
GemStone®

GemStone/S 64 Bit Release Notes

Version 2.4.4.2

August 2010

GEMSTONE[™] S 64

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PATENTS

GemStone is covered by U.S. Patent Number 6,256,637 "Transactional virtual machine architecture", Patent Number 6,360,219 "Object queues with concurrent updating", and Patent Number 6,567,905 "Generational Garbage Collector". GemStone may also be covered by one or more pending United States patent applications.

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GemStone/S 64 Bit

2.4.4.2 Release Notes

Overview

GemStone/S 64 Bit 2.4.4.2 is a new version of the GemStone/S 64 Bit object server. This limited distribution release provides several feature enhancements and fixes several bugs.

These release notes provide changes between the previous version of GemStone/S 64 Bit, version 2.4.4, and version 2.4.4.2. version 2.4.4.1 was a Seaside-specific release and had no changes that impact non-GLASS customers. All Seaside-related changes are also in this release. If you are upgrading from a version prior to 2.4.4, please also review the release notes for each intermediate release to see the full set of changes.

GBS versions 7.2 through 7.3 on VisualWorks must be patched or upgrade to run correctly with GemStone/S 64 Bit 2.4.4 and above, including with version 2.4.4.2. See the bugnote:

http://support.gemstone.com/gemstone_s/learning_center/bug_notes/GBS/40751.htm

No separate Installation Guide is provided with this release. For installation instructions, use the Installation Guide for version 2.4.

Supported Platforms and GBS Versions

Platforms

GemStone/S 64 Bit version 2.4.4.2 is supported on the following platforms:

- ▶ Solaris 9 and 10 on SPARC
- ▶ Solaris 10 on x86
- ▶ HP-UX 11.11 and 11.31 on PA-RISC
- ▶ HP-UX 11.23 and 11.31 on Itanium
- ▶ AIX 5.3, TL5, SP3 and AIX 6.1, TL1, SP1
- ▶ SuSE Linux ES 10 SP1 and Red Hat Linux ES 5.0

For more information and detailed requirements for each supported platforms, please refer to the GemStone/S 64 Bit v2.4 Installation Guide for that platform.

GBS versions

The following versions of GBS are supported with GemStone/S 64 Bit version 2.4.4.2, with the following client Smalltalk and platform versions.

If you are upgrading from version 2.4.3 or earlier, you must update the client libraries used with GBS clients. Protocol compatibility levels changed in version 2.4.4 and older client libraries are not compatible.

GBS versions 7.2 through 7.3 on VisualWorks may encounter serious errors when running with GemStone/S 64 Bit 2.4.4 and above, including with version 2.4.4.2. GBS users should upgrade to version 7.3.1 or later, or patch GBS. The patch is available here:

http://support.gemstone.com/gemstone_s/downloads/patches/patch40751/index.htm

GBS version 7.3.1

VW 7.7 32-bit with 32-bit 7.7 OE	VW 7.7 64-bit with 64-bit 7.7 OE	VW 7.6 32-bit with 32-bit 7.6c OE
<ul style="list-style-type: none"> ▶ Windows XP, Windows 2003 Server, Windows Vista, and Windows 7 ▶ Solaris 9 and 10 on SPARC ▶ HP-UX 11.11 on PA-RISC ▶ SuSE Linux ES 10 and RedHat Linux ES 5.0 	<ul style="list-style-type: none"> ▶ Solaris 10 on SPARC ▶ SuSE Linux ES 10 and Red Hat Linux ES 5.0 	<ul style="list-style-type: none"> ▶ Windows XP and Windows 2003 Server ▶ Solaris 9 and 10 on SPARC ▶ HP-UX 11.11 on PA-RISC ▶ SUSE Linux ES 10 and Red Hat Linux ES 5.0

GBS version 7.1.2patch2

VW 7.5 with 7.5 OE	VW 7.4.1 with 7.4d OE	VW 5i.1 Envy with 5i.4c OE
<ul style="list-style-type: none"> ▶ Windows XP and Windows 2003 Server ▶ Solaris 9 and 10 on SPARC ▶ HP-UX 11.11 on PA-RISC ▶ SuSE Linux ES 10 	<ul style="list-style-type: none"> ▶ Windows XP ▶ Solaris 9 and 10 on SPARC ▶ HP-UX 11.11 on PA-RISC ▶ SuSE Linux ES 10 	<ul style="list-style-type: none"> ▶ Windows XP

For more information on supported platforms and requirements, see the release notes for that version of GBS.

Changes in this release

Allow disableCommits feature to work with password aging configured

When password aging features are configured in the repository, each login performs a commit to record the lastLoginTime. This commit failed when commits were disabled for a particular user using the UserProfile>>disableCommits feature. Now, a commit is enabled from the C code only at this point during the login, to allow the lastLoginTime to be recorded. (#40410)

Index related changes

EqualityIndexes on Dates had slow query performance

Btrees, the internal structures used to implement equality indexes, include the compressed contents for certain data types, so the actual object does not always need to be faulted in. The code that stored the contents of Date instances incorrectly stored incomplete data, which meant that Date instances always had to be faulted. This did not cause any functional errors, but performance under certain conditions was considerably slower. (#40792)

Improved performance in removing certain equality indexes

An optimization has been made to improve performance of index removal for certain cases. This optimization is on btree removal, which means only the final term of an Equality index is impacted.

If there are no other indexes on the collection, single-term equality indexes removal exhibits this improvement. With other indexes present, the performance gain is in removal for both single and multi-term equality indexed paths.

Exception related changes

ExceptionSets may have failed to catch signalled Errors

Passing a list of Errors as the first argument to on:do: creates an ExceptionSet to handle any of the listed Errors. In some cases, particularly ZeroDivide, the ExceptionSet may have failed to catch one of the Errors. (#40715, #40815)

Pause caught by handler on Error

An exception handler on Error incorrectly caught pause. (#40779)

