



Web Tools 2.0 in the Europa Simultaneous Release Full Release Review

July 6, 2007



Introduction: WTP 2.0 Release Review

- Eclipse Web Tools Platform Project
 - Original project proposal submitted by ObjectWeb, 2004
 - Original code contributions from IBM and Eteration (“ObjectWeb Lomboz”), 2004

- Major Milestones and Previous Releases
 - Eclipse Foundation creation review June 2004
 - Full-time development since October 2004
 - WTP 0.7 July, 2005 and subsequent 0.7.1
 - WTP 1.0 December 2005 and subsequent 1.0.1/2/3
 - WTP 1.5 June, 2006 and subsequent 1.5.1/2/3/4



WTP Requirements Process

- Requirements group
 - Chaired by Jochen Krause, Innoopract (PMC member)
 - Participation by major WTP developers and consumers
 - IBM, BEA, Oracle, Genuitec, JBoss
 - Periodic telecons open to community; minutes posted to WTP website
 - Delivers WTP requirements document to PMC for each major release, summarizing themes, major goals, supported platforms
 - Planning document provided through Eclipse WTP Wiki
- wtp-requirements@ mailing list created to solicit community requirements
- Detailed requirements, plans tracked via Bugzilla
- Themes and high-level requirements coordinated through Eclipse Planning Council representation



WTP 2.0 Project Themes

- Quality
 - improve bug backlog, test coverage, performance
- Adopter readiness
 - Enhance extensibility
 - Convert some provisional APIs
- Improved provisioning of third-party content
 - Orbit project work: share commonly needed third-party content from a common Eclipse repository: axis, wsdl, xerces, javax.servlet, ant, junit, etc



Feature Set – WST

- Basic Server Tools
 - Support for server types and server connectivity, including web and DB
 - Configure, publish, start/stop, debug
- Structured Source Editor Framework
- Web Language Tools
 - HTML source editor
 - CSS source editor
 - JavaScript source editor
- XML Language Tools
 - XML source editor
 - XSD editor - Graphical and source editing
 - DTD source editor
- Facets – technique and UI for modeling server features



Feature Set – WST (continued)

- Web Service Tools
 - WSDL Editor
 - Graphical and source modes
 - Integrated XSD editor
 - Web Service Explorer
 - Query and publish to UDDI
 - Dynamically execute WSDL
 - Web Service Wizard
 - Extension points for codegen, deploy, test, etc.
 - WS-I Test Tools - Validate WSDL and SOAP for WS-I compliance



Feature Set – JST

- Java EE Core
 - Natures and Builders
 - Java EE Views and Navigators
 - Java EE Models
- Java EE Projects and Modules
 - Support for WAR, EJB-JAR, EAR, etc
 - Models and source editors for deployment descriptors
 - Java EE Navigator view
 - Ability to target on different servers
- Servlet Tools – wizard, “Run As...”
- JSP Language Tools
 - JSP editor including syntax highlighting, code assist for HTML, Java, EL’s, JavaScript, taglibs
 - JSR-45 compliant debugging



Feature Set – JST (continued)

- Java EE Server Tools - extends WST server tools with Java EE deployment
 - Supports deploy, debug, project restart on Java EE runtimes
 - Generic server adapter
 - XML based configuration files for quick setup
 - Includes JOnAS, WebLogic, WebSphere, Oracle Application Server, JBoss
 - Custom (Java) server adapter for total control
 - Includes Tomcat (included), Geronimo adapters (downloadable)
- JavaDoc Annotation Support
 - Extensible facility to define tagsets
 - Code assist in Java Editors + builders for code generation
- EJB – wizard, editing support, JavaDoc annotation support
- Java Web Services
 - Extensible Web service wizard
 - JAX-RPC codegen
 - JSR 109 deployment ready
 - Servlet (or in the future EJB) based
 - Includes Axis support
 - Models and source editors for deployment descriptors
 - Integrated into Java EE Navigator



Feature Set – JSF

- Web Page Editor
 - Multi-page Editor
 - Visual JSF-JSP Page Designer
 - Support for JSF RI components
 - Extensibility framework to simplify adding support for other component libraries
 - Preview Page
 - Enhanced Source Editor gives content assists and provides both syntax and semantic validations
 - JSF Validation



Feature Set – JSF (continued)

- Faces Configuration Model, Editor and Wizards
 - Multi-page Editor
 - Graphical diagram editor for navigational rules
 - EMF model of the application configuration resource file
- JSF Library Registry
 - Manage a named collection of JARs including tag libraries, JSF reference implementations and utility jars
- Extensible Frameworks
 - Design-time Meta-data Framework
 - Design-time Tag Processor
 - Design-time Application Manager
 - JSF Application Configuration Manager
- Support for JavaServer Faces 1.1 and 1.2 versions



Feature Set – Dali

- Support JPA
- WTP (Facet) integration
- DTP Integration
- XML Mapping Descriptor editing support (JPA1.0 orm.xml)
- Annotated Java and ORM XML context based defaulting
- Enhanced validation
- Table/Column annotation value code completion
- DDL Generation extension
- Entity Generation extension

APIs



- API scanning tool used internally and externally
 - Detect API use violations within WTP and between WTP and prerequisites.
 - Track API changes across versions (milestones, releases)
 - Enable adopters to discover, track reliance on provisional API
 - Track JUnit coverage
 - Track JavaDoc coverage



Developer/API Documentation

- Project-wide architectural overview (website)
 - Describes nature and relationship of components
 - Presentations and tutorials provide drill down on selected topics (such as server definition)
- Component overview (website)
 - Describes operation of an individual component and relationships among its parts, lifecycle issues, and other emergent properties of component
- JavaDoc Package documentation
 - Describes contents and inter-relationship of package contents
- Per-file JavaDoc
 - Conventional JavaDoc guidelines apply; scope is the class/interface being documented and its immediate surface area
- Extension point documentation



User Documentation and Examples

- WTP 2.0 download includes online documentation
- Tutorials and presentation materials available on www.eclipse.org/webtools
 - Includes copies of conference presentations (EclipseCon, JavaOne, EclipseWorld), articles, etc.
- NL-enabled
- Two books
 - *Pro Eclipse JST*
 - *Eclipse Web Tools Platform*



Architectural Issues

- Move Internet Proxy settings and preferences to base platform
- Removed all Relational Database access tools (RDB) from WTP and instead use the corresponding components from DTP.
- Improve integration with TPTP in the area of profiling servers, providing a generic extension point to allow TPTP additional support for profiling servers.
- HTTP Server support provided in wst.server (in principle, can be used by other projects, such as PHP Tools).
- Move the JEM component of VE to be a component of JST (This is for maintenance, no enhancements planned).

End-of-Life



- RDB tools moved to DTP

Defect Statistics as of 05/18/2007



Blocker: 3

Critical: 11

Major: 276

Normal: 1906

Minor: 156

Trivial: 27

Enhancement: 571

Total: 2950

Fixed: 515 bugs and 94 enhancements for WTP 2.0

Bug statistics as of May 08, 2005



API Delta

- New APIs, API changes, API graduations since WTP 1.5.x
 - See http://wiki.eclipse.org/index.php/WTP_2.0_API_Delta



Supported Standards

- WST: W3C and OASIS standards
 - HTML 4.01, XHTML 1.0 / 1.1, XML Catalog 1.0, CSS 2.0, ECMAScript 262
 - SQL99 / SQL2003, XML 1.0, XSD 1.0, WSDL 1.1, WS-I Basic Profile 1.1
 - SOAP 1.1, WS-I Attachment Profile 1.0.
- JST: JCP standards
 - J2EE 1.2 / 1.3 / 1.4: Servlet, JSP, EJB, JAX-RPC, JSR109, JSR045, JSR109, JSR921
 - EE5: Basic support
 - JDBC 2.1
- Dali: JCP Standards
 - JSR 220: EJB 3.0 - JPA
- JSF:
 - JSR 127: JSF 1.1
 - JSR 252: JSF 1.2 – Partial support



Schedule

- 2.0: Europa schedule, matching all milestones
- For 3.0: Ganymede schedule, same plans, matching all milestones beginning with the first
- WTP may elect to deliver additional maintenance, tech preview, or off-cycle releases in addition to the above schedule if adopter or user requests warrant. Currently there are no plans to do so.



Process: Committers and Activities

- Many active committers from several companies (including individuals)
 - Committer elections and removals have followed charter principles
 - Continuing to recruit additional contributors (organizations and individuals)
 - <http://www.eclipse.org/webtools/people/contributors.html>
- Open communications via 5 WTP mailing lists, plus newsgroup
 - PMC, overall dev, WST, JST, JSF, ATF, Dali, Requirements mailing lists
 - 2.0 plans available: http://wiki.eclipse.org/index.php?title=Web_Tools_Requirements_2.0
- Meetings, meeting, meetings – numerous, open, and documented
 - Weekly PMC, weekly dev status, requirements as needed, bi-weekly architecture
 - PMC minutes available on website:
http://www.eclipse.org/webtools/development/pmc_call_notes.html
 - Weekly status telecon minutes available on website:
<http://www.eclipse.org/webtools/development/status-telecons/>
- Open and inclusive release planning and tracking processes
 - Bugzilla used to request and track all defects, enhancements, and milestone plans
 - Additional reports (defect summaries, test stats, etc) used to enhance planning / tracking
- All contributions made directly to Eclipse CVS
 - Nightly, weekly integration builds, and release builds available to the community
- Coordination/cooperation with other Eclipse projects
 - Platform, DTP, TPTP, EMF, GEF, VE
- Leveraging other open source technologies in the project



Process: Community

- Substantial WTP download activity for milestones and releases
 - WTP is one of the most popular downloads
- Substantial website content
 - Download links, New & Noteworthy, mailing lists, presentation DB
 - Tutorials, documentation, presentation summary,
 - “people pages”
- Evangelism and outreach in the market & broader community
 - Website lists WTP events (conferences, etc.)
 - Multiple commercial implementations
 - Working with Eclipse and industry press to promote WTP
 - Presence at EclipseCon, Eclipse World, Colorado Software Summit, BEAworld, others
 - Blogs, articles, press releases, etc. to promote and educate



Process: Incubation and Fostering

- AJAX Tooling Framework (ATF)
 - Gathering additional community
 - Planning technology preview (0.5 release) now

Contributing Organizations (current and previous)



- BEA
- Eteration
- Exadel
- IBM
- Innoopract
- JBoss
- ObjectWeb
- Oracle
- SAS
- Thales
- University of Karlsruhe
- SAP
- Sybase



Commercial Adopters

- IBM – Rational Application Developer
- BEA – WebLogic Workshop and WebLogic Studio
- Eteration – Lomboz
- Genuitec – MyEclipse
- Innoopract – Yoxos
- Exadel – Exadel Studio
- JBoss – JBoss IDE
- SAP – NetWeaver Studio
- Borland



Supported Servers

- Open Source
 - Apache Tomcat
 - Apache Geronimo
 - Apache Derby
 - JBoss
 - Jetty
 - ObjectWeb JONAS
 - Glassfish
- Commercial
 - IBM WebSphere
 - BEA WebLogic
 - Oracle Application Server



Intellectual Property: Processes

- Accepting Contributions (In-Bound Licensing)
 - All new code provided under [Eclipse Public License \(EPL\)](#)
 - Redistribution of 3rd-party (non-EPL) components approved by EMO
- Licensing Contributions (Out-Bound Licensing)
 - WTP 2.0 provided under EPL
 - “about.html” / licenses: 3PC listed, standard “about.html” completed
- Due Diligence and Record Keeping
 - All WTP Committers completed Committer Agreement & approved by PMC/EMO
 - EMO maintains list of all 3rd-party (non-EPL) components used by WTP
 - Source scan and due diligence requested of EMO
- Review History
 - Creation Review approved July 2004
 - Graduation Review for JSF and Dali approved Feb. 21, 2007
 - [Move Review for JEM](#) Approved March, 2007



Other IP Information

- Non-distributed third party dependencies
 - Users can install their own HTTP or JEE Server, where server adapters have been provided.
 - EJB 2.1 developers can install Xdoclet for “old style” annotations
 - Axis2 developers need to install their own Axis2 runtime.
 - JSF developers need to provide a JSF runtime



IP Cleanliness

- About files and license files are complete and correct: Yes
- All significant and third-party contributions have been reviewed by Eclipse Legal
 - *Yes: See project log for complete list*
- Project log complete and has been reviewed by Eclipse Legal
 - The URL is
http://www.eclipse.org/webtools/development/ip_log.html

Thanks and...



Feedback, Feedback, Feedback!

https://bugs.eclipse.org/bugs/enter_bug.cgi?product=WTP

<news://news.eclipse.org/eclipse.webtools>

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