GemStone®

GemBuilder® *for Smalltalk*
Release Notes

Version 7.5

July 2012

vmware®

GEMSTONE

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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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About This Documentation

These release notes describe the changes in the GemBuilder® for Smalltalk version 7.5 release. This documentation is also available on the GemStone Technical Support website.

For information on installing or upgrading to this version of GemBuilder for Smalltalk, please refer to the *GemBuilder for Smalltalk Installation Guide* for version 7.4.1.

Terminology Conventions

The term "GemStone" is used to refer to the server products GemStone/S 64 Bit and GemStone/S; and may also be used to refer to the company, previously GemStone Systems, Inc., now a division of VMware, Inc.

Technical Support

GemStone Website

http://support.gemstone.com

GemStone's Technical Support website provides a variety of resources to help you use GemStone products:

- ▶ Documentation for released versions of all GemStone products, in PDF form.
- ▶ Downloads and Patches, including past and current versions of GemBuilder for Smalltalk.
- ▶ Bugnotes, identifying performance issues or error conditions you should be aware of.
- ▶ TechTips, providing information and instructions that are not otherwise included in the documentation.
- ▶ Compatibility matrices, listing supported platforms for GemStone product versions.

This material is updated regularly; we recommend checking this site on a regular basis.

Help Requests

You may need to contact Technical Support directly, if your questions are not answered in the documentation or by other material on the Technical Support site. Technical Support is available to customers with current support contracts.

Requests for technical support may be submitted online, by email, or by telephone. We recommend you use telephone contact only for serious requests that require immediate attention, such as a production system down. The support website is the preferred way to contact Technical Support.

> **Website: http://techsupport.gemstone.com**
>
> **Email: techsupport@gemstone.com**
>
> **Telephone: (800) 243-4772 or (503) 533-3503**

If you are reporting an emergency by telephone, select the option to transfer your call to the Technical Support administrator, who will take down your customer information and immediately contact an engineer. Please also open a ticket on the website, and include error and log information. Non-emergency requests received by telephone will be placed in the normal support queue for evaluation and response.

When submitting a request, please include the following information:

- Your name, company name, and GemStone server license number.
- The versions of all related GemStone products, and of any other related products, such as client Smalltalk products.
- The operating system and version you are using.
- A description of the problem or request.
- Exact error message(s) received, if any, including log files if appropriate.

GemStone Technical Support is available from 8am to 5pm Pacific Time, Monday through Friday, excluding VMware/GemStone holidays.

24x7 Emergency Technical Support

GemStone Technical Support offers, at an additional charge, 24x7 emergency technical support. This support entitles customers to contact us 24 hours a day, 7 days a week, 365 days a year, for issues impacting a production system. For more details, contact your GemStone account manager.

Training and Consulting

Consulting is available to help you succeed with GemStone products. Training for GemStone software is available at your location, and training courses are offered periodically at our offices in Beaverton, Oregon. Contact your GemStone account representative for more details or to obtain consulting services.

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Chapter 1. Release Notes for GemBuilder for Smalltalk 7.5

1 *Release Notes for GemBuilder for Smalltalk 7.5*

GemBuilder for Smalltalk (GBS) version 7.5 is a new version of the GemBuilder for Smalltalk product. This release provides compatibility with GemStone/S 64 Bit v3.1 and VisualWorks 7.9, and includes several enhancements. You should read these release notes before installing or upgrading, to acquaint yourself with the changes.

These release notes provide changes between the previous version of GBS, version 7.4.1, and version 7.5. If you are upgrading from a version prior to 7.4.1, please also review the release notes for each intermediate release to see the full set of changes.

This release supports both GemStone/S 64 Bit, the 64-bit GemStone/S-based object server, and with GemStone/S, the original 32-bit GemStone object server.

In order to use GBS v7.5, you must use VisualWorks 7.9. This release cannot be used with earlier versions of VisualWorks, nor with VisualAge Smalltalk.

To install GemBuilder for Smalltalk 7.5, follow the instructions in the *GemBuilder for Smalltalk Installation Guide* for version 7.5.

Supported Platforms and Versions

The following tables describe the client Smalltalk versions and platforms supported by GBS 7.5, and the GemStone server product shared library versions that can be used with each.

For more details, including the specific required client libraries for each server product and versions, refer to the *GemBuilder for Smalltalk Installation Guide* for version 7.5.

Table 1   Supported 32-bit GemStone/S Server versions

	VW 7.9 32-bit
Windows 2008 R2	6.6.2
Windows 7; **Windows XP, SP 1 or later**	6.6.2
Red Hat Linux ES 5.0 and 5.5, and 6.1	6.6.2
Solaris 9 and 10 on SPARC	6.6.2

Table 2   Supported GemStone/S 64 Bit Server versions - RPC logins only

	VW 7.9 32-bit
Windows 2008 R2	3.1, 3.0.1
Windows 7; **Windows XP, SP 1 or later**	3.1, 3.0.1, 2.4.5.1, 2.4.4.8
SUSE Linux ES 11; **Red Hat Linux ES 6.1**	3.1, 2.4.5.1
SUSE Linux ES 10; **Red Hat Linux ES 5.5**	3.1, 3.0.1, 2.4.5.1
Solaris 10 on SPARC	3.1, 3.0.1, 2.4.5.1
Solaris 9 on SPARC	2.4.5.1

Table 3   Supported GemStone/S 64 Bit Server versions - Linked or RPC logins
Linked logins require 64-Bit VisualWorks Smalltalk clients

	VW 7.9 64-bit
SUSE Linux ES 11; **Red Hat Linux ES 6.1**	3.1, 2.4.5.1
SUSE Linux ES 10; **Red Hat Linux ES 5.5**	3.1, 3.0.1, 2.4.5.1
Solaris 10 on SPARC	3.1, 3.0.1, 2.4.5.1

New Features and Bugs Fixed

Library load changes

The way GBS searches for client libraries has changed in this release.

▶ If `libraryName` is set to the default emptyString, it does not search for client libraries in directories on the machine search path %PATH% or $LD_LIBRARY_PATH. The empty string is only useful if you place the client shared libraries in the current working directory, or in the bin or bin subdirectory of your VisualWorks installation.

This is due to the changes in library naming introduced in GemStone/S 64 Bit v3.1.

▶ `libraryName` can be set to a full file path and name on all platforms, including Windows.

▶ If the client library specified by `libraryName` fails to load, the resulting dialog allows navigation to the desired library, with name filtering that only displays valid library names.

The instructions in the *GemBuilder for Smalltalk Installation Guide* for v7.5 on locating the server client libraries and the options for setting `libraryName` have been extensively updated for this release. Refer to that document for details on the library load process.

Further changes in comment handling

There are a number of ways class comments are handled on GemStone/S servers.

In 32-bit GemStone/S and in GemStone/S 64 Bit 2.x versions:
Class comments are stored in the class objects as instances of the internal class GsClassDocumentation, accessed via description and description:

In GemStone/S 64 Bit version 3.0.x:
Class comments are primarily stored in a class method named comment, which returned a string containing the class comment. Defining a class comment was done by compiling the class method. Class comments stored in the class as GsClassDocumentations were deprecated but could be used without updating.

In GemStone/S 64 Bit version 3.1 and later:
Class comments are stored in the class objects as strings, accessed via comment and comment:. Comments stored as GsClassDocumentations instances or returned by comment class methods are not supported in 3.1.

GBS now accommodates the class comment behavior for all comment handling protocols.

Note that with GemStone/S 64 Bit version 3.1, it is required to use the new comment protocol; GBS class comment handling will not work correctly with servers that have not upgraded class comments.

With versions of GemStone/S 64 Bit earlier than 3.1, class comments are written to both the comment method and to the GsClassDocumentation, both of which are created if they did not exist.

Modifying default Security Policy of another user

The GemStone user browser now includes the field for Default Security Policy, allowing the user's default policy to be managed.

Breakpoint highlighting

In browsers, server-side breakpoints are now visually indicated by color and underlining; server-side breakpoints are indicated in the debugger by color only.

Server-side breakpoints may now be removed, from the browsers or the debugger.

Session Browser

Added Break button

The session browser now includes a break button, which sends a softbreak to the selected session. Note this may not be the current session. The break button will not work in linked sessions or in RPC sessions that have `blockingProtocolRpc` set to true.

Session Browser drag and drop would not drop at end of list

The feature that allowed reordering of session parameters by dragging and dropping within the session parameters list did not allow drop at the end of the list. (#38170)