
GemStone®

GemStone/S *Release Notes*

Version 6.5.3.1

October 2009

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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 6.5.3.1

Release Notes

Overview

GemStone/S 6.5.3.1 is a new version of the GemStone Smalltalk object server. This is a special build release providing fixes for several significant bugs.

These release notes provide changes between the previous version of GemStone/S, version 6.5.3, and version 6.5.3.1. If you are upgrading from a version prior to 6.5.3, please also review the release notes for each intermediate release to see the full set of changes.

No separate Installation Guide is provided with this release. For installation instructions, use the Installation Guide for version 6.5.

This release supports Solaris, Linux, AIX, and Windows.

Technical Support

GemStone Technical Support has a new Help Request system. Customers with support agreements are invited to submit Help Requests to

<http://techsupport.gemstone.com>

Bugs Fixed

The following bugs in GemStone/S 6.5.3 have been fixed in GemStone/S 6.5.3.1:

Stopping the Gem's page server had problems

When a page server for a remote cache was disconnecting, there was a risk of infinite recursion if a queue lock was stuck. In addition to correcting this, code related to pageserver/cache shutdown has been examined and updated to avoid other possible error conditions. (#40360)

Logging has also been improved:

- ▶ Socket errors now print a more useful error message.
- ▶ Suspected stuck queue locks are now logged.
- ▶ If a fatal stuck lock is encountered, the SPC monitor will attempt to print C stacks for both lock holder and queue lock holder, if they exist, to the SPC monitor log file.

Risk of stuck spin lock/stone shutdown on heavily loaded systems

In recent releases, the internal spin lock timeout was decreased from 20 seconds to 3 seconds. On very heavily loaded systems, this real-time timeout may have expired with relatively few tests of a possible stuck spin lock. This resulted in an invalid determination of a stuck spin lock and unnecessary stone shutdown. (#40357).

Now, both a real-time timeout and a retry count must be met before a determination of a stuck spin lock is made.