GemStone®

# *GemBuilder for Smalltalk Release Notes*

Version 7.1.2patch2

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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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Chapter 1

# Release Notes for GemBuilder for Smalltalk 7.1.2patch2

GemBuilder for Smalltalk (GBS) version 7.1.2patch2 is a patch release of the GemBuilder for Smalltalk 7.1.2 release. This patch release provides the fix for a serious bug in version 7.1.x.

GBS version 7.1.2patch2 also includes the fix provided in version7.1.2patch1.

## Installation

This patch release does not include a separate installation guide. To install GemBuilder for Smalltalk 7.1.2patch2, follow the instructions in the *GemBuilder for Smalltalk Installation Guide* for version 7.1.2.

To upgrade existing 7.1.2 or 7.1.2patch1 installations on systems running VisualWorks 7.x, the changes between 7.1.2 and 7.1.2patch2 are provided as a filein. The GemBuilder for Smalltalk 7.1.2patch2 distribution includes an additional directory **patch**, containing the following:

GbsRuntime-7.1.2patch2-diffs.st

Filing in this file to your GBS 7.1.2 or 7.1.2patch1 image will upgrade your image to a similar state as building with the 7.1.2patch2 parcels, including updating the version number.

This filein is only applicable for systems running VisualWorks 7.x. Systems running VisualWorks 5i.1 with Envy must install following the instructions in the *GemBuilder for Smalltalk Installation Guide* for version 7.1.2.

**Do not use this filein with releases other than 7.1.2 or 7.1.2patch1.**

If you are using GBS version 7.1 or 7.1.1 and experience this bug, you must upgrade to 7.1.2patch2.

# Bug Fixed in 7.1.2patch2

The following bug has been fixed since GemBuilder for Smalltalk version 7.1.2patch1:

## Client out of memory error due to loss of kernel class mappings during finalization

Under some circumstances, a race condition between garbage collection within the VW Virtual Machine and finalization by GBS could result in the inadvertent removal of the kernel class mappings. After this, any attempts to replicate an instance of a kernel class resulted in infinite recursion as GBS attempts to map keys which are instances of Symbol class, which itself requires mapping. (#39912)

# Bug Fixed in 7.1.2patch1

The following Bug was fixed in GemBuilder for Smalltalk version 7.1.2patch1, and is included in the filein.

## Risk of cache dictionary corruption against GS64 2.x

When running against a GemStone/S 64 Bit server in which the OOPs are 64-bit values, when objects were replicated for which the lower-order 24 bits of the oop number were all zero, it caused errors in finalization and corrupted the cache dictionary. (#38865)

This bug does not affect systems running with a 32-bit GemStone/S or GemStone/S 64 Bit version 1.x server.