VAST (VA Smalltalk) Platform
Version 9.2.1

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 data-interchange 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 9.2.1**

**Platform**

- 64-bit object hash quality improved to further increase virtual machine performance
- Just-in-time compiler updated to better handle some rare and hard-to-duplicate edge cases

**Graphics**

- HiDPI improvements across the VAST Platform
- Fixes and enhancements to the Scintilla-based editor

**Communications**

- SMTP mail framework enhanced to support a wider range of standard and non-standard servers
- Socket framework resource usage optimizations and stability improvements

**Development Tools**

- 64-bit support added for stack dump snapshots

**Documentation**

- Updated Migration Guide

**Services**

- Enterprise-grade technical support provided directly by the engineers working on the VAST Platform
- Project guidance, planning, and software engineering services to augment existing development teams
- Training programs are available for various topics and skill levels to help development teams reach their goals faster

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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 including:

- 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, Brothli, 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

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 them

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 data-interchange 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 9.2.1 Supported Configurations

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Hardware Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft® Windows® 10, 8.1, 8, 7, Vista, Server 2019, Server 2016, Server 2012 R2, Server 2008 R2</td>
<td>Intel® (except Itanium®) and AMD PCs</td>
</tr>
<tr>
<td>Red Hat® Enterprise 8, Enterprise AS 2.1, OpenSuSE 10-15.1, Ubuntu® 7-19, Fedora® Core 14-30</td>
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</tbody>
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VAST 8.6.3 Also Supports

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Hardware Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun® Solaris® 8, 9, and 10</td>
<td>SPARC® workstation or server</td>
</tr>
<tr>
<td>AIX® 5L v5.3 and AIX v6.1</td>
<td>RS/6000, POWERStation or POWERServer</td>
</tr>
</tbody>
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