
GemStone®

GemBuilder for Smalltalk Release Notes

Version 7.1.2

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GEMSTONE ™

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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 7.1.2 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*.

Technical Support

GemStone provides several sources for product information and support. The product-specific manuals and online help provide extensive documentation, and should always be your first source of information. GemStone Technical Support engineers will refer you to these documents when applicable.

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:

Help Request allows designated support contacts to submit new requests for technical assistance and to review or update previous requests.

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. Most code fixes and enhancements listed on the GemStone Web site are available for direct downloading.

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. Some Tips may contain code that can be downloaded for use at your site.

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. We also welcome suggestions and ideas for improving and expanding our site to better serve you.

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.

Email: support@gemstone.com

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

Requests for technical assistance may also be submitted 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 7.1.2

GemBuilder for Smalltalk (GBS) version 7.1.2 is a new release of the GemBuilder for Smalltalk product. Please take time to read through these release notes before installing or upgrading, to acquaint yourself with the changes.

This release supports both VisualWorks 5i and 7.x. It does not support VisualAge or VA Smalltalk; support for this is provided in a separate release. For details on supported client platforms, see 'Supported Platforms and Versions' below.

To install GemBuilder for Smalltalk 7.1.2, follow the instructions in the *GemBuilder for Smalltalk Installation Guide*.

If you have any questions regarding this release, please contact your GemStone account manager or GemStone Technical Support.

TimeZone handling in version 7.1.2

Bug 36432, "Can't correctly replicate DateTimes in both 2006 and 2007 TimeZones", is **not** fixed in this version. If you had applied the GBS TimeZone patch in the earlier version of GBS you were using, you will need to apply the updated patch after upgrading.

The GBS TimeZone patch can be found on the support site at:

http://support.gemstone.com/gemstone_s/downloads/patches/gbstimezone/index.html

This patch only applies to the 2006/2007 DST rules change in the US and Canada, and should not be used in locations that do not observe US and Canadian TimeZone rules.

Supported Platforms and Versions

The following tables describe the client Smalltalk versions and platforms supported by GBS 7.1.2, and the GemStone server product shared library versions that can be used with each.

GemBuilder for Smalltalk 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 each GemStone server product.

Updated information may be found on the GemStone Technical Support site at:
http://support.gemstone.com/gemstone_s/learning_center/compat/index.html

Table 1 Supported GemStone/S Server versions

	VW 7.4 with 7.4 OE	VW 7.4.1 with 7.4d OE	VW 7.5 with 7.5 OE	VW 5i.1 Envy with 5i.4c OE
Windows 2000, SP 1 or later	6.1.5, 6.1.6*	6.1.5, 6.1.6*	6.1.5, 6.1.6*	6.1.5, 6.1.6*
Windows XP, SP 1 or later	6.1.5, 6.1.6*	6.1.5, 6.1.6*	6.1.5, 6.1.6*	6.1.5, 6.1.6*
Windows 2003	6.1.5, 6.1.6*	6.1.5, 6.1.6*	6.1.5, 6.1.6*	6.1.5, 6.1.6*
Red Hat Linux Advanced Server 2.1	6.1.5	6.1.5	6.1.5	
Red Hat Linux Advanced Server 3.0	6.1.5	6.1.5	6.1.5	
Solaris 2.8	6.1.5	6.1.5	6.1.5	6.1.5
Solaris 2.9	6.1.5	6.1.5	6.1.5	6.1.5
Solaris 2.10	6.1.5	6.1.5	6.1.5	6.1.5
HPUX 11.11	6.1.5 (RPC only)	6.1.5 (RPC only)	6.1.5 (RPC only)	6.1.5 (RPC only)

* v.6.1.6 was not released on Windows; only RPC logins from Windows are supported.

Table 2 Supported GemStone/S 64 Bit Server versions

	VW 7.4 with 7.4 OE	VW 7.4.1 with 7.4d OE	VW 7.5 with 7.5 OE	VW 5i.1 Envy with 5i.4c OE
Windows 2000, SP 1 or later	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)
Windows XP, SP 1 or later	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)
Red Hat Linux ES 4.0	1.1.14 (RPC only)	1.1.14 (RPC only)	1.1.14 (RPC only)	
SuSE Linux ES 9.3	1.1.14 (RPC only)	1.1.14 (RPC only)	1.1.14 (RPC only)	
SuSE Linux ES 10			2.2.2 (RPC only)	
Solaris 2.9	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)	1.1.14 (RPC only)
Solaris 2.10	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)	1.1.14, 2.2.2 (RPC only)	1.1.14 (RPC only)
HPUX 11.11	with 7.4d Object Engine: 2.2.2 (RPC only)	2.2.2 (RPC only)	2.2.2 (RPC only)	

Changes and New Features

Support for VisualWorks versions

Earlier versions of GBS were not usable with VisualWorks 7.5, due to VisualWorks changes in the VW debugger (#36166), and GbsTimeZone initialization failures with the introduced VisualWorks class CompositeTimeZone (#36533). VisualWorks 7.5 is now fully supported.

VisualWorks 7.3.1 and earlier are not supported with GBS 7.1.2. GBS 7.1.2 parcels use new bytecodes that were added in the VisualWorks 7.4 release, so the 7.1.2 parcels cannot be loaded into VW versions prior to 7.4.

Performance improvement in inspecting very large collections

Formerly, inspecting a very large collection cached a small number of elements, and created placeHolders for the remainder of the elements in the collection. As collections became very large, the overhead of these placeholders degraded performance and client memory use. (#37092)

Bugs Fixed

The following bugs have been fixed since GemBuilder for Smalltalk version 7.1.1:

Session Browser session selection issues

Logging other sessions in and out may have left the Session Browser without the correct session selected. Now, the selected session will remain selected unless the selected session logs out (which will leave the new current session selected) or a new session is logged in, in which case the new session is selected. (#36181)

dumpAllProcessStacks gets basicCInterface not understood

Executing `GbsStackDumper dumpAllProcessStacks` resulted in an error, `basicCInterface not understood`. (#36180)

MessageNotUnderstood on server compiler error in GS-File in

When Class Definition or doit code that is sent to the GemStone server for compilation has a compiler error, it was returning a `MessageNotUnderstood`:
`GbxCompilerController>>openForGSCompilerError:text: error`. (#37452)

Undeclared variable

The method `GbxObjIdDictLeaf>>do:` included an undeclared variable. This method is no longer used, and this and the similarly unused `do: implementations` in `GbxObjIdDictionary` and `GbxObjIdDictNode` related methods have been removed. (#36146)

VisualWorks 7.x only bugs

Debugger walkback on step into local forwarder send

Most messages sent to forwarders result in execution on the server; however, a few messages to forwarders may actually execute on the client. Attempting to step into a message that was sent to a forwarder and executed on the client resulted in a debugger walkback. (#37065)

Class inspection failed from debugger

With class generation disabled, when debugging server code, attempting to inspect an instance of a Class that did not exist on the client generated a walkback. (#36139)

Subscript out of bounds during inspector dive

It was possible for double-clicking (dive) to encounter a subscript out of bounds error.

This was introduced during the fix for bug #35672, Inspector "Dive" sends #copy to inspected object, which was fixed in 7.1. An alternate fix for that problem has been implemented which avoids this bug. (#36188)

Message not understood opening debugger popup menu when no context selected

In the debugger's content list pane (upper left pane), clicking on the "operate" mouse button (right-click) to pop up the operate menu, when no context was selected, resulted in message not understood errors. (#36184)

Debugger context inspector compile did not recognize server variables

When debugging a server context, the context inspector (lower right panes) displayed server variables and their values, but executing code on these server variables failed with an undefined symbol error on that variable. (#36742).

Debugger buttons enabled that are context inappropriate

Certain debugger functions do not work with, or are inappropriate, when a GemStone server context is selected. These buttons were not disabled to avoid inadvertent use. (#37382)

