
GemStone®

GemStone/S 64 Bit™

Release Notes

Version 3.2.9

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PATENTS

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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GemStone/S 64 Bit

3.2.9 Release Notes

Overview

GemStone/S 64 Bit 3.2.9 is a new version of the GemStone/S 64 Bit object server. This release fixes a number of bugs, ; we recommend everyone using or planning to use GemStone/S 64 Bit v3.2.x upgrade to this new version.

These release notes provide changes between the previous version of GemStone/S 64 Bit, version 3.2.8.1, and version 3.2.9. If you are upgrading from a version prior to 3.2.8.1, review the release notes for each intermediate release to see the full set of changes.

The Installation Guide has not been updated for this release. For installation, upgrade and conversion instructions, use the Installation Guide for version 3.2.6.

Supported Platforms

Platforms for Version 3.2.9

GemStone/S 64 Bit version 3.2.9 is supported on the following platforms:

- ▶ Solaris 10 and 11 on SPARC
- ▶ Solaris 10 on x86
- ▶ AIX 6.1, TL1, SP1, and AIX 7.1
- ▶ Red Hat Linux ES 6.5, Ubuntu 12.04, and SUSE Linux Enterprise 12, on x86
- ▶ Mac OSX 10.6.8 (Snow Leopard), with Darwin 10.8.0 kernel, on x86

For more information and detailed requirements for each supported platforms, please refer to the GemStone/S 64 Bit v3.2.6 Installation Guide for that platform.

GBS Versions

The following versions of GBS are supported with GemStone/S 64 Bit version 3.2.9. You must use GBS version 7.6.1 or later for VisualWorks, or 5.4.2 or later for VA Smalltalk, with GemStone/S 64 Bit v3.2.9.

GBS version 7.6.1

VisualWorks 7.10.1 32-bit	VisualWorks 7.10.1 64-bit	VisualWorks 7.9.1 32-bit
<ul style="list-style-type: none"> ▶ Windows 8, Windows 2008 R2 and Windows 7 ▶ Solaris 10 on SPARC ▶ Ubuntu 12.04, RedHat Linux ES 6.5, and SUSE Linux ES 12 	<ul style="list-style-type: none"> ▶ Windows 8, Windows 2008 R2 and Windows 7 ▶ Solaris 10 on SPARC ▶ Ubuntu 12.04 and RedHat Linux ES 6.5, and SUSE Linux ES 12 	<ul style="list-style-type: none"> ▶ Windows 2008 R2 and Windows 7 ▶ Solaris 10 on SPARC

GBS version 5.4.2

VA Smalltalk 8.6	VA Smalltalk 8.5.2
<ul style="list-style-type: none"> ▶ Windows 8, Professional or above ▶ Windows 2008 R2 ▶ Windows 7, Professional or above 	<ul style="list-style-type: none"> ▶ Windows 2008 R2 ▶ Windows 7

For more details on supported GBS and client Smalltalk platforms and requirements, see the *GemBuilder for Smalltalk Installation Guide* for that version of GBS.

VSD Version

The GemStone/S 64 Bit v3.2.9 distribution includes VSD version 5.0.1. The previous version of GemStone/S 64 Bit, v3.2.8.1, included VSD v5.0.

Changes between v5.0 and v5.0.1 include:

- ▶ Log delta display for value/time delta is understated by 1000x

For more details, see the *Release Notes* for VSD v5.0.1.

Changes and Bugs Fixed

The following are changes between v3.2.8.1 and v3.2.9:

AlmostOutOfMemory during recursion to Smalltalk

If an AlmostOutOfMemory was signalled while the process had recursed from C back into Smalltalk, it was not correctly deferred or handled. This resulted in an error that prevented commit, with an uninformative message "ErrorC during index Recursion to Smalltalk". (#45633)

Large code load did not use memory efficiently

When loading a large number of classes, the handling of these classes within the memory spaces of temporary object space was not optimal, and could result in poor performance. (#45640)

A new cache statistics has been added to assist in diagnosing problems of this kind:

ClassesCreated (Gem)

Number of Classes created in VM Memory since start of session.

Cache Statistic PercentCpuIdle may have invalid value on AIX

AIX only

The calculation for the cache statistics PercentCpuIdle was subject to a rounding error, which resulted in values of -1 recorded in statmonitor data. VSD displayed this as an unsigned int, 4294967295. (#45654)

Extent growth during multithreaded scan can cause SEGV

In versions 3.2 and later, if the extents grow (e.g., they are not pregrown and the repository runs out of space) during a multithreaded scan operation, there is a risk of SEGV. (#45622)