
GemStone®

GemBuilder for Smalltalk Release Notes

Version 7.2.2

July 2009

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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GemStone Systems, Inc.

1260 NW Waterhouse Avenue, Suite 200
Beaverton, OR 97006

Preface

About This Documentation

These release notes describe the changes in the GemBuilder for Smalltalk® version 7.2.2 release. We recommend that everyone using GemBuilder for Smalltalk read these release notes before installing or upgrading.

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

These release notes are also available on the GemStone customer website, as described in the next section.

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 7.2.2

Overview

GemBuilder for Smalltalk (GBS) version 7.2.2 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 VisualWorks 7.x. It does not support VisualWorks 5i, or VisualAge or VA Smalltalk; support for these is provided in separate releases. For details on supported client platforms, see 'Supported Platforms and Versions' below.

This release supports the new Single-trip GemStone server protocol only, and cannot be used with versions of GemStone/S 64 Bit earlier than 2.2.5, nor with the 32-Bit GemStone/S product. This release has been tested and is fully supported with GemStone/S 64 Bit 2.3.1.6

To install GemBuilder for Smalltalk 7.2.2, follow the instructions in the *GemBuilder for Smalltalk Installation Guide*.

Technical Support

GemStone Technical Support has a new Help Request system. Customers with support agreements are invited to submit Help Requests to:

<http://techsupport.gemstone.com>

Product documentation, bugnotes and other Technical Support material continues to be available at the older site:

<http://support.gemstone.com>

Supported Platforms and Versions

The following tables describe the client Smalltalk versions and platforms supported by GBS 7.2.2, and the GemStone/S 64 Bit shared library versions that can be used with each.

This version of GemBuilder for Smalltalk can not be used with versions of GemStone/S 64 Bit earlier than 2.2.5, nor with GemStone/S, due to use of the Single-trip protocol. A subsequent GBS release will include support for the previously used Multi-trip as well, allowing use with earlier versions of GemStone/S 64 Bit and GemStone/S.

The following table lists the supported client operating system, client Smalltalk, and GemStone/S 64 Bit server version configurations.

Table 1 Supported GemStone/S 64 Bit Server versions

	VW 7.5 with 7.5 OE	VW 7.6 with 7.6 OE
Windows XP, SP 1 or later	2.3.1.6	2.3.1.6
Windows 2003 Standard Edition SP 1 or later	2.3.1.6	2.3.1.6
Windows Vista		2.3.1.6
SuSE Linux ES 10	2.3.1.6	2.3.1.6
RedHat Linux ES 5.0		2.3.1.6
Solaris 10 on x86		2.3.1.6
HPUX 11.11	2.3.1.6	2.3.1.6

All configurations are RPC only

Changes and New Features

Improved handling of GbxObjIdDictLeaf

GbxObjIdDictLeaf instances now shrink down to their configured minimum capacity when they become close to empty. Previously, once a leaf needed to grow it would remain at the higher capacity until it became entirely empty, at which point it would be removed. This change improves both time and space performance in usage patterns where a range of oops is used heavily followed by an extended period in which that range of oops is still used, but only lightly.

Bugs Fixed

The following bugs have been fixed since GemBuilder for Smalltalk version 7.2.1:

Error when evaluation results in a special

If the result returned to GBS from server Smalltalk execution was a Character, SmallInteger or SmallDouble, and any replicated objects were dirtied on the server during the server execution, GBS reported a does-not-understand or primitive-failed error. (#39979)

Risk of walkback when object cache grows

When a GbxObjIdDictLeaf in the object cache becomes close to full, it is automatically grown. Depending on the hash distribution in the previous and new sizes of the leaf, there was a slight chance that the larger cache would run out of collision chain space, resulting in a walkback (#39433)

