
GemStone®

GemStone/S 64 Bit Release Notes

Version 2.2.5.4.2

July 2009

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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Overview

GemStone/S 64 Bit 2.2.5.4.2 is a new special build release of the GemStone/S 64 Bit object server. This release includes further modifications of the AIO wait behavior to avoid problematic OS behavior.

No separate Installation Guide is provided with this special build release. For installation instructions, use the Installation Guide for version 2.2.5.2.

This special build is available for Solaris and Linux.

Changes in this release

AIO wait behavior

The previous release, version 2.2.5.4.1, included changes in the AIO wait design to avoid unreliable behavior of the `aio_suspend()` system function. Further changes in this new design are introduced in this release.

A call to `aio_suspend()` may suspend for the full period of the timeout, even if the AIO request had completed. To avoid delays resulting from this behavior, the timeout period had been shortened, and the code checks the results of `aio_error()` following each `aio_suspend()`. (#40124)

Added cache statistics

TotalAioWaitTime (Stone)

Approximate total real time in milliseconds that the AIO wait thread spent waiting for asynchronous I/O requests to complete.

TimeInAioWrite (Stone)

Total real time in milliseconds that the main thread spent executing the `aio_write()` call. `aio_write()` is used to initiate asynchronous writes to the tranlog and should not block.

