
GemStone®

GemStone/S 64 Bit Release Notes

Version 2.2.5.3.0.1

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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 2.2.5.3.0.1 Release Notes

Overview

GemStone/S 64 Bit 2.2.5.3.0.1 is a new version of the GemStone/S 64 Bit object server. This release fixes several critical bugs; details of the changes are provided in this document.

These release notes provide the changes between the previous version of GemStone/S 64 Bit, version 2.2.5.3, and version 2.2.5.3.0.1. If you are upgrading from a version prior to 2.2.5.3, 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 2.2.5.2.

Changes in this release

Ability to purge zombie sessions

Sessions may get into a state where they are partially logged out, and unresponsive; in this state, the normal mechanisms that dispose of sessions were not adequate to clean up. A new method has been added to clean up sessions in this inaccessible state:

```
System >> _cleanupZombieSession: sessionId
```

This method requests that the Stone forcibly remove a stuck session with the id *sessionId* that is in a partially logged out state. It may only be executed by SystemUser.

Additional information in checkForIdleSessions log message

When idle sessions are killed by the stone as a result of timeout, additional information is now printed in the stone log message. Now, the PID and IP address of the terminated session, the PID of the terminated session's pgsvr, and the client host IP address are also printed.

Bugs fixed

The following bugs have been fixed since GemStone/S 64 Bit version 2.2.5.3:

Potential for late or missing OOB events

A code path existed where pending OOB events could have been missed during iteration of the set of sockets. This could result in OOB signals, such as sigAbort, being received late, or potentially being missed entirely. This may have resulted in a zombie session, if a disconnect message was missed. (#39215)

Commit record backlog due to zombie session

When the stone stopped a session, the session's commit record was not removed until the stone received the disconnect, on the out of band socket, from the session that was stopped. Due to bug #39215, there was a small chance that this disconnect would not be received. If this occurred and the disconnect was missed, the commit record remained in the stone, and caused a commit record backlog. (#39643)

Unkillable zombie sessions cause 100% CPU use

If a gem session became unresponsive, and did not terminate when sent a SIGTERM, the timer thread would constantly send work to the main stone thread to kill the zombie, which was not possible in the current state. This resulted in high stone CPU. (#39648)