



# Eclipse™ WTP 1.0 Release Review

16 November 2005

Eclipse WTP PMC

# Introduction: WTP 1.0 Release Review



- Eclipse Web Tools Platform Project
  - Original project proposal submitted by ObjectWeb
  - Original code contributions from IBM and Eteration (“ObjectWeb Lomboz”)
  
- Major Milestones
  - Eclipse Foundation creation review June 2004
  - Full-time development since October 2004
  - BEA joins project leadership in February 2005
  - Agreement to move data tools into DTP project in March 2005
  - WTP 0.7 GA July 29, 2005
  - WTP 1.0 GA planned for December 16, 2005



# 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
  - Reviews incoming requirements for clarity, scope (c.f. charter), alignment with themes, target release, and priority
  - Proposes release numbering and interaction with prerequisite releases
- wtp-requirements@ mailing list created to solicit community requirements
- Requirements, plans tracked via Bugzilla
- Themes and high-level requirements coordinated through Eclipse Requirements Council representation



## WTP 1.0 Project Themes

- API declaration where appropriate
- Simple to use – wizards, editing support
- Large-scale development
- User experience – dynamic help, graphical WSDL editor
- Responsive UI - Eclipse jobs, operations processing for wizards
- Seamless editing of resources
  - JDT-like features applied to other languages (HTML, JSP, XML, ...)
- Flexible project layout
- Vendor ecosystem support – server integration, platform API
- Architectural alignment – integrate with platform's project model



# 1.0 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



## 1.0 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
- Data Tools [migrating to DTP]
  - Database server explorer
  - SQL scrapbook
  - Output view
  - RDB and SQL models



# 1.0 Feature Set – JST

- Java EE Core
  - Natures and Builders
  - Java EE Views and Navigators
  - Java EE Models
- Java EE Projects and Modules
  - Flexible directory layout
    - Not just exploded archives
  - 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



## 1.0 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, JBoss
  - Custom (Java) server adapter for total control
    - Includes Tomcat, Geronimo adapters
- 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





# APIs

- 1.0 contains WTP's initial API definitions
- Provisional API where functionality is new or still in flux
- "component.xml" files determine API status; will transform into "api.xml" in 3.2 timeframe, based on work with platform
- 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 – goal is 100% for APIs
    - Static
    - Dynamic – Using trace component (PIAgent) from TPTP to determine EMF coverage.
  - Track JavaDoc coverage – goal is 100% for APIs

## API, continued



- WTP API summary is now automatically generated with each build
- Enables drill down and illustrates API component-by-component
- Example from 11/05 I-build:

<http://download.eclipse.org/webtools/downloads/drops/I-I20051105-200511051946/apireresults/api-info-summary.html>

# 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 1.0 download includes online documentation
  - Professional technical writer (IBM) contributing to 1.0 documentation
- Tutorials and presentation materials available on [www.eclipse.org/webtools](http://www.eclipse.org/webtools)
  - Includes copies of conference presentations (EclipseCon, JavaOne, EclipseWorld), articles, etc.
- Ecosystem lead (Lawrence Mandel) assists with tutorial and other educational collateral
- NL-enabled; non-English language packs will follow in 1.0.1
- Two books, one “JST Pro” published by 3<sup>rd</sup> party, another in progress



# Architectural Issues

- Project boundary alignment (with platform)
  - Internet proxy preferences
  - Operations
  - Undo/Redo
  - WTP's Flexible Project (Resource Layer)
  - Extensible Navigator
  - Tabbed Properties View
- Project boundary alignment (between projects)
  - Eventual location of EJB 3.0 / JSR 220 (ORM) technologies
  - Validation (WTP, TPTP)
  - TCPIP Monitor (WTP, TPTP)
  - RDB and DTP (WTP and DTP) – moving in 1.5 timeframe if API migration path is clear (otherwise in next major release)

# End-of-Life



- No previous WTP releases included API definitions, so no end-of-life issues exist.
- Also see DTP migration plan on previous slide

# Defect Statistics as of 11/14/2005



| Severity | Target Milestone |           |          |           |          |          |             |
|----------|------------------|-----------|----------|-----------|----------|----------|-------------|
|          | ---              | 1.0 M10   | 1.0 M6   | 1.0 M9    | 1.5 M1   | 1.5 M2   | Total       |
| blocker  | <u>3</u>         | <u>1</u>  | .        | <u>6</u>  | .        | .        | <u>10</u>   |
| critical | <u>8</u>         | <u>5</u>  | .        | <u>9</u>  | .        | .        | <u>22</u>   |
| major    | <u>97</u>        | <u>31</u> | <u>1</u> | <u>20</u> | <u>4</u> | .        | <u>153</u>  |
| normal   | <u>899</u>       | <u>45</u> | <u>3</u> | <u>20</u> | <u>3</u> | <u>1</u> | <u>971</u>  |
| minor    | <u>63</u>        | .         | .        | .         | .        | .        | <u>63</u>   |
| trivial  | <u>18</u>        | .         | .        | .         | .        | .        | <u>18</u>   |
| Total    | <u>1088</u>      | <u>82</u> | <u>4</u> | <u>55</u> | <u>7</u> | <u>1</u> | <u>1237</u> |

Release Exit Criteria: zero P1/blocker defects & 100% automated test pass rate where static analysis is feasible

- Test results posted with each build
- All tests are in CVS

Bug statistics as of May 08, 2005



# 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
  - JDBC 2.1



# Update Manager Site Hosted on SourceForge

- <http://eclipseupdates.sourceforge.net>
  - Enables WTP users to easily access WTP prerequisites from SourceForge
- Simplifies acquisition and update processing

# Schedule



- 1.0 release scheduled for December 16, 2005
- 3 milestones (M8-M10); continuation of 0.7 numbering scheme
- Post-1.0 will join Callisto train, leading to platform 3.2 / WTP 1.5 release date (6/30/06)

| Milestone    | Date               |
|--------------|--------------------|
| M8           | September 23, 2005 |
| M9           | November 18, 2005  |
| M10 (1.0 GA) | December 16, 2005  |

# Process: Committers and Activities



- Over 62 contributors (28 active committers) from 9 companies
  - Committer elections and removals have followed charter principles
  - Continuing to recruit additional contributors (organizations and individuals)
  - <http://eclipse.org/webtools/people/index.html>
- Open communications via 5 WTP mailing lists, plus newsgroup
  - PMC, overall dev, WST, JST, JSF, requirements mailing lists
  - Committer responsiveness to newsgroup has suffered during crunch times – looking to improve
  - Plans available: <http://www.eclipse.org/webtools/plans/1.0/#Milestone-Plans>
- 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](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
- Leveraging other open source technologies in the project

# Process: Community



- Substantial WTP download activity for milestones and releases
- 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
  - Ecosystem lead (Lawrence Mandel)
  - Website lists WTP events (conferences, etc.)
  - Multiple commercial implementations, more coming...
  - 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



- WTP incubating JSF sub-project
- First instance of top-level project incubation outside of technology project
- WTP charter updated with Board approval to reflect this
- Sub-project follows normal processes: open, transparent, inclusive

# Contributing Organizations



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



## Commercial Adopters

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



# Supported Servers

- Open Source
  - Apache Tomcat
  - Apache Geronimo
  - Apache Derby
  - JBoss
  - ObjectWeb JONAS
  - Glassfish: <https://glassfishplugins.dev.java.net/>
- Commercial
  - IBM WebSphere
  - BEA WebLogic
  - Oracle server





# Intellectual Property

- Accepting Contributions (In-Bound Licensing)
  - All new code provided under [Eclipse Public License \(EPL\)](#)
  - Redistribution of 3<sup>rd</sup>-party (non-EPL) components approved by EMO
  - DTD and schema download licensing available
  
- Licensing Contributions (Out-Bound Licensing)
  - WTP 1.0 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 3<sup>rd</sup>-party (non-EPL) components used by WTP
  - Source scan and due diligence requested of EMO
  - Live IP log available at [http://www.eclipse.org/webtools/development/ip\\_log.html](http://www.eclipse.org/webtools/development/ip_log.html)
  
- Reviews
  - Creation Review approved July 2004
  - 0.7 IP and Release Review approved July 6, 2005

Eclipse Foundation IP Policy: [http://www.eclipse.org/org/documents/Eclipse%20IP%20Policy2003\\_12\\_03%20Final.pdf](http://www.eclipse.org/org/documents/Eclipse%20IP%20Policy2003_12_03%20Final.pdf)

# Forward Project Plan



- WTP 1.0 scheduled for December 16, 2005, based on platform 3.1.1
- WTP 1.0.1 will ship subsequent to platform 3.1.2 in early 2006
- Aligning future release cycles with platform
  - Align with Eclipse Platform releases starting June 2006
  - Synchronized maintenance releases as needed
  - [http://www.eclipse.org/webtools/development/requirements/wtp\\_1\\_5\\_plan.html](http://www.eclipse.org/webtools/development/requirements/wtp_1_5_plan.html)
  - Major themes: Java 5 EE, additional servers, update standards, architectural alignment with platform, graduate JSF component (Oracle), graduate EJB 3.0 support (currently housed in technology projects)

# Thanks and...



## Feedback, Feedback, Feedback!

- **Please provide us with your feedback, requirements, issues**
- **Submit enhancement requests / defects in Bugzilla**  
[https://bugs.eclipse.org/bugs/enter\\_bug.cgi?product=WTP](https://bugs.eclipse.org/bugs/enter_bug.cgi?product=WTP)
- **Submit questions / issues in the WTP Newsgroup:**  
<news://news.eclipse.org/eclipse.webtools>
- **Engage with the WTP devs to contribute:**  
[wtp-dev@eclipse.org](mailto:wtp-dev@eclipse.org)