

# VA Smalltalk (VAST Platform)

## Version 9.2

VAST is a powerful and proven commercial software development platform. Its rich tools are ideal for integrating existing systems into dynamic distributed architectures. VAST enables developers to quickly construct applications that are portable, highly scalable, simple to maintain, and fit easily into most infrastructures.

## **Key Features**

- State-of-the-art virtual machine technology utilizing the well-known LLVM compiler infrastructure for fast just-in-time (JIT) compilation
- Native 64-bit support enabling applications to access dramatically larger amounts of memory
- Compatible with IBM® VisualAge® Smalltalk enabling fast and easy migration and upgrades.

  See instantiations.com for migration guide.
- Modern, up-to-date operating system support
- Comprehensive integrated development environment and deployment tools
- Enhanced IDE with Scintilla code editor, code assist, tabbed browsers, native platform widgets, and more
- Powerful VA Assist™ ergonomic and productivity enhancements with integrated WidgetKit™ custom controls
- Seaside support for the current release of the Seaside Core, REST, HTTPS, jQuery, Scriptaculous, RSS, and several other development tools
- Powerful HTTP, IMAP, SMTP, and LDAP clients
- Libraries for Regex, JSON, CSV, and STON (Smalltalk datainterchange format)
- Enhanced web services, including support of document literal wrapped style and SOAP 1.2
- Compression framework including support for DEFLATE, Gzip, Zip, LZ4, Brotli, and ZStandard
- Cryptographic bindings with enhanced SSL/TLS support and UUID generators
- Oracle, DB2, PostgreSQL, SQLite native database drivers (as well as ODBC Driver)
- GLORP support lets you easily read and write Smalltalk objects from relational databases

## **New in 9.2**

Major performance increase with all new just-in-time (JIT) compiler for 32 and 64-bit virtual machines!

#### Platform

- AArch64 joins the ARM family lineup\*
- Major FFI performance increases and new features

#### **Base Libraries:**

CSV and STON support

#### **Graphics:**

• Full HiDPI support on Windows®

## Unicode:

- Kernel-level EsCodePageUtilities with enhanced Unicode conversion
- Seaside Unicode updates
- Grease UTF-8 enhancements
- Iconv updates for Unix
- Zip streams UTF-8 support for file names and comments

## Compression:

• Brotli and ZStandard compression streams

## **Communications:**

- New IMAP and SMTP Clients with SASL support
- SstHttpClient support for HTTP requests (PUT, DELETE...)
- SNI and absolute/relative redirect support for SstHttpClient

## Security:

- LibreSSL compatibility
- Probabilistic signature schemes (RSA-PSS)

## Databases:

 Native PostgreSQL driver with database abstraction layer integration and GLORP integration

## **Development Tools:**

- Cross-development enhancements (XD)
- SstDebugger now supports reading .sdf files

## EMSRV:

• Improvements to PAM authentication

## **Deployment:**

- Dynamic packaging rules using static code analysis for warning reduction
- Significant reduction of packaging warnings on shipped apps

...and more! See all the new features of 9.2 at instantiations.com.

## **Services**

• Enterprise-grade technical support provided directly by the engineers working on the VAST Platform

• Custom platform development is also available

instantiations.com

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<sup>\*</sup>Beta feature: contact us for more details



## **Development Tools**

VAST has a rich set of development tools containing debuggers, browsers, inspectors, application builders, a performance monitor, and all the browser extensions of the award-winning VA Assist™ technology includina:

- Code assist
  - ♦ Auto-completion
  - ♦ Interactive refactoring
  - ♦ LINT checker
- Scintilla advanced code editor (Windows)
- Multi-lingual workspace
- Spell checking and auto-correction
- · Tabbed browsers
- Enhanced debugger and inspectors
- Locate applications and dependents
- Enhanced composition editor
- Preference settings framework consolidates preferences location, handling, and documentation
- Logging framework provides rich, customizable support for creating development time and runtime logs
- Compression streams for DEFLATE, Gzip, LZ4, Brotli, ZStandard, and Zip archives (Zip64 support) using a unified API
- Packager creates minimal 32 and 64-bit runtime images composed of only necessary classes
- Reports feature enables the creation of hard copy and/or screen reports on any object that can be used in the VA Smalltalk environment, including parts provided in the Database and Communications features (Windows only)
- Server Workbench is a cross-development environment used in developing distributed processing, web hosting, and other server applications. Target deployment environments include all VA Smalltalk platforms.
- Security framework provides a rich set of cryptographic primitives such as message digests, ciphers, public/private key, digital signatures/enveloping, secure random number generation, key derivation, and secure arenas

## VAST 9.2 Supported Configurations

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Operating System	Hardware Platform
Microsoft® Windows® 10, 8.1, 8, 7, Vista, Server 2019, Server 2016, Server 2012 R2, Server 2008 R2 Red Hat® Enterprise 8, Red Hat Linux® 9, Enterprise AS 2.1, OpenSuSE 10-15.1, Ubuntu® 7-19, Fedora® Core 14-30	Intel® (except Itanium®) and AMD PCs
VAST 8.6.3 Also Supports	
Sun® Solaris® 8, 9, and 10	SPARC® workstation or server
AIX® 5L v5.3 and AIX v6.1	RS/6000, POWERStation or POWERServer

#### **User Interface**

- Common programming interface to native platform widgets
- HiDPI support for Windows
- Extra Windows-specific widgets including Scintilla text widget
- Custom Controls based on popular WidgetKit technology

#### **Database**

- GLORP support lets you easily read and write Smalltalk objects from relational databases
- Powerful DB2, Oracle, PostgreSQL and SQLite support
- ODBC interface support

## **Communications**

- MQSeries support
- Comprehensive IMAP and SMTP client support
- Socket Communications Interface, an API providing full support for TCP/IP V4/V6 protocols, plus secure communications using SSL through the crypto APIs
- Seaside provides a framework and tools for quickly building highly interactive and sophisticated web applications
- Seaside support includes Seaside Core, REST, HTTPS, jQuery, Scriptaculous, RSS, and several other development tools
- Server Smalltalk (SST) provides a client/server framework flexible enough to accommodate various distributed architectures
- Web services is a self-contained, modular framework for accessing and hosting Web services with tools for creating and deploying

## **External Interface Support**

- JSON support enables JSON-Smalltalk object mappings and parsers for this ubiquitous format for the web
- STON (Smalltalk Object Notation) support provides a lightweight, text-based human-readable data-interchange format
- XML support enables XML-Smalltalk object mapping featuring a server interface via XML request handlers and reading of remote resources utilizing TCP sockets and HTTP requests
- CSV support for the popular comma-separated value datainterchange format
- OLE support enables an application to use OLE clients and custom control services
- Domino connection allows an application to retrieve and work with Domino documents as well as access Notes mail system
- AsyncCallout, an extension of the platform function API, allows developers to make a platform function call in a separate operating system thread
- Native interface support provides platform-adapting OSObjects to facilitate the generation of native binding

## **VAST Add-On Products**

- WindowBuilder Pro™
- WidgetKit/BusinessGraphics™ (32-bit only)
- WidgetKit/Professional™ (32-bit only)

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