# GemStone/S 64 Bit<sup>TM</sup> Release Notes

Limited Distribution Special Release

# Version 3.7.2.1

March 2025



### INTELLECTUAL PROPERTY OWNERSHIP

This documentation is furnished for informational use only and is subject to change without notice. GemTalk Systems LLC assumes no responsibility or liability for any errors or inaccuracies that may appear in this documentation.

Warning: This computer program and its documentation are protected by copyright law and international treaties. Any unauthorized copying or distribution of this program, its documentation, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted under the maximum extent possible under the law.

The software installed in accordance with this documentation is copyrighted and licensed by GemTalk Systems under separate license agreement. This software may only be used pursuant to the terms and conditions of such license agreement. Any other use may be a violation of law.

Use, duplication, or disclosure by the Government is subject to restrictions set forth in the Commercial Software - Restricted Rights clause at 52.227-19 of the Federal Acquisitions Regulations (48 CFR 52.227-19) except that the government agency shall not have the right to disclose this software to support service contractors or their subcontractors without the prior written consent of GemTalk Systems.

This software is provided by GemTalk Systems LLC and contributors "as is" and any expressed or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose are disclaimed. In no event shall GemTalk Systems LLC or any contributors be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of this software, even if advised of the possibility of such damage.

### **COPYRIGHTS**

This software product, its documentation, and its user interface © 1986-2025 GemTalk Systems LLC. All rights reserved by GemTalk Systems.

### 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).

#### TRADEMARKS

GemTalk, GemStone, GemBuilder, GemConnect, and the GemStone and GemTalk logos are trademarks or registered trademarks of GemTalk Systems LLC, or of VMware, Inc., previously of GemStone Systems, Inc.

UNIX is a registered trademark of The Open Group.

Intel is a registered trademarks of Intel Corporation.

Microsoft, Windows, Windows Server, and Azure are registered trademarks of Microsoft Corporation.

**Linux** is a registered trademark of Linus Torvalds and others.

Red Hat, Red Hat Enterprise Linux, RHEL, and CentOS are trademarks or registered trademarks of Red Hat, Inc.

Rocky Linux is a trademark or registered trademark of Rocky Enterprise Software Foundation.

Ubuntu is a registered trademark of Canonical Ltd., Inc.

AIX, Power, POWER, Power8, Power9, and VisualAge are trademarks or registered trademarks of International Business Machines Corporation.

Apple, Mac, macOS, and Macintosh are trademarks of Apple Inc.

Instantiations is a registered trademarks of Instantiations, Inc.

CINCOM, Cincom Smalltalk, and VisualWorks are trademarks or registered trademarks of Cincom Systems, Inc.

Other company or product names mentioned herein may be trademarks or registered trademarks of their respective owners. Trademark specifications are subject to change without notice. GemTalk Systems cannot attest to the accuracy of all trademark information. Use of a term in this documentation should not be regarded as affecting the validity of any trademark or service mark.

GemTalk Systems LLC 15220 NW Greenbrier Parkway Suite 240 Beaverton, OR 97006

# Chapter**1Release Notes for3.7.2.1**

GemStone/S 64 Bit<sup>™</sup> 3.7.2.1 is a limited-distribution special release version of the GemStone/S 64 Bit object server, fixing a significant bug.

These Release Notes include changes between the previous version of GemStone/S 64 Bit, v3.7.2, and v3.7.2.1.

## **Supported Platforms**

GemStone/S 64 Bit version 3.7.2.1 is supported on Linux/x86\_64, and macOS on x86\_64 and on Apple silicon.

# **Changes in this Release**

## Gem runs hot in detached execution

When a session logs in using the recently added GCI login flag GCI\_PERFORM\_DETACH, the Gem may run hot and consume a large percent of CPU due to excessive socket polls. (#51287)

### System class >> processKindForSlot: can return zero

There was a very small window during the period where a session is logging in, for which System class >> processKindForSlot: for the new session's slot (invoked by another session) may return 0. The method System class >> cacheStatisticsDescriptionAt: expects a non-zero result, and reported a primitive error. (#51324)