
GemStone®

GemBuilder® for Smalltalk Release Notes

Version 5.4.2

April 2014



GEMTALK™
SYSTEMS

GEMSTONE STM 64
.....

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.

This documentation, or any part of it, may not be reproduced, displayed, photocopied, transmitted, or otherwise copied in any form or by any means now known or later developed, such as electronic, optical, or mechanical means, without express written authorization from GemTalk Systems.

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 © 1986-2012 GemTalk Systems, LLC. All rights reserved by GemTalk Systems.

PATENTS

GemStone software is covered by U.S. Patent Number 6,256,637 "Transactional virtual machine architecture", Patent Number 6,360,219 "Object queues with concurrent updating", Patent Number 6,567,905 "Generational garbage collector with persistent object cache", and Patent Number 6,681,226 "Selective pessimistic locking for a concurrently updateable database". GemStone software may also be covered by one or more pending United States patent applications.

TRADEMARKS

VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions.

GemStone, **GemBuilder**, **GemConnect**, and the GemStone logos are trademarks or registered trademarks of GemTalk Systems, LLC, or of VMware, Inc., previously of GemStone Systems, Inc., in the United States and other countries.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Sun, **Sun Microsystems**, and **Solaris** are trademarks or registered trademarks of Oracle and/or its affiliates. **SPARC** is a registered trademark of SPARC International, Inc.

HP, **HP Integrity**, and **HP-UX** are registered trademarks of Hewlett Packard Company.

Intel, **Pentium**, and **Itanium** are registered trademarks of Intel Corporation in the United States and other countries.

Microsoft, **MS**, **Windows**, **Windows XP**, **Windows 2003**, **Windows 7**, **Windows Vista** and **Windows 2008** are registered trademarks of Microsoft Corporation in the United States and other countries.

Linux is a registered trademark of Linus Torvalds and others.

Red Hat and all Red Hat-based trademarks and logos are trademarks or registered trademarks of Red Hat, Inc. in the United States and other countries.

SUSE is a registered trademark of Novell, Inc. in the United States and other countries.

AIX, **POWER5**, **POWER6**, and **POWER7** are trademarks or registered trademarks of International Business Machines Corporation.

Apple, **Mac**, **Mac OS**, **Macintosh**, and **Snow Leopard** are trademarks of Apple Inc., in the United States and other countries.

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

15220 NW Greenbrier Parkway
Suite 240
Beaverton, OR 97006

Release Notes for GemBuilder for Smalltalk 5.4.2

GemBuilder for Smalltalk (GBS) version 5.4.2 is a new version of the GemBuilder for Smalltalk product. This release adds support for GemStone/S 64 Bit v3.2, with a single socket connection to the Gem. Older versions of GBS cannot be used with GemStone/S 64 Bit v3.2. This release also adds support for VA Smalltalk v8.6.

There are no significant GBS code changes in this release.

These release notes provide changes between the previous version of GBS, version 5.4.1, and version 5.4.2. If you are upgrading from a version prior to 5.4.1, please also review the release notes for each intermediate release to see the full set of changes.

This release does not support VisualWorks; VisualWorks is supported by separate set of releases of the GBS product. GBS 5.4.2 cannot be used with GemStone/S 64 Bit 2.x, nor can it be used with 32-bit GemStone/S. Support for these servers is provided in separate releases.

To install GemBuilder for Smalltalk 5.4.2, follow the instructions in the *GemBuilder for Smalltalk Installation Guide* for version 5.4.2.

Supported Platforms and Versions

The following table describes the client Smalltalk versions and platforms supported by GBS 5.4.2, and the GemStone/S 64 Bit 3.x server product shared library versions that can be used with each.

GemBuilder for Smalltalk v5.4.2 supports GemStone/S 64 Bit 3.x only, and cannot be used with 32-bit GemStone/S or with GemStone/S 64 Bit v.2.x.

Only RPC logins are supported with VA Smalltalk.

Table 1 Supported GemStone/S 64 Bit Server versions - RPC logins only

	VA Smalltalk 8.6	VA Smalltalk 8.5.2
Windows 8 Professional Edition or above	3.2	
Windows Server 2008 R2	3.2, 3.1.0.6	3.2, 3.1.0.6
Windows 7 *	3.2, 3.1.0.6	3.2, 3.1.0.6

* VA Smalltalk 8.6 requires Windows 8 or Windows 7 to be Professional edition or above.

Note that GemStone products are no longer supported on Windows XP, which is reaching end of life from Microsoft.

Changes in GemStone/S 64 Bit v3.2 that impact GBS

There are a number of changes in v3.2 that impact GBS behavior, when logged into a v3.2 repository. Refer to the GemStone/S 64 Bit Release Notes for v3.2 for more information. For GBS 5.4.2 applications running with 3.1.x, these changes do not apply.

Debugger stack frame printing

In the debugger, server frames now include the class that implements the method as well as the receiver, and do not include envId, if that is 0.

"self" now resolves to nil

Evaluated (non-method) code that includes "self" will now resolve self to nil, rather than error

Could not evaluate block with an explicit return

Evaluating a block from GBS that contained an explicit return from the block returned an error, unable to find home context. (#42837)

On first step into server context, cannot evaluate temporary variables

In the GBS debugger, before any step within a server context, GemStone was not able to resolve temporary variables in the method. (#42543, #42546)

The fix includes a new bytecode in the compiled server method, so there is an additional step point. Since this is added when the method is compiled, there is no change in behavior with existing compiled server methods. New or recompiled methods will include the step point, and will not have this problem.

Accept and ignore new Topaz commands in server fileins

The topaz commands `fileformat` and `set sourcestringclass` are now included in topaz fileout files. GBS now accepts these commands, but they have no effect in GBS.