

GemBuilder for Smalltalk Release Notes

Version 7.3beta DRAFT

October 2009

Draft version; contents subject to change up to time of release.
Please review final Release Notes to see complete set of changes.



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PATENTS

GemStone is covered by U.S. Patent Number 6,256,637 "Transactional virtual machine architecture", Patent Number 6,360,219 "Object queues with concurrent updating", and Patent Number 6,567,905 "Generational Garbage Collector". GemStone may also be covered by one or more pending United States patent applications.

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Preface

These release notes describe the changes in the GemBuilder for Smalltalk® version 7.3beta release. We recommend that everyone using GemBuilder for Smalltalk read these release notes before installing or upgrading. These release notes are also available on the GemStone customer website, as described in the next section.

For information on installing or upgrading to this version of GemBuilder for Smalltalk, please refer to the *GemBuilder for Smalltalk Installation Guide* for version 7.3beta.

Technical Support

GemStone provides several sources for product information and support. The product-specific manuals provide extensive documentation, and should be your first source of information.

GemStone Web Site: <http://support.gemstone.com>

GemStone's Technical Support website provides a variety of resources to help you use GemStone products. Use of this site requires an account, but registration is free of charge. To get an account, just complete the Registration Form, found in the same location. You'll be able to access the site as soon as you submit the web form.

The following types of information are provided at this web site:

Documentation for GemBuilder for Smalltalk is provided in PDF format. This is the same documentation that is included with your GemBuilder for Smalltalk product.

Release Notes and **Install Guides** for your product software are provided in PDF format in the Documentation section.

Downloads and **Patches** provide code fixes and enhancements that have been developed after product release, and past and current versions of GemBuilder for Smalltalk.

Bugnotes, in the Learning Center section, identify performance issues or error conditions that you may encounter when using a GemStone product. A bugnote describes the cause of the condition, and, when possible, provides an alternative means of accomplishing the

task. In addition, bugnotes identify whether or not a fix is available, either by upgrading to another version of the product, or by applying a patch. Bugnotes are updated regularly.

TechTips, also in the Learning Center section, provide information and instructions for topics that usually relate to more effective or efficient use of GemStone products.

Community Links provide customer forums for discussion of GemStone product issues.

Technical information on the GemStone Web site is reviewed and updated regularly. We recommend that you check this site on a regular basis to obtain the latest technical information for GemStone products.

Help Requests

You may need to contact Technical Support directly for the following reasons:

- ▶ Your technical question is not answered in the documentation.
- ▶ You receive an error message that directs you to contact GemStone Technical Support.
- ▶ You want to report a bug.
- ▶ You want to submit a feature request.

Questions concerning product availability, pricing, keyfiles, or future features should be directed to your GemStone account manager.

When contacting GemStone Technical Support, please be prepared to provide the following information:

- ▶ Your name, company name, and GemStone/S license number
- ▶ The GemStone product and version you are using
- ▶ The hardware platform and operating system you are using
- ▶ A description of the problem or request
- ▶ Exact error message(s) received, if any

Your GemStone support agreement may identify specific individuals who are responsible for submitting all support requests to GemStone. If so, please submit your information through those individuals. All responses will be sent to authorized contacts only.

For non-emergency requests, the support website is the preferred way to contact Technical Support. Only designated support contacts may submit help requests via the support website. If you are a designated support contact for your company, or the designated contacts have changed, please contact us to update the appropriate user accounts.

Website: <http://techsupport.gemstone.com>

Email: support@gemstone.com

Telephone: (800) 243-4772 or (503) 533-3503

Requests for technical assistance may be submitted online, or by email or by telephone. We recommend you use telephone contact only for more serious requests that require immediate evaluation, such as a production system that is non-operational. In these cases,

please also submit your request via the web or email, including pertinent details such as error messages and relevant log files.

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.

Non-emergency requests received by telephone will be placed in the normal support queue for evaluation and response.

24x7 Emergency Technical Support

GemStone 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, if they encounter problems that cause their production application to go down, or that have the potential to bring their production application down. For more details, contact your GemStone account manager.

Training and Consulting

Consulting and training for all GemStone products are available through GemStone's Professional Services organization.

- ▶ Training courses are offered periodically at GemStone's offices in Beaverton, Oregon, or you can arrange for onsite training at your desired location.
- ▶ Customized consulting services can help you make the best use of GemStone products in your business environment.

Contact your GemStone account representative for more details or to obtain consulting services.

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Release Notes for GemBuilder for Smalltalk 7.3beta

NOTE

This is a draft of the Release Notes for 7.3. For current information, consult the support web site <http://support.gemstone.com/>, or contact GemStone Technical Support.

When GemBuilder for Smalltalk version 7.3 is released, it will be available at http://support.gemstone.com/gemstone_s/downloads/gbs/gbs73.html, including the final Release Notes.

GemBuilder for Smalltalk (GBS) version 7.3beta is a new version of the GemBuilder for Smalltalk product, providing product improvements and bug fixes. Please take time to read through 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 7.2.2, and version 7.3beta. If you are upgrading from a version prior to 7.2.2, please also review the release notes for each intermediate release to see the full set of changes.

This release supports VisualWorks 7.x. It does not support VisualWorks 5i or VA Smalltalk; support for these is provided in separate releases. This release supports both the GemStone/S 64 Bit 2.x product, using the Single-trip interface, and GemStone/S, using the Multi-trip interface. It is not usable with versions of GemStone/S 64 bit earlier than 2.2.5. For details on supported client platforms, see 'Supported Platforms and Versions' below.

To install GemBuilder for Smalltalk 7.3beta, follow the instructions in the *GemBuilder for Smalltalk Installation Guide* for version 7.3beta.

Supported Platforms and Versions

The following tables describe the client Smalltalk versions and platforms supported by GBS 7.3beta, and the GemStone server product shared library versions that can be used with each.

GemBuilder for Smalltalk version 7.3beta supports both GemStone/S, the original 32-bit GemStone object server, and GemStone/S 64 Bit, the 64-bit GemStone/S-based object server. The following tables list the supported client operating system, client Smalltalk, and GemStone server version configurations for both GemStone/S server products.

Table 1 Supported GemStone/S Server versions

	VW 7.6 with 7.6 OE	VW 7.7 with 7.7 OE
Windows Vista		6.5.4
Windows Server 2003 Standard Edition, SP1 or later	6.3.1, 6.5.4	6.3.1, 6.5.4
Windows XP, SP 1 or later	6.3.1, 6.5.4	6.3.1, 6.5.4
Red Hat Linux Advanced Server 3.0	6.3.1, 6.5.4	6.3.1, 6.5.4
Red Hat Linux Enterprise Server 4.0	6.3.1, 6.5.4	6.3.1, 6.5.4
Solaris 2.9 on Sparc	6.3.1, 6.5.4	6.3.1, 6.5.4
Solaris 2.10 on Sparc	6.3.1, 6.5.4	6.3.1, 6.5.4

Table 2 Supported GemStone/S 64 Bit Server versions

Note that only RPC logins are supported from GBS to GemStone/S 64 Bit

	VW 7.6 with 7.6 OE	VW 7.7 with 7.7 OE
Windows Vista	2.3.1.6, 2.4	2.3.1.6, 2.4
Windows Server 2003 Standard Edition, SP1 or later	2.3.1.6, 2.4	2.3.1.6, 2.4
Windows XP, SP 1 or later	2.3.1.6, 2.4	2.3.1.6, 2.4
SUSE Linux ES 10	2.3.1.6, 2.4	2.3.1.6, 2.4
Red Hat Linux ES 5.0	2.3.1.6, 2.4	2.3.1.6, 2.4
Solaris 10 on x86	2.3.1.6, 2.4	2.3.1.6, 2.4
HPUX 11.11 on HP9000	2.3.1.6, 2.4	2.3.1.6, 2.4

Changes and New Features

Support for Single-trip and Multi-trip

This release of GBS support both the Single-trip and Multi-trip server interfaces, depending on the server platform. When running against a GemStone/S repository, only Multi-trip is supported. When running against GemStone/S 64 Bit 2.2.x or later, only Single-trip is supported. Only one server product version and interface can be active at one time; to change server product, you must restart your client VM.

The GBS configuration setting `useSingleTrip`, allowing you to select Single-trip or Multi-trip, has been removed.

Bugs Fixed

The following bugs have been fixed since GemBuilder for Smalltalk version 7.2.2:

Create/Compile in GS may version class in different symbol dictionary

Making class definition changes on the client and propagating these changes to the server resulted in a new version of the class that could be in a different SymbolDictionary (#40045)

Stack dumps may not show server context temporaries

GBS Stack dumps that include server contexts may omit information on temporaries, with an message such as:

Temporaries:No further information; a MessageNotUnderstood

(#40041)

Possible out of memory errors due to accumulation in export set

Server objects replicated to GBS are put in the gem's export set, to avoid GC in the gem. After these objects are dereferenced and GCed on the client, they continue to consume gem temporary object memory until they are removed from the export set. Previously, this was done only after 2000 objects needed to be removed, risking out of memory issues in GemStone/S 64 Bit. Now, export set cleanup is immediate. (#34719)

Cache inventory statistics not working

Due to code refactor, many cache inventory statistics were not being collected (#39765)

Abort would lose data error handled as abort, causing problems

If a server operation resulted in a server error `#rtErrAbortWouldLoseData`, it was handled as an aborting error. This resulted in the incorrect error message being returned, and could hang the image (#39404)

Handling of server compilation error was incorrect or raised error

Compilation errors in server code being executed from the client were not handled well. Depending on circumstances, this could have raised a message not understood error, or

failed to give details of the error. In addition to correcting these problems, other minor improvements in compilation error handling have been made (#33368, 37451)

Error on Symbol List Browser search

After searching for an entry in the Symbol List Browser, selecting a symbol from the dialog resulted in a walkback. (#39571)

Debugger GS-Do its fail with duplicate temporary variable names

When the same temporary variable name was used in more than one scope within the same server method, attempting to do server execution from the debugger resulted in an error. (#39461)

System workspace window not closeable

After opening and closing a GemStone System Workspace, an image save and restart caused the appearance of a GemStone System Workspace window that could not be closed. (#39216)

Walkback on stack dump if thread contains a nil server process

When dumping stacks, a walkback can occur if a client thread contains a server context for which the server process is not retrievable. This is the case when another thread is blocking the session semaphore. (#39218)

Dive may dive into incorrect object for matching keys

For GemStone server objects that contain key/value child objects, whose keys have equal print strings, all dive operations into any of the keys dove into the same child object, whichever child was the target of the first dive. (#36144)

Authorization errors prevented Symbol List Browser opening

If a SymbolDictionary is in a segment to which the user does not have read authorization, opening the Symbol List browser resulted in an error, preventing use of the tool. (#11138)

Server synchronization from Debugger and Inspector

Debugger and inspector operations performed server synchronization that could have inappropriately modified objects. (#38192, #35771, #39191)

Class variable connector MNU on undefined variable

If a Class Variable Connector attempted to connect to a class variable that was not defined on the client, it resulted in a message not understood on connectionError:, rather than reporting a connection error. (#34769)

Browse Class/Class References from Debugger text pane broken

If a class name is highlighted in the debugger text pane, executing the “Browse Class” or “Browse References to Class” menu items resulted in a Message not understood on bindingFor:. (#39961)