAILABILITY</b>	<b>SUNWvts</b>																
<b>DESCRIPTION</b>	<b>vtstty</b> is the default interface for SunVTS in the absence of a windowing environment. It can be used in a non-windowing environment such as a terminal connected to the serial port of the system. However, its use is not restricted to this; <b>vtstty</b> can also be used from shell window.																
<b>OPTIONS</b>	<p><b>-q</b>     The "auto-quit" option automatically quits when the conditions for SunVTS to quit are met.</p> <p><b>-v</b>     Prints the <b>vtstty</b> version. The interface is not started when you include this option.</p> <p><b>-h</b> <i>hostname</i>           Connects to the SunVTS kernel running on the host identified by <i>hostname</i>.</p>																
<b>USAGE</b>	<p>The <b>vtstty</b> screen consists of four panels: main control, status, test groups, and console. The panels are used to display choices that the user can select to perform some function and/or to display information. A panel is said to be "in focus" or in a "selected" state when it is surrounded by asterisks and the current item is highlighted. In order to choose from the items in a panel, the focus should be shifted to that panel first.</p> <p>The following are the different types of selection items that can be present in a panel:</p> <table border="0"> <tr> <td style="padding-right: 20px;">Text string</td> <td>Describes a choice that, when selected, either pops up another panel or performs a function. For example, "stop" will stop the SunVTS testing.</td> </tr> <tr> <td>Data entry field</td> <td>To enter or edit numeric or textual data.</td> </tr> <tr> <td>Checkbox</td> <td>Represented as "[ ]". Checkboxes are associated with items and indicate whether the associated item is selected or not. A checkbox can be in one of the following two states: Deselected [ ] or Selected [*].</td> </tr> </table> <p>The key assignments given below describe the keys for shifting focus, making a selection, and performing other functions:</p> <table border="0"> <tr> <td style="padding-right: 20px;">TAB or &lt;CTRL&gt;W</td> <td>Shift focus to another panel</td> </tr> <tr> <td>RETURN</td> <td>Select current item</td> </tr> <tr> <td>Spacebar</td> <td>Toggle checkbox</td> </tr> <tr> <td>Up arrow or &lt;CTRL&gt;U</td> <td>Move up one item</td> </tr> <tr> <td>Down arrow or &lt;CTRL&gt;N</td> <td>Move down one item</td> </tr> </table>	Text string	Describes a choice that, when selected, either pops up another panel or performs a function. For example, "stop" will stop the SunVTS testing.	Data entry field	To enter or edit numeric or textual data.	Checkbox	Represented as "[ ]". Checkboxes are associated with items and indicate whether the associated item is selected or not. A checkbox can be in one of the following two states: Deselected [ ] or Selected [*].	TAB or <CTRL>W	Shift focus to another panel	RETURN	Select current item	Spacebar	Toggle checkbox	Up arrow or <CTRL>U	Move up one item	Down arrow or <CTRL>N	Move down one item
Text string	Describes a choice that, when selected, either pops up another panel or performs a function. For example, "stop" will stop the SunVTS testing.																
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TAB or <CTRL>W	Shift focus to another panel																
RETURN	Select current item																
Spacebar	Toggle checkbox																
Up arrow or <CTRL>U	Move up one item																
Down arrow or <CTRL>N	Move down one item																

Left arrow	or	<CTRL>P	
			Move left one item
Right arrow	or	<CTRL>R	
			Move right one item
Backspace			Delete text in a data entry field
ESC			Dismiss a pop-up
<CTRL>F			Scroll forward in a scrollable panel
<CTRL>B			Scroll backward in a scrollable panel
<CTRL>X			Quit <b>vtstty</b> but leave the SunVTS kernel running
<CTRL>L			Refresh the <b>vtstty</b> screen

**NOTES**

1. To run **vtstty** from a telnet session, carry out the following steps:
  - a. Before telnet-ing, determine the values for "rows and "columns". (See **stty(1)** ).
  - b. Set term to the appropriate type after telnet-ing(for example, **set term=vt100** ).
  - c. Set the values of columns and rows to the value noted above. (See **stty(1)** ).
2. Before running **vtstty** ensure that the environment variable describing the terminal type is set correctly.

**SEE ALSO**

**sunvts(1M)**, **vtsk(1M)**, **vtsui(1M)**, **vtsui.ol(1M)**, **vtsprobe(1M)**

<b>NAME</b>	vtsui – SunVTS Graphic User Interface (CDE)
<b>SYNOPSIS</b>	<b>vtsui</b> [ <b>-qv</b> ] [ <b>-h</b> <i>hostname</i> ]
<b>AVAILABILITY</b>	<b>SUNWvts</b>
<b>DESCRIPTION</b>	<p>The <b>vtsui</b> command starts up the CDE Motif version of SunVTS graphic user interface. There can be multiple instances of <b>vtsui</b> running at the same time, all connected to one SunVTS diagnostic kernel, <b>vtsk(1M)</b>. The name of the host machine running the diagnostic kernel, <b>vtsk(1M)</b>, will be displayed in the title bar of the graphical user interface window.</p> <p><b>vtsui</b> is automatically started up by the <b>sunvts (1M)</b> command. <b>vtsui</b> can be also used to start <b>vtsk (1M)</b> if <b>inetd (1M)</b> is in operation. In that case, the security file, <b>sunvts_sec</b>, will be checked for the permission before running <b>vtsk</b> on the target host. See the "SunVTS User's Guide" for a complete description on using the graphical user interface.</p>
<b>OPTIONS</b>	<p><b>-q</b>      Quits the SunVTS graphic user interface when testing has terminated.</p> <p><b>-v</b>      Displays graphic user interface version information only.</p> <p><b>-h</b> <i>hostname</i>  Starts the SunVTS graphic user interface and connects to the SunVTS diagnostic kernel running on <i>hostname</i>, or invokes the kernel if not running, after security checking succeeds. If <i>hostname</i> not specified, the local host is assumed.</p>
<b>EXIT STATUS</b>	<p>The following exit values are returned:</p> <p><b>0</b>      Successful completion.</p> <p><b>1</b>      An error occurred.</p>
<b>SEE ALSO</b>	<b>sunvts(1M), vtsk(1M), vtsui.ol(1M), vtstty(1M), vtsprobe(1M)</b>

<b>NAME</b>	vtsui.ol – SunVTS Graphic User Interface (OpenLook)
<b>SYNOPSIS</b>	<b>vtsui.ol</b> [ <b>-qv</b> ] [ <b>-h</b> <i>hostname</i> ]
<b>AVAILABILITY</b>	<b>SUNWvts</b>
<b>DESCRIPTION</b>	<p>The <b>vtsui.ol</b> command starts up the OpenLook version of <b>SunVTS</b> graphic user interface. There can be multiple instances of <b>vtsui.ol</b> running at the same time, all connected to one <b>SunVTS</b> diagnostic kernel, <b>vtsk(1M)</b>. The name of the host machine running the diagnostic kernel, <b>vtsk(1M)</b>, will be displayed in the title bar of the graphic user interface window.</p> <p><b>vtsui.ol</b> can be used to start <b>vtsk(1M)</b> if <b>inetd(1M)</b> is in operation. In that case, the security file, <b>.sunvts_sec</b>, will be checked for the permission before running <b>vtsk</b> on the target host. <b>vtsui.ol</b> is also automatically started up by the <b>sunvts(1M)</b> command. See the "SunVTS User's Guide" for a complete description on using the graphic user interface.</p>
<b>OPTIONS</b>	<p><b>-q</b>      Quits the SunVTS graphic user interface when testing has terminated.</p> <p><b>-v</b>      Displays graphic user interface version information only.</p> <p><b>-h</b> <i>hostname</i>  Starts the SunVTS graphic user interface and connects to the <b>SunVTS</b> diagnostic kernel running on <i>hostname</i>, or invokes the kernel if not running, after security checking succeeds. If <i>hostname</i> not specified, the local host is assumed.</p>
<b>EXIT STATUS</b>	<p>The following exit values are returned:</p> <p><b>0</b>      Successful completion.</p> <p><b>1</b>      An error occurred.</p>
<b>SEE ALSO</b>	<b>sunvts(1M), vtsk(1M), vtsui(1M), vtstty(1M), vtsprobe(1M)</b>

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