



# VA Smalltalk Update

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# Agenda

- Company Update
- Current Release Content
- Futures
- Q&A

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# Company Update

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# Company Events

- New Instantiations company incorporated in 2010 to focus exclusively on Smalltalk
  - Over 3 years as pure Smalltalk company
- Number of users and revenues continue to grow year-to-year
- Organization has grown significantly
  - Increased permanent staff
  - Using contractors for additional capacity

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# Non-Development Activity

- University Outreach – 2012/2013
  - University of Chile
    - Roassal Visualization Framework
- User Outreach
  - Conference participation
    - ESUG, STIC, Smalltalks
  - VA Smalltalk Google Group
    - Aggregated on **[Smalltalk]** <http://forum.world.st>
    - Old forum content (prior to May, 2011) still available (readonly)
- “Videos and Podcasts” pages on website
  - [http://www.instantiations.com/resources/st4u\\_videos.html](http://www.instantiations.com/resources/st4u_videos.html)
  - <http://www.instantiations.com/resources/videos.html>

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# New Release

V8.6 is available NOW!

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# V8.6 Content

- GUI Look and Feel
  - A Scintillating Text Editor
  - Windows Common Controls improvements

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# A Scintillating Text Editor

- Complete redesign of our default text editor component
  - Built on the modern, popular and well supported Scintilla editing component
  - Compatibility layer provides seamless integration
    - API-compatible with CwText
  - Exposes the full Scintilla API
    - Users can use the new text editor in their own applications
    - Used by Browsers, Inspectors, Workspace, etc.
  - Multiple undo/redo support
  - Supports hardware-accelerated rendering with Microsoft's DirectWrite technology



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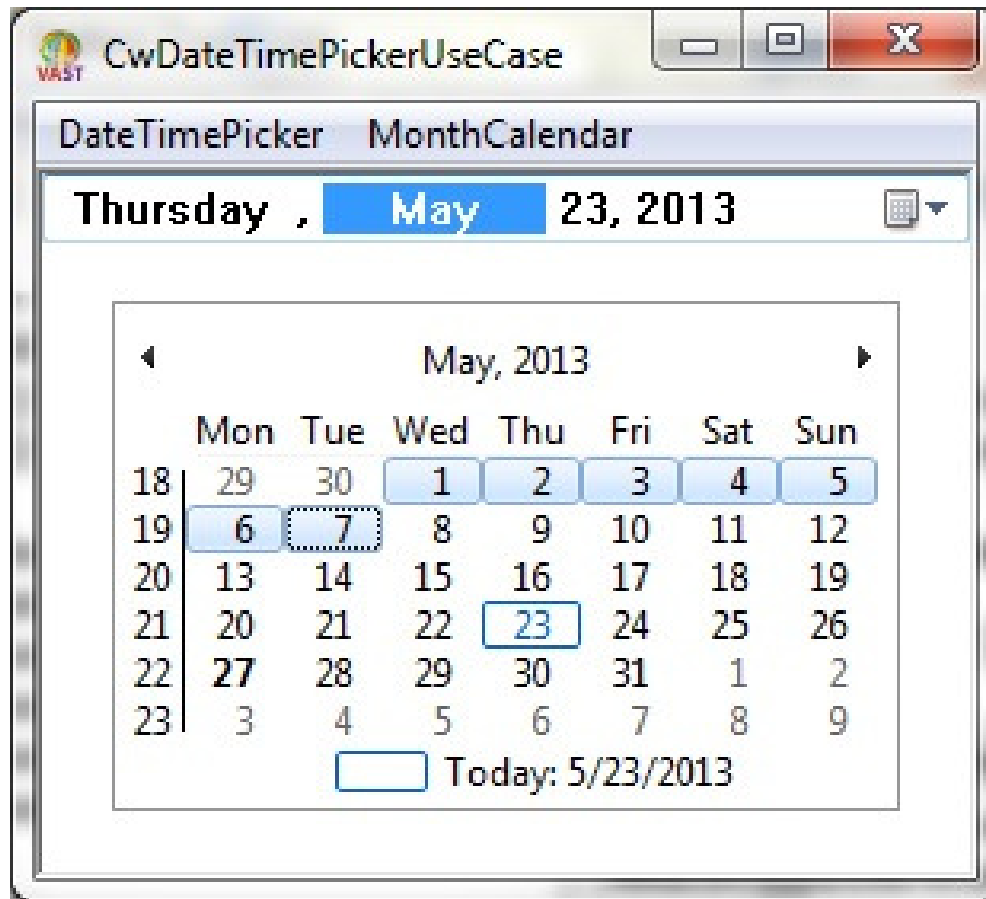
# A Scintillating Text Editor

## continued

- Come to the “Scintillating! A Modernized Text Editor for VA Smalltalk” session @ 10:45 tomorrow morning for details

# Windows Common Controls

## DateTimePicker



### New attributes

- today shown
- weeks numbered
- multiple selection (a range of dates up to a maximum size as set by the user)
- first day of the week settable
- Bolded dates (May 27)

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# V8.6 Content

## continued

- Development Tools
  - Scintillating Browsers, Inspectors and Workspaces
  - Breakpoint improvements
  - ImageShortName preference setting
  - Monticello Importer improvements
  - XD Features for GLORP and Seaside

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# Scintillating Browsers, Inspectors and Workspaces

- Optional
  - Enabled by default
- Customized color syntax highlighter
  - Additional styling options and features
  - Now available in workspaces and inspectors, too!
- Autocompletion support using VA Assist's code completion engine with new popup widget

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# Scintillating Browsers, Inspectors and Workspaces

- New Code Assisting features:
  - **[ ]()** match highlighting
  - Calltips
  - Text manipulation keyboard shortcuts
  - and much more ...
- New stylizable and configurable margins:
  - Breakpoints
  - Line numbers
  - Code fold indicators

# Scintilla Debugger Example

The screenshot shows the ENVY/Smalltalk Debugger interface. At the top, a status bar indicates a halt: `{(ExHalt) A halt has occurred.' ==> {UIProcess:(5/24/2013 3:35:29 PM)(suspended,3)}`. Below this is a menu bar (File, Edit, Processes, Stack, Inspector, Info, Breakpoints, Watches, Options) and a toolbar with various icons. A scrollable list of methods is visible, including `Dictionary>> #add:`, `UndefinedObject>> #Doit`, `EsCompiler class>> #evaluateForNil:additionalPoolNames:ifFail:`, `StsTranscript(EtWindow)>> #evaluate:for:ifFail:`, `[] in StsTranscript(EtWindow)>> #stsMenuEditDebug`, `EmSystemConfiguration>> #showBusyCursorWhile:`, `StsTranscript(EtWindow)>> #execShortOperation:`, `StsTranscript(EtWindow)>> #stsMenuEditDebug`, and `CwMenuPushButton>> #dispatchTo:`. To the right, the variable inspector shows `self` with the value `42 -> 'Hello Smalltalk'` and `anAssociation...` with the value `"Woah...I have color now!"`. A tooltip for `#andCodeCompletionToo` is also visible. Below the method list are buttons for `Into`, `Over`, `Through`, `To Cursor`, `Return`, `Resume`, and `Define...`. The source code editor at the bottom shows the implementation of `add: anAssociation`, with a comment: `"Answer anAssociation having added anAssociation to the receiver."`. The code includes logic for calculating a hash index and updating the association array. The status bar at the bottom shows the file path `(6/6/1996 6:47:39 AM) from CLDT` and a `source` button.

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# Scintillating Browsers, Inspectors and Workspaces

- Come to the “Scintillating! A Modernized Text Editor for VA Smalltalk” session @ 10:45 tomorrow morning for details

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# Breakpoint Improvement

- One-shot breakpoint
  - Removes itself after firing once



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# Monticello Importer Improvements

- Version name of imported code defaults to Monticello version (for example, NickAger.257)
- Monticello version info copied to Application Notes to aid cross-referencing

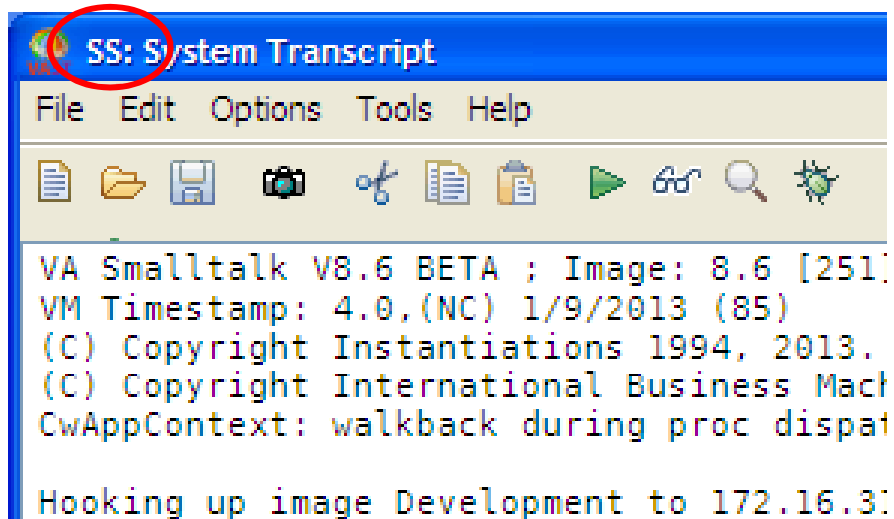
Name: Seaside-Tests-Core-NickAger.257

Author: NickAger

Time: 21 March 2012, 5:49:03 am

tidied WATestingMetadataFileLibrary

# ImageShortName Preference



- Preference used to identify windows associated with development image
- Example:  
[EtBaseTools]  
ImageShortName=SS

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# XD Features

- Cross-development (XD) environment is used
  - To build headless runtimes
  - To build runtimes for deployment on different platforms (ex: Windows -> Linux)
- Loading code into a cross-development (XD) image is based on XD feature classes and maps
  - Added XD features for GLORP
  - Added XD feature for Seaside

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# V8.6 Content

## continued

- Web Interface
  - Grease 1.0.7 / Seaside 3.0.8
  - SST Servlet multipart forms

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# Seaside and Grease

- New port levels available
  - Grease 1.0.7
  - Seaside 3.0.8 (not frozen)
- Mostly small bug fixes
- Configuration maps identify the Metacello package version used for the port:
  - `ConfigurationOfGrease-topa.192`
  - `ConfigurationOfSeaside30-DiegoLont.392`

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# HTTP Servlet Multipart Message

- Inbound only
- Multipart/form and Multipart/mixed

# HTTP Servlet Multipart Message continued

```
POST
/tests/functional/WAUploadFunctionalTest?_s=pU08M3vR6qTed
T0h&_k=VsZWNm5-UNwo78kY HTTP/1.1Host: localhost:8788User-
Agent: Mozilla/5.0 (Windows NT 5.1; rv:20.0)
Gecko/20100101 Firefox/20.0Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,*/*
;q=0.8Accept-Language: en-US,en;q=0.5Accept-Encoding:
gzip, deflateReferer:
http://localhost:8788/tests/functional/WAUploadFunctional
Test_s=pU08M3vR6qTedT0h&_k=elrAWMZHeKaprINZConnection:
keep-aliveContent-Type: multipart/form-data; boundary=---
-----27682861628308Content-Length:
7204-----27682861628308Content-
Disposition: form-data; name="4";
filename="abtIS.ini"Content-Type: application/octet-
stream; Windows .INI for VA Smalltalk;;
=====; =====
Begin development time only stanzas
=====; =====
[Xml]; This stanza is only needed at runtime if your
runtime app used XML.DefaultResourceQualifier=C:\Program
Files\Instantiations\VA Smalltalk\8.6\xml
-----27682861628308--
```

- Incoming HTTP message from Seaside WAUploadFunctionalTest





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# V8.6 Content

## continued

- Database
  - DB2 currency (tested on 10.5)
  - GLORP currency

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# GLORP

- GLORP port updated to 7.9.1-4
  - Changes in GLORP from 0.3.178 are mainly due to Alan Knight's work
- Experimental Host Variable support (default is off)
- Improved error handling
  - Optional logging of low-level database exceptions
- If you are interested in GLORP, please join Niall Ross for "How and Where in GLORP" on Wednesday @ 10:45

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# V8.6 Content

## continued

- Installation
  - InstallShield on Windows
  - New Environments Management Tool

# Windows Installer



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# Windows Installer

## continued

- Built with industry-standard InstallShield
- 2 Downloadable Install Packages
  - Code
    - Installs Client and Manager by default (for standalone)
    - Optional installation of only Client or Manager (for shared code library)
    - Emsrv and Emadmin tools are always installed
  - Documentation
    - Smaller code download if you don't want local documentation
    - Allows between-release updates to match on-line documentation

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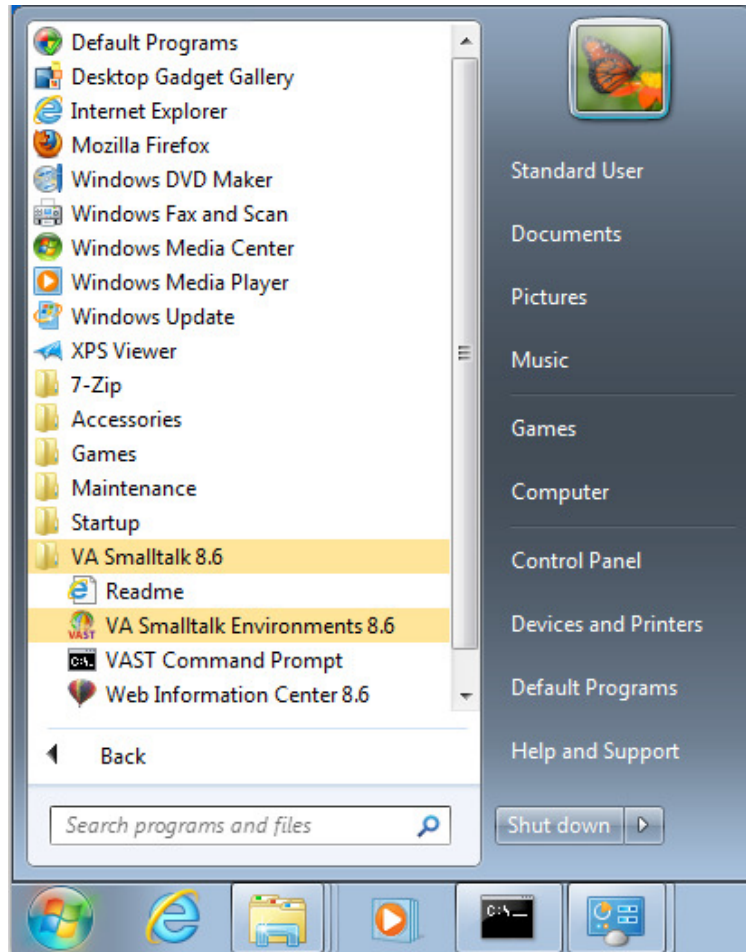
# Windows Installer

## continued

- All files except mgr86.dat installed in
  - %ProgramFiles% (32-bit)
  - %ProgramFiles(x86)% (64-bit)
- UAC compliant directory locations for writable files
  - Manager installed in %AllUsersProfile%
    - C:\Documents And Settings\AllUsers (Windows XP)
    - C:\Program Data (Windows Vista and later)
  - **Environments** utility used to create and manage writable files

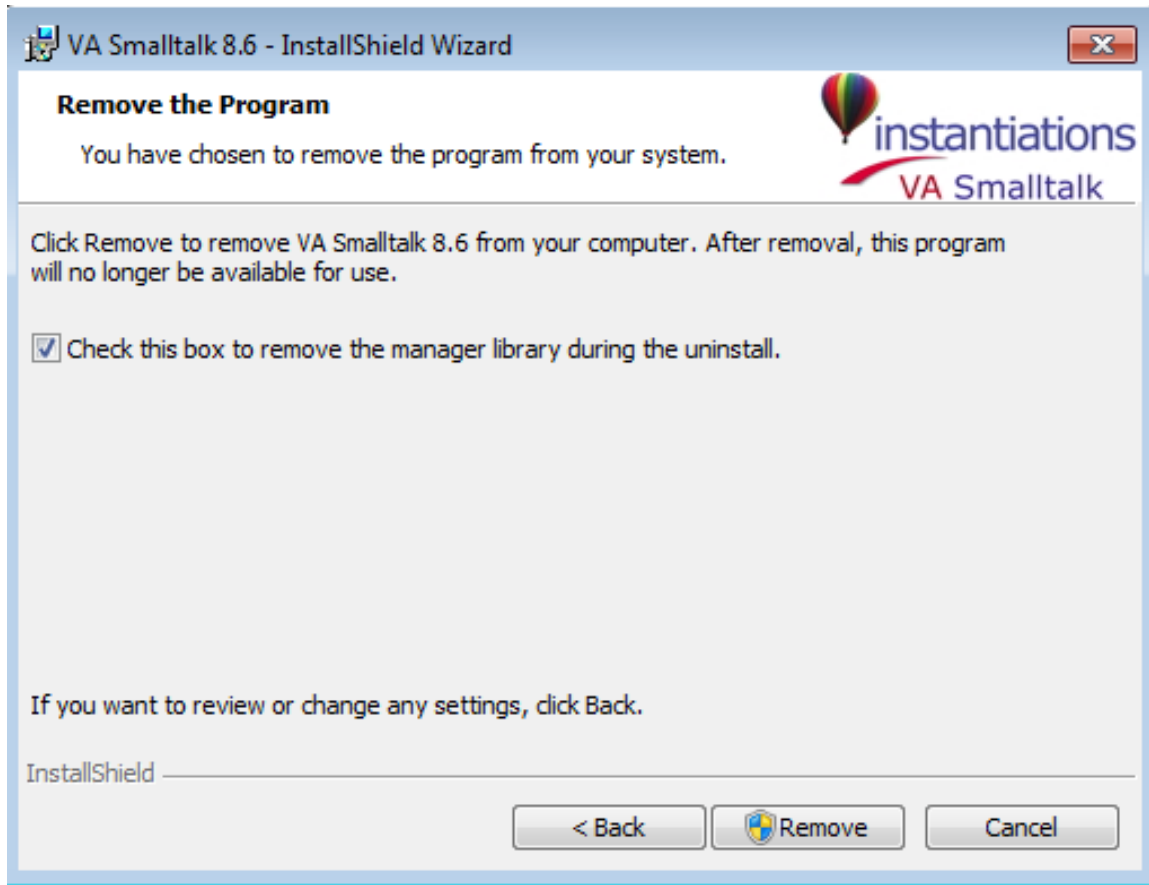
# Windows Installer

## continued



- Environments shortcut installed on the Start Menu and (optionally) Desktop
- Launch Environments to create and start a new development image

# Windows Uninstaller

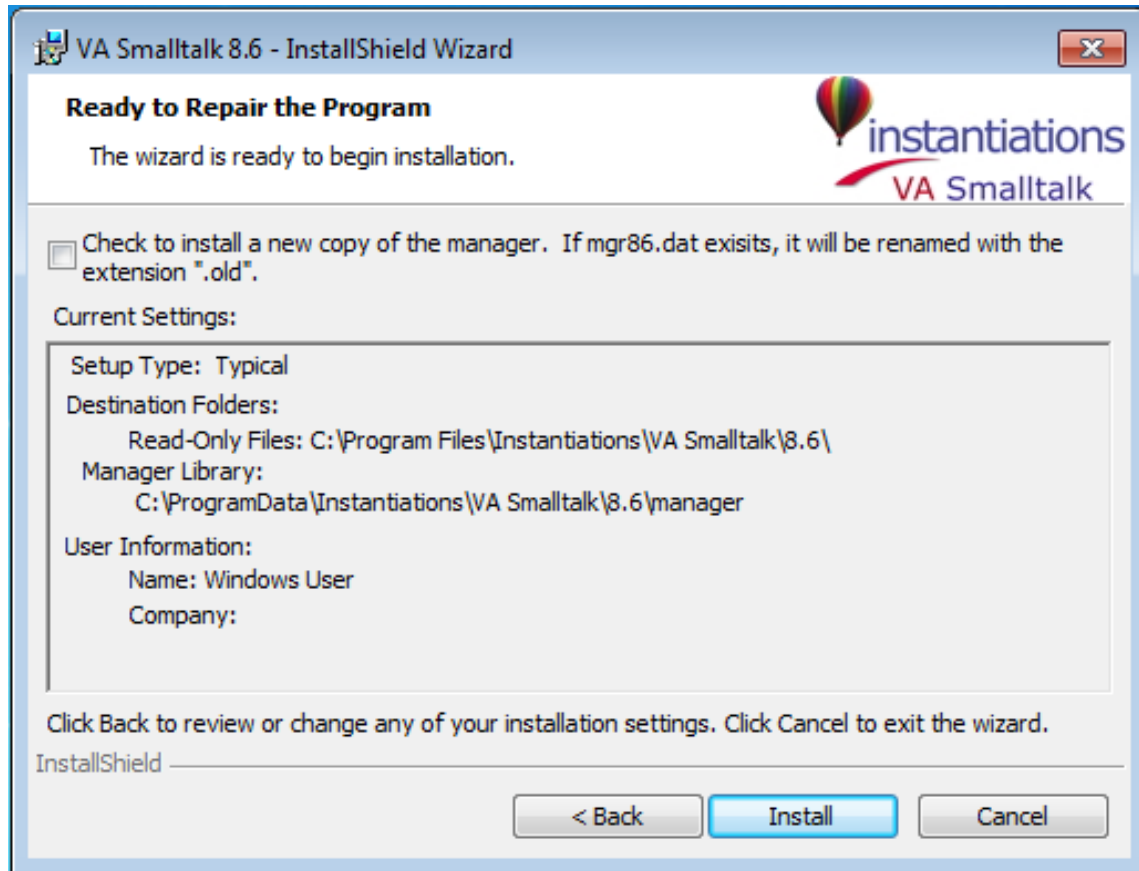


- Repair/Uninstall available from Windows Control Panel
  - Manager Library is not removed unless requested
  - No files created by Environments are removed



# Windows Uninstaller

## continued



- Repair Option
  - Repairs corrupted installation
  - Optionally obtain a new copy of the Manager Library

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# Environments Management Tool

- **Environments** creates and manages development environments
  - Available on all platforms
    - Replaces command line tool `vasetup` on UNIX
  - Create environments (working directories) containing image and `.INI` files
  - Manage environments
    - Start an image
    - Modify settings such as (Envy) server name and library name and location
    - Browse content of an environment
    - Get a fresh copy of an image
    - Create a shortcut on the desktop to start the image (Windows)
    - Delete an environment

# Environments Tool Examples



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# V8.6 Content

## continued

- Platforms
  - Fedora 19
  - Ubuntu 13.04
  - Windows 8.1

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# Looking to the Future

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# Future Releases

- Release schedule is about once a year
  - Depends on volume of content
  - Current content information in Product Roadmap
    - <http://www.instantiations.com/products/roadmap.html>
- Content based on requirements from:
  - Direct customer interactions
  - Forums
  - Support cases
  - Internals

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# Future Releases

## Candidate Items

- Internationalization
  - **Full Unicode/UTF-8 (including VM and system APIs)**
    - Based on International Components for Unicode (ICU) module
- Web interface
  - **Seaside 3.x**
  - **Continuation support**
  - **Web services debugging support/doc**
  - Web services tooling improvements
  - Validating XML parser

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# Future Releases

## Candidate Items

- Infrastructure
  - **Announcements** (needed for Roassal)
  - **Full .zip, .gz, and inflate/deflate support**
  - Consolidate product settings using Settings Framework
  - Settings Dialogs to complement Settings Framework
  - Consolidate product logging using Logging Framework
- Middleware
  - DB2 Stored Procedures improvements
  - GLORP Programmer's Reference
  - Active Records built on GLORP
  - 'Simple' DB support (MySQL, SQLite, or ??)
  - MQ currency
  - TCP/IP V6
  - OMQ



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# Future Releases

## Candidate Items

- GUI Look-and-Feel
  - **Icon/image support enhancements**
    - Support for alpha-channel (blending)
    - Support for .PNG file (R/W)
  - GTK+ 3.x on Linux
  - Windows Common Controls additions
  - Back-port widgets from add-ons (ex: UML Designer)

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# Future Releases

## Candidate Items

- Development Tools
  - **Updated EMSRV**
    - Full file system support on UNIX
    - Libraries > 2GB on Linux
    - Removal of multi-processor check on Windows
  - **Roassal**
    - Redesigned Change Browser & Merge Tool
- Installation
  - **UNIX .RPM install package**
  - “Quiet” install (no UI)

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# Future Releases

## Candidate Items

- Security
  - 'Full' security framework -- OpenSSL 1.0 wrappers
  - 'Basic' security framework (consolidate existing OpenSSL wrappers)
- Performance and Scalability
  - **Incremental garbage collection**
  - **64-bit Smalltalk**
  - Class library performance hotspots
  - Integrate KES/Stats goodie for object monitoring
- Platform
  - Windows Services control moved from C to Smalltalk

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# Future Releases

## Candidate Items

- External Interfaces
  - JNIport (currently available on VASGoodies.com)
  - .NET/C#
  - Other
- Class Libraries
  - Collection hashing policies
  - Sorted collection sorting policies
- Other
  - *We're always looking for suggestions*

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# How Do You Get VA Smalltalk?

- Download evaluation copy
  - <http://www.instantiations.com/products/vasmalltalk/download.html>
- Buy development licenses
  - <http://www.instantiations.com/products/purchase.html>
- Download development build
  - Announced in VA Smalltalk Google Group
- Be a committer on an Open Source project
  - <http://www.instantiations.com/company/open-source.html>
- Work for an educational institution
  - <http://www.instantiations.com/products/academic-license-program.html>

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# Contact us

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# Questions?