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GemStone®

# *GemBuilder® for Smalltalk Release Notes*

Version 5.4.2

April 2014



GEMTALK™  
SYSTEMS

GEMSTONE S<sup>TM</sup> 64

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## 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.

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# Release Notes for GemBuilder for Smalltalk 5.4.2

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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
<b>Windows 8 Professional Edition or above</b>	3.2	
<b>Windows Server 2008 R2</b>	3.2, 3.1.0.6	3.2, 3.1.0.6
<b>Windows 7 *</b>	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.