


GemStone/S 64 BitTM

Release Notes

Limited Distribution
Special Release

Version 3.5.5.2

February 2021



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PATENTS

GemStone software is or has been covered by U.S. Patent Number 6,256,637 "Transactional virtual machine architecture" (1998-2018), Patent Number 6,360,219 "Object queues with concurrent updating" (1998-2018), Patent Number 6,567,905 "Generational garbage collector with persistent object cache" (2001-2021), and Patent Number 6,681,226 "Selective pessimistic locking for a concurrently updateable database" (2001-2021).

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GemStone/S 64 Bit

3.5.5.2 Release Notes

Overview

GemStone/S 64 Bit™ 3.5.5.2 is a limited-distribution special release version of the GemStone/S 64 Bit object server, with a workaround for a critical bug. This release replaces v3.5.5.1, which contained codepaths that did not respect the workaround.

Supported Platforms

GemStone/S 64 Bit version 3.5.5.2 is supported on the following platforms:

- ▶ Red Hat Enterprise Linux Server and CentOS Linux versions 7.8, and 8.1; Ubuntu version 16.04, 18.04, and 20.04

Changes in this release

Added configuration parameter `STN_TRAN_INCREMENTAL_LOGGING`

The configuration parameter `STN_TRAN_INCREMENTAL_LOGGING` has been added. The default is true, providing behavior from previous release. When false, operations such as changes to collections that are usually incrementally logged are instead logged in full.

By setting this configuration parameter to true, it avoids any risk of the issues caused by bug #49382 "Nested transactions that modify kinds of IdentityBag have risk of undetected corruption in tranlogged data". This bug only affects changes to kinds of IdentityBag, including IdentityBag, IdentitySet, RcIdentitySet, RcIdentityBag, and RcLowMaintenanceIdentityBag; and only when those changes are made within a nested transaction. The only affect is on data written to transaction logs.

However, if those transaction logs are used in a standby system, or when restoring from backup and replaying the tranlogs, the resulting collections may have nils rather than valid data.