
GemStone®

GemBuilder® for Java

Release Notes

Version 3.1.3

November 2016



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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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Preface

About This Documentation

These Release Notes describe the changes in the GemBuilder® for Java version 3.1.3 release.

For information on installing or upgrading to this version of GemBuilder for Java, please refer to the *GemBuilder for Java Installation Guide* for version 3.1.3.

This documentation is also available on the GemStone Technical Support website.

Terminology Conventions

The term “GemStone” is used to refer to the server products GemStone/S 64 Bit and GemStone/S, and the GemStone family of products; the GemStone Smalltalk programming language; and may also be used to refer to the company, now GemTalk Systems, previously GemStone Systems, Inc. and a division of VMware, Inc.

Technical Support

Support Website

gemtalksystems.com

GemTalk’s website provides a variety of resources to help you use GemTalk products:

- ▶ **Documentation** for the current and for previous released versions of all GemTalk products, in PDF form.
- ▶ **Product download** for the current and selected recent versions of GemTalk software.
- ▶ **Bugnotes**, identifying performance issues or error conditions that you may encounter when using a GemTalk product.

- ▶ **TechTips**, providing information and instructions that are not in the documentation.
- ▶ **Compatibility matrices**, listing supported platforms for GemTalk 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 assistance may be submitted online, 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 down. The support website is the preferred way to contact Technical Support.

Website: techsupport.gemtalksystems.com

Email: techsupport@gemtalksystems.com

Telephone: (800) 243-4772 or (503) 766-4702

When submitting a request, please include the following information:

- ▶ Your name and company name.
- ▶ The version of GemBuilder for Java, GemStone product and version, and versions of all related GemTalk products and other 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.

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

24x7 Emergency Technical Support

GemTalk 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 GemTalk Support Renewals.

Training and Consulting

GemTalk Professional Services provide consulting to help you succeed with GemStone products. Training for GemStone/S is available at your location, and training courses are offered periodically at our offices in Beaverton, Oregon. Contact GemTalk Professional Services for more details or to obtain consulting services.



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GemBuilder for Java

3.1.3 Release Notes

GemBuilder for Java (GBJ) version 3.1.3 is a new release of the GemBuilder for Java product. This release adds compatibility with 32-bit GemStone/S, as well as providing several bug fixes.

These release notes provide details of the changes between the previous version of GBJ, version 3.1.2, and this release. Please read through them before installing, to acquaint yourself with the changes.

If you are upgrading from a version earlier than 3.1.2, please refer to the *Release Notes* for each intermediate release as well. In particular, version 3.0 contained substantial internal redesign and significant changes; and keyfile authorization is now required with GemStone/S 64 Bit.

To install GemBuilder for Java v3.1.3, follow the instructions in the *GemBuilder for Java Installation Guide* for v3.1.3.

Supported Platforms

Detailed information on supported platforms is provided in the *GemBuilder for Java Installation Guide* v3.1.3.

GemStone Server Versions

GemBuilder for Java version 3.1.3 is compatible with 32-bit GemStone/S versions 6.7 and above, GemStone/S 64 Bit version 3.2.15 and later 3.2.x versions, and 3.3.1 and above.

GemBuilder for Java v3.1.3 has been tested with the following server versions:

- ▶ GemStone/S 64 Bit v3.3.1
- ▶ GemStone/S 64 Bit v3.2.15
- ▶ GemStone/S (32-bit) v6.7

Supported Platforms

See the GemStone/S 64 Bit or GemStone/S *Release Notes* for your GemStone server product and version, for the supported OS platforms.

Both the GemStone server and the GBJ clients must run on supported client platforms for your server version. While the GemStone/S 64 Bit server is not available on Windows, you may run GBJ clients on Windows using the GemStone/S 64 Bit Windows client.

Supported Java JDK

GBJ v3.1.3 requires Java version 8. It was built and tested using 1.8.0_102.

Changes and Bugs Fixed

Updated support for 32-bit GemStone/S

This release includes support for 32-bit GemStone/S. GBJ versions 3.0.1 through 3.1.2 supported GemStone/S 64 Bit 3.x only.

Several features that were added in these versions are not available with 32-bit GemStone/S. Specifically, support for Android clients is not available with GemStone/S 32 bit, nor is the GBJ cache statistics interface.

Added environment variable for server version

On the client node, you may now use the added environment variable `$GBJ_GSVERSION` or `%GBJ_GSVERSION%`, to compose library names for the target GemStone server version.

The internal library load process has been updated, messages related to library loading have been improved, and the *Installation Guide* has been revised, so problems during an initial setup and configuration are easier to diagnose.

Handling of Integers larger than java long

A function has been added to return a server Integer value as a `java.math.BigInteger`:

```
GbjObject.bigIntegerValue()
```

When fetching an integer from the server using:

```
GbjObject.longValue()
```

if the integer is too large to fit in a java long type, GBJ now triggers a `java.lang.ArithmeticException`, and you can use `GbjObject.bigIntegerValue()` to return the value. (#46283).

GBJ corrupts String characters with codePoints larger than 127

String containing characters with codepoints over 127, that is, that require more than 7 bits to represent, may become modified or corrupted when transferring from GBJ to the server; 8-bit range Characters are converted to UTF-8, larger Characters are byte-swapped on little endian platforms. (#30012)

GbjGciPreferences breaks on libgbjgci library load problems

GbjGciPreferences commands attempt to load the `$GEMSTONE/lib/libgbjgci*` library. If there are library load problems, this caused the GbjGciPreferences command to fail. (#46368)