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*GemStone*®



# Visual Statistics Display (VSD) Release Notes

**Version 5.3**

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GemStone software is covered by U.S. Patent Number 6,256,637 "Transactional virtual machine architecture", Patent Number 6,360,219 "Object queues with concurrent updating", Patent Number 6,567,905 "Generational garbage collector with persistent object cache", and Patent Number 6,681,226 "Selective pessimistic locking for a concurrently updateable database". GemStone software may also be covered by one or more pending United States patent applications.

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# VSD 5.3 Release Notes

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## Overview

Visual Statistics Display (VSD) version 5.3 is a new release of the VSD product, with a number of feature enhancements and bug fixes, especially in the support for working with multiple data files.

This release includes an updated *VSD User's Guide* with documentation for the new features.

This version of VSD, like previous versions, supports statmonitor files generated from:

- ▶ All versions of GemStone/S 64 Bit
- ▶ All versions of 32-bit GemStone/S
- ▶ All versions of GBS

## Supported Platforms

VSD version 5.3 is supported on the following platforms:

- ▶ Windows 7, Windows 2008 R2, Windows 8, and Windows 10
- ▶ Solaris 10 and 11 on SPARC
- ▶ Solaris 10 on x86
- ▶ AIX 6.1 and AIX 7.1
- ▶ Red Hat Linux ES 6.4, 6.5, 6.7 and 7.1; Ubuntu 12.04 and 14.04; SUSE Linux Enterprise 11 Service Pack 3, and SUSE Linux Enterprise 12, on x86
- ▶ Mac OS X 10.9.5 (Mavericks), with Darwin 13.4.0 kernel, on x86

# Changes and Bug fixes

## Comma-separated numbers

Very large values such as 10000000 are difficult to read. Now, these numbers can be printed with comma separators, in this case, 10,000,000. Only numbers with more than 5 integral digits include comma separators.

Version 5.2 included some changes in handling of fractional parts for computed values such as averages and standard deviations. In version 5.3, these have been further refined; calculated values that are larger than 4 digits omit the fractional part.

These examples illustrate the main differences over the past few releases:

VSD 5.1.x	VSD 5.2	VSD 5.3
1001.5000416042594	1001.5	1001.5
65529.148148148146	65529.1481	65529
525173.0	525173	525,173 or 525173
4535184.545454546	4535184.5455	4,535,185 or 4535185

## Disable/Enable comma separators

Note that only comma thousands separators are available, which may not be convenient for European or other locales that normally use other characters for thousands separators. VSD does not provide localization. Comma separators can be disabled if comma-separated numbers are more difficult to read. To disable or enable this, see the Main window **Main** Menu Item **Preferences > Show Commas In Numbers**.

## Handling of display options and .vsdrc

The way VSD handles display options has changed in this release. These are settings such as **Single File Mode**, the location of windows, etc.

In previous releases, display options were automatically written on exit and loaded on startup. Now, these options can be explicitly saved using the new menu item on the Main window, **Main > Save Options**. Automatically writing the settings on VSD exit can be disabled or re-enable using the new menu item on the Main window, **Main > Save Options On Exit**.

Note that if you disable Save Options On Exit, this setting itself is not written, and is re-enabled if you restart VSD. To make diable writing options on exit persistent, you should explicitly save options.

On explicit save, or on exit when save options is enabled, updates are written to \$HOME/.vsdconfig, as in past releases. # \$HOME/.vsdrc may also includes settings that are hand-edited; these settings take precedence over settings in .vsdconfig. Either file can be deleted at any point, and will be recreated from defaults. T his is unchanged from previous releases.

## Secondary sort keys

VSD now supports secondary sort keys in the Main window.

In previous versions, the implicit secondary sort key is process Type; when Process Type is selected as the primary sort, secondary sort is by Name.

Now, you can explicitly select a secondary sort key using the right menu button. The secondary sort key is indicated by setting the label to an italic font. The primary sort key is indicated with an up or down arrow next to the label, depending on the order of the sort.

Sort order of the secondary key is the same as for the primary key, i.e. if the primary sort is in ascending order, the secondary sort is also ascending.

## Monitoring new interface for statmonitor arguments

VSD includes the option to monitor a running stone, which invokes the statmonitor executable. This dialog used the statmonitor `-s` argument to specify level, which is deprecated in GemStone/S 64 Bit, and did not allow useful recently-added arguments.

The Monitor dialog now includes a text input field, StatMon Arguments, in which you may enter level arguments as well as other statmonitor command line options.

The following specific fields have been removed:

Field label in previous versions	statmonitor argument to use
StatMon Output	<code>-f filename</code>
Level	<code>-Y, -D, or -Y -D; or -s level.</code>
AppStat Count	<code>-n numAppStats</code>
Sessions:	<code>-p sessionId.</code>

You may also use other statmonitor arguments, such as `-G`. Note that not all statmonitor command-line arguments are usable or make sense in the context of VSD; VSD does not do value checking on the StatMon Arguments field, to avoid dependence on server version.

## Combine Across files removed

The Main window menu option **Main > Combine Across Files** operated in some non-intuitive ways, in particular when combined with **Combine**. With the improvements in multi-file handling introduced in version 5.2, this option is no longer needed and has been removed.

## Compare Two Points removed, merged with Log Delta

The Chart window menu option **Chart > Compare Two Points** menu option was identical to **Line > Log Delta**, except that **Log Delta** was restricted to one line while **Compare Two Points** allowed you to select points on different lines.

Since **Log Delta** was commonly used, this menu option was retained. **Log Delta** now allows you to select points on different lines.