



## GemBuilder for Smalltalk

### Seamlessly integrate client Smalltalk applications with GemStone/S object servers

The combination of GemStone/S™ and GemBuilder® for Smalltalk provides the most productive environment available for rapidly developing enterprise applications and maintaining them with ease. GemBuilder for Smalltalk is the Smalltalk client for the GemStone/S Object Server family of products, including the Original Gemstone/S and GemStone/S 64 Bit. GemBuilder for Smalltalk, when loaded into Cincom VisualWorks, IBM's VisualAge, or Instantiation's VA Smalltalk, enables communication with GemStone/S servers.

#### **BENEFITS:**

- **Tools for development:** GemBuilder for Smalltalk includes GemStone/S development tools similar to those found in a standard Smalltalk development image. Most customers choose to develop GemStone/S applications through GemBuilder for Smalltalk clients in order to take advantage of the high productivity inherent in Smalltalk-based development environments. The combination of GemStone/S and GemBuilder for Smalltalk provides the most productive environment available for rapidly developing enterprise applications and maintaining them with ease.
- **Support for deployment:** GemBuilder for Smalltalk is often used for deploying Smalltalk-based clients that communicate with GemStone/S-based applications. The combination of a Smalltalk virtual machine, Smalltalk run-time code, GemBuilder for Smalltalk run-time code, and a client-side application forms a "fat client" configuration that provides for powerful client-side processing; the configuration of choice for many customers, because it allows for an optimal distribution of client-server processing power. It also provides rich client user interfaces and access to the many features and tools available from VisualAge or VisualWorks. A multitude of "thin client" deployment options are also readily available for VisualAge and VisualWorks. Dynamic HTML, web browser plug-ins, and Java applet-based thin-client options can be used with GemBuilder for Smalltalk. In such cases, GemStone/S becomes the server for multiple GemBuilder for Smalltalk-based clients, and each GemBuilder for Smalltalk-based client is the server for one or many thin clients. The load-balancing options available with such configurations can make thin-client deployment highly scaleable.

- **Performance through locality:** Replication in GemBuilder for Smalltalk offers performance-tuning options unlike any other product or technology. Typical application servers work by forwarding all messages from one object space to another, where a particular object resides. GemBuilder for Smalltalk supports such message forwarding, but it also supports object state replication. GemBuilder for Smalltalk clients can modify local replicates of objects residing in the GemStone/S server. Changes are transparently propagated between client and server as needed to synchronize object spaces. Replication improves performance by reducing communication between object spaces.
- **Ease of use:** GemBuilder for Smalltalk seamlessly integrates the GemStone/S object server with Smalltalk clients: performing operations against remote objects is as easy as performing operations against local objects. Application developers rarely need to distinguish between local and remote objects, allowing them to concentrate on application logic with minimal concern for object location, mapping, and implementation. Applications based on GemStone/S and GemBuilder for Smalltalk can be developed without a steep initial learning curve and can be rapidly evolved as desired. Because of this flexibility, these applications typically evolve over time to be used across the entire enterprise.

Due to this ease of use, ease of refactoring, and performance, many of our customers consider the combination of Smalltalk, GemStone/S, and GemBuilder for Smalltalk their "secret weapon".



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