



# Eclipse BIRT 2.3 Release Review

June 2, 2008

## Eclipse BIRT PMC



# Introduction: BIRT 2.3 Release Review



- BIRT 2.3 is targeted for availability June 25, 2008
  - Based on Eclipse Platform 3.4
  - Part of Ganymede Simultaneous Release
- Major Milestone History
  - 1.0, Jun 2005; 1.0.1, Jul 2005
  - 2.0, Jan 2006; 2.0.1, Feb 2006
  - 2.1, Jun 2006; 2.1.1 Sep, 2006; 2.1.2, Feb 2007; 2.1.3, Jul 2007
  - 2.2, Jun 2007; 2.2.1 Oct 2007; 2.2.2, Feb 2008
- Release alignment
  - “Major” release designation determined by feature set
  - Summer releases will be aligned with Eclipse release train

## Features: BIRT 2.3 Requirements Process



- Requirements gathered from multiple sources:
  - Enhancement requests already entered in Bugzilla
  - Discussions in BIRT newsgroup
  - Innovation/experience from within the BIRT project team
- Requirements captured in Bugzilla
  - Community encouraged to enter all enhancements into Bugzilla for planning and tracking
- Candidate projects identified and listed on BIRT Wiki
- BIRT Project Specifications (BPS) created to define scope and encourage discussion and feedback
- BIRT 2.3 Plan developed and published on Eclipse.org

## Features: Summary of BIRT 2.3 Objectives & Themes

- Integrate and provide BIRT as part of the Ganymede Simultaneous Release
  - Support use of BIRT in a wide range of Eclipse 3.4 applications
  - Ensures BIRT technology is easily accessible to Eclipse 3.4 community
- Specific additional features can be grouped into broad categories
  - Support for Eclipse 3.4 (tested with Ganymede components)
  - Prototype Integration of Eclipse DTP Project's Graphical Query Builder
  - BIRT JavaScript Debugger to debug scripting with JavaScript
  - JavaScript validation within Expression Builder
  - Usability Improvements (e.g. easier formatting, Prototype Integration of DTP Graphical Query Builder, crosstab improvements)
  - Crosstab Enhancements (e.g. scripting, computed measures)
  - Chart Enhancements (e.g. better layout, consume cube data)
  - Crosstab & Chart Integration (e.g. chart view of measure data)
  - Inclusion of External JavaScript files (e.g. references to external .js files)
  - Generate Report Document directly from BIRT Workbench
  - Extension point to create custom data extracts from Report
  - Bidirectional language support (Bidi) for Hebrew and Arabic
  - Bi-Directional enhancements for core API and BIRT runtime (e.g. rendering right-to-left reports in HTML and alternate formats such as Excel, PDF, WPML).
- Incorporate Eclipse Themes & Priorities where applicable

For Details, refer to BIRT 2.3 Release Plan and Bugzilla



## Non-Code Aspects: Documentation & Examples

- BIRT 2.3 download includes online documentation
  - Created by professional technical writers
- Tutorials and examples available on [www.eclipse.org/birt](http://www.eclipse.org/birt)
  - How-To recorded demos
  - Articles on common BIRT usage scenarios
  - Examples of common reports, code snippets
- BIRT includes an embedded Derby sample database
  - Easy to learn how to use BIRT with tutorials and examples
  - Standard SQL data that can easily be loaded into other DBs
- New & Noteworthy documents
  - Have been created for Milestone releases
  - Comprehensive BIRT 2.3 N&N will be created for final 2.3 release

## Non-Code Aspects: Internationalization & Localization

- BIRT uses Eclipse and Java localization/internationalization infrastructure
- Report architecture enables easy localization of labels/text in actual reports
- BIRT is tested for 23 locales:
  - Group 1 languages - German, Spanish, French, Italian, Japanese, Korean, Brazilian Portuguese, Traditional Chinese and Simplified Chinese
  - Group 2 CEMA languages - Czech, Hungarian, Polish and Russian
  - Group 2a additional languages - Danish, Dutch, Finnish, Greek, Norwegian, Portuguese, Swedish and Turkish
  - Group Bidi languages - Arabic and Hebrew
- Currently right to left (bi-directional) support in PDF output is limited

## APIs: Overview



- Intention is for new APIs to go through at least one release of Provisional status to allow for feedback
- Community feedback on APIs prompted a number of enhancements and improvements in BIRT 2.3
- Goal for BIRT 2.3 is to support BIRT 2.2 APIs that are in use by the community. Known exceptions are:
  - BIRT 2.2 or earlier APIs that did not work
- Any compatibility issues should be reported as defects and we will work to address them where possible

# APIs: Status



Name	Status	Doc Status	Test Cases	# of Clients	Backward Compatible	Maturity
BIRT Report Object Model	Platform	Comprehensive document	Yes	2+	Indefinite	Platform
BIRT Design Engine API	Platform	Overview, How To, Examples and JavaDoc	Yes	2+	1.0.x, 2.0.x, 2.1.x, 2.2.x	Mature
BIRT Report Engine API	Provisional	Overview, How To, Examples and JavaDoc	Yes	3+	1.0.x, 2.0.x, 2.1.x, 2.2.x	Medium
BIRT Report Scripting API	Provisional	JavaDoc, Examples	Yes	N/A	2.0.x, 2.1.x, 2.2.x	Medium
BIRT Report Item Extension API	Provisional	Overview, Examples and JavaDoc	Yes	2+	1.0.x, 2.0.x, 2.1.x, 2.2.x	High
BIRT Report Rendering Extension API	Provisional	JavaDoc	Yes	2+	1.0.x, 2.0.x, 2.1.x, 2.2.x	Medium
BIRT Chart Engine API	Provisional	Overview, FAQ, Model Specification and JavaDoc	Yes	2+	1.0.x, 2.0.x, 2.1.x, 2.2.x	Medium
BIRT Chart Type Extension API	Provisional	JavaDoc	Yes	5+	1.0.x, 2.0.x, 2.1.x, 2.2.x	Medium
BIRT Chart Device Rendering Extension API	Provisional	JavaDoc	Yes	3+	1.0.x, 2.0.x, 2.1.x, 2.2.x	Medium

API Contract Compatibility: BIRT 2.3 is upwards contract-compatible with BIRT 1.x; 2.0.x, 2.1.x and 2.2.x to the greatest extent possible. All incompatibility exceptions will be documented. Downward contract compatibility is not supported. There is no guarantee that compliance with BIRT 2.3 APIs will ensure compliance with BIRT 1.x; 2.0.x; 2.1.x; 2.2.x APIs. Refer to general Eclipse document on [Evolving APIs](#) for a discussion of the kinds of API changes that maintain contract compatibility.

## End of Life Issues



- No features or APIs are moving into End of Life in this release

## Architectural Items



- No changes from BIRT 2.2

## Bugzilla Statistics



- Dedicated professional QA team testing BIRT
- Strong participation in testing from Community
- All bugs are tracked through Bugzilla
- Release Exit Criteria
  - Zero outstanding Critical defects
  - Zero outstanding Major defects
  - 100% test attempt / pass
- All automated tests/JUnit tests are in CVS

# Bugzilla Statistics



Target Milestone	2.3 Milestone Releases											Total 2.3	2.3.1	Future
	2.3.0	M1	M2	M3	M4	M5	M6	RC0	RC1	RC2	RC3			
Blocker	4	4	0	3	9	1	12	2	4	3	0	42	0	6
Critical	7	3	2	1	16	7	20	9	6	6	0	77	3	5
Major	34	8	6	3	58	32	44	21	17	9	4	236	0	18
Normal	142	70	31	50	303	256	404	214	166	99	13	1748	39	355
Minor	4	2	1	0	4	3	6	13	2	4	0	39	2	15
Trivial	3	0	0	0	0	0	1	1	1	1	0	7	0	3
Enh	58	7	9	13	56	41	42	34	16	13	2	291	27	339
<b>Total</b>												<b>2440</b>	<b>71</b>	<b>741</b>

Bug statistics as of May 25, 2008



# Code Statistics



Project Area	BIRT 1.0	BIRT 2.0	BIRT 2.1	BIRT 2.2	BIRT 2.3	% Increase (2.2 to 2.3)
Report Designer Lines of Code	61K	100K	110K	198K	300K	+51%
Charting Engine Lines of Code	60K	111K	125K	199K	210K	+5%
Report Engine Lines of Code	113K	180K	232K	659K	705K	+6%
Test and Release Engineering Tools				365K	397K	+8%
<b>TOTAL Lines of Code:</b>	<b>234K</b>	<b>391K</b>	<b>467K</b>	<b>1,427K</b>	<b>1,612K</b>	<b>+13%</b>
Number of Java Files	N/A	N/A	4,787	7,793	8,047	+3%

Statistics as of May 23, 2008

Statistics do not include 3<sup>rd</sup> party open source code and binaries.

Line count does not include comments and blank lines.

## Standards (same as BIRT 1.0.x – 2.2.x)



- BIRT is designed to work in a standards-based environment
  - Eclipse plug-ins for design-time activities
  - General Java class libraries for deployment
  - Ability to render reports as HTML pages for output
  - Example deployment implementation for Apache Tomcat
- BIRT uses JavaScript for scripting (Mozilla Rhino engine)
  - Conforms to ECMA-262 standard
  - Reference: <http://www.mozilla.org/js/>

# Schedule



- BIRT 2.3 adopted Eclipse Ganymede Simultaneous Release Schedule

<b>Oct 9, 2007</b>	▪ BIRT 2.3 M2 released
<b>Nov 20, 2007</b>	▪ BIRT 2.3 M3 released
<b>Jan 16, 2008</b>	▪ BIRT 2.3 M4 released
<b>Feb 26, 2008</b>	▪ BIRT 2.3 M5 released
<b>Apr 15, 2008</b>	▪ BIRT 2.3 M6 released
<b>May 13, 2008</b>	▪ BIRT 2.3 RC0 released
<b>May 27, 2008</b>	▪ BIRT 2.3 RC1 target
<b>Jun 3, 2008</b>	▪ BIRT 2.3 RC2 target
<b>Jun 10, 2008</b>	▪ BIRT 2.3 RC3 target
<b>Jun 17, 2008</b>	▪ BIRT 2.3 RC4 target
<b>Jun 25, 2008</b>	▪ BIRT 2.3 GA target
<b>Q4 2008</b>	▪ BIRT 2.3.1 Maintenance Release
<b>Summer 2009</b>	▪ BIRT 2.4/3.0 (Designation TBD)

# Process



- 50 committers for the Eclipse BIRT project
  - Committer elections and removals have followed charter principles
  - Continuing to recruit additional contributor organizations/individuals
- Open and inclusive release planning and tracking processes
  - Bugzilla used to request and track all defects and enhancements
- Leveraging other open source in the project where possible
  - Examples: Rhino; Flute; Tomcat; Derby
- All contributions made directly to Eclipse CVS
  - Nightly, stable, and release builds available to the community
- Project specific process details are posted on project web site
  - <http://www.eclipse.org/birt/phoenix/project/>
- Weekly PMC meeting with minutes posted for community access
  - [http://wiki.eclipse.org/BIRT\\_PMC\\_Minutes](http://wiki.eclipse.org/BIRT_PMC_Minutes)

# Community



- Open communications via 6 BIRT mailing lists and 1 newsgroup
  - Project activities communicated via mailing lists for PMC/general
  - One mailing list for each sub-project
  - Plus low-noise news only mailing list
- Newsgroup is very active
  - Many how-to questions and discussions
  - Typically same day responses from BIRT team
  - Have adjusted projects in response to newsgroup feedback
- Dedicated resources generating content for BIRT community at Eclipse.org
  - BIRT project pages
  - BIRT Wiki
- Coordination/cooperation between other open source projects
  - TPTP incorporates BIRT functionality
  - BIRT Committers also work on DTP project; DTP is key component of BIRT

# Community



- Articles and Technical Content Placement
  - See [http://wiki.eclipse.org/index.php/Articles\(BIRT\)](http://wiki.eclipse.org/index.php/Articles(BIRT)) for details
- Conferences and User Groups
  - EclipseCon 2008, March 2008: Many talks/tutorials on BIRT project technology
  - Presented on BIRT at various conferences during last 12 months
- Blogging
  - BIRT World: <http://birtworld.blogspot.com>
  - Promoting BIRT on many other sites such as TheServerSide, JavaLobby and EclipseZone
- Four books available:
  - BIRT: A Field Guide to Reporting (Addison-Wesley)
  - Integrating and Extending BIRT (Addison-Wesley)
  - New in 2008: Practical Data Analysis and Reporting with BIRT (Packt Publishing)
  - New in 2008: Eclipse BIRT: Business Intelligence und Reporting Tool (Xpert.press) (German)

# Intellectual Property



- Accepting Contributions (In-Bound Licensing)
  - All BIRT code provided under [Eclipse Public License \(EPL\)](#)
  - BIRT downloads include only 3<sup>rd</sup> party (non-EPL) components approved by EMO
- Licensing Contributions (Out-Bound Licensing)
  - BIRT 2.3 provided under EPL
  - About files and license files are complete and correct
- Due Diligence and Record Keeping
  - All BIRT Committers completed Committer Agreement & approved by PMC/EMO
  - PMC maintains list of all 3<sup>rd</sup>-party (non-EPL) components used by BIRT
    - All 3<sup>rd</sup> party components completed IP review process and approval by EMO
  - Project Log maintained by the PMC

Eclipse Foundation IP Policy: [http://www.eclipse.org/org/documents/Eclipse\\_IP\\_Policy.pdf](http://www.eclipse.org/org/documents/Eclipse_IP_Policy.pdf)

# Intellectual Property Cleanliness



The following significant and third party contributions have been reviewed by Eclipse Legal:

Third Party Software	IPzilla #	License	Link to License
Rhino 1.6R7	1864	NPL 1.1	<a href="http://www.mozilla.org/MPL/NPL-1.1.html">http://www.mozilla.org/MPL/NPL-1.1.html</a>
Apache Derby 10.3.1.4	1883	Apache 2.0	<a href="http://www.apache.org/licenses/LICENSE-2.0.html">http://www.apache.org/licenses/LICENSE-2.0.html</a>
Jakarta Commons CLI 1.0	218	Apache 2.0	<a href="http://www.apache.org/licenses/LICENSE-2.0.html">http://www.apache.org/licenses/LICENSE-2.0.html</a>
JTidy R7	295	JTidy Project License	<a href="http://jtidy.sourceforge.net/license.html">http://jtidy.sourceforge.net/license.html</a>
Simple API for CSS 1.3	265	W3C License	<a href="http://www.w3.org/Consortium/Legal/2002/copyright-software-20021231">http://www.w3.org/Consortium/Legal/2002/copyright-software-20021231</a>
Flute 1.3	272	W3C License	<a href="http://www.w3.org/Consortium/Legal/2002/copyright-software-20021231">http://www.w3.org/Consortium/Legal/2002/copyright-software-20021231</a>
Commons codec1.3	213	Apache 2.0	<a href="http://www.apache.org/licenses/LICENSE-2.0.html">http://www.apache.org/licenses/LICENSE-2.0.html</a>
Xerces2 Java Parser 2.9.0	2361	Apache 2.0	<a href="http://www.apache.org/licenses/LICENSE-2.0.html">http://www.apache.org/licenses/LICENSE-2.0.html</a>
Apache Axis 1.4	2362	Apache 2.0	<a href="http://www.apache.org/licenses/LICENSE-2.0.html">http://www.apache.org/licenses/LICENSE-2.0.html</a>
Prototype.js 1.4.0	309		<a href="http://dev.rubyonrails.org/browser/spinoffs/prototype/LICENSE">http://dev.rubyonrails.org/browser/spinoffs/prototype/LICENSE</a>
Batik 1.6	209	Apache Batik Public License	<a href="http://xml.apache.org/batik/license.html">http://xml.apache.org/batik/license.html</a>
iText 1.5.4	2114	Mozilla 1.1	<a href="http://www.lowagie.com/iText/MPL-1.1.txt">http://www.lowagie.com/iText/MPL-1.1.txt</a>

Project log is being updated and will be complete by release date:

<http://www.eclipse.org/birt/project-info/ProjectLog2.3.html>



# Project Plan



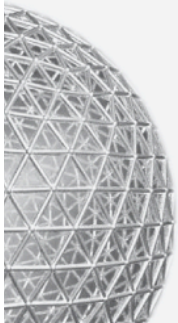
- BIRT 2.3 scheduled for Jun 25, 2008
  - Based on and supports Eclipse 3.4
  - Part of Eclipse Ganymede Simultaneous Release
- BIRT 2.3.1 tentatively scheduled for Q4 2008
  - Maintenance release
  - Synchronized and tested with Eclipse Fall Release
  - Exact date pending on planned date for Eclipse Fall Release
- BIRT release tentatively targeted for Jun 2009
  - Synchronized with Eclipse Simultaneous Release
  - Feature set and planning will determine release designation
  - Detailed planning and release designation TBD

# 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=BIRT](https://bugs.eclipse.org/bugs/enter_bug.cgi?product=BIRT)
- Submit questions / issues in the BIRT Newsgroup:  
<news://news.eclipse.org/eclipse.birt>
- Engage with the PMC to contribute:  
[birt-pmc@eclipse.org](mailto:birt-pmc@eclipse.org) or individual PMC members (see <http://www.eclipse.org/birt/phenix/project/pmc.php>)



# Buckminster

**Ganymede Review**

May, 2008





### AGENDA

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- Buckminster Objective
- Buckminster Capabilities
- Common Components used
- API Quality
- IP Clearance and License
- Committer Diversity
- Suggestions for Next Steps



## BUCKMINSTER OBJECTIVE

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Buckminster's objective is to leverage and extend the Eclipse platform to make mixed-component development as efficient as plug-in development. The basic approach is to introduce a project-agnostic way of describing a development project's component structure and dependencies, and to provide a mechanism for materializing source and binary artifacts for a project of any degree of complexity.



## BUCKMINSTER CAPABILITIES

- **Complex dependency resolution**, providing recursive resolution of dependencies leveraging existing Eclipse "Team Providers," with the addition of new retrievers, for exemplary purposes, covering source and binary artifacts that are not version-controlled in a traditional sense. Resolution uses a variety of versioning schemes and is based on match rules similar to those found in the Eclipse plug-in framework. This allows comparison of current and prior dependency resolutions to support update impact analyses.
- **Uniform component dependency format**, using a component-type agnostic mechanism for describing components and their respective targets and dependency requirements. Most Eclipse projects, and many other component types, have some level of dependency information that can be leveraged. Extensions can be added to provide additional strategies for dependency pattern recognition.
- **Intelligent retrieval mechanisms**, using a component query mechanism the resolution and generated bill of material needed for a given configuration are separated from the actual materialization. This allows sharing of configurations with varying degree of variability between team members (e.g. from "all source needed for latest revision on main branch" to "frozen release configuration").
- **Flexible project workspace binding**, allowing components materialized on disc to be bound to a workspace in different ways, including invoking "build action" before binding to a workspace and supporting "Proxy Projects" consisting of links to physical artifacts and auto-generated Eclipse project information. These capabilities are helpful when sharing code or other artifacts that are not eclipse projects.





## BUCKMINSTER CAPABILITIES

- **Actions**, leveraging existing “build technologies” both within Eclipse (PDE-build) and external (ANT), Buckminster can drive building, and assembling components. Materialization is not just “copying of files” – a compiled artifact can be materialized from its source.
- **Headless mode**, a headless packaging of Buckminster gives the same capabilities to command line level tools and scripts as what is available in the Eclipse IDE. As an example Buckminster can drive headless PDE builds.



## COMMON COMPONENTS USED

- Eclipse Resources
- Eclipse CVS support
- Eclipse PDE build infrastructure
- Eclipse Update Manager (p2)
- ECF
- Team SVN
- Jabsorb

Thirdparty bundles that we can make use of

- Subclipse from Tigris.org
- P4WSAD from Perforce.com
- RSS OWL from rssowl.org
- SVN client libraries from Polarion

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## API QUALITY

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- In active use
  - Buckminster is used by a number of companies such as Iona, BEA, Chello, Cape Clear, ?
  - Used by Eclipse Technology project 'Spaces'
  - The Buckminster project uses Buckminster of course, to build and publish Buckminster
- Community participation
  - Users and people who try things out can communicate on the buckminster-dev mailing-list or the buckminster newsgroup. The mailing-list is also mirrored as a newsgroup.
  - We participate in a number of other electronic forums such as pde-build, equinox-dev, cvs-dev, ecf-dev, and subversive newsgroup where we collaborate with the Eclipse community as a whole.
  - We attend build related workshops and all major conferences.
- Documentation
  - Documentation for Buckminster can be found at [http://wiki.eclipse.org/index.php/Buckminster\\_Project](http://wiki.eclipse.org/index.php/Buckminster_Project)



## IP CLEARANCE AND LICENSE

- IPZilla Approvals
  - All code for Buckminster resides in the SVN repository at Eclipse.org, it is licensed under EPL, and has been IP approved. We do not include any third party or external projects.
  - See IP Log at: [http://www.eclipse.org/buckminster/ip\\_log.html](http://www.eclipse.org/buckminster/ip_log.html)



### SCHEDULE

- Development adhered to Ganymede schedule
  - All milestone deliveries were met



## COMITTER DIVERSITY

- Currently 7 committers
  - Inactive committers replaced and one added (since Europa review).
- Committers from multiple countries
  - US
  - Sweden
  - Czech Republic
  - Germany
- Working with / supporting projects
  - Equinox
  - “Ganymatic”
  - Spaces
  - STP
  - ECF
  - EPP



## SUGGESTIONS FOR NEXT STEPS

- P2 and Buckminster
  - As functional capabilities in P2 increases, we can gradually replace parts of implementation with P2, as well as making Buckminster functionality available via P2 interfaces.
- Packaging + Buckminster
  - Installer contribution should be common technology
- Maven + Buckminster
  - *Monitor the activity in the new IAM and M2E projects closely and as a solution matures and reaches a valid IP-approval, migrate to make use of that rather than maintaining our own Maven integration.*



VISIT US AT  
<http://www.eclipse.org/buckminster>

# CDT 5.0 Ganymede Release Review

Doug Schaefer  
CDT Project Lead

# Features

- What's new located here:
  - ♦ <http://wiki.eclipse.org/CDT/User/NewIn50>
- Highlights
  - ♦ New Refactoring Engine with New Refactorings
  - ♦ Improved coverage of CDT index
    - Esp macros
  - ♦ Improved content assist, search
  - ♦ Debug catchpoints as supported by gdb
  - ♦ Mylin Bridge
  - ♦ Doxygen support



## Non Code Aspects

- Localization/externalization
  - ♦ Continue to be managed by IBM
- Minor updates to user docs
- No other new work done on non-code aspects

# APIs

- Some effort towards finalizing APIs
  - ♦ At least intentions
- API freeze at M6 effectively managed
  - ♦ Very little API change post M6
- Quality of APIs continue to be an issue
  - ♦ Lack of public review
  - ♦ Lack of complete documentation
    - No programmers guide
  - ♦ APIs will likely continue to change in future releases
    - But also continue to be managed carefully

## Architectural Issues

- CDT 3.1 indexer architecture continues to show wins
  - ♦ Now with improved accuracy with same fast performance
  - ♦ Hope to remove Full (slow) indexer next release
- Multi-language support continues to progress
  - ♦ Work on extensible parsing, AST reuse
- CDT Debug Interface/Debug Services Framework
  - ♦ DSF continues to mature
  - ♦ Work still require to fully integrate the two (esp. launch)
- Build architecture quality remains elusive
  - ♦ Lots of new work in 4.0, but still some quality issues
  - ♦ Need to take a clean look next release
    - In conjunction with flexible resource model

## Tool Usability

- External tools integration strategy continues to shine
  - ♦ CDT becoming standard for everything but Microsoft
- Indexing continues to improve
  - ♦ More accurate results
  - ♦ More usable search, content assist, static analysis views
- Launch usability still an issue
  - ♦ Most vendors roll their own, ignoring CDT's built-in ones
  - ♦ CDT launch dialogs flexible but overly confusing

## End of Life

- CDT's old parser has been end of life'd
  - ♦ Previously used for outline view, compare
  - ♦ CDT's new DOM parser does all
- CDT's Full indexer is deprecated
  - ♦ Orders of magnitude slower, not much better accuracy
  - ♦ Focus on Fast indexer should help it match accuracy

# Bugzilla

- Since CDT 4.0 Europa released
  - ♦ 1332 bugs raised
  - ♦ 1088 bugs resolved
  - ♦ 827 bugs fixed
- 1290 bugs remain open
  - ♦ Up around 100 from CDT 4.0

## Standards

- Nothing new this release
  - ♦ All language support following appropriate standards

## UI Usability

- CDT does not actively follow UI guidelines
  - ♦ All vendors manage product integration issues contribute changes back
- IBM contributes internationalization, accessibility
  - ♦ No one else really cares, yet



## Schedule

- CDT 5.0 followed Ganymede schedule
  - ♦ No big misses

## Communities

- Volume of adopters continues to grow
  - ♦ More activity on the cdt-dev list from new players
- User community support improved
  - ♦ Handful of committers helping on newsgroup
- Committer community
  - ♦ 18 “active” committers, 2 “participating”, 3 “inactive”
  - ♦ Most committers part time at varying levels
  - ♦ Intel announced withdrawal of committers post 5.0 :(

# IP Issues

- The project leadership verifies that:
  - ♦ that the about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - ♦ all contributions (code, documentation, images, etc) has been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - ♦ that all significant contributions have been reviewed by the Foundation's legal staff. Include references to the IPZilla numbers of all clearances.
  - ♦ that all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff. Include references to the IPZilla numbers of all clearances.
  - ♦ that all Contribution Questionnaires have been completed
  - ♦ the "provider" field of each feature is set to "Eclipse.org"
  - ♦ the "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
  - ♦ that any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - ♦ **that any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.**

## IP Issues

- Project log located here:
  - ♦ [http://www.eclipse.org/cdt/releases/cdt5.0/CDT5\\_Project\\_log.html](http://www.eclipse.org/cdt/releases/cdt5.0/CDT5_Project_log.html)

# IP Issues Speak-Up-Now

# Project Plan

- Next Release – CDT 5.1
- Proposed Features
  - ♦ Tighter integration of DSF into CDT
  - ♦ Unification of Launch Configs
  - ♦ Improve Build System Architecture
    - Including Scanner Discovery
- CDT Summit
  - ♦ Sept 22-24
  - ♦ CDT 5.1 Plan to be finalized



# Eclipse Dynamic Languages Toolkit (DLTK) 0.95 Release Review

May 23, 2008





# DLTK - Introduction

- DLTK 0.95 releasing following components to Ganymede
  - Core Frameworks
  - Ruby IDE
  - TCL IDE
  - XOTcl and ITcl OO Extensions support for TCL IDE
  - Remote development via DSDP TM RSE
  - Mylyn Integration Component
- Community
  - 9 committers from CodeGear, Servoy, Xored, Zend, and individuals
  - Used for Eclipse PDT 1.1 Project
  - Foundation for CodeGear's 3rdRail Ruby on Rails IDE





# DLTK - Major Project Milestones

- Proposed December 2005
- Created December 2006
- DLTK 0.9 Released with Europa (June 2007)
- DLTK 0.95 is under development and going to be released with Ganymede (June 2008)
  - Project plan available at [http://wiki.eclipse.org/DLTK\\_0.95\\_Project\\_Plan](http://wiki.eclipse.org/DLTK_0.95_Project_Plan)
- New features since DLTK 0.9 includes
  - Many IDE improvements
  - Support of TCL OO Extensions like XOTcl and Itcl
  - Option to work with projects located on remote hosts (with help of DSDP TM Project)
  - Integration with Mylyn Project
- Recently released
  - 0.95RC1 – May 21, 2008
  - 0.95M7a – May 12, 2008
  - 0.95M6 – Apr 1, 2008
  - 0.95M5 – Feb 22, 2008



# DLTK 0.95 (Incubation) Features

- Core Frameworks
  - Structural Source Code Model
  - Type Inference Engine
  - Search and Indexing
  - Launching and Debugging over DBGp protocol
  - Interactive Console
  - Common UI components (Wizards, Views, Preference Pages, etc)
  - Plan available at: [http://wiki.eclipse.org/index.php/DLTK\\_Project\\_Plan](http://wiki.eclipse.org/index.php/DLTK_Project_Plan)
- Ruby IDE Component
  - Many of JDT-alike features implemented
- TCL IDE Component
  - Many of JDT-alike features implemented
- Integration Components
  - Mylyn Integration and Remote Projects support via RSE



## DLTK - Intellectual Property

- Core, TCL, Python, and Ruby components source code approved have been made under EPL 1.0 (CQ #1135).
- Ruby component contains source code derived from JRuby (available under CPL). Code approved to use with DLTK (CQ #1137).
- org.apache.xmlbeans 2.3 (CQ #1598) – approved but not used in DLTK yet
- ANTLR Runtime (Only) 3.0 (CQ #1647) – used by Python Component (incubated within DLTK Project)
- All plugins contain appropriate license files
- All committers have completed Eclipse Committer Agreements and have been approved by the PMC
- Project IP Log maintained at [http://www.eclipse.org/dltk/ip\\_log.html](http://www.eclipse.org/dltk/ip_log.html)



## DLTK - API: 0.95 Status

- Implementation
  - Project is in incubation phase and public API is not stabilized yet.
  - Core Frameworks API is quite stable. Other DLTK components and external projects depends on the Core.
- Documentation
  - Project is in incubation phase and lacks of documentation.
- Test Cases
  - Some code is covered with test cases.
- Compatibility
  - Version 0.95 is not backward compatible with 0.9



# DLTK - Defect Statistics (All Components)

- Version 0.95 (May 26, 2008):
  - 430 TOTAL
  - 92 NEW
  - 58 ASSIGNED
  - 265 RESOLVED
  - 2 VERIFIED
  - 10 CLOSED
- Version 0.95 to be released



# *Device Debugging 1.0 Ganymede Release Review*

Pawel Piech



## *DSDP Device Debugging – Introduction*

- Major project milestones
  - DD proposed as part of DSDP – May 2005; Created – June 2, 2005
  - New Eclipse Debug Platform Model/API's – Eclipse 3.2
  - New Memory View with customizable rendering – Eclipse 3.2
  - Debugger Services Framework introduced – July 2006
  - EclipseCon presentation – March 2007
  - ESC presentation – April 2007
  - 0.9 Release on Europa train – June 2007
  - EclipseCon tutorial and presentation – March 2008
- Continuing to expand community
  - DSF commercial adoption by Wind River
  - DD memory rendering used in several CDT-based products
  - Ericsson building GDB implementation under DSF
  - ARM using IP-XACT editor for internal development.



## DD 1.0 Features

- 1.0 Plan available at  
[http://wiki.eclipse.org/DSDP/DD/DD\\_1.0\\_ProjectPlan](http://wiki.eclipse.org/DSDP/DD/DD_1.0_ProjectPlan)
- Debugger Services Framework (DSF)
  - A framework integrated using Flexible Hierarchy API from Debug Platform
  - Designed as an extensible services architecture for building commercial embedded debuggers.
- Traditional Memory View Rendering
  - An implementation of the standard hex-based memory view look-and-feel found in most embedded debuggers.
- GDB debugger DSF implementation
  - Exemplary DSF implementation
  - Alternative to CDT's current GDB integration
- IP-XACT Editor (preview only)
  - XML editor compliant with the SPIRIT consortium's IP-XACT standard (version 1.4) for defining SoC properties.
- DSF and IP-XACT documentation





## *Non-code aspects*

- User documentation and tutorials
  - Full documentation for IP-XACT component
  - Documentation for other components planned in future release.
- ISV documentation and tutorials
  - <http://dsdp.eclipse.org/help/latest/>
  - Includes Javadoc, DSF white paper, and DSF tutorials
- Externalization
  - Appropriate strings are externalized, but no localization will be done
- Publications and Conference talks as part of DSDP
- DSF tutorial presented at EclipseCon 08



## *API: 1.0 Status*

- Previous releases of DD contained provisional APIs only.
- DSF contains stable and some provisional APIs
- Memory Rendering contains only few stable APIs which allow it to be extended
- IP-XACT editor is still not on 1.0 version and contains provisional APIs only.



## *Architectural Issues*

- DSF is an extensible framework intended to be extended by commercial device software development tools vendors for their proprietary debug engines and target platforms. More integrations with different debugger back ends are needed to fully validate this framework.
- The IP-XACT editor (provided still as a preview only for the 1.0 release) is also exclusively a Tool component.
- A stress and performance test framework is needed for the DSF UI components.
- Overlaps with other projects
  - This project functionally overlaps with the CDT debugger. This is by design, as the DD project is attempting to build the next-generation debug framework for CDT. Many of the CDT debug participants are also DD project participants.



## *Tool Usability*

- The GDB debugger is a fully functional debugger. Although, it still lacks a few minor features available with the current CDI-based GDB debugger.
- IP-XACT editor
  - Utilizes the IP-XACT schema (separately downloaded) for rules checking.
  - Provides the user will a large library of SoC components for building a chip design.
  - Provides a wizard for creating new components.
- The Traditional Memory Rendering is a fully-functional memory view rendering that can be included in any Eclipse debugger that utilizes the Eclipse Memory View and framework.

## *End-of-life*



- Nothing is end of life right now.

*Bugzilla*

- Statistics as of 15-May-2008

	Status						Total
	NEW	ASSIGNED	REOPENED	RESOLVED	VERIFIED	CLOSED	
blocker	.	.	.	.	2	.	2
critical	1	.	1	5	5	.	12
major	3	.	.	15	6	1	25
normal	67	6	1	102	163	32	371
minor	12	1	.	3	7	1	24
trivial	1	.	.	.	2	.	3
enhancement	66	5	.	33	19	7	130
Total	150	12	2	158	204	41	567

- Release Exit Criteria

- 0 Critical Bugs for Current release.
  - Critical bugs allowed for future releases.



## Standards

- IP-XACT 1.4
  - For details, see <http://spiritconsortium.org>
- ECSI (European Electronic Chips & Systems Design Initiative)
  - DSF was presented at the ECSI workshop on debug standard proliferation.
  - Discussions about potential overlap and synergy with other standards such as Sprint and TCF
- TCF (Target Communication Framework)
  - TCF is a proposed standard debug protocol in Power.org
  - DSDP/TM project is developing a TCF debugger integration using DSF

## *UI Usability*



- Externalization and Accessibility guidelines followed
  - Keyboard accessibility of all items verified
  - Menu items for special keys
  - Messages marked up properly for screen readers
- All UI-visible Strings are externalized
- Externalization partially through Eclipse NLS mechanism
- No localization will be done.





## *Schedule*

- Project plan posted 22-April-2007
- DD has been building with Ganymede since Milestone 2
- Release milestones (completed milestones were on schedule)
  - 1.0 M2 – October 5<sup>th</sup> 2007
  - 1.0 M3 – November 13<sup>th</sup> , 2007
  - 1.0 M4 – January 4<sup>th</sup>, 2008
  - 1.0 M5 – February 18<sup>th</sup>, 2008
  - 1.0 M6 – April 5<sup>th</sup>, 2008
  - 1.0 M7 – May 5<sup>th</sup>, 2008
  - 1.0 RC1 – May 20<sup>th</sup>, 2008
  - 1.0 RC2 – May 28<sup>th</sup>, 2008
  - 1.0 RC3 – June 3<sup>rd</sup>, 2008
  - 1.0 RC4 – June 10<sup>th</sup>, 2008
  - 1.0 – June 17<sup>th</sup>, 2008



## *Process*

- Open, Transparent Planning and Execution:
  - Features and Technical Working Groups maintained on Bugzilla, with “Overview” index entries on the Wiki
  - Made all communications public on the Mailing List, Regular phone conferences open to the public. All notes on Wiki.
- Several open meetings to discuss requirements, use cases, and development issues.
- Infrastructure: Automated nightly builds



## *Committers and Contributors*

- 8 committers from 3 organizations (WindRiver, ARM, Ericsson).
- Direct contributions from Wind River (1 engineer), TI (1 engineer), ST Microelectronics (1 Engineer)
- Mailing list participation from Freescale, QNX, TI
- Emphasis on completing the GDB debugger integration.
- Weekly DSF committer calls
- Face-to-face meeting held in Ottawa

# Community



- Developer and Plug-in Provider Communities
  - Still the best supported community.
  - Emphasis with DD 1.0 is building a high quality framework for commercial adoption
  - EclipseCon '08 tutorial aimed at helping framework adopters.
- User Community
  - Fully functional GDB debugger integration now available. It is used by Ericsson and ST Mircoelectronics, and it is planned to be included in the Wascana (<http://wascana.sourceforge.net/>) distribution.
  - DSF is used in Wind River's IDE and is being considered by Nokia, Freescale, and other CDT members.
- Talks at EclipseCon, EclipseSummit Europe 2007
- Press activity as part of DSDP
  - See DSDP press coverage report



## *IP Issues*

As per the Eclipse IP Policy, the project verifies that:

- ... the about files and use licenses are in place as per the Guidelines
- ... all contributions (code, documentation, images, etc) have been committed by individuals who are Members of the Foundation and are abiding by the Eclipse IP Policy (training through Committer HOWTO)
- ... all significant contributions have been reviewed by the Foundation's legal staff – even if written by committers prior to joining Eclipse
- ... third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff
- ... all contribution questionnaires have been completed
- ... the "provider" field of each plug-in is set to "Eclipse.org"
- ... the "copyright" field of each plug-in is set to the copyright owner
- See the IP Log at  
<http://www.eclipse.org/dsdp/dd/development/dd-log.csv>



## *Future Plans*

- Service release 1.0.1 in September 08.
- Proposed Release 1.1 in November 08
  - Plan: [http://wiki.eclipse.org/DSDP/DD/DD\\_1.1\\_ProjectPlan](http://wiki.eclipse.org/DSDP/DD/DD_1.1_ProjectPlan)
  - Support for upcoming GDB features – non stop debugging.
  - Additional features and performance improvements in debugger UI.



## *Native Application Builder (NAB) 0.9.9 – Ganymede Release Review*

Shigeki Moride



## *1-minute summary slide*

- Features
  - Bug fix only at here.
- API
  - All API's are provisional (NAB project is in incubation)
- End of life
  - N/A
- IP
  - Contributions are only form committers.
  - IP log has been updated.
- Committer Diversity
  - (committers) Fujitsu



## *NAB – Introduction*



- Major project milestones
  - NAB proposed as part of DSDP – Sep 2005; Created – Jan 24, 2006
  - Short talk at EclipseCon – March 2006
  - Milestone 1 release (0.9.5) with Callisto – Jun 2006
  - Bug Fix release (0.9.6) – Oct 2006
  - Bug Fix release (0.9.7) – Oct 2007
  - Long talk at EclipseCon – March 2007
  - Bug Fix release (0.9.8), Ganymede Milestone release (M4) – Jan 2008
  - Short talk at EclipseCon – March 2008
- Almost complete implementation of Framework and Example tool.
  - Ready to release 1.0
- Cooperation with WideStudio user community.
  - WideStudio is popular open source project in Japan.
- We are in 'Incubation Phase' now.
  - NAB project needs the participant committer/companies to graduate.

## *Non-code aspects*



- User documentation and tutorials
  - <http://dsdp.eclipse.org/help/latest/>
  - Automatically updated from nightly builds
- ISV documentation and tutorials
  - Includes Javadoc, API document and architectural overview.
- Externalization
  - Appropriate strings are externalized, but no localization will be done
- Some publications and conference talks in Japan.
- Cooperation with WideStudio user community.

## Project Stats



- **NAB 0.9.9 Features**
  - NAB Plan available at <http://www.eclipse.org/dsdp/nab/development/plan.php>
- **API: 0.9.9 Status**
  - No different from previous releases of NAB.
  - All API's are provisional at this point, given NAB's incubation status.
- **Architectural Issues**
  - Core architecture is stable; no changes here.
- **End-of-life**
  - Not applicable to NAB since this is the first Open Source release.
- **Future Plans**
  - Release 0.9.9 on Ganymede Train – June 18
  - Service release for Ganymede Maintenance release.



## *Project Stats - continued*

- Bugzilla

- No bug reports in bugzilla on 21-May-2008
- Release Exit Criteria
  - 0 Major or Critical Bugs for Current release.
  - Critical bugs allowed for future releases.

- Standards

NAB doesn't follow any specific standard; N/A

- UI Usability

- Externalization through Eclipse NLS mechanism
- Japanese and English localization will be done.

- IP Issues

- No IP Issues.
- About files and license files are complete and correct.
- See the IP Log at  
<http://www.eclipse.org/dsdp/nab/development/nab-log.csv>

## Schedule



- NAB has been building with Ganymede since Milestone 4

	Planned	Actual	Comment
0.9.8 M4	8-Jan-2008	8-Jan-2008	
0.9.8 M5	18-Feb-2008	18-Feb-2008	
0.9.8 M6	9-Apr-2008	9-Apr-2008	
0.9.8 M7	7-May-2008	TBD	
0.9.9 RC1	29-Jun-2008	TBD	

## *Committers and Contributors*



- 2 committers from Fujitsu (One committer is a founder of WideStudio community).
- Direct contributions from Fujitsu.
- Communication is mainly at WideStudio ML in Japanese.

## *Process and Community*



- NAB community is based on WideStudio community in Japan. It's means almost communication are in outside of eclipse resources.
  - Project communication is mainly on WideStudio ML in Japanese.
  - We have to make NAB own community.
- We need Japanese friendly environment to pulling up the community (user and developer) to Eclipse side, such as...
  - Japanese web site that is builded only Japanese, no English.
  - Complete Japanized Bugzilla.
  - Japanese frontend of ML subscription page.
  - And more...



# DSDP Target Management 3.0 In the Ganymede Coordinated Release

*Eclipse Development Process version 2.3.1 – January 17, 2007*  
*Slide deck v1 – May 27, 2008*

Martin Oberhuber, Wind River  
TM Project Lead



## *Spotlight Talking Points*



- **TM 3.0 New Features**
  - Target Communication Protocol Framework (TCF) (contributed)
  - Windows CE RAPI wrappers and RSE Subsystems (contributed)
  - RSE Terminal Integration (contributed)
  - RSE User Actions and Compile Commands
- **API Quality:**
  - Extensive use of API Tooling to get rid of API Leakage and document usage restrictions; continued API Review, documentation, refactoring; many Unit tests added.
- **End-of-Life issues:**
  - Some API Refactoring (IFileService), but no EOL'd APIs or components in 3.0
- **IP Clearance and Licenses:**
  - All licenses and about files are in place as per the Eclipse Development Process, the Due Diligence Process was followed for all contributions.
- **Community and Committer Diversity:**
  - 11 committers (5 WindRiver, 4 IBM, 1 ProSyst, 1 private) – was 8 in 2.0
  - 2 former committers, 1 GSoC project, 23 additional contributors – was 5 in 2.0
  - Commercial adoption by at least 13 companies. Involvement with other Eclipse projects (Platform/Team, ECF, CDT, Orbit, EPP, PDT, Babel).



## *DSDP Target Management – Introduction*

- Major project milestones
  - Project Created – June 2, 2005
  - RSE 1.0 – Nov 12, 2006
  - TM 2.0 – June 26, 2007
- Continuing to expand community
  - EclipseCon tutorials – 2007, 2008
  - Strong growth in number of contributors (+19) and committers (+5)
  - Well recognized in the Eclipse Ecosystem, part of the JEE package
  - Commercial adoption by at least 13 companies
- TM 3.0 project size
  - RSE: 346 kLOC + TCF: 97 kLOC (R2.0: 290k, R1.0: 242k)



## Target Management vs. RSE

„Data models and frameworks to configure and manage remote systems, their connections, and their services“.

- **org.eclipse.tm.core:** Core Components (few dependencies)
  - Terminal Widget and View
  - RAPI wrappers, Jakarta Commons/Net 3<sup>rd</sup> party library
  - Discovery Framework and Zeroconf impl (needs EMF)
- **Target Communication Framework (TCF, Incubating):**  
Extensible protocol framework for development-time tooling
- **org.eclipse.tm.rse:** A consistent framework and UI for accessing remote compute resources from Eclipse.
- Remote System Explorer (RSE) integrates core components.  
**TM is the “project”, RSE is the “product”.**



## *TM 3.0 New Features*

- 3.0 Plan available at  
<http://www.eclipse.org/projects/project-plan.php?projectid=dsdp.tm>
- New Features
  - Target Communication Protocol Framework (TCF - Incubating)
  - Windows CE RAPI Wrappers and RSE Subsystems
  - RSE Terminal Integration
  - RSE User Actions and Compile Commands
  - RSE Import/Export of Connections and Profiles
  - Improved Lazy Loading, reduced plugin activation, componentization
- Focus on API review and cleanup:
  - Use API Tooling to avoid API leakage and document intended API usage
  - Improve UI/Non-UI splitting, API/Non-API splitting
  - Increase Unit Test Coverage
- Exact descriptions of changes and migration docs available from each milestone's build notes



## *Non-code aspects*

- User documentation and tutorials
  - <http://dsdp.eclipse.org/help/latest/>
  - Automatically updated from nightly builds
- ISV documentation and tutorials
  - Includes Javadoc, Architectural overview and 3 tutorials
  - EclipseCon Tutorials with code, Webinar, Wiki-based FAQ
  - Elaborate New&Noteworthy / Build Notes with each Milestone
- Working Example Code
  - Adding a custom subsystem, Adding a custom service, Adding a remote popup menu action, Adding a remote Preference page
- Externalization and Accessibility guidelines followed, Localization by IBM as well as the Babel project
- Publications and Conference talks as part of DSDP



## *API: 3.0 Status*

- During the 3.0 cycle, Eclipse API Tooling was used to ensure
  - Proper split of API and non-API without API Leakage
  - Proper version numbering, documentation and @since tags
  - Proper documentation of intended API usage
  - Without examples & tests: 935 API types / 1476 non-API (2.0: 828 API, 986 non-API)
- Some breaking API refactorings (e.g. IFileService), but no loss of functionality
- RSE Core Model - Subsystem / Services / Filters API
  - 5 clients in RSE, plus 2 examples
  - Additional commercial clients at Wind River and IBM
  - Full Javadoc, architectural overview, tutorials, examples
  - Some automated Unit tests
- Dstore Miners API
  - 4 clients in RSE, additional commercial clients at IBM
  - Full Javadoc, architectural overview
  - Currently no Unit tests



## *API: 3.0 Status (cont.)*

- UI Extensions and API
  - Widgets, menus and pages for remote, similar to Eclipse Platform
  - Several internal and commercial clients
  - Full Javadoc, tutorial and examples
  - Manual Test Plans, No Unit Tests
- Persistence Providers
  - 3 clients in RSE (PropertyFileProvider, MetadataPropertyFileProvider, SerializingProvider)
  - Javadoc
  - No Unit Tests
- Previous RSE 2.0 release is not source or binary compatible
  - Migration docs exist on each [api] Bugzilla item, and in the build notes: will be consolidated into a single Migration doc for the final release

## *Tool Usability*



- Seamless access to remote files
  - Edit, Compare, search and move remote files as if they were local
  - Browse remote archives as virtual filesystem
  - Optimized for minimal data transfer (as opposed to EFS)
  - Popular with remote Web page and PHP editing
  - New: User Actions and Compile Commands
- Shell and Processes subsystems out of the box, generic framework for vendor-specific subsystems (e.g. Symbian VNC-like phone browser)
- Lightweight embeddable Terminal widget
- DNS-SD Service Discovery usable standalone or integrated
- CDT Remote Launch Integration





## *Architectural Issues*

- Well-proven extensible subsystem / services concept
- Legacy code still not fully cleaned up
  - Need to make use of more modern functionality from the Platform
    - Platform “internal” access reduced for 3.0 but not yet fully removed
    - Need to make more UI / Non-UI separation for headless and RCP usage
  - XML SystemMessages for localization diminished in 3.0
- Need more Unit Tests
  - Hard to do for UI-heavy parts
- Overlaps with other projects - Many remote access APIs
  - E.g. Remote File Service – 5 APIs: Platform EFS, ECF fileshare, TPTP Agent File Interfaces, Platform/Team target API, RSE IFileService
  - Talking with all those projects; going to absorb Platform/Team WebDAV and synchronization support partially in Gsoc projects
  - Disconnected “Remote Development” effort at IBM / PTP

## *End-of-life*



- No concepts or tools were abandoned in TM 3.0.
- Some APIs were removed when equivalent functionality is available from other APIs

# Bugzilla



- Statistics as of 27-May-2008

TM 3.0 Bugs by TargetMilestone													
	M3	M4	M5	M6	M7	RC1	RC2	RC3	3.0	3.0 Total	---	3.0.1	Future
blocker	.	.	.	.	.	.	<u>1</u>	.	.	1	<u>2</u>	.	.
critical	.	.	<u>1</u>	<u>2</u>	.	<u>2</u>	<u>1</u>	.	.	6	<u>2</u>	.	.
major	<u>1</u>	<u>8</u>	<u>3</u>	<u>5</u>	<u>4</u>	<u>8</u>	<u>5</u>	<u>2</u>	<u>1</u>	36	<u>13</u>	.	<u>1</u>
normal	<u>24</u>	<u>31</u>	<u>29</u>	<u>61</u>	<u>33</u>	<u>27</u>	<u>33</u>	<u>3</u>	<u>88</u>	305	<u>134</u>	<u>2</u>	<u>50</u>
minor	<u>6</u>	<u>4</u>	<u>3</u>	<u>3</u>	<u>4</u>	<u>7</u>	<u>8</u>	.	<u>31</u>	60	<u>40</u>	.	<u>39</u>
trivial	<u>2</u>	<u>2</u>	<u>4</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>1</u>	.	<u>7</u>	24	<u>8</u>	.	<u>4</u>
enhance ment	<u>11</u>	<u>11</u>	<u>15</u>	<u>38</u>	<u>14</u>	<u>3</u>	<u>16</u>	.	<u>21</u>	118	<u>99</u>	.	<u>124</u>
Total	<u>44</u>	<u>56</u>	<u>55</u>	<u>111</u>	<u>58</u>	<u>52</u>	<u>65</u>	<u>5</u>	<u>148</u>	550	<u>298</u>	<u>2</u>	<u>218</u>

- Currently 441 issues fixed / 671 open (2.0: 572 fixed / 301 open)
- For actual reports, see the Bug Process page at [http://www.eclipse.org/dsdp/tm/development/bug\\_process.php](http://www.eclipse.org/dsdp/tm/development/bug_process.php)
- Release Exit Criteria
  - 0 Major or Critical Bugs, Release Test Pass

## *Standards*



- RFC 959 FTP
  - Also supports RFC 1579 firewall-friendly FTP
  - Supported through Jakarta Commons/Net
  - For details, see <http://jakarta.apache.org/commons/net/>
- RFC 4251 ssh2
  - Also supports RFC 4252, 4253, 4254, 4256 (KI-authentication)
  - draft-ietf-secsh-filexfer-13 for sftp
  - Supported through com.jcraft.jsch
  - For details, see <http://www.jcraft.com/jsch/>

## *UI Usability*



- Externalization and Accessibility guidelines followed
  - Keyboard accessibility of all items verified
  - Menu items for special keys
  - Messages marked up properly for screen readers
- All UI-visible Strings are externalized
- Externalization mostly through Eclipse NLS mechanism, partially through systemMessages.xml (diminished in 3.0)
- Localization will be done by IBM (for WebSphere), and Eclipse Babel project



## *Schedule*

- Original Planning document on the Wiki
- Original **project plan** posted 11-Oct-2007
  - Migrated to XML format on 27-May-2008
- All milestone dates were hit except M7
  - 1 week delay due to delay in Platform and CDT
  - Used extra time to finish API Review with API Tooling for the API Freeze
- Community Contributions integrated in time
- Focus on API and hi-priority issues: Many low-priority bugs deferred to TM 3.0.1 or Future



## Process

- Strong focus on Open, Transparent Planning and Execution:
  - Collected Use Cases available from the Web
  - Open Planning process, Features and Technical Working Groups maintained on Bugzilla, with “Overview” index entries on the Wiki
  - Made all communications public on the Mailing List, Regular phone conferences open to the public
- Committers: set up and documented guidelines for bug handling, due diligence, compiler warnings and code ownership
  - All linked from the Committer HOWTO on <http://www.eclipse.org/dsdp/tm/development/>
- Infrastructure: Automated nightly builds, CVS Changelog, Automated nightly infocenter update
  - Adopting Modeling Releng on dsdp.eclipse.org
- Planned and coordinated testing involving the greater community
  - See [http://wiki.eclipse.org/index.php/TM\\_3.0\\_Testing](http://wiki.eclipse.org/index.php/TM_3.0_Testing)



## *Committers and Contributors*

- 11 committers from 3 organizations (WindRiver, IBM, ProSyst, private)
  - Was 8 committers in 2.0; 5 new committers won, 2 de-committerized
- Direct contributions from 23 other individuals (was 5 in 2.0)
- Active participation (tests) from many others
- Mailing list and Newsgroup participation from Accelerated Technology, ARM, Cisco, Ericsson, Intel, Freescale, QNX, TI and many others
- Monthly development calls, Weekly committer calls
  - Opportunity to review status
  - Developer/design discussions: committers work closely together



# *Community*



- RSE “out of the box” is a useful tool for lots of people
  - Ssh, sftp, ftp file transfer; remote and local shell access
  - More and more development happens in “connected” environments
- Embedded is rapidly adopting Eclipse
  - Commercial Adoption according to a Survey by ACCESS, Ames DOE Lab, Atmel, Elastos, EMAC Inc, IBM, Festo Inc, Freescale, Montavista, QNX, Symbian, Tradescape, WindRiver
- Talks at EclipseCon 2007, 2008; EclipseSummit Europe 2006, 2007; Webinar
- Press activity as part of DSDP, individual articles in magazines
- A well-respected and known member of the Community



## *Publications and Conference Talks*

- Publications and Conference Talks
  - TM Webinar, April 2007,  
<http://live.eclipse.org/node/229>
  - DSDP Drives Adoption of Eclipse in Embedded, April 2007,  
<http://www.eclipse.org/org/press-release/20070403embedded.php>
  - EclipseCon Tutorial, March 2007,  
<http://www.eclipsecon.org/2007/index.php?page=sub/&id=3651>
  - Eclipse Summit Europe, October 2007,  
<http://www.eclipsecon.org/summiteurope2007/index.php?page=detail/&id=21>
  - EclipseCon Tutorial, March 2008,  
<http://www.eclipsecon.org/2008/?page=sub/&id=38>
  - Eclipse Magazin (German), May 2008, 6-page project article



## IP Issues

As per the Eclipse IP Policy, the project verifies that:

- ... the about files and use licenses are in place as per the Guidelines
- ... all contributions (code, documentation, images, etc) have been committed by individuals who are Members of the Foundation and are abiding by the Eclipse IP Policy (training through Committer HOWTO)
- ... all significant contributions have been reviewed by the Foundation's legal staff – even if written by committers prior to joining Eclipse
- ... third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff
- ... all contribution questionnaires have been completed
- ... the "provider" field of each plug-in is set to "Eclipse.org"
- ... the "copyright" field of each plug-in is set to the copyright owner
- ...there are no 3<sup>rd</sup> party logos or fonts to be licensed under the EPL
- See the IP Log at <http://www.eclipse.org/dsdp/tm/development/tm-log.csv>



## *Future Plans*

- Service Releases with the Ganymede train
  - TM 3.0.1 and 3.0.2
- Shooting for backward compatibility next year
  - TM 3.1 release in June 09 to be backward compatible
- A preliminary collection of potential plan items has been collected on the Wiki at  
[http://wiki.eclipse.org/index.php/TM\\_Future\\_Planning](http://wiki.eclipse.org/index.php/TM_Future_Planning)
  - Most likely items
    - TCF – Component to exit incubation
    - Multicore – better framework for multiple targets
    - Scaling Down – Further componentization, becoming more RCP-aware and applicable for headless
    - Launch Action Framework in TM Core

*Thank You*



And please provide feedback...

- Join the Testers on

[http://wiki.eclipse.org/index.php/TM\\_3.0\\_Testing](http://wiki.eclipse.org/index.php/TM_3.0_Testing)

- [https://bugs.eclipse.org/bugs/enter\\_bug.cgi?product=Target%20Management&component=RSE](https://bugs.eclipse.org/bugs/enter_bug.cgi?product=Target%20Management&component=RSE)

- Talk to Developers on

[dsdp-tm-dev@eclipse.org](mailto:dsdp-tm-dev@eclipse.org)

<news://news.eclipse.org/eclipse.dsdp.tm>

# Eclipse Data Tools Platform (DTP) 1.6 Release Review

Eclipse DTP PMC  
May 27, 2008





# Introduction

- DTP 1.6 is scheduled for week of 6/25
- Build Platform
  - Platform: Eclipse 3.3.2
  - Dependencies: EMF 2.2.2, GEF 3.3
  - JVM: Sun J2SE 1.4.2
- Primary Target Platform
  - Platform: Eclipse 3.4
  - Dependencies: EMF 2.4, GEF 3.4
  - JVM: Sun J2SE 1.5



## DTP: Previous Releases

- DTP 0.7: April 7, 2006
- DTP 0.9 (Callisto): June 30, 2006
- DTP 0.9.1 (Callisto): September 29, 2006
- DTP 1.0: December 22, 2006
- DTP 1.5 (Europa): June 25, 2007
- DTP 1.5.1 (September 2007)
- DTP 1.5.2 (February 2008)





## DTP Projects

- Model Base: Core EMF models for DTP
- Connectivity: Frameworks and tools for connecting to data sources
- SQL Development Tools: Frameworks and tools for working with SQL
- Enablement: Data source specializations for DTP frameworks



## DTP 1.6 Milestones

- M5: February 13
- M6: March 26
- M7/RC0: May 5
- RC1: May 19
- RC2: May 26
- RC3: June 2
- RC4: June 9
- 1.6 Release: Week of June 25



## DTP 1.6 Requirements Process

- Community feedback on DTP 1.5, 1.5.1 and 1.5.2
- Presentations & Discussions:
  - EclipseCon 2008
  - EclipseWorld 2007
  - Eclipse Summit Europe 2007
- Bugzilla bugs and enhancements requests
- Newsgroup & mailing list comments



## DTP 1.6 Design Efforts

- Captured in documents
  - Published on each projects' site
  - Highlighted in top-level plans
- Captured in meeting minutes
  - Published to mailing lists
  - Open decision process
- Discussions on dtp-dev with community at large
- Key points captured in Bugzilla



## DTP 1.6 Themes

- Provide incremental feature improvements for all projects
- Additional enablement support
- Evolve the core frameworks past DTP 1.5
- Provide usability improvements for UI components
- Provide new functionality in the form of the SQL Query Builder UI component



# DTP 1.6 Features: Some Examples

- Enablement
  - Sybase ASE model and catalog loader
- Core Connectivity
  - ODA integration with DB profiles
- SQL Query Builder
  - Contributed by IBM
  - Worked on by IBM & Sybase
  - Early adoption by BIRT
- Usability
  - Increased usability for adopters & users of DTP Connectivity UI frameworks
- Further stabilize the foundation of DTP by resolving as many bugs and *Discouraged Access* warnings as possible.
- Enhance user tools to make DTP a compelling choice for developing data centric applications in Eclipse.
- Make DTP easier to understand and leverage, from both the extender and user perspectives.
- Meet milestone dates in tight synchronization with Ganymede plans.



## Non-Code Aspects: Documentation & Examples

- Database Examples
  - Driver templates for 11 databases
  - Generic JDBC Support
  - Apache Derby 10.x Support
- ODA Examples:
  - Flat File Connection Profile
  - Flat File UI Examples
- Documentation: ISV and User Refresh



## Non-Code Aspects: Localization, Internationalization & Accessibility

- Using ICU libraries
- Strings externalized and ready to be localized
- NL packs for DTP 0.9 can be used as a base for DTP 1.6 localization efforts
  - New Actuate committer working on localization into 6 languages (check with Linda for specifics)
  - Have tested in the areas of globalization and bidirectional support
- ODA and dependencies localized strings are in DTP CVS
- Working through Accessibility checklists





## DTP 1.6 API Statement

- Selected ODA and Connectivity framework API promoted to platform status:
  - Proposed to community on public mailing list; no objections
  - See <http://dev.eclipse.org/mhonarc/lists/dtp-dev/msg01210.html> for details.
- All other API are *provisional* for DTP 1.6
- We follow the platform's policy and Jim des Rivières "How to Use the Eclipse API" article\*
  - Usage of "internal" consistent with platform
  - Presence of clear API declaration
  - Support and evolution commitment in line Jim's article and platform practices

\* <http://www.eclipse.org/articles/Article-API%20use/eclipse-api-usage-rules.html>



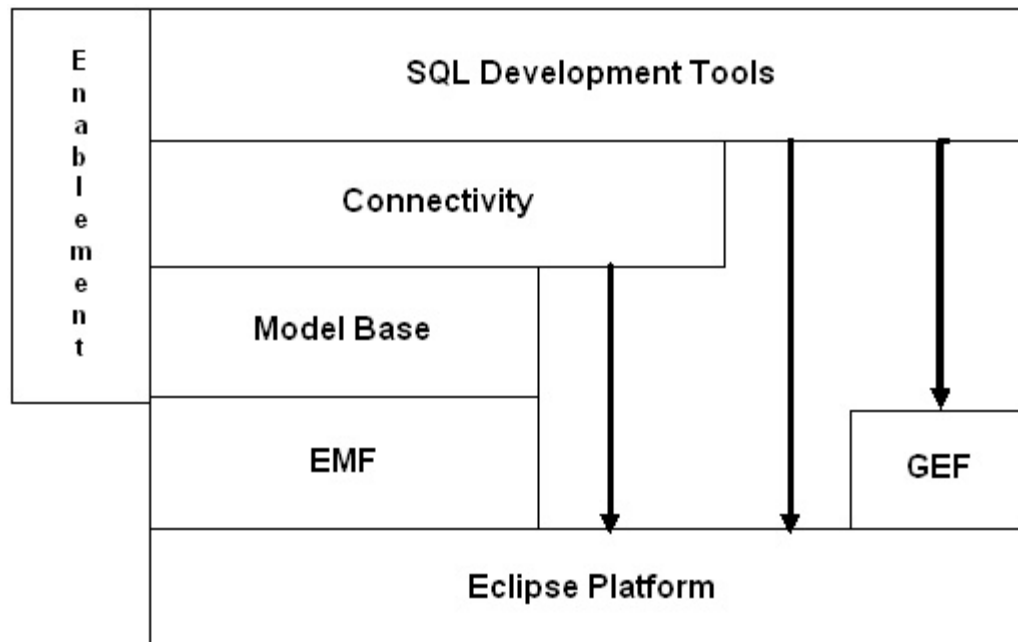
## DTP 1.6 API: Details

- 17 extension points declared
- 86 Java packages
- Usage details in ISV plug-in
- Requirements, specifications available on web site, wiki, and Bugzilla
- Unit tests available in CVS
- Exemplary clients bundled with DTP
- Some of the new extension points are lacking sufficient documentation (will be resolved by RC3 or in 1.6.1)



# DTP Architecture

High level architecture view, at project granularity:





## Architectural Issues

- Further integration of DTP models and components, including parser
- Streamlining of some DTP Connectivity models to simplify implementation and usage
- Increase number, depth and quality of exemplary and extensible tools going forward
- Pull code up into frameworks from Enablement as necessary



## Defect Policies

- Tested by DTP committers and community
- All automated tests available in CVS
- Release Criteria
  - No blocking, critical or major defects assigned against release candidate
  - Anyone in the community can petition the PMC to delay a milestone or release for a specific bug
  - Designed a Rampdown policy to be adhered to by all DTP developers



## Bugs Resolved as of 5/23

	M5	M7	RC1	RC2	Total
Blocking	0	1	0	0	1
Critical	2	7	0	0	9
Major	6	15	5	0	36
Normal	31	58	24	10	123
Minor	1	1	6	2	10
Trivial	0	0	0	0	0
Enhancement	12	14	1	0	27
Total	52	96	36	12	196



## Bug Trends

Number of bugs open on release date, excluding enhancements:

	Open	Delta
<b>DTP 0.7</b>	13	---
<b>DTP 0.9</b>	19	6
<b>DTP 0.9.1</b>	29	10
<b>DTP 1.0</b>	40	11
<b>DTP 1.5 (est.)</b>	90	50
<b>DTP 1.6 (est.)</b>	190	100



## Code Statistics

	Plug-ins	KLOC
Model Base	6	90
Connectivity	22	97
SQL Dev Tools	21	198
Enablement	49	94
Total	98	479





# Standards

- Based on the SQL99/03 standard
  - SQL model
  - SQL query model
  - SQL query parser
- Sample database connectivity is based on JDBC standard



## UI Usability

- SQL editor allows users to create, edit, and test SQL statements
- SQL routine editor allows for execution of stored procedures
- SQL query builder allows for graphical construction of SQL queries
- Connectivity components allow for using heterogeneous data sources



## Schedule

- Iterative development cycle, enabling agile reactions to community feedback
  - Milestones at regular intervals
  - Nightly builds between milestones
  - Release candidates for endgame
- Project plan and endgame plan posted on DTP web site and updated as necessary



## Schedule: Planned v. Actual, as of RC2 (5/30)

	Planned	Actual	Delta (days)
M5	2/16	2/16	0
M6	3/30	3/30	0
M7/RC0	5/11	5/11	0
RC1	5/19	5/19	0
RC2	5/26	5/26	0



## Process: Achievements

- Extensive use of mailing lists and newsgroups for discussions and decisions
- Code available in CVS early
- Full disclosure of schedules and delays
- Announcements about major feature deliveries
- Bugzilla used to mark defect and feature work
- Weekly PMC and project lead/PMC meetings



## Process: Room to Grow

- Earlier and better design documentation
- Develop use cases, especially for API
- More automated tests
- Follow and update Bugzilla faster
- In general, strive for continuous improvement



# Community: Participation

- Mailing lists
  - General development (dtp-dev)
  - PMC (dtp-pmc)
  - One for each project
- Newsgroup
- Dtp-dev is busy, project mailing lists less so
- Newsgroup mostly as gateway to DTP
- Committers from
  - Actuate
  - IBM
  - NEC Soft
  - Sybase



# Community: Visibility

- Conference presentations
  - EclipseWorld 2007
  - EclipseCon 2007, 2008
  - Eclipse Summit Europe 2007
  - OS Summit Asia 2007
- Articles
  - EclipseZone
  - Eclipse Developers Journal
  - Eclipse Review
  - Blog Articles
- Other Events
  - Demos (PodTech, RedMonk)
  - Eclipse Live Webinars





# Community: Adoption

- “Community” page on DTP web site\*
- Commercial Adoption
  - Sybase
  - Actuate
  - Nexaweb
  - Oracle
  - Ingres
- Open Source
  - BIRT
  - Jalcedo
  - JFire
  - NightLabs
  - WTP
- Standards
  - OMG for *Information Management Metamodel* (IMM)\*\*
- Based on community feedback, estimating about 8 to 10 more commercial products in development using DTP

\* <http://www.eclipse.org/datatools/community.html>

\*\* <http://www.omg.org/cgi-bin/doc?ab/05-12-02>



## Community: Download Details\*

	SDK	Runtime	Update Site
<b>DTP 0.7</b>	3,102	0	(no update site)
<b>DTP 0.9</b>	8,247	50	31
<b>DTP 0.9.1</b>	1,706	689	7,520
<b>DTP 1.0</b>	12,255	4,203	11,870
<b>DTP 1.5</b>	67,641	16,250	tbd
<b>Subtotal</b>	<b>92,951</b>	<b>21,192</b>	<b>19,421</b>

\* Through May 23, 2008



## Community: Statistics\*

- 92,951 downloads of DTP 0.7 – 1.5
- Newsgroup
  - Number of posts: 1128
  - Number of participants (not DTP committers): 101
  - Repeat Rate (not DTP committers): 60%
- Bugzilla
  - Total (bugs & enhancements): 1201
  - Accepted bugs: 829
  - Enhancement requests: 184
  - Number of submitters (not DTP committers): 128

\* Through May 23, 2008



# Intellectual Property

- Contributions
  - All DTP 1.6 comes only from approved channels
  - All DTP 1.6 code provided under the Eclipse Public License (EPL)
- Third Party Libraries
  - All third party libraries sourced from Orbit
  - SQL Query Parser depends on *lpg.jar*, available for separate download from SourceForge
- Due Diligence & Record Keeping
  - All DTP committers have signed Committer Agreement forms and been approved by EMO
  - IP Log maintained by PMC and available on DTP web site
    - <http://www.eclipse.org/datatools/dtp-log.csv>
  - Eclipse legal review complete



## Project Plan

- DTP 1.6 maintenance releases with Ganymede
- Two maintenance releases planned for 2008/2009
- Next major release will coincide with the next major platform release (e4 or otherwise)
- Additional releases will be considered based on community requests and readiness



## Thank You!

- For the interest and support so far
- Please visit us on our mailing lists and newsgroups
- New proposals for DTP always welcome...  
[www.eclipse.org/datatools](http://www.eclipse.org/datatools)



# Eclipse Communication Framework (ECF)

## v2.0.0/Ganymede Release Review

<http://www.eclipse.org/ecf>



## Major API Enhancements

**Discovery API:** Simpler and more general. Added serviceAccessHandler extension point to allow plugins to define access handlers for discovered services

**File Transfer:** Enhanced API based upon customer feedback (p2 and others). Added browse API in addition to download/upload

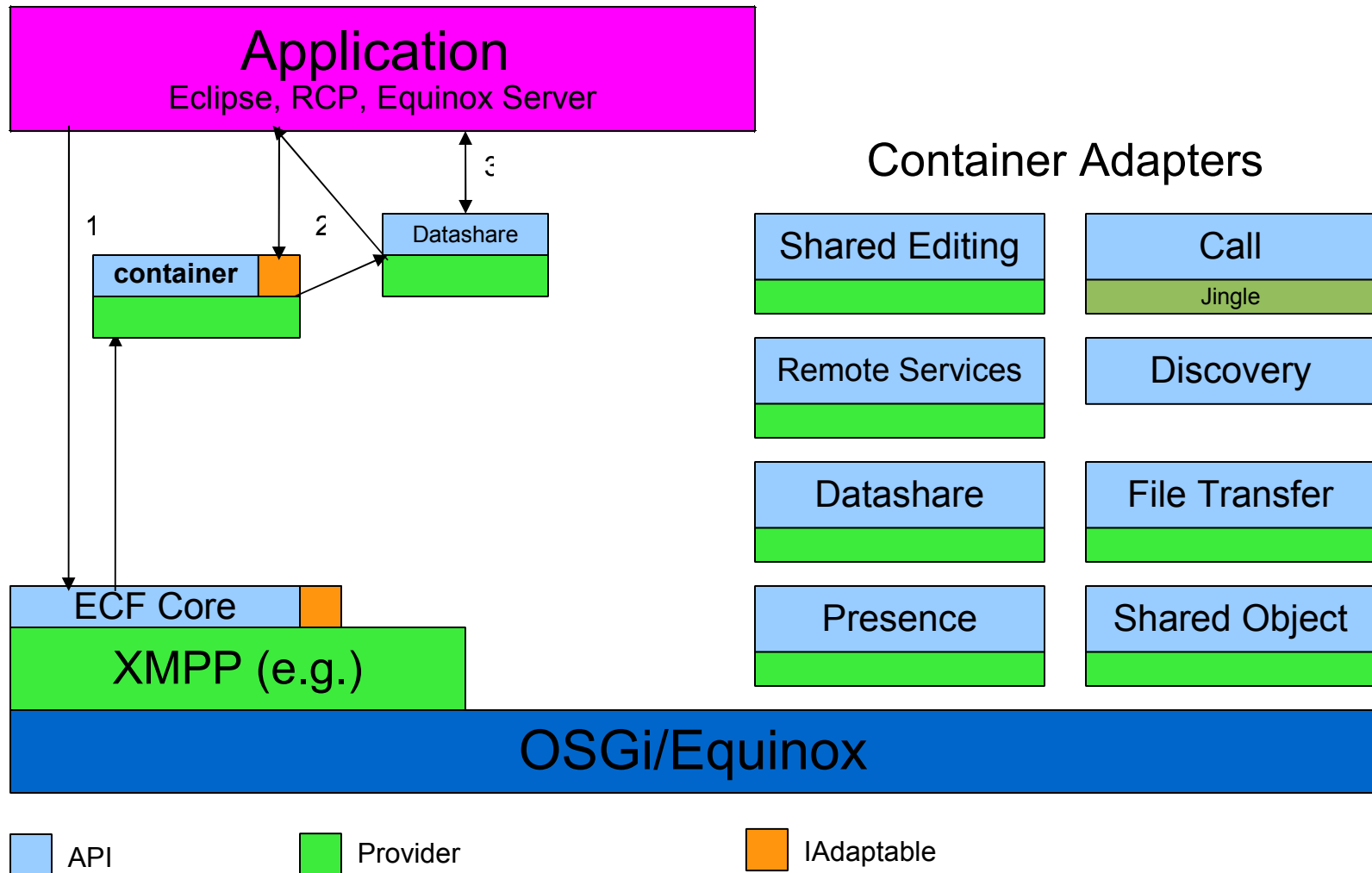
**Presence/IM:** Added rosterViewerDropTarget for drag and drop handling. Added avatar handling. Improved RosterView and ChatView API.

**Remote Services:** Support for transparent OSGi service proxies + remote references. Programmer choice based upon app-level needs

**API Docs:** [http://wiki.eclipse.org/ECF\\_API\\_Docs](http://wiki.eclipse.org/ECF_API_Docs)



## ECF Provider Architecture





## New Providers in 2.0.0

**Remote Services:** r-OSGi, XMPP, working on Riena as provider

**Discovery:** jSLP: Service Locator Protocol – RFC 2608

**File Transfer:** JRE/URLConnection, SCP/SSH, EFS, Apache HttpClient, Bittorrent

**Presence/IM/Call API:** Skype\*

**Datashare:** JMS/ActiveMQ/WebSphere CE\*, JMS/Weblogic\*, JavaGroups\*



## **Adoption**

Eclipse SDK -- 4 ECF plugins (File Transfer)

Buckminster (File Transfer)

Versant Products (Discovery)

Equinox/P2 (Discovery)

OSGi EE Participation

## **Others**



## **Participation**

- > 300 Bugs resolved**
- > 20 BugDay contributions**

### **Changed build process for easier participation**

- Daily automated builds
- Many more test cases
- Automated testing

**New Committers:** Markus Kuppe, Jan Rellermeyer, Mustafa Isik, Moritz Post



# Exemplary Applications -- Improved UI

## Presence

Lots of improvements: e.g. Support for avatars.

RosterView (aka Contacts View) usable in other applications

## Discovery

Extensible DiscoveryView. Use to access discovered services.

Integrated properties view.

## File Transfers

New File Transfers view for concurrent file downloads



# Exemplary Applications -- New Applications

## Real-Time Shared Editing

Originally started as Google SOC project (Mustafa Isik)

Now distributed with ECF

Real-time shared editing over XMPP

## Server Applications

Update Site Discovery

Remote Environment Info Server

KOS-MOS



# Schedule and IP

## **Schedule**

Met all Release Deadlines (Europa, 1.1, 1.2, 2.0.0MX)  
Supported Equinox/P2/SDK with +0 build schedule

## **IP**

IP log up to date: [http://www.eclipse.org/ecf/ip\\_log.html](http://www.eclipse.org/ecf/ip_log.html)



# Directions for 3.0.0

## **Real-Time Shared Editing**

Generalize to 'distributed model synchronization'

## **ECF Moving to Runtime Project**

Support P2/Participate in E4 (asynchronous messaging)

Equinox/Server Applications

e.g. P2 meta-data repository discovery

## **Documentation, Documentation, Documentation**

ECF Book

Other Docs

## **VOIP**

Jingle (already have impl)

SIP

## **XMPP For Committers – bug 126089**





# Eclipse Project 3.4 Release Review

Eclipse Project PMC

# Highlights



- 3.4 new features:
  - SWT 64-bit, Linux BiDi, Mac Carbon Internalization & accessibility, product level configurability, provisioning (p2), serviceability, API tooling, security, concurrent compiler and Eclipse 4.0 planning
- API quality:
  - High. 7 changes in porting guide.
  - Binary compatible for compliant plug-ins
  - 164 new API: Platform (105), JDT (50), PDE (5), Equinox (4)
  - 18 deprecated API: Platform (13), JDT (5)
  - 7 breaking changes: Platform (4), JDT (3)
- End-of-life issues:
  - org.eclipse.apache : was never an API
- IP Clearance and Licenses:
  - All licenses and about files are in place as per the Eclipse Development Process, the Due Diligence Process was followed for all contributions
- Community and Committer Diversity:
  - 205 committers, 79 active in past 9 months
  - Organizations: IBM (62), Individuals (9), Prosyst Soft.(2), Embarcadero Tech. (1), Adobe (1), Code 9 (1), QNX Soft. (1), compeople AG (1), Wind River (1)
  - Geographies: Canada (40), USA (20), France (6), Switzerland (5), Poland (2), Bulgaria (2), Germany 2), Austria (1), Japan (1).
  - Commits: IBM (96.85%), Individuals (1.95%), Embarcadero Tech. (0.80%), Prosyst Soft. (0.19%), QNX Soft. (0.11%), compeople AG (0.10%)
  - Consumed by all other Eclipse projects



# Themes and Plan Items

- **Platforms**
  - Port SWT win32 to 64-bit
  - Support BIDI on Linux GTK
  - Provide full internationalization on Mac OS X
  - Implement accessibility for Mac OS X
  - Exploit the capabilities of modern JREs
- **Consumability**
  - Improve performance of large, Eclipse-based products
  - Serviceability
  - Provide additional product level configurability
  - Provisioning (p2)
- **Reliability**
  - Provide API for missing/internal features
  - Focus on architectural integrity
  - API Tooling
  - Provide commonly requested Java security features
- **The Future**
  - Create the Eclipse 4.0 plan
  - OSGi standards participation
  - Investigate new user-interface directions
  - Investigate the next generation of JDT capabilities

# New and Noteworthy - Platform



- Improved regular expressions in Find/Replace dialog
- Various printing improvements for textual editors
- Line support in overview ruler
- Configure annotation preferences via overview ruler
- New annotation text styles
- Improved key binding support for content assist and quick fix
- Multiple hyperlink presenter
- Direct interaction with text hovers aka rich hovers
- Retain case of match when replacing in textual editors
- Select text via Shift+Click into line number ruler
- Resource actions in IDE now support LTK-style refactoring
- Line matches shown in text search results
- Line numbers for text search results
- Improved text search replace dialog
- Improved support for regular expressions in text search
- Retain case in text search replace
- The console encoding used when running or debugging a program automatically matches the encoding of the program being run or debugged.
- Watch expressions can be created by dragging text into the Expressions view. As well, expressions can be reordered with drag and drop.
- Import/export of launch configurations
- Enhanced contextual launch (i.e. click run or debug for active selection/editor) to support non-resource based selections/editors.
- Modules view has been pushed down to the platform from CDT
- An example debugger has been added to the Eclipse examples.
- Team preference page now allows to specify ignore path patterns as well as file name patterns
- Sharing multiple projects simultaneously
- File changes can be viewed in CVS Commit wizard
- Apply Patch wizard offers now better support during applying patches (more reliable fuzz factor)
- Line counter in Apply Patch wizard
- Import Team Project Set wizard allows users to fully configure the repository location, enabling them to specify a user name and change the connection method if required
- The new system proxy configuration option allows to reuse OS proxy settings in Eclipse
- SWT and Eclipse for 64-bit Windows
- SWT and Eclipse for HP-UX on IA64 (32-bit mode)
- SWT for Windows 64-bit Itanium Edition
- Accessibility for Mac OS X
- SWT RTL support for Linux GTK
- Allows the setting of an alpha value on a shell
- Allows the setting of a Region into a Control, which allows for the creation of non-rectangular controls
- Shell full-screen state
- SWT inline input method
- FileDialog overwrite prompt
- No scrollbars style for Table and Tree

# New and Noteworthy - Platform (cont'd)

- Print control to GC
- ProgressBar now supports native Windows Vista styles (ERROR, PAUSED)
- Tristate check Buttons
- API that allows for shearing of images
- Create a region from a path
- Image transfer support
- URL transfer support
- RowLayout center alignment
- TextLayout and StyledText now allow different strikethrough colors, underline colors, and different underline styles
- Proxy settings on Mozilla-based Browsers
- New customizable marker support
- New service infrastructure
- Expression-based Activities
- New customization preferences specify CSS to be included in each help page.
- Help content can be contributed by more than one remote infocenter
- The keyword index memory usage has been reduced by about 50%.
- Help table of contents is synchronized with the currently displayed topic.
- New intro preferences allow use of a user contributed start page which still using Universal Intro.
- A new feature [org.eclipse.help](http://org.eclipse.help) simplifies creating RCP applications which use the help system.
- A number of security fixes have been made in the Web Application.
- Relevance of search results has been improved by giving more weight to matches in the title

# New and Noteworthy - JDT



- Unused declared thrown exception optionally ignored if documented or if Exception or Throwable
- CLDC 1.1 class file generation
- Improved unnecessary code detection
- Java 5 annotations supported by Java model
- Fine-grained Java search
- Improved unnecessary @SuppressWarnings diagnosis
- Diagnosis of redundant superinterfaces
- Support for external class folders on build path
- Improved resilience with missing types
- Batch compiler using the Class-Path clause of JAR file manifests to complete the classpath
- Java compiler on multi-CPU machines
- Flexible ZIP archive extensions
- Comments processed by standalone code formatter
- Rearrange content of files per drag and drop
- Different colors for read and write occurrences in Java editor and Search view
- Breadcrumb in Java editor
- New Clean Ups:
  - correct indentation (also available as save action)
  - add unimplemented methods
- Improved cursor jumping on Quick Fix/Quick Assist
- More quick assists and fixes:
  - Create getter and setters for fields (encapsulate fields)
  - Extract method
  - Add solutions for unresolvable types
  - Use 'StringBuilder' for string concatenation
  - Use 'MessageFormat' for string concatenation
  - Extract local variable (without replacing all occurrences)
- Colored labels proposal popup
- Refactoring:
  - Clients can contribute participants to the change method signature refactoring
  - Refactoring flags references in binaries
  - New Extract Class refactoring
- SWT templates
- Extended template variables
- Specify location/context for templates
- Allow extenders to add pages to Javadoc export wizard
- Runnable JAR export wizard which can also generate an Ant script
- Improved recovery of missing types in APT mirror types
- JUnit view shows execution time
- Paste creates snippet for members and statements
- Formatting any Java element can be undone
- Content Assist :
  - code completion helps with casts
  - complete static members of not yet imported types
  - inserting parameter name also shows guessed arguments
  - uses colored label in proposal popup
- Allow to only format edited lines on save
- Javadoc hover and Javadoc view show constant values
- Rich Java problem hover
- Call Hierarchy view works with more members

# New and Noteworthy - JDT (cont'd)



- Improved Javadoc view
  - current input is now shown with icon
  - allow to go back and forth in the history
  - enable/disable link with selection
  - can open the current input in an external browser
- Toggle Comment in Properties File editor
- Execution environment description files can be used to define JVM properties such as boot path, endorsed directories, language level, executables, source attachments, debug attributes, and so on, such that JDT can launch those JVMs. This allows for multiple "views" of one physical VM installation, and allows JDT to launch non-standard JREs.
- Added default suspend policy for newly created watchpoints (access and/or modification).
- Support for installed JRE search on Mac OS.
- A socket listening connector has been added to the Remote Java Application launch type. This allows one to start the Java debugger listening for connection on a specific socket.
- Launch configurations now appear when searching for references to a main type. Double-clicking on the search result opens the launch dialog on that configuration.
- Hovers for variables have been enhanced to display an object inspector. The inspector will display logical structures according to the toggle setting in the visible Variables or Expressions view.

# New and Noteworthy - Equinox



- A replacement for update manager
  - New UI, simplified workflows
  - Manage Eclipse and more (exe, ini, bundles, registry keys, ...)
  - Share bundles across Eclipse-based products
  - An installer
- A provisioning solution for OSGi systems
  - Manage non-running instance
  - Start level, framework extension
  - Fine-grained dependency management
- A provisioning framework
  - Pluggable and modular infrastructure
  - Provision more than Eclipse-based systems
  - No UI required
- Simple update workflow
  - Replace multi-steps wizards
- New metaphors
  - Drag n Drop for install, adding repos, ...
- More flexible repositories
  - Connect to p2 repos, Update Sites, OBR, Maven, ...
- Managed folders
  - Explicit “watched” locations
  - Drop content to have it installed
  - No need to unzip and –clean
- Installer
  - A subset of p2 bundles: ~5M
  - Advantages of using an installer:
    - Bundle pooling
    - Pack200
    - Simplicity
- Equinox Transforms
  - General Framework for bundle customization
  - XSLT to transform any XML file
- New OSGi Service Implementations
  - Declarative Services
  - Configuration Admin
  - Initial Provisioning
  - IO Connector Service
  - Wire Admin
- Secure Storage
  - Storage for sensitive data
  - OS integration for Windows and MAC
- Authentication with JAAS
  - Contribute services
  - Manage configuration
  - Observe lifecycle with events
- Trusted bundles
  - As bundles are loaded, perform authorization based on trust in signer



# New and Noteworthy - PDE



- API tooling - integrated analysis of binary compatibility (against a previous release), missing/invalid @since tags, API leaks, and bundle version errors
- API tooling Ant tasks that can be leveraged by a release engineering build process to create API problem reports
- Support to compile runtime workspace plug-ins against the launching workspace
- Support to mark an extension point as internal. This allows extension point clients to be notified when they are using an internal extension point.
- A new p2 target provisioner that lets you add plug-ins to your target platform from a p2 repository or update site
- The Plug-in Registry view was enhanced to include information about OSGi services
- The product editor was enhanced to allow for per-platform configuration files (config.ini) and the ability to version product definitions.
- Support to identify IDs in extension point schemas such that other schemas can refer to them and code assist is provided for them
- An "Open Plug-in Artifact" dialog has been added to quick find extension references, extension point declarations, plug-ins and exported packages
- PDE, in conjunction with Equinox, now supports development against other OSGi framework implementations
- A Context Help editor to assist clients creating context-specific help for their applications
- A Table of Contents editor to help create, modify and visualize tables of contents for Eclipse products
- The Error Log view has been refactored into a separate plug-in, can now be used to quickly browse a log from a runtime workbench, and entries can be grouped by session
- Support to convert an existing JAR to a plug-in project
- To further align with OSGi R4.1, PDE supports the Bundle-ActivationPolicy manifest header, the replacement for the now-deprecated Eclipse-LazyStart header
- Plug-in Spy provides introspection into the IDE (shows active shell, part, ids, contributor, etc).
- Supports for individual source bundles (which are now shipped with the SDK)
- Execution environments can be specified for building plug-in projects and for running Eclipse Application launch configurations
- The Plug-in Registry view supports advanced bundle-related operations: start, stop, enable, disable
- Refactoring support to rename extension points
- Warning to ensure that source entries found in the build.properties are properly accounted for in the plug-in manifest
- Quick fixes to export/import packages
- Drag and drop in the manifest editor to support re-ordering of extensions, required plug-ins, classpath, etc.
- Highlighting of externalized strings within all XML editor source pages
- Enhanced cheat sheet editor
- Support to preview changes made by the Organize Manifests and the Externalize Strings wizards before they are applied to the plug-in manifest files
- Structural compare for plugin.xml files



## Deferred 3.4 Plan Items

- Platforms
  - Complete SWT WPF port
- Reliability
  - Invest in PDE Build and Release Engineering
- The Future
  - Model the IDE

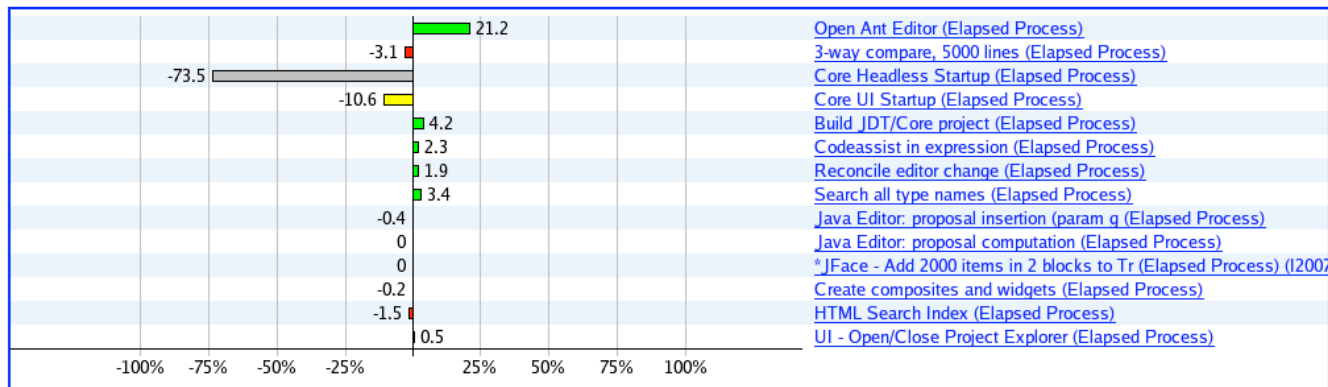


# Performance of pre-3.4.0 vs. 3.3.0

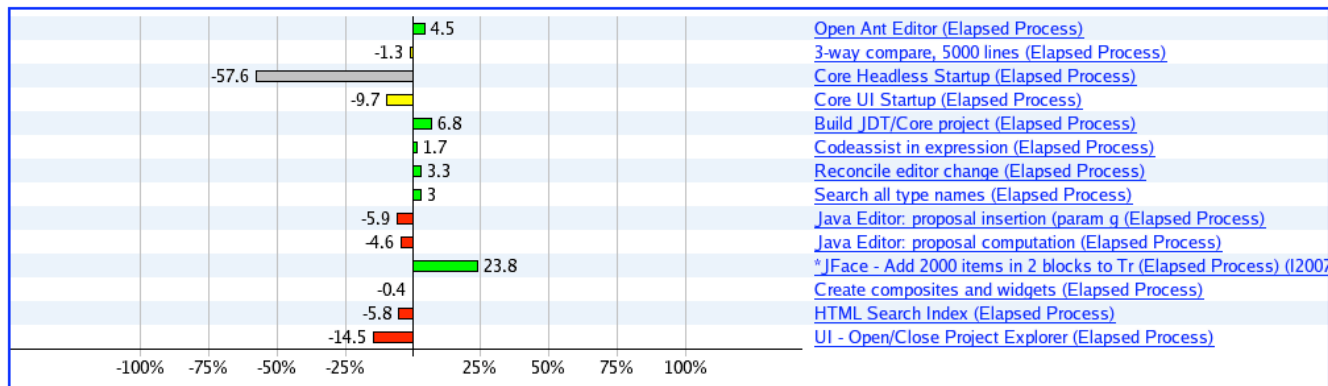
Disclaimer 1: These results are not representing final performance stats for 3.4.0, rather work in progress during 3.4RC2.

Disclaimer 2: Test machines only have one CPU, thus do not fully reflect the benefits from multi-threaded Java compiler

RHEL 4.0 Sun 1.4.2\_10 (3 GHz 2.5 GB)



Win XP Sun 1.4.2\_10 (3 GHz 2 GB)





## 3.4 Plug-in Changes from 3.3

### Added Plug-ins (42)

- org.eclipse.core.net.win32.x86
- org.eclipse.ecf.filetransfer
- org.eclipse.ecf.identity
- org.eclipse.ecf.provider.filetransfer.ssl
- org.eclipse.ecf.provider.filetransfer
- org.eclipse.ecf.ssl
- org.eclipse.ecf
- org.eclipse.equinox.frameworkadmin.equinox
- org.eclipse.equinox.frameworkadmin
- org.eclipse.equinox.p2.artifact.repository
- org.eclipse.equinox.p2.console
- org.eclipse.equinox.p2.core
- org.eclipse.equinox.p2.director.app
- org.eclipse.equinox.p2.director
- org.eclipse.equinox.p2.directorywatcher
- org.eclipse.equinox.p2.engine
- org.eclipse.equinox.p2.exemplarysetup
- org.eclipse.equinox.p2.extensionlocation
- org.eclipse.equinox.p2.garbagecollector
- org.eclipse.equinox.p2.jarprocessor
- org.eclipse.equinox.p2.metadata.generator
- org.eclipse.equinox.p2.metadata.repository
- org.eclipse.equinox.p2.metadata
- org.eclipse.equinox.p2.reconciler.dropins
- org.eclipse.equinox.p2.touchpoint.eclipse
- org.eclipse.equinox.p2.touchpoint.natives

### Added Plug-ins

- org.eclipse.equinox.p2.ui.sdk
- org.eclipse.equinox.p2.ui
- org.eclipse.equinox.p2.updatechecker
- org.eclipse.equinox.p2.updatestite
- org.eclipse.equinox.security.ui
- org.eclipse.equinox.security.win32.x86
- org.eclipse.equinox.security
- org.eclipse.equinox.simpleconfigurator.manipulator
- org.eclipse.equinox.simpleconfigurator
- org.eclipse.pde.api.tools.ui
- org.eclipse.pde.api.tools
- org.eclipse.pde.p2.ui
- org.eclipse.ui.views.log
- org.objectweb.asm
- org.sat4j.core
- org.sat4j.pb

### Removed Plug-ins (1)

- org.eclipse.tomcat

### Unchanged Plug-ins (2)

- org.eclipse.core.runtime.compatibility.auth
- org.junit4



## Non-Code Aspects

- The 3.4 release will contain updated User and ISV documentation
- Community is very active
  - Mailing lists and newsgroups have steady activity
    - new E4 mailing list: [eclipse-incubator-e4-dev@eclipse.org](mailto:eclipse-incubator-e4-dev@eclipse.org)
  - Blogs dedicated to Eclipse are active e.g.
    - <http://www.planeteclipse.org>
  - Wiki content is growing
    - [http://wiki.eclipse.org/index.php/Eclipse\\_Project](http://wiki.eclipse.org/index.php/Eclipse_Project)
    - new E4 wiki: <http://wiki.eclipse.org/E4>

# Non-Code Aspects



- **Internationalization**
  - Latin1 and Latin2 locales are supported in all operating environments
  - DBCS locales are supported on all platforms
  - BIDI locales (with mirroring) supported on Windows and Linux GTK, BIDI text supported on Mac.
  - GB18030-1 Chinese codepage standard is supported on Windows, Linux GTK and Mac.
- **Localization**
  - Tested for Localization (awaiting readiness of 'Eclipse Globalization Project')
- **Accessibility**
  - We have one accessibility issue: Welcome fonts/colors don't update when switching to high contrast (was already in 3.3)

# Non-Code Aspects



- Articles, examples, and tutorials
  - New and updated articles and tutorials on eclipse.org (3)
    - <http://www.eclipse.org/articles/article.php?file=Article-Forms33/index.html>
    - <http://www.eclipse.org/articles/article.php?file=Article-AddingHelpToRCP/index.html>
    - <http://www.eclipse.org/articles/article.php?file=Article-MemoryView/index.html>
  - Numerous Webinars and Podcasts
  - Some of the new/updated articles and tutorials were provided by the Eclipse community
  - Older articles need to be reviewed and updated for 3.4, if applicable

# Platform Quality API



- API quality is a collaborative effort that involves the experience of the developers working on the Eclipse project, and feedback from consumers.
- API changes and proposed API additions are often broadcast to mailing lists to raise awareness of the changes and encourage discussion and feedback.
- API changes between 3.3 and 3.4 are checked automatically by new API tooling integrated into integration build process.
- The 3.4 migration guide identifies 7 changes:
  - <http://dev.eclipse.org/viewcvs/index.cgi/org.eclipse.platform.doc.isv/porting/3.4/incompatibilities.html?view=co>
  - <http://dev.eclipse.org/viewcvs/index.cgi/org.eclipse.jdt.doc.isv/porting/3.4/incompatibilities.html?view=co>
  - For each, a description of the change, what code is affected, and the action that needs to be taken is described.
  - We are not aware of any API compliant plug-ins breaking as a result of these changes.
  - The 3.4 migration guide also describes changes required to adopt mechanisms and APIs that are new in 3.4.
- The PMC is comfortable supporting the API that is in the Eclipse project 3.4



## 3.4 API – Platform



### New

- New APIs have been to get all file buffers and to create a new text file buffer manager
- New APIs have been added document and annotation model types to improve performance and ease iterating over annotations
- Many new APIs have been added for the rich hover support
- New APIs have been added for the new colored labels support
- `org.eclipse.jface.text.IRepairableDocumentExtension` has been added to check whether document line information needs to be repaired
- Added several new APIs for the new Templates view support
- Added new APIs to better support emacs key bindings in content assist and quick fix proposal popup
- Added API to handle hidden resources
- Added symbolic links to `ResourceAttributes` API
- Added API in `IFilePatch` that return the before and after dates of a patch
- Added `IFileStore##getFileStore(...)`
- `TokenComparator` is API now
- `DelegatingStorageMerger` is API now
- New API added to `ExpressionInfo` to access all properties that have been accessed
- New constant added to `IEvaluationContext` for representing undefined variables
- Added 'Rename resource refactoring', 'Move resources refactoring' and 'Delete resources refactoring': Changes, refactoring descriptors and refactorings (pushed down from JDT).
- Wizards for 'Rename resource refactoring', 'Move resources refactoring' and 'Delete resources refactoring'

### New

- `ProcessorBasedRefactoring` (`org.eclipse.ltk.core.refactoring.participants`) can now be instantiated (was abstract before)
- Added API `ParticipantExtensionPoint` (`org.eclipse.ltk.core.refactoring.participants`) to be used to manage contributions of participants
- New API added to `AbstractTextSearchViewPage` to control which elements are later sent to `elementsChanged`
- New attribute for extension point `org.eclipse.search.searchResultViewPages` to add help context ID for a page
- `IHandler2/AbstractHandler` now include a call to `setEnabled(IEvaluationContext)` from the framework
- new extension point `org.eclipse.ui.services`
- `IContributionService` and accessor on `WorkbenchAdvisor`
- `IComparableContribution`
- expression bindings in activities extension point
- New methods on `ITriggerPointAdvisor`
- Added to `IMemento/XMLMemento`
- Added `java.util.EventListener` to `ISelectionListener`
- `MODE_FORCE_TEXT` now has an declarative equivalent in `actionSets` and `commands`
- `Link With Editor` command
- `Collapse All` command+handler
- `Switch page` commands+handler
- views can be declaratively marked as non-restorable
- `IEvaluationContext.UNDEFINED_VARIABLE` now valid from an `ISourceProvider`
- MPEP now has API to deal with services for non-editor pages

## 3.4 API – Platform (cont'd)



### New

- IEvaluationService provided as plugin API (all other services except ContextService work in terms of this)
- ShowIn menu API published (allow legacy contributions as well as new menu contributions)
- WidgetMethodHandler will use JDK 1.4 Swing API reflectively if available
- Added a 'createSash' to the AbstractPresentationFactory
- Added the ability to have a ViewPart implement ISizeProvider
- API to retrieve the encoding for a launch configuration
- API to allow launch shortcuts to provide configurations to launch for a given selection/active editor
- API to test if a launch configuration has specific attributes and to remove attributes
- API to allow "Create Watch Expression" action to work on arbitrary objects rather than just variables
- API to retrieve adapters from objects that consults the Debug Platform's adapter factories for objects that don't subclass PlatformObject
- API to allow a debug model presentation to control whether it is called in the UI thread.
- API for debug modules view ID and menu group constants
- API for debug error status code
- New customization preferences have been added in org.eclipse.help.hase the preferences topic.css, nav\_css, narrow\_css, disabled\_css can be used to provide custom style sheets for help pages.
- org.eclipse.help.base.page\_not\_found can be used to specify the page shown when a link cannot be followed.
- org.eclipse.help.base.showBreadcrumbs allows breadcrumbs to be hidden

### New

- The five remote help preferences can now accept a comma separated list of hosts, ports etc instead of just one.
- In org.eclipse.ui.intro the preferences INTRO\_HOME\_PAGE, INTRO\_START\_PAGE and INTRO\_STANDBY\_PAGE can be used to make a different page show when Welcome is first shown
- New extension point org.eclipse.ui.services
- IContributionService and accessor on WorkbenchAdvisor
- IComparableContribution
- Expression bindings in activities extension point
- Methods on ITriggerPointAdvisor
- Added to IMemento/XMLMemento
- Added EventListener to ISelectionListener
- MODE\_FORCE\_TEXT now has an declarative equivalent in actionSets and commands
- Link With Editor command
- Collapse All command+handler
- Switch page commands+handler
- Views can be declaratively marked as non-restorable
- IEvaluationContext.UNDEFINED\_VARIABLE now valid from an ISourceProvider
- MPEP now has API to deal with services for non-editor pages
- IEvaluationService provided as plugin API (all other services except ContextService work in terms of this)
- ShowIn menu API published (allow legacy contributions as well as new menu contributions)
- WidgetMethodHandler will use JDK 1.4 Swing API reflectively if available
- Added a 'createSash' to the AbstractPresentationFactory
- Added the ability to have a ViewPart implement ISizeProvider

## 3.4 API – Platform (cont'd)



### New

- New API was added to support the IME (International Input Method) for in-line editing
- New API was added to support images for the clipboard and drag and drop
- Support for tri-state buttons was added
- Browser can now be queried for the HTML text for the page
- Combo box can be dropped down and hidden programmatically
- New API was added to allow Controls to have an arbitrary shape based on a region
- FileDialog API was added to get the extension that the user selected
- Support for Vista progress bar states was added
- Alpha is now supported in top level shells
- Tables and trees no longer must have scroll bars
- Paths can be flattened into line segments
- TextLayout supports new strike through, border and underline styles
- Transform supports shearing
- RowLayout supports centering of controls
- Added IHandler2 interface which allows handlers to receive contextual information from the framework to use in determining enabled states
- Added API (DataBindingContext.bindSet() and SetBinding) to allow ease of using databinding with Sets
- Added abstract ValidationStatusProvider class to easily allow monitoring of observable status changes
- Added ComputedList class for lazy list generation from observable inputs

### New

- Added ListDiffVisitor for list delta processing
- Added CompositeMap which allows easy chaining of multiple maps
- Added MasterDetailObservable.detailMap() that allows for enumeration of observable properties
- Added MultiValidator for cross-observable constraint validation
- Added PojoObservables for observing java objects
- Added SWTObservables.observeDelayedValue() which allows for delayed observation of SWT controls
- Added IViewerObservable for observing jface viewers
- Added ObservableListTreeContentProvider, ObservableSetTreeContentProvider, and TreeStructureProvider as reusable jface providers that work with observables
- Added ObservableValueEditingSupport for integration of CellEditors with data binding
- Added StatusHandler, allowing for pluggable error handling within jface
- Added AbstractComboBoxCellEditor and ComboBoxViewerCellEditor as reusable combo-based cell editors
- Added StyledString, StyledCellLabelProvider, DecoratingStyledCellLabelProvider, and DelegatingStyledCellLabelProvider to allow for rich style control in jface viewers
- additional methods on MenuManager for image descriptions and better command integration
- Added StatusLineContributionItem for use in StatusLineManagers

## 3.4 API – Platform (cont'd)



### Deprecated

- Deprecated `ITextHover.getHoverInfo(ITextViewer, IRegion)` replaced by `ITextHoverExtension2.getHoverInfo2(ITextViewer, IRegion)`
- Deprecated `ProjectionDocument.getProjectionMapping()` replaced by `ProjectionDocument.getDocumentInformationMapping()`
- Deprecated `AbstractDocument.computeIndexInPositionList(List, int)` replaced by `AbstractDocument.computeIndexInPositionList(List, int, boolean)`
- Deprecated `SpellingProblem.removeAllInActiveEditor(ITextEditor, String)` replaced by `SpellingProblem.removeAll(ISourceViewer, String)`
- Deprecated several constructors in `DefaultInformationControl` in favor of new ones
- Deprecated `AnnotationPainter.SquigglesStrategy` replaced by `AnnotationPainter.UnderlineStrategy`
- Deprecated `AnnotationBarHoverManager.Closer` replaced by `closer` from super class
- Deprecated `AnnotationBarHoverManager.Closer.stop(boolean)` replaced by `AnnotationBarHoverManager.Closer.stop()`
- Deprecated `PerformRefactoringHistoryOperation.createRefactoring(RefactoringDescriptor, RefactoringStatus)` replaced by `RefactoringHistoryWizard.createRefactoring(RefactoringDescriptor, RefactoringStatus, IProgressMonitor)`
- `IDebugUIConstants.EXTENSION_POINT_MEMORY_RENDERINGS` has been deprecated to fix a spelling error. It has been replaced with `EXTENSION_POINT_MEMORY_RENDERINGS`. The value of the constant is the same
- `EditionSelectionDialog` is deprecated
- `IStreamMerger` is deprecated
- `IFileStore#getChild` is deprecated

### Breaking changes

- Changed scheduling rules for `IProject#setDescription`
- `IPartListener2.partVisible/partActive` are now delayed on startup until the SWT controls are visible
- New problem view does not allow for object contributions on `IMarker`. Clients must use menus/commands/handlers to achieve this.
- `WorkbenchActionBuilder` now uses `CommandContributionItems` instead of `RetargetActions`

## 3.4 API – JDT



### New

- API for invoking the batch compiler, reporting progress, and providing cancelation
- API to parse an int represented by an array
- API to format comments when a compilation unit is formatted
- API to format a set of regions
- Options to format annotations according to the annotated element
- API to get the kind of location of the completed token
- API to get the enclosing Java element at the completion location
- API to get the visible Java elements at the completion location
- API to return whether the completion is in a field reference (or a method reference) with a casted receiver
- API to return the receiver's signature and positions in the cases above
- APIs for Java 5 annotations: Java elements, annotations deltas, member value pairs, default value, search
- API to apply a text edit to a compilation unit's buffer
- Options to warn about a missing description in a Javadoc tag
- Option to warn about redundant super interface
- Option to exclude Exception and Throwable, or documented exception when warning about unused thrown exceptions
- Option to warn about usage of type arguments when invoking a non-generic method
- API to get the option corresponding to a problem id
- API to signal a build participant that the build is finished
- API to find a Java element given a binding key
- APIs for fine-grained search

### New

- API to return the local element of a method reference match or a field reference match
- CamelCase APIs to restrict to match only the same count of parts Added APIs to CompletionProposalLabelProvider in order to support colored labels
- API for new Java refactorings: IntroduceParameterObjectDescriptor, ExtractClassDescriptor
- Added refactoring participation for 'Change Method Signature': new extension point and APIs
- Added API `JavaUI.getEditorInputTypeRoot(IEditorInput)` to get the Java editor inputs
- New API `SharedASTProvider` to gives access to the DOM AST used by the active Java editor
- New extension point `javadocExportWizardPage` allows to add pages to the Javadoc export wizard
- Both new Java project wizard pages are now API. Clients can reuse or modify the pages for their own New Java project wizards
- New extension point `classpathFixProcessors` allows to add functionality to fix a project class path when a type can not be resolved. For example PDE can add a plug-in dependency
- Added API for the JAR packager to support runnable JARs
- All occurrence actions available in for find occurrence. New actions and constants
- Support for external class folder selection
- New API to offer styled text labels of Java elements
- All action groups now also accept a special selection provider on construction which is used instead of the page selection provider
- Added `ITestElement.getElapsedTimeInSeconds()`

## 3.4 API – JDT (cont'd)



### New

- API added on PreferenceConstants for specifying categories for excluded completion proposals
- Provided preference page IDs for build path preference pages on JavaUI
- Constants added for 'Show Breadcrumbs' action on IJavaEditorActionDefinitionIds
- API classes for Java launch shortcuts that can be extended by clients
- API for IDs on Java launch configuration tabs
- API to create VM installs from execution environment description files
- API to set/get arbitrary string attributes on VM installs
- API constant for setting the a socket listening connector on a Java launch configuration
- API for setting a source attachment on a JRE library
- A new extension point to contribute a wizard page for creating specific kinds of JREs
- Abstract API class to subclass when contributing a JRE creation wizard page
- API to set a range of values in an array object on a VM being debugged
- API for VM name and version of a VM being debugged, as well as unique IDs from objects in a VM
- API to determine if a VM supports selective garbage collection and to enable/disable garbage collection on specific objects
- API to set preference values for maximum number of instances/references to display in variables view

### Deprecated

- The formatter option that inserts a new line after an annotation has been split into 3 options (for annotation on local variables, members and parameters). See DefaultCodeFormatterConstants.
- The factory method that creates an 'and' pattern (SearchPattern#createAndPattern(...)) has been deprecated since it has never fulfilled its specification.
- Deprecated some PreferenceConstants that got pushed down to JFace
- Deprecated org.eclipse.jdt.core.manipulation.ResourceRenameDescriptor and IJavaRefactorings.RENAME\_RESOURCE: Pushed down to org.eclipse.ltk.core.refactoring
- Deprecated ResourceRenameDescriptor and IJavaRefactorings.RENAME\_RESOURCE: Pushed down to org.eclipse.ltk.core.refactoring

### Breaking changes

- Library entries on the build path can now target external folders
- Removed the assumption that a build path entry denoting a ZIP archive always had a .zip or .jar extension.
- Asking the qualified name of a binary type with a dot('.') separator will now honor this separator

## 3.4 API – Equinox



### **New**

- Added Secure Storage API
  - Extension point available for password providers
- Added JAAS Login integration API
  - Extension points for LoginModule, CallbackHandler, Configuration provider
- Added API to query information about signed content (bundles, plug-ins, jars etc.)
- Added API to establish authenticity of certificate chains used for signing

## 3.4 API – PDE



### New

- New API launch configuration attribute determining whether to display only selected plugins
- New protected (API to subclasses) methods added to display the correct default value in combos in PDE plugin template wizard
- Override API methods in launch shortcuts and launch configurations to support an easier more-managed way of launching RCP apps
- New API methods to allow clients to add arbitrary headers to a manifest.mf generated by a template wizard
- New API class PluginReference to provide public implementation of IPluginReference



# Tool Usability



- Eclipse is a superior IDE for Java tooling and plug-in development
- Many usability enhancements made in 3.4 to continue this tradition
  - Improve serviceability  
([http://wiki.eclipse.org/index.php/Status\\_Handling\\_Best\\_Practices](http://wiki.eclipse.org/index.php/Status_Handling_Best_Practices))
  - Better managing and sharing settings and launch configurations
  - Sharing multiple projects simultaneously
  - Improved UI usability
  - Improved text editors productivity features
  - Simplified workflows in update manager replacement (p2)
  - Better resilience to code with errors in Java tools
  - More fine grain search criteria
  - More quick assists and fixes
  - Performance
  - Much more...

# Awards



## Awards

- **2007 Java Magazin (German)**
  - Best Java Open Source Project, 1. Place 'Eclipse'
- **2006 Java Magazin (German)**
  - Best Java Open Source Project, 1. Place 'Eclipse'
  - Best IDE, 1. Place 'Eclipse - pure'
- **2006 Java Pro Magazine Readers' Choice Award**
  - Best IDE and Best Java Development Suite
- **2006 JAX Reader's Choice Award**
  - Eclipse awarded Best Open-Source Java Project
- **2005 LinuxQuestions.org Members Choice Awards**
  - Eclipse awarded IDE of the Year
- **2005 SOA Web Services Journal Readers' Choice Awards**
  - Eclipse awarded Best GUI for SOA
- **2005 Java Developer's Journal Readers' Choice Awards**
  - Eclipse awarded Best Java Application
  - Eclipse Rich Client Platform awarded Best Rich Client Platform
  - Eclipse IDE awarded Best Team Development Tool
  - Eclipse IDE awarded Most Innovative Java Product
  - SWT awarded Best Java Class Library
  - Eclipse awarded Best Java Debugging Tool

# Architectural Issues



- Sources shipped as individual bundles (instead of being aggregated in existing plug-ins)
- Primary runtime is still a 1.4 JRE. Complementary functionalities on 5.0 JRE (junit4, APT 5) and 6.0 JRE (APT 6, compiler API)
- Eclipse now uses ECF and reships it.
- New provisioning (p2) support is replacing Update Manager
- 42 new plug-ins, 1 removed plug-in (org.eclipse.tomcat)

## End of Life Issues



- When evolving API the Eclipse Platform will, whenever possible, deprecate the affected API methods and continue to keep them operational.
- Exceptions to this rule are in the 3.4 migration guide.
- `org.eclipse.tomcat` plug-in removed, but was never API.

# Bugzilla



- Between June 25, 2007 and May 16, 2008 (RC1)
  - More than 13,300 reports were created
  - Over 11,500 were resolved
  - Over 3,100 were resolved without changing code
    - invalid, duplicate, worksforme, etc...
  - Over 400 were backported to 3.3.x maintenance
- Current state (RC1) is
  - 20 blockers, 62 critical
  - 1 P1 (planned for RC2), 36 P2 (5 planned for 3.4.0)
- 3.3 final state was
  - 23 blockers, 90 critical
  - 0 P1, 136 P2

# Bug resolution during 3.4

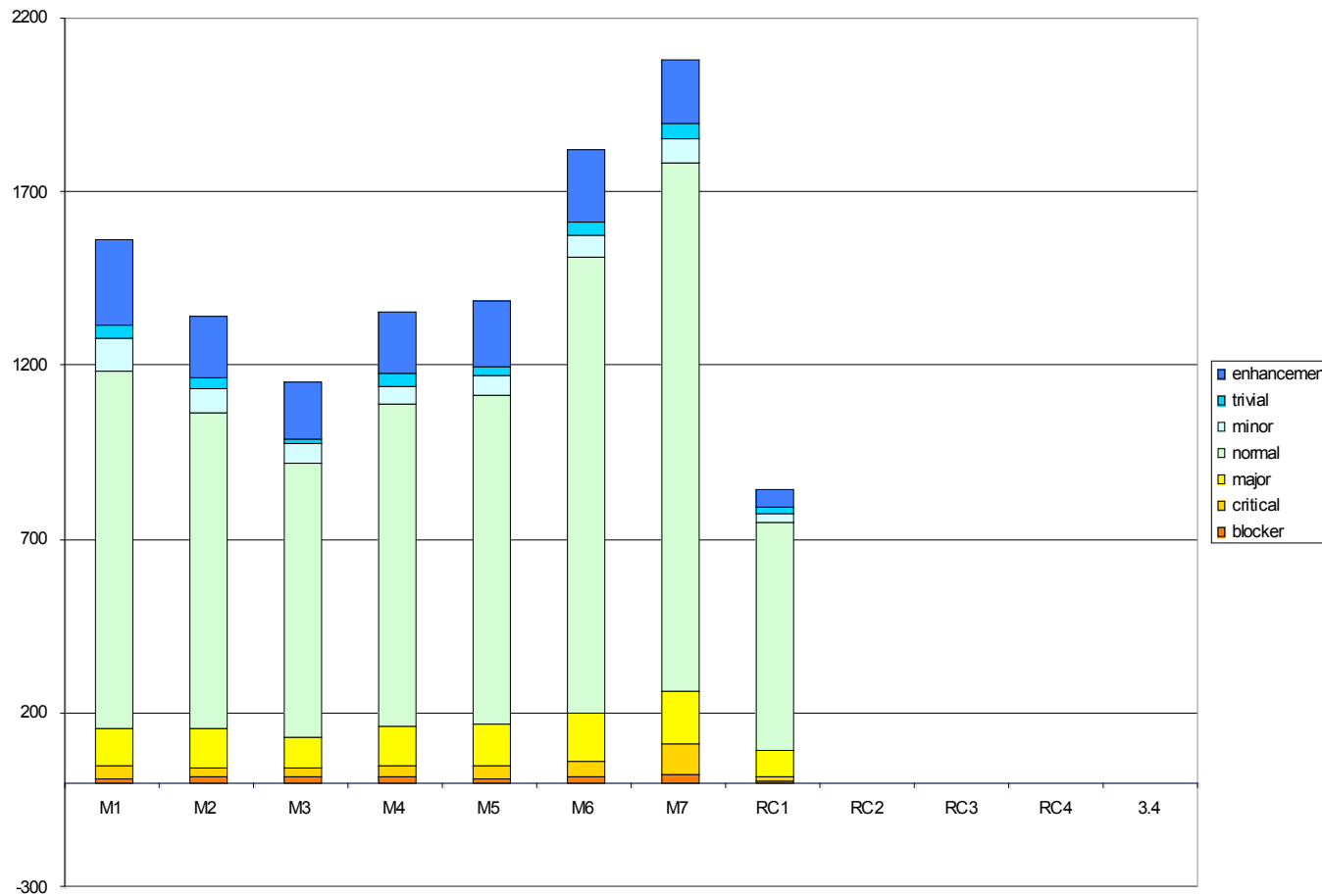


RESOLVED	M1	M2	M3	M4	M5	M6	M7	RC1	RC2	RC3	RC4	3.4	Total	Diff 3.3
blocker	12	17	19	17	12	20	25	7	?	?	?	?	129	-46
critical	39	28	28	32	41	43	87	16	?	?	?	?	314	-73
major	110	111	87	114	121	140	154	71	?	?	?	?	908	-219
normal	1024	912	788	927	940	1311	1520	658	?	?	?	?	8080	-825
minor	93	66	54	50	59	66	70	27	?	?	?	?	485	-149
trivial	40	32	18	39	28	38	44	19	?	?	?	?	258	12
enhancement	244	176	161	177	190	203	181	51	?	?	?	?	1383	-156
Total	1562	1342	1155	1356	1391	1821	2081	849	?	?	?	?	7	-1456
Diff 3.3	27	30	-67	25	-213	263	-381	16	-358	-252	-242	-304	-1456	

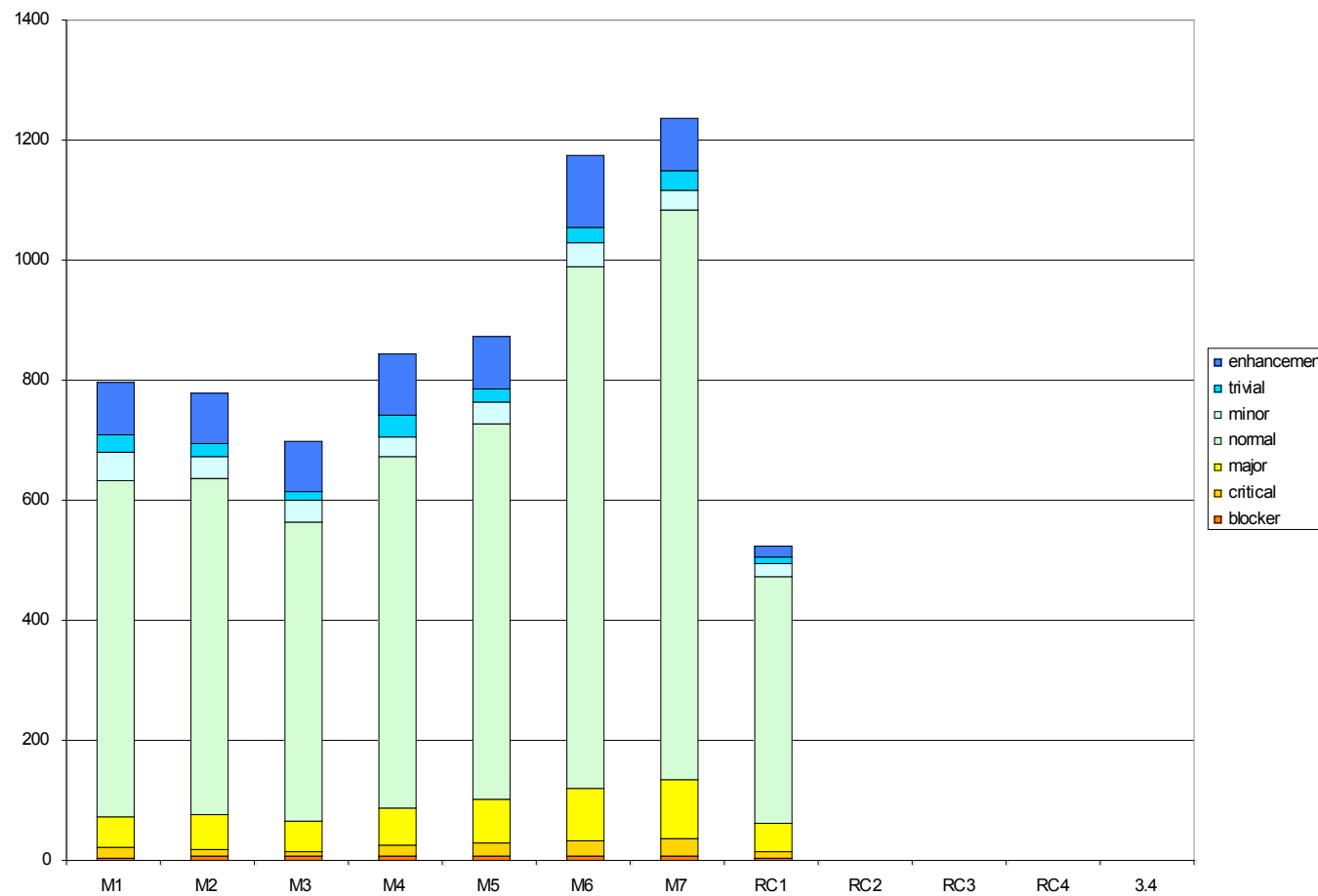
FIXED	M1	M2	M3	M4	M5	M6	M7	RC1	RC2	RC3	RC4	3.4	Total	Diff 3.3
blocker	5	7	7	9	8	10	8	4	?	?	?	?	58	-4
critical	18	11	7	16	23	24	29	12	?	?	?	?	140	-61
major	49	59	52	62	73	86	99	46	?	?	?	?	526	-107
normal	562	559	499	587	625	870	948	412	?	?	?	?	5062	-236
minor	46	36	35	31	35	40	34	20	?	?	?	?	277	-100
trivial	31	25	16	36	24	25	33	12	?	?	?	?	202	6
enhancement	85	83	83	103	87	120	86	20	?	?	?	?	667	-28
Total	796	780	699	844	875	1175	1237	526	?	?	?	?	6932	-530
Diff 3.3	-67	142	73	75	-112	200	-125	47	-212	-124	-123	-304	-530	

# Resolved bugs

including fixed, invalid, ...



# Fixed bugs (only)





# Standards



- OSGi
  - Service Platform Core Specification, Release 4.1
  - Elements of the OSGi Service Platform Service Compendium, Release 4.1
- Annotation Processing APIs
  - com.sun.mirror 1.5
  - javax.annotation.processing 1.6
- Java compiler API
  - javax.tools 1.6
- User Assistance consumes (parses) a small subset of RSS 1.0 to get news from eclipse.org
- JUnit 3.8.2 and JUnit 4.3.1
- J2SE
  - Tools are build against J2SE 1.4
  - Compiler can generate 1.3, 1.4, 1.5, and 1.6 code
  - Clients can run 1.4, 1.5 or 1.6.
- SWT
  - Win32, GDI, GDI+, OLE, IE, Carbon, Cocoa, Core Graphics, Quick Draw, Safari, ATSUI, X Windows, X/t, Motif, GTK, GDK, Pango, cairo, ATK, Mozilla, Uniscribe, WPF, OpenGL

# UI Usability



- Strings are externalized to support translation into other languages.
- Extensive use of mnemonics and shortcut keys in the user interface enhances usability.
- Full Bidirectional support (mirroring) on Windows and Linux GTK, bidirectional text on Mac OS X
- Accessibility support for Windows, Linux GTK and Mac OS X
- We are aware of one non-compliance with accessibility standards in the user interface:
  - The Welcome page fails accessibility because it doesn't pick up the font and color changes in high-contrast mode (already broken in 3.3, but not noticed. Experimental patch to be posted post 3.4, real fix in 3.5)

# Schedule



- Milestones every 6 weeks, 6 cycle duration
  - Feature and API frozen on March 28, end of M6 cycle
  - Adjusted M5/M6 duration (resp. 7 weeks and 5 weeks) for EclipseCon
  - [http://www.eclipse.org/eclipse/development/eclipse\\_project\\_plan\\_3\\_4.html#Milestones](http://www.eclipse.org/eclipse/development/eclipse_project_plan_3_4.html#Milestones)
- Tracked schedule
  - All milestones except M6 delivered as promised
    - M6a was produced to address some invalid plug-in dependencies which could reduce the adoption of M6.
- End game (release candidate) milestones for 4 cycles
  - Duration reduced from 2-week to 1-week cycles at RC2 milestone
  - No new features or API allowed without proper approvals
  - Development to end on June 13, 2006
  - Increasingly stringent approval, checking, and change notification requirements in this stage
  - [http://www.eclipse.org/eclipse/development/freeze\\_plan\\_3.4.php](http://www.eclipse.org/eclipse/development/freeze_plan_3.4.php)

# Process



- The Eclipse project is developed using an open, transparent, and inclusive process
- Teams rely on Bugzilla, mailing lists and newsgroups for input
- Weekly planning calls conducted with the PMC and component leads
  - Meeting minutes posted to the eclipse-dev mailing list
- Component teams have publicly available milestone plans
  - Use project's web space on eclipse.org to broadcast component milestone plan items and provide status on each item, per milestone

# Community



- Eclipse team members are active in Bugzilla, newsgroups, and mailing lists
- Blogs started by Eclipse committers are evolving
  - Use blogging infrastructure at Eclipse.org
  - <http://www.planeteclipse.org>
- Some teams are using the eclipse-dev IRC channel
  - `irc.freenode.net#eclipse-dev`
  - `irc://irc.freenode.net/#eclipse-e4`
  - `irc://irc.freenode.net/#equinox-dev`
  - also see: <http://wiki.eclipse.org/index.php/IRC>
- The Eclipse team participates in code camps, conference presentations, and tutorials, including
  - EclipseCon, JavaOne, JavaWorld, JAOO, Eclipse Summit Europe, Eclipse Forum Europe, JAX, JAX Asia
- The Eclipse team interacts with other open source projects, standards bodies, and other projects on eclipse.org, including
  - OSGi, Apache Ant, JLS, WTP, Apache Harmony, GCJ, GTK

## IP Issues



- All significant and third party contributions have been reviewed and approved by Eclipse legal.
- About files and license files are complete and correct.
- Project log complete, yet to be reviewed by Eclipse legal.
  - [http://www.eclipse.org/eclipse/development/eclipse\\_project\\_log.html](http://www.eclipse.org/eclipse/development/eclipse_project_log.html)

# Project Plan for Eclipse 3.5



- Pending - still in planning stage
- Preliminary priorities:
  - Platforms
  - Reliability
  - Consumability
  - The Future



# EMF 2.4.0 Ganymede Simultaneous Release

June 4<sup>th</sup>, 2008







# Ganymede Release Talking Points

- Noteworthy New Features
  - Support for Content Types
    - Applications using EMF can now register its resources using content types
    - Content types in EMF can be used both in stand-alone and Eclipse based applications. For the latter, it integrates seamless with Eclipse's content type support
  - A new role for `URIConverters`
    - In addition to the creation of input and output streams for URIs, `URIConverters` now support several operations, including deletion, and timestamp and existence queries
    - Easier integration with REST applications
    - Easier customization via `URIHandlers`



## Ganymede Release Talking Points

- Noteworthy New Features (cont.)
  - Support for Data Binding
    - EMF now provides the hooks to easily integrate instances of Ecore models and Eclipse's data binding API
    - Terrific example of the community stepping up to provide an important feature
  - Installable Examples
    - The EMF examples can now be installed to the workspace via wizards located under Eclipse's "Example" category
  - Several performance and usability improvements, including
    - Support for defining the fonts and colors on Item Providers
    - Binary serialization and deserialization



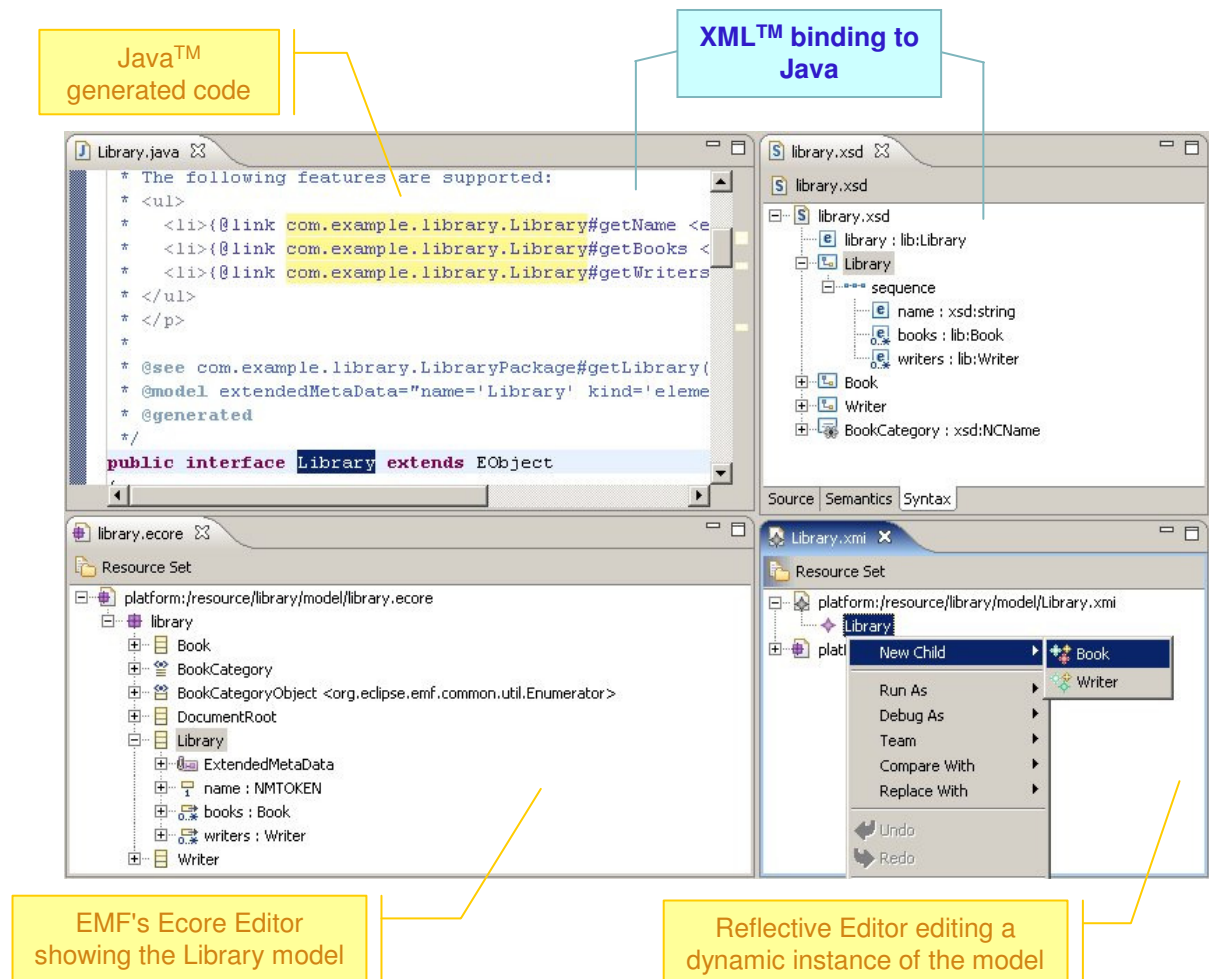
## Ganymede Release Talking Points

- Quality of APIs
  - The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
  - A few classes were marked as “provisional” (this is further detailed in this presentation)
- End of Life Issues:
  - No significant deprecations, deletions, or other end-of-life changes
- IP Issues:
  - All significant contributions, non-Committer code contributions, and third-party libraries have received IP clearance
- Committer Changes
  - Kenn Hussey now works for Embarcadero Technologies



# Eclipse Modeling Framework (EMF)

- Provides a uniform mechanism for describing and accessing all data to facilitate sharing
- Supports conversion to and from different models descriptions
- Developer can focus on the creative tasks rather than repeating the mundane tasks again and again
- The merging generator supports alternating between modeling and programming
- Full support for Java 5





## Non-Code Aspects

- Change Management
  - Every change in EMF is described by at least one bugzilla
  - The EMF Release Notes presents all the bugzillas implemented in a given build:  
<http://www.eclipse.org/modeling/emf/news/relnotes.php?project=emf&version=HEAD>
- Plan Items
  - Release plan document:  
[http://www.eclipse.org/modeling/emf/docs/dev-plans/emf\\_project\\_plan\\_2.4.html](http://www.eclipse.org/modeling/emf/docs/dev-plans/emf_project_plan_2.4.html)
  - 6 of 6 plan (keyword) items resolved as of May 13th, 2008
  - 227 bugzillas addressed in the 2.4.0 release as of May 13th, 2008



## Non-Code Aspects

- 516 JUnit Tests
  - Combined with SDO and XSD
  - On every build, about 200 of these JUnit tests are invoked both as plug-in and stand-alone tests
- Packaging
  - As indicated on the plan for this release, the EMF zips were changed in the M5 milestone, which happened on February 11, 2008. Since then, to both save bandwidth and make it easier to add source & docs to an existing installed runtime, the SDK zips include only source and doc.
- Documentation
  - Vast documentation available at
    - <http://www.eclipse.org/modeling/emf/docs/>
    - <http://wiki.eclipse.org/Category:EMF>



## APIs

- The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- Historically, clients of EMF have treated every class in EMF as API. Therefore, we are left with no choice but to try our best to treat every class as API
  - There are a few classes that we consider non-API code, which are properly identified by the word “internal”
  - It is widely known that users are neither expected to extend the `EModelElement` class nor any of its subclasses



## APIs

- The classes implementing the following new features have been marked as “provisional”
  - Data Biding
  - Binary Resource
- Deprecated API
  - All the deprecated methods were properly marked with the `@Deprecated` annotation
    - If appropriate, the alternative API is also indicated
  - Continues to be fully supported





## Architectural Issues, Usability, End-of-Life

- Architectural Issues
  - As the 2.3 version, EMF 2.4 requires a 5.0 JVM or greater
- Usability
  - Users can now install the examples through wizards located under the “Example” category
  - The names of the EMF bundles and features were modified to better match other Eclipse features and to increase their homogeneity
  - We’ve revised the categories of the EMF wizards to simplify the user’s out-of-box experience
  - Several recipes and tips were added to the EMF wiki and FAQ  
<http://wiki.eclipse.org/Category:EMF>
- End-of-Life Issues
  - Continuing viability of deprecated API guaranteed



## Bugzilla

- As of May 13<sup>th</sup>, 2008 (since the end of the 2.3.0 release with Europa):

	Status				Total
	NEW	RESOLVED	VERIFIED	CLOSED	
Severity	blocker	4	24	.	28
	critical	3	27	.	31
	major	6	151	2	160
	normal	52	1182	6	1242
	minor	1	68	1	71
	trivial	3	33	.	37
	enhancement	26	575	2	660
	Total	95	2060	11	2229

Note: the high number of “verified” bugzillas is partially due to a change in our development process (see bugzilla 206558 for further details)



## Standards and UI Usability

- Standards
  - OMG™'s EMOF™ 2.0 and XMI™ 2.0/2.1 used and supported
- UI Usability
  - Internationalization
    - EMF uses Eclipse Platform standard i18n support
    - ICU4J and Java 5 codepoint support are used when necessary
  - Localization
    - Tested for localization (awaiting readiness of Babel, the Eclipse Globalization Project)
  - Accessibility
    - Standard Eclipse capabilities



## Schedule

- EMF is a “+1” component in the simultaneous release
- We missed the dates for these Milestone builds
  - M6 slipped from 31 March to 2 April and M7 slipped from 5 May to 6 May

### 2.4 Release Plan

- ✓ M2: 2007-09-26
- ✓ M3: 2007-11-07
- ✓ M4: 2007-12-16
- ✓ M5: 2008-02-09
- ✓ M6: 2008-04-02
- ✓ M7: 2008-05-06
- RC1: 2008-05-16
- RC2: 2008-05-23
- RC3: 2008-05-30
- RC4: 2008-06-06
- 2.4: 2008-06-13

### 2.0 Release Plan

- ✓ 2.0.6: 2007-10-03

### 2.1 Release Plan

- ✓ 2.1.3: 2007-10-03

### 2.2 Release Plan

- ✓ 2.2.4: 2007-10-03

### 2.3 Release Plan

- ✓ 2.3.1: 2007-09-26
- ✓ 2.3.2: 2008-02-05





## Communities

- Very active newsgroup
  - `eclipse.tools.emf`
- Steady interaction in both Bugzilla and on newsgroup
- As others components of the Eclipse Modeling Project, EMF is experiencing a fantastic momentum
  - The community is clearly embracing the Eclipse modeling technologies
    - We've seen a record number of new components being proposed and created
    - Important features available in this release were developed either by or with close interaction of people outside the core development team



## Communities

- Conference Participation (using EMF 2.4.0)
  - EclipseWorld 2007
  - Tutorial and several talks at EclipseCon 2008





## IP Issues

- The EMF component leadership verifies that
  - The about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - All significant contributions have been reviewed by the Foundation's legal staff.
  - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.



## IP Issues

- The EMF component leadership verifies that (cont.)
  - All Contribution Questionnaires have been completed.
  - The "provider" field of each plug-in is set to "Eclipse.org".
  - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
  - Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - Any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.







## IP Issues

- The EMF project IP log is located at <http://www.eclipse.org/modeling/emf/eclipse-project-ip-log.php>





## IP Issues

- The contributions for this release were recorded in 45 bugzillas
  - 75625, 101163, 122422, 129874, 130468, 130525, 131811, 132360, 136881, 147594, 149770, 150500, 156783, 161744, 163291, 165458, 165661, 165770, 166112, 166967, 170204, 170223, 177643, 177644, 177645, 177647, 177653, 177656, 178121, 178793, 178840, 179004, 185971, 196579, 207306, 209491, 210139, 211055, 215131, 225068, 227203, 228357, 228482, 228679, 229998
- For more details, including the name of the contributor, see [http://www.eclipse.org/modeling/emf/project-info/ipquery.php?sortBy=bugs.bug\\_id&showobsolete](http://www.eclipse.org/modeling/emf/project-info/ipquery.php?sortBy=bugs.bug_id&showobsolete)



## Project Plan

- A draft development plan for EMF 2.5 is not yet available





## Legal Notices

- OMG, EMOF, and XMI are trademarks of the Object Management Group
- XML is a trademark of the World Wide Web Consortium; marks of W3C are registered and held by its host institutions MIT, ERCIM, and Keio
- Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both
- Other company, product, or service names may be trademarks or service marks of others



# EMF Compare 0.8.0 Ganymede Simultaneous Release

June 16<sup>th</sup>, 2008





## Ganymede Release Talking Point

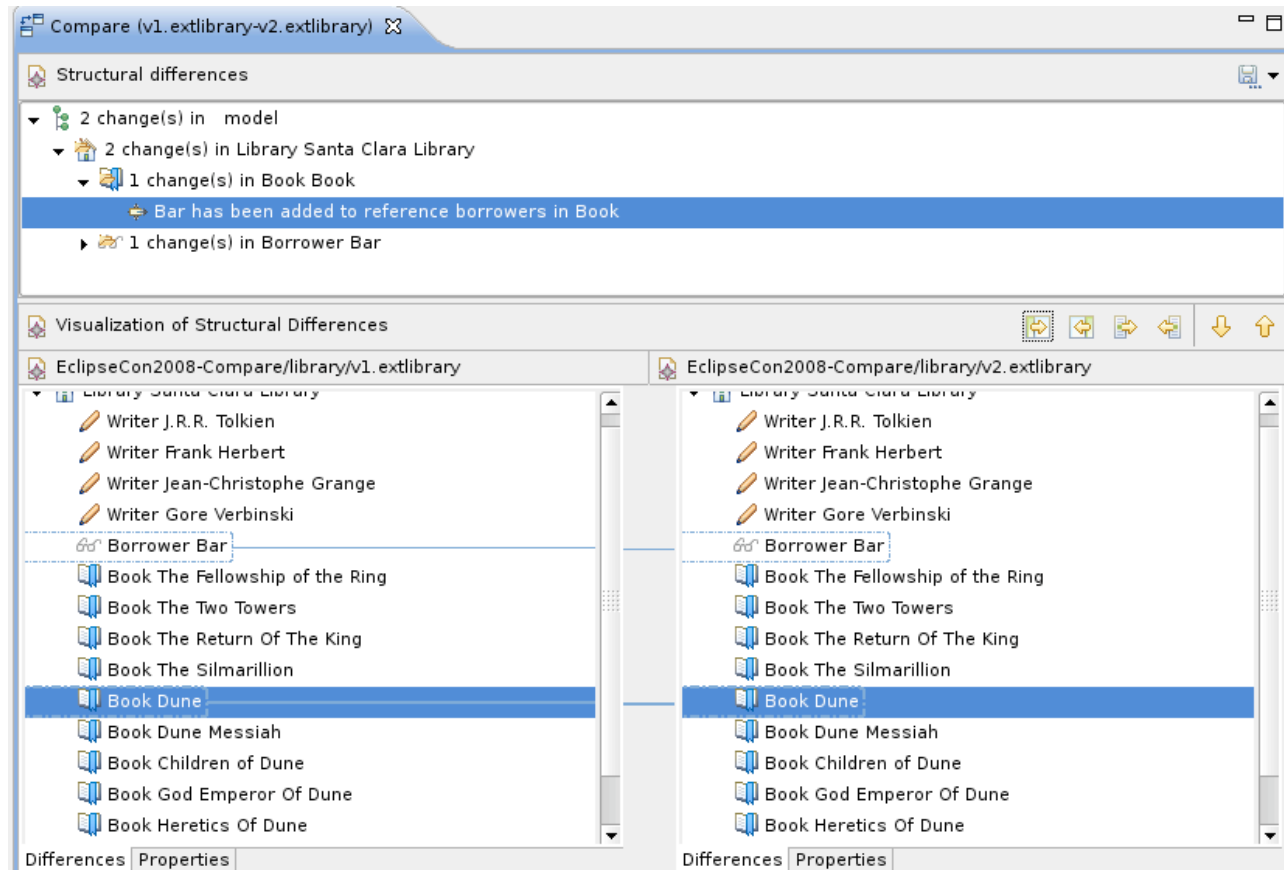
- Noteworthy New Features
  - 2 way / 3 way comparison detecting conflicts
  - differencing, merging and extensibility
  - diff export
- Quality of APIs
  - The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
  - A few classes were marked as “provisional” (this is further detailed in this presentation)
- End of Life Issues:
  - No significant deprecations, deletions, or other end-of-life changes
- IP Issues:
  - No significant contributions and has been integrated and the component do not use third-party libraries.
- Committer Changes





## EMF Compare (Incubation)

- model :
  - differencing
  - merging
- team API  
CVS/SVN
- diff export
- extensibility





## 0.8.0 features and non code aspects

- Features
  - 3 way Comparison (detecting conflicts)
  - Merge support
  - Differencing Export
  - Extensibility on match/diff/merge
  - Performance enhancements
- Unit tests
  - 161 unit tests launched on every build
  - Code coverage is about 30% of the diff and 50% of the match core.
- Non-regression tests
  - Comparison with results and expected results on 15 different models
- Code quality
  - Checkstyle activated on each distinct plug-in
  - Javadoc represents more than 50% of the source code lines







## APIs

- Metamodels definition and corresponding implementations are considered APIs. Every plugin provides its API through an « api » prefixed package.
- Core services
  - DiffService / MergeService
  - MatchService
  - Generic implementations (GenericMatchEngine, GenericDiffEngine)
  - Export diff model
- Utility classes in org.eclipse.emf.compare
  - ModelUtils
- Commitment to provide stand-alone diff and match features (JAR used without Eclipse)
- Non-API classes and extension points are marked as « internal » through the id or package name.



## APIs (provisionning)

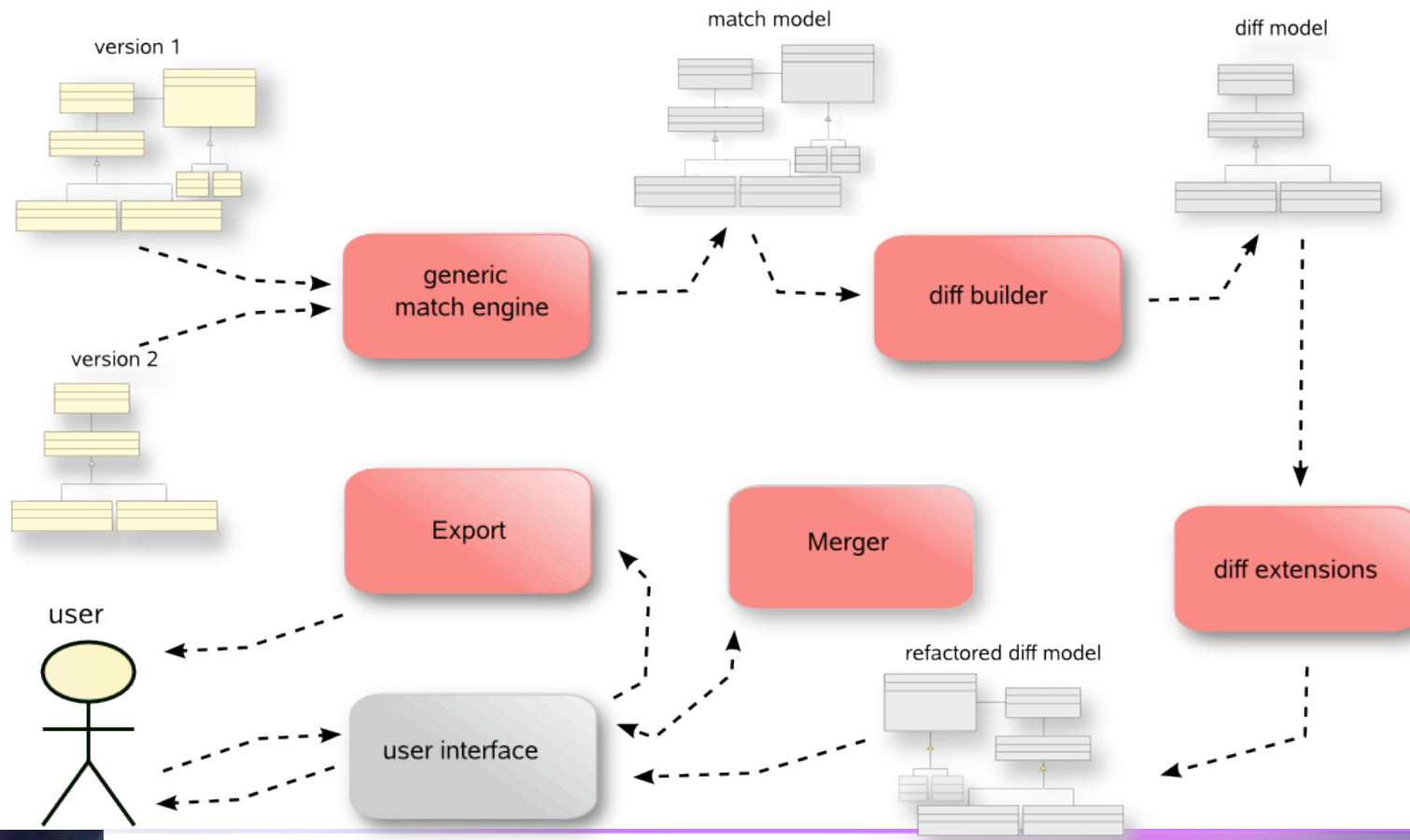
- UI classes extensibility is not finalized. Clients are not expected to extends the UI classes yet.
- `diff_extension` in `org.eclipse.emf.compare.diff`
- `org.eclipse.emf.compare.internal.team.handler` extension point
  - Used to fix issues with the Subversive Team implementation, not considered as finalized yet.





## Architectural Issues

- Since its beginning the EMF Compare component has been designed so that every part of the process is extensible (represented with red boxes below)





## Documentation

- User tutorials
  - Setting up and using the EMF compare component
  - Comparing and merging XML Files
- Developer tutorials
  - Adding new actions to the export menu
  - Customizing the diff process
  - Domain model Synchronization with EMF Compare
- Examples
  - Library diff to HTML export
  - Domain model synchronization with EMF Compare
  - Creating differences representations dedicated to UML
- FAQ on the Eclipse Wiki [http://wiki.eclipse.org/EMF\\_Compare](http://wiki.eclipse.org/EMF_Compare)





## Bugzilla

	NEW	RESOLVED	VERIFIED	total
critical	-	1	1	2
major	1	3	3	7
normal	8	8	5	21
minor	3	2	2	7
enhancement	2	3	3	8
total	14	17	14	

- Note : these figures are subjects to change as the whole team is in the process of fixing bug until the final release (this snapshot has been taken on May 14, 2008)



## Tool usability

- EMF Compare is tightly integrated with org.eclipse.compare support and as such provides the same user interface.
- Localization
  - *French, Dutch and German* translations integrated into Babel

## Standards

- No standard exists concerning the model comparison though EMF Compare works nicely with any standard-based metamodel (UML®...)

## End of Life

- As this is the first release there are no specific end of life concerns.





## Communities

- Talks have been given on the following events:
  - EclipseCon 2007 – Model Comparison Panel
  - Eclipse Summit Europe 2007 – EMF Compare – One Year Later
  - EclipseCon 2008 – An Update on EMF Compare
- Activity on the EMFT newsgroup
  - 55 threads from June 2007 to May 2008
- Planet Eclipse
  - about 1 update a month
- Articles
  - « EMF Compare : vie d'un projet Eclipse » in « Programmez! » Feb 2008
  - « Comparing XML files » in « Programmez! » June 2008



## Schedule

- Since the feature freeze our commitment was to follow the EMF builds as closely as possible.

### 0.8 Release Plan

- ✓ M4: 2007-01-10
- ✓ M5: 2008-02-13
- ✓ M6: 2008-04-02
- ✓ M7: 2008-05-06
- RC1: 2008-05-16
- RC2: 2008-05-23
- RC3: 2008-05-30
- RC4: 2008-06-06
- 0.8: 2008-06-13

M6 slipped from 2 April to 4 April  
as EMF slipped from 31 March to 2 April

## IP Issues

- About files and licenses in place and sent to EMO
- No dependency on external JAR's or libs.
- IP log has been submitted with the EMFT project
- The contributions to this release has been recorded in bugzilla :
  - [196438](#)
  - [226565](#)







## IP Issues

- The EMF compare component leadership verifies that
  - The about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - All significant contributions have been reviewed by the Foundation's legal staff.
  - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.





## IP Issues

- The EMF compare component leadership verifies that (cont.)
  - All Contribution Questionnaires have been completed.
  - The "provider" field of each plug-in is set to "Eclipse.org".
  - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
  - Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - Any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
  - IP Log is available at <http://www.eclipse.org/modeling/emft/project-info/ipquery.php>



## Project plan

- Graduating from Incubation status
- Patch/Changeset for model differences
- UI Extensibility and reuse
- Graphical modeler integration proof of concept
- Remote proxy resolving
- DiffExtension API stabilization

This plan is an initial list , the up to date plan is on the wiki :  
[http://wiki.eclipse.org/EMF\\_Compare](http://wiki.eclipse.org/EMF_Compare)

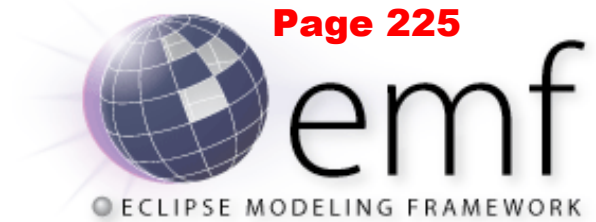




## Legal Notices

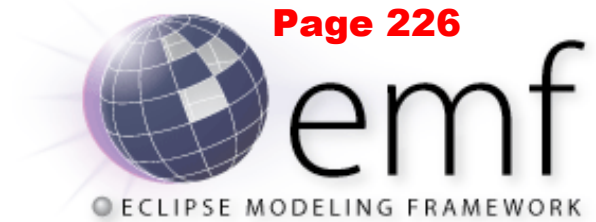
- Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both
- OMG, EMOF, and XMI are trademarks of the Object Management Group
- Other company, product, or service names may be trademarks or service marks of others





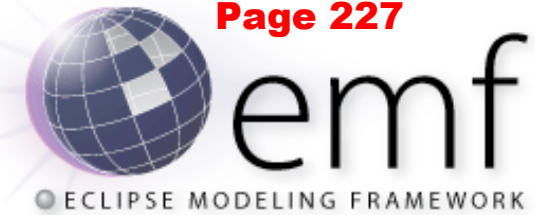
# EMF Query, Transaction, Validation 1.2.0 Ganymede Simultaneous Release Review

4 June, 2008



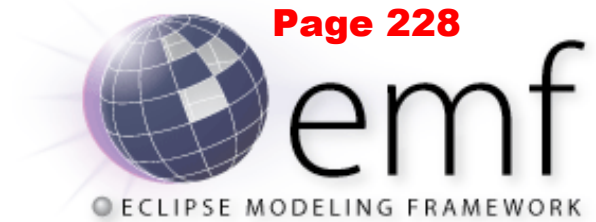
# Agenda

- **Talking Points**
- Features
- Non-Code Aspects
- APIs
- Architectural Issues
- Tool Usability
- End-of-Life
- Bugzilla
- Standards
- UI Usability
- Schedule
- Communities
- IP Issues
- Project Plan



## Talking Points

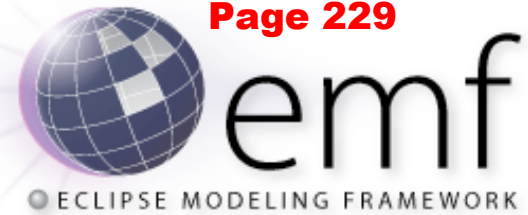
- Query, Transaction, Validation 1.2.0 Themes (from EMF)
  - Built to Last
  - Release Currency
- The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- End-of-life issues
  - No significant deprecations, deletions, or other end-of-life changes.
- All significant contributions, non-Committer code contributions, and third-party libraries have received IP clearance
- 1 committer from two companies (IBM, Zeligsoft) in one country (Canada)
- 6 contributors from four organizations (SAP, PrismTech, IBM, student, independent)



# Features

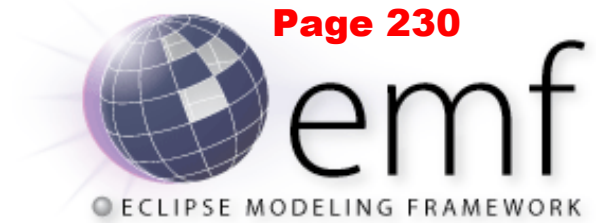
- 1.2.0 development plan available at [http://www.eclipse.org/modeling/emf/docs/mq-mt-vf/dev-plans/qtv\\_project\\_plan\\_1\\_2.html](http://www.eclipse.org/modeling/emf/docs/mq-mt-vf/dev-plans/qtv_project_plan_1_2.html)
- 5 committed, 0 deferred
- New & Noteworthy documentation at [http://wiki.eclipse.org/EMF-QTV\\_1.2\\_NandN](http://wiki.eclipse.org/EMF-QTV_1.2_NandN)
- Release notes available at  
<http://www.eclipse.org/modeling/emf/news/relnotes.php?project=query&version=1.2.x>  
<http://www.eclipse.org/modeling/emf/news/relnotes.php?project=transaction&version=1.2.x>  
<http://www.eclipse.org/modeling/emf/news/relnotes.php?project=validation&version=1.2.x>





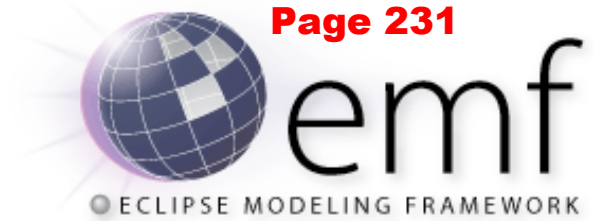
## Features – Details

- Built to Last
  - **Undo/Redo Improvements.** Enhancements to transaction undo/redo in support of model refactoring operations.
  - **Transaction Validate-Edit.** Integrated validate-edit for modeling applications in an IDE.
- Release Currency
  - **Query J2SE 5.0.** Adopt J2SE 5.0 language and APIs to align with EMF Core.
  - **Transaction J2SE 5.0.** Adopt J2SE 5.0 language and APIs to align with EMF Core.
  - **Validation J2SE 5.0.** Adopt J2SE 5.0 language and APIs to align with EMF Core.



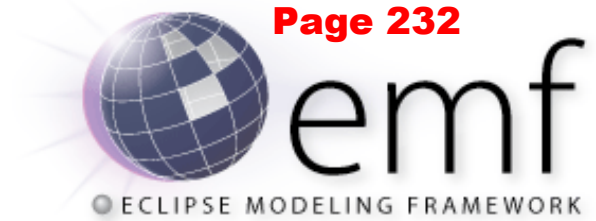
## Non-Code Aspects

- Documentation hosted at EMF [Web site](#), [Wiki](#)
- [Documentation](#) (FAQ, Javadoc™, articles, etc.) available; updated for the 1.2.0 release as appropriate
- Example features/plugin-ins available; minor enhancements



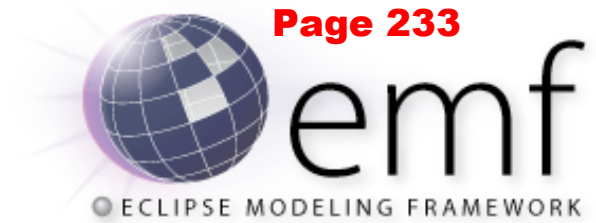
## APIs

- The component lead certifies that the requirements for **Eclipse Quality** APIs have been met for this release
- Non-API in “internal” namespace



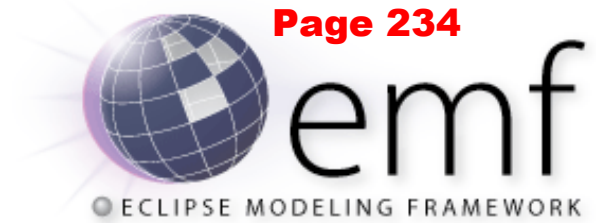
## Architectural Issues

- Validation component's default constraint provider relies on meta-data specified in plugin.xml; overloads the extension registry (scalability issue)



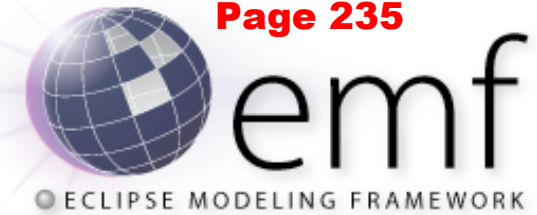
## Tool Usability

- Update to J2SE 5.0 compliance offers improved type safety in the APIs



## End-of-Life

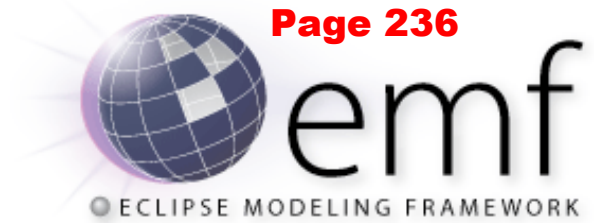
- No end-of-life concerns



## Bugzilla (as of May 12, 2007)

- Bugs raised during and/or resolved in the Ganymede release

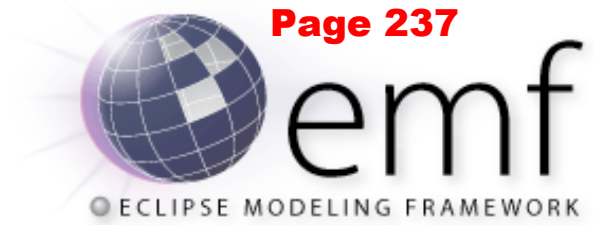
		Status			
Severity		NEW	RESOLVED	VERIFIED	Total
	major	<u>1</u>	<u>2</u>	<u>6</u>	<u>9</u>
	normal	<u>1</u>	<u>7</u>	<u>21</u>	<u>29</u>
	minor	.	.	<u>7</u>	<u>7</u>
	trivial	<u>1</u>	<u>2</u>	<u>1</u>	<u>4</u>
	enhancement	<u>5</u>	.	<u>14</u>	<u>19</u>
	Total	<u>8</u>	<u>11</u>	<u>49</u>	<u>68</u>



## Standards

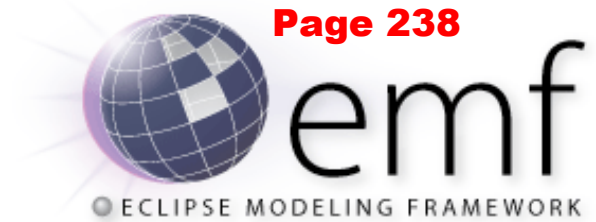
- Query and Validation components continue to provide support for expressions specified using OCL™ (via the MDT OCL component)





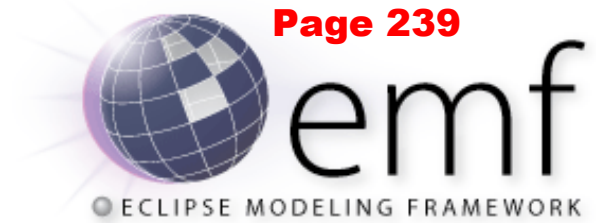
## UI Usability

- No significant changes over previous release.



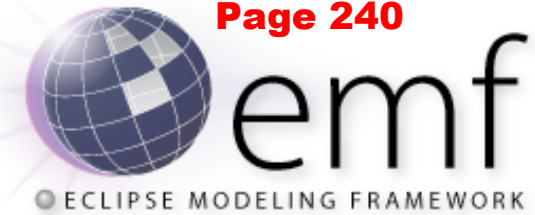
## Schedule

- EMF Query, Transaction, and Validation are “+1” components in the simultaneous release
- M3 met on 7 November
- M4 met on 17 December
- M5 slipped from 11 February to 12 February
- M6 slipped from 31 March to 2 April
- M7 slipped from 5 May to 6 May



## Communities

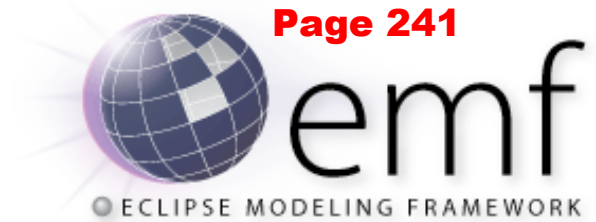
- Steady interaction in [Bugzilla](#) and on [newsgroup](#)
- Continued collaboration with GMF project and its clients



## IP Issues

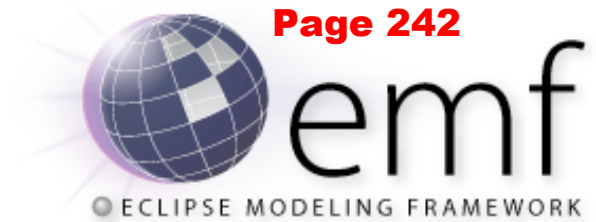
The EMF MQ/MT/VF component leadership verifies that:

- the about files and use licenses are in place as per the [Guidelines to Legal Documentation](#).
- all contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
- all significant contributions have been reviewed by the Foundation's legal staff.
- all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.
- all Contribution Questionnaires have been completed.
- the "provider" field of each plug-in is set to "Eclipse.org".
- the "copyright" field of each feature is set to the copyright owner.
- any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
- any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- The EMF project IP log is located at <http://www.eclipse.org/modeling/emf/eclipse-project-ip-log.csv>
- Committer Christian W. Damus changed employment (IBM to Zeligsoft, Inc.)



## Project Plan

- Draft development plan for EMF Query, Transaction, and Validation 1.3.0 is not yet available



## Legal Notices

- OCL is a trademark of the Object Management Group
- Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both
- Other company, product, or service names may be trademarks or service marks of others



# EMFT CDO 1.0.0

## Ganymede Simultaneous Release

May 18th, 2008

# EMFT CDO - Ganymede Release Talking Points

- Noteworthy New Features:
  - Network transfer of only deltas of changes ([201266](#))
  - Partial loading of collections ([201265](#))
  - Hibernate integration server-side ([217117](#))
- Quality of APIs
  - No “provisional” APIs, all non-API code in “internal” packages
- End of Life Issues:
  - None
- IP Issues:
  - None
- Committer Diversity
  - Second committer for Hibernate integration
  - Third committer election in progress



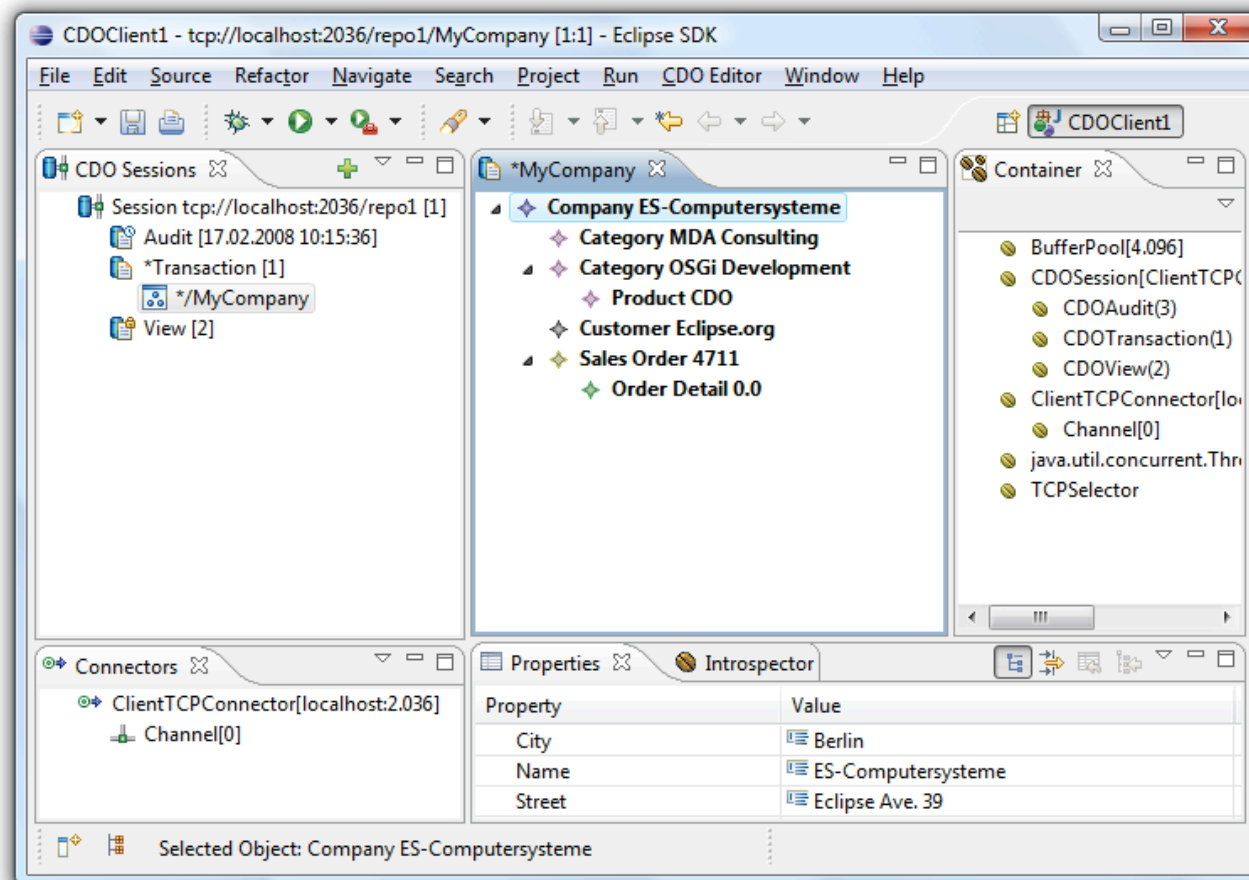


## EMFT CDO - Connected Data Objects The EMF Model Repository

- Provides distributed shared models for EMF
- Overcomes all the issues with XML files
- Integrates with the EMF persistence framework
- Uses Net4j to implement a network protocol
- Supports multiple repositories on the server
- Connects with heterogeneous back ends
- Uses OSGi™ at client and server side (optional)



# EMFT CDO - Connected Data Objects The EMF Model Repository





## Features & Non-Code Aspects

- Features
  - New features regularly announced via release notes
  - 70 enhancements provided since 0.7.0
- Non-Code Aspects
  - New example for server configuration with Spring Framework™
  - Wiki with tutorials and design docs: <http://wiki.eclipse.org/CDO>



## APIs

- No “provisional” APIs; all non-API code in “internal” packages
- Deprecated API
  - None
- No ‘discouraged access’ warnings (internal usage)
- 2 x 98 JUnit tests (MEMStore + HibernateStore)

## Standards, Architectural Details, UI Usability



- Standards
  - Support for standard EMF (and the standards supported by EMF)
- Architectural Details
  - Requires a 5.0 JVM™ or greater
  - Client based on EMF 2.4
  - Server with exchangeable backends (JDBC™, Hibernate™, ...)
  - Can run standalone (No OSGi), on OSGi and Eclipse
- UI Usability
  - As a pure runtime technology all UIs are only exemplary



## Schedule

- CDO is a “+2” component in the simultaneous release
- 1.0 Release Plan according to the Ganymede schedule
- CDO uses a continuous build approach

# Bugzilla



- As of May 18<sup>th</sup>, 2008:

	NEW/ASSIGNED/REOPENED	RESOLVED/VERIFIED/CLOSED	Total
blocker		6	6
critical		3	3
major		11	11
normal	9	29	38
minor		4	4
trivial		1	1
enhancement	18	70	88
Total	27	124	151



## Communities

- Active newsgroup
  - `eclipse.technology.emft`
- Conference Participation
  - Long Talk at EclipseCon 2008





## IP Issues

- The CDO component leadership verifies that
  - The about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - All significant contributions have been reviewed by the Foundation's legal staff.
  - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.



## IP Issues

- The CDO component leadership verifies that (cont.)
  - All Contribution Questionnaires have been completed.
  - The "provider" field of each plug-in is set to "Eclipse.org".
  - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
  - Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - Any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
  - IP Log at
    - <http://www.eclipse.org/modeling/emft/project-info/ipquery.php>
    - <http://www.eclipse.org/modeling/emf/project-info/ipquery.php>



## Project Plan

- A draft development plan for CDO 2.0.0 is not yet available
- Important planned features
  - Extensible remote queries (SQL, OCL, ...)
  - JPA support (Java Persistence API)
  - XA support (distributed transactions)
  - Support for save points



## Graduation: Active Community

- Integration with both EMF and Teneo
- Active Community (> 600 newsgroup posts per year)
- Complete redesign and rewrite ~ 1 year ago
- 124 bugzillas filed and solved



## Graduation: Open and Transparent

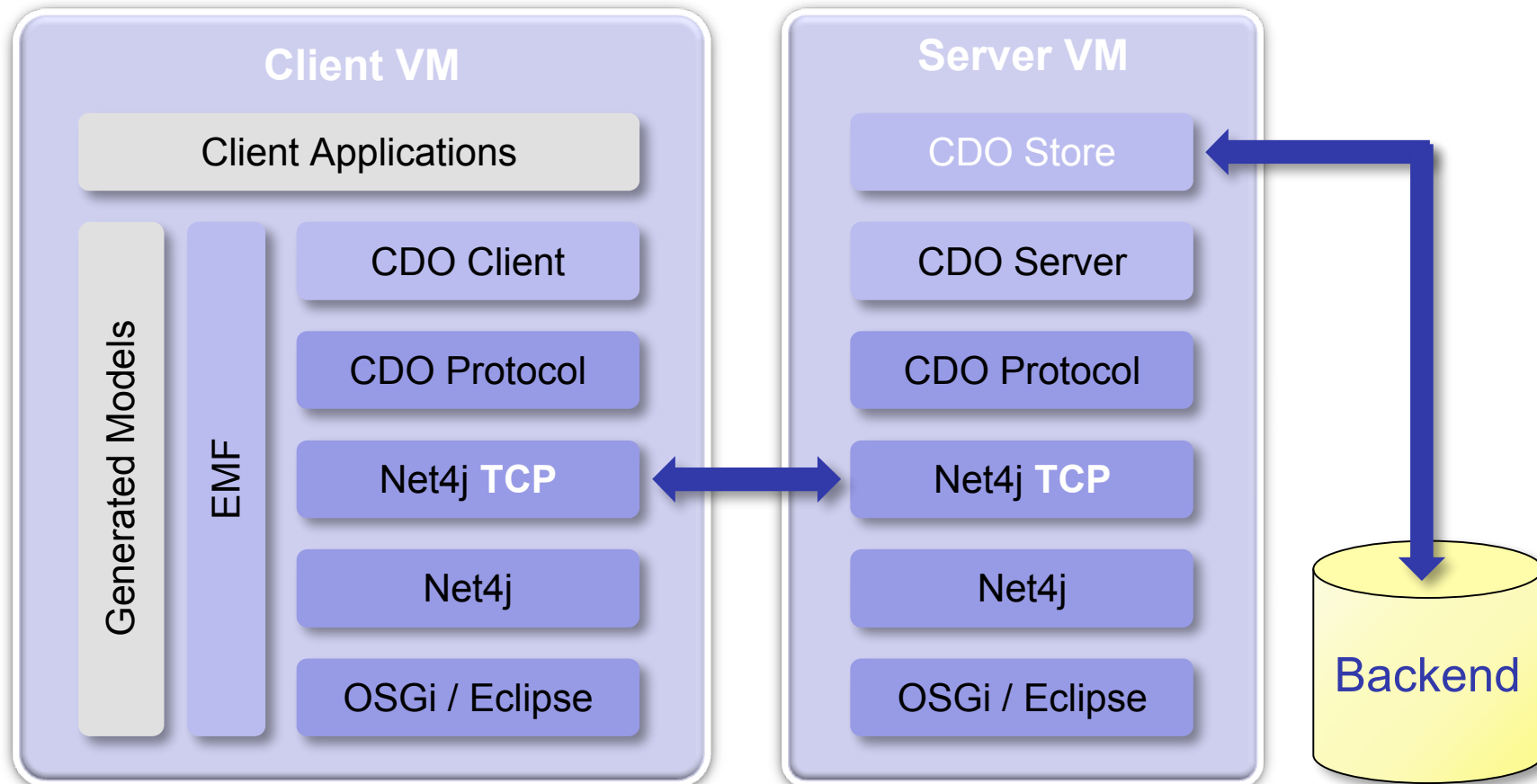
- Very responsive support on newsgroup, open discussions and reactions on proposals from users
- All core bugzillas solved immediately
- Project Materials are all available to the public
- Follow IP-policy (approval for use of derby jar files, for example)



## Graduation Review: The Eclipse Way

- Long talk on EclipseCon 2008 (ESE 2008 planned)
- Integrates with other Eclipse projects: EMF, Teneo
- Frequent/Continuous builds (every 1-2 weeks)
- Every build solves all outstanding core bugs
- Builds are automatically tested in multiple scenarios, test cases run with different databases

# Graduation Review: Technical Architecture





## Legal Notices

- OSGi is a trademark of the OSGi Alliance
- XML is a trademark of the World Wide Web Consortium; marks of W3C are registered and held by its host institutions MIT, ERCIM, and Keio
- Java, JVM, JDBC and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both
- Hibernate is a registered trademark of Red Hat, Inc.
- Other company, product, or service names may be trademarks or service marks of others



## EMFT Ecore Tools 0.8

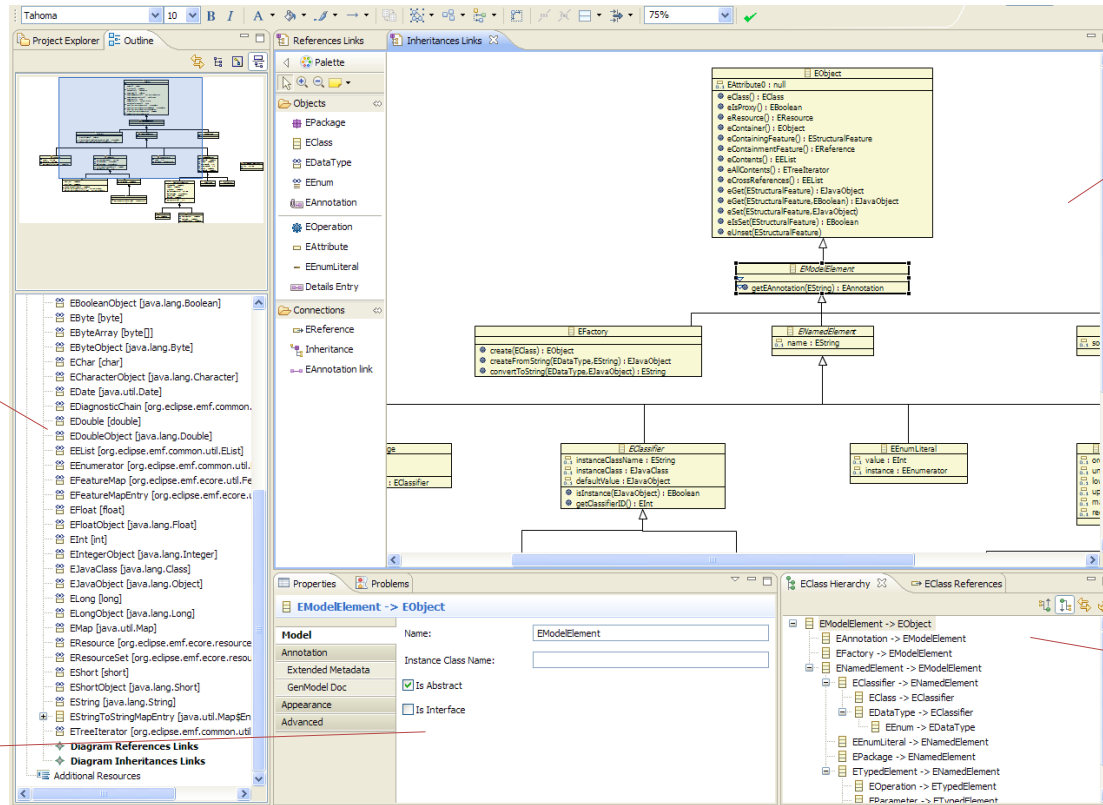
# Ganymede Simultaneous Release Review

June 4<sup>th</sup>, 2008

# Ganymede Release Talking Points

- Noteworthy features
  - Ecore diagram
  - Custom tabbed properties view
  - Model oriented outline
  - Analysis views
- Quality of APIs
  - The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- End of Life Issues:
  - No significant deprecations, deletions, or other end-of-life changes
- IP Issues:
  - All significant contributions, non-Committer code contributions, and third-party libraries have received IP clearance

- Provides a complete environment to create/edit Ecore models



## Graphical editor supporting multi-diagrams

## Model oriented outline

## Custom tabbed properties view

Analysis views :  
Hierarchy,  
References

# Features & Non-Code Aspects

- New & Noteworthy maintained on the wiki
  - [http://wiki.eclipse.org/EcoreTools\\_New\\_Noteworthy](http://wiki.eclipse.org/EcoreTools_New_Noteworthy)
- Non-Code Aspects
  - Newsgroup / Bugzilla support
  - Junit framework to test GMF diagrams
  - Documentation must be improved
  - FAQ : [http://wiki.eclipse.org/EcoreTools\\_FAQ](http://wiki.eclipse.org/EcoreTools_FAQ)



- All non-API code in « internal » packages
- No 'discouraged access' warnings



# Architectural Issues & End-of-Life

- Architectural Issues
  - Generic components have been submitted as contributions to GMF but are currently maintained in Ecore Tools.  
Bugs #206778, #209805, #215661
- End-of-Life Issues
  - None

# Bugzilla

## Ganymede Release Review

### ■ Bugzilla (As of 05/15/08)

Severity	Status				
	NEW	ASSIGNED	RESOLVED	VERIFIED	Total
critical	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>2</u>
major	<u>0</u>	<u>0</u>	<u>3</u>	<u>2</u>	<u>5</u>
normal	<u>10</u>	<u>1</u>	<u>18</u>	<u>15</u>	<u>44</u>
minor	<u>2</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>5</u>
trivial	<u>2</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>5</u>
enhancement	<u>13</u>	<u>2</u>	<u>6</u>	<u>5</u>	<u>26</u>
Total	<u>27</u>	<u>3</u>	<u>31</u>	<u>26</u>	<u>87</u>



# Standards & UI Usability

- Standards
  - Java™ 1.5
  - Ecore
  - Based on GMF 2.1
- UI Usability
  - Filters, Navigability, Multi-diagrams...
  - Internationalization
    - Ecore Tools uses Eclipse i18n support
  - Localization
    - Ecore Tools map added to Babel



- Follow the Ganymede release train since Milestone 4
- Ecore Tools is a “+3” component in the simultaneous release
- We missed the date for the M6 build : slipped from 9 April to 11 April
- **0.8 Release Plan**
  - ✓ Tuesday January 08, 2008 - Milestone 4 (0.8.0M4)
  - ✓ Tuesday February 19, 2008 - Milestone 5 (0.8.0M5)
  - ✓ **Friday April 11, 2008** - Milestone 6 (0.8.0M6) - API Freeze
  - ✓ Wednesday May 07, 2008 - Milestone 7 (0.8.0M7)
  - Wednesday May 21, 2008 - Release Candidate 1 (0.8.0RC1)
  - Wednesday May 28, 2008 - Release Candidate 2 (0.8.0RC2)
  - Wednesday June 04, 2008 - Release Candidate 3 (0.8.0RC3)
  - Wednesday June 11, 2008 - Release Candidate 4 (0.8.0RC4)
  - Wednesday June 18, 2008 - Release (0.8.0)



# Communities

- Committer diversity
  - Anyware Technologies, Individual
- Exchanges with EMFT Search and GMF
- Contributions
  - External contributions from INRIA and Individuals
- Conference Participation
  - Participation to the Modeling Symposium at ESE 2007
  - 1 short talk at EclipseCon 08 and participation to the Eclipse/OMG Symposium
- Demonstration scheduled for Ganymede DemoCamp



# IP Issues

- The Ecore Tools component leadership verifies that
  - The about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - All significant contributions have been reviewed by the Foundation's legal staff.
  - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.



# IP Issues

- The Ecore Tools component leadership verifies that (cont.)
  - All Contribution Questionnaires have been completed.
  - The "provider" field of each plug-in is set to "Eclipse.org".
  - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
  - Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - Any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.



# IP Issues

- Project log generated and to be reviewed by Eclipse Legal
  - <http://www.eclipse.org/modeling/emft/project-info/ipquery.php>
- Contributions
  - CQ 2036, CQ 2058

# Project Plan



- A draft development plan for EMFT Ecore Tools 0.9 is not yet available



# Legal Notices

- Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both
- Other company, product, or service names may be trademarks or service marks of others



# EMFT Mint (Incubation) 0.7

## Ganymede Simultaneous Release Review

4 June, 2007





# Agenda

- Talking Points
- Features
- Non-Code Aspects
- APIs
- Architectural Issues
- Tool Usability
- End-of-Life
- Bugzilla
- UI Usability
- Schedule
- Communities
- IP Issues
- Project Plan



## Talking Points

- Initial release as EMFT component (incubation)
  - Utilizes Modeling Releng infrastructure
- The component lead certifies that the requirements for **Eclipse Quality** APIs have been met for this release
- No third-party code contributions received or libraries used in this release
- One committer from one company (Ecliptical Software Inc., Canada)



# Features

- Initial set of features as contributed
  - Java™ model decoration
  - Structured viewer filters for generated Java code
  - Java search integration
  - GenModel-to-Java navigation actions
  - Java Editor enhancements
- Updated for Eclipse 3.4 and EMF 2.4
- Implementation refactored for extensibility



## Non-Code Aspects

- Documentation hosted at EMF [Web site](#), [Wiki](#)
- Automated unit tests available
- Example features/plugin-ins available but needs to be populated



# APIs

- The component lead certifies that the requirements for **Eclipse Quality** APIs have been met for this release
- Non-API in “internal” namespace



## Architectural Issues

- Code is J2SE 5.0 compliant (per EMF 2.4)
- Extensibility still maturing (not fully exposed yet)
- Many small features – not broken out into separate plugins



## Tool Usability

- Code generation in support of extensibility (e.g., Java Element item providers) planned in the future



## End-of-Life

- No end-of-life concerns – initial public release





## Bugzilla (as of May 19, 2008)

		Status			
Severity		NEW	RESOLVED	CLOSED	Total
	normal	<u>1</u>	<u>2</u>	<u>1</u>	<u>4</u>
	minor	<u>1</u>	.	.	<u>1</u>
	enhancement	.	<u>1</u>	.	<u>1</u>
	Total	<u>2</u>	<u>3</u>	<u>1</u>	<u>6</u>



# UI Usability

- Mint follows [Eclipse User Interface Guidelines](#)
  - I18N support
  - Accessibility



# Schedule

- Mint is a “+2” component in the simultaneous release
- Interim builds published every one to two weeks
- Milestone builds on schedule



# Communities

- Building community on [Bugzilla](#) and [EMFT newsgroup](#)
- Interest in collaboration expressed by other components as well as private enterprise



## IP Issues

The EMFT Mint component leadership verifies that:

- the about files and use licenses are in place as per the [Guidelines to Legal Documentation](#).
- all contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
- all significant contributions have been reviewed by the Foundation's legal staff.
- all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.
- all Contribution Questionnaires have been completed.
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- the "copyright" field of each feature is set to the copyright owner.
- any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
- any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- The EMFT project IP log is located at <http://www.eclipse.org/modeling/emft/project-info/ipquery.php>



## Project Plan

- Draft development plan for Mint 0.8 is not yet available



## Legal Notices

- Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both
- Other company, product, or service names may be trademarks or service marks of others



# EMFT Net4j 1.0.0

## Ganymede Simultaneous Release

May 18th, 2008



# EMFT Net4j - Ganymede Release Talking Points

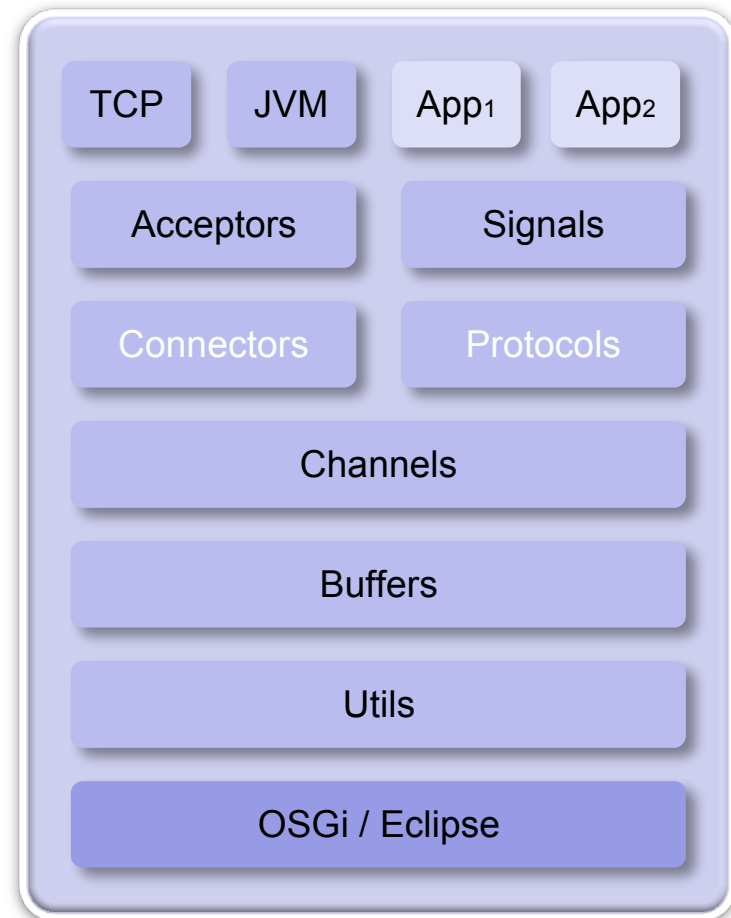
- Noteworthy New Features:
  - Challenge/response based negotiator ([205027](#))
- Quality of APIs
  - No “provisional” APIs, all non-API code in “internal” packages
- End of Life Issues:
  - None
- IP Issues:
  - None
- Committer Diversity
  - One committer
  - Working together with Scott Lewis (ECF) to integrate Net4j+ECF

# EMFT Net4j

## Pluggable Client/Server Applications



- High performance
  - `java.nio.DirectByteBuffer`
  - zero copying, non-blocking
- Good scalability
  - `java.nio.channels.Selector`
  - single I/O thread possible
- Multiple transports
  - Shipped with TCP and JVM transports
- Pluggable protocols
  - Independent of chosen transport
- Server-initiated push services
  - Asynch and synch requests from the server
- OSGi™ and stand-alone modes





## Features & Non-Code Aspects

- Features
  - New features regularly announced via release notes
  - 23 enhancements provided since 0.7.0
- Non-Code Aspects
  - New examples
    - Buddy list
    - Collaboration + Chat
    - Fileshare
    - JMS™ provider implementation
  - Wiki with tutorials and design docs: <http://wiki.eclipse.org/Net4j>
    - (in progress)



## APIs

- No “provisional” APIs; all non-API code in “internal” packages
- Deprecated API
  - None
- No ‘discouraged access’ warnings (internal usage)
- 2 x 30 JUnit tests (JVM + TCP)

## Standards, Architectural Details, UI Usability



- Standards
  - None
- Architectural Details
  - Requires a 5.0 JVM or greater
  - Can run standalone (No OSGi)
  - Can run on OSGi and Eclipse
  - Delivers decoupling of transport and application logic
- UI Usability
  - As a pure runtime technology all UIs are only exemplary



## Project Plan – future features

- A draft development plan for Net4j 2.0.0 is not yet available
- Important planned features
  - HTTP transport layer implementation
  - Enhanced Failover Support
  - Asynchronous opening of IO channels



## Schedule

- Net4j is a “+1” component in the simultaneous release
- 1.0 Release Plan according to the Ganymede schedule
- Net4j uses a continuous build approach

# Bugzilla



- As of May 18<sup>th</sup>, 2008:

	NEW/ASSIGNED/REOPENED	RESOLVED/VERIFIED/CLOSED	Total
blocker			0
critical			0
major		1	1
normal		4	4
minor		5	5
trivial			0
enhancement	5	23	28
Total	5	33	38





## Communities

- Active newsgroup
  - `eclipse.technology.emft`
- Conference Participation
  - Short Talk at EclipseCon 2008



## IP Issues

- The Net4j component leadership verifies that
  - The about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - All significant contributions have been reviewed by the Foundation's legal staff.
  - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.



## IP Issues

- The Net4j component leadership verifies that (cont.)
  - All Contribution Questionnaires have been completed.
  - The "provider" field of each plug-in is set to "Eclipse.org".
  - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
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  - IP Log at
    - <http://www.eclipse.org/modeling/emft/project-info/ipquery.php>
    - <http://www.eclipse.org/modeling/emf/project-info/ipquery.php>



## Graduation: Active Community

- Integration with both CDO and ECF
- Active Community currently consists mainly of CDO users
- Complete redesign and rewrite ~ 1 year ago
- Few bugzillas filed due to excellent stability and performance since redesign



## Graduation: Open and Transparent

- Very responsive support on newsgroup, open discussions and reactions on proposals from users
- All bugzillas solved immediately
- Project Materials are all available to the public
- Follow IP-policy (approval for use of jms jar file, for example)

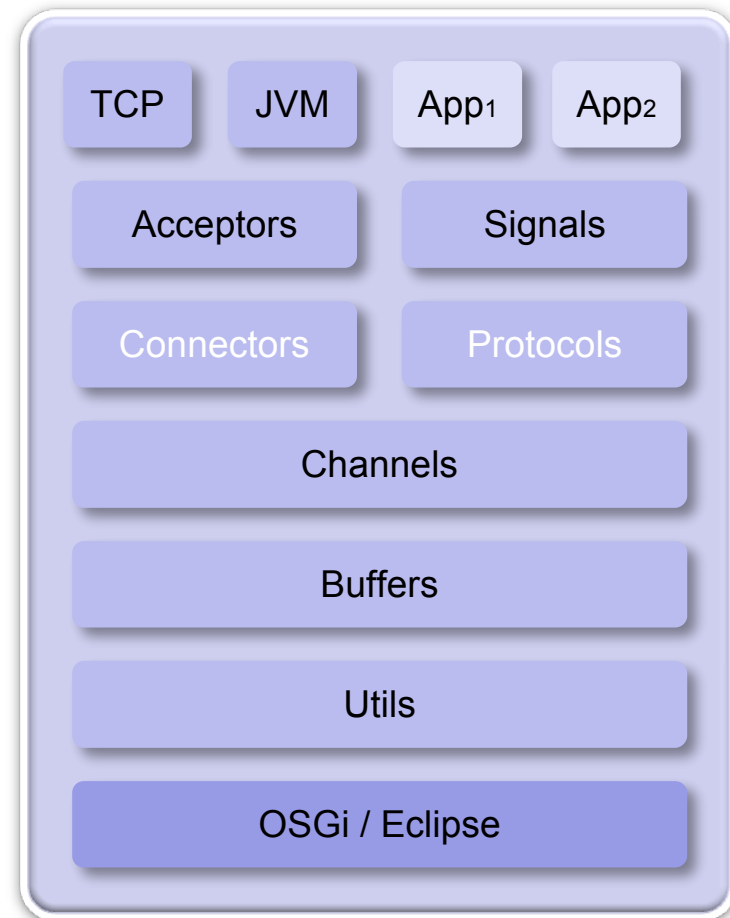


## Graduation Review: The Eclipse Way

- Short talk on EclipseCon 2008 (ESE 2008 planned)
- Integrates with other Eclipse projects: ECF, CDO
- Frequent/Continuous builds (every 1-2 weeks)
- Every build solves all outstanding bugs
- Builds are automatically tested in multiple scenarios, test cases run on different transport technologies (TCP, JVM)

# Graduation Review: Technical Architecture

- Buffer layer based on fast, asynchronous, non-blocking, fixed-size buffer exchange
- Channel layer supports multiplexing of different data streams through a single physical connection
- Protocol layer enables to write application protocols independent of the chosen transport
- Each layer is exchangeable





## Legal Notices

- OSGi is a trademark of the OSGi Alliance
- Java, JVM, JMS and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both
- Other company, product, or service names may be trademarks or service marks of others



# EMF Search

## v0.7.0 Release Review (Ganymede)

4 June 2008

<http://www.eclipse.org/modeling/emft/search>

Lucas Bigeardel (c) 2008. Made available  
under the Eclipse Public License.

# Talking Points

- Introduction
- Features
- Non Code Aspects
- Quality of APIs
- Architecture
- IP Issues
- Tool Usability
- Extensibility

# Talking Points (2)

- Exemplary Tools
- End Of Life
- Bugzilla
- Client Project Integrations
- Standards
- UI Usability
- Schedule
- Communities ...

# Introduction

- Major Milestones
  - Project Created in June 2007
- Community
  - Stable to 2 Committers (Help Welcome)
- Project Size
  - 36 kLOC

# Features

- Ecore Queries Search (Regex & OCL)
- UML2 Queries Search (Regex & OCL)
- Search Result Page : Ecore & UML2 Support
  - Navigation From Result To Diagram/Editor
- UI Diagram/Editor Navigations Integration
  - Open Ecore/UML2 (E)Package Dialog
  - Open Ecore/UML2 (E)Class Dialog
- Workspace + Standalone Scopes Support
- RCP support + EcoreGrep Standalone example

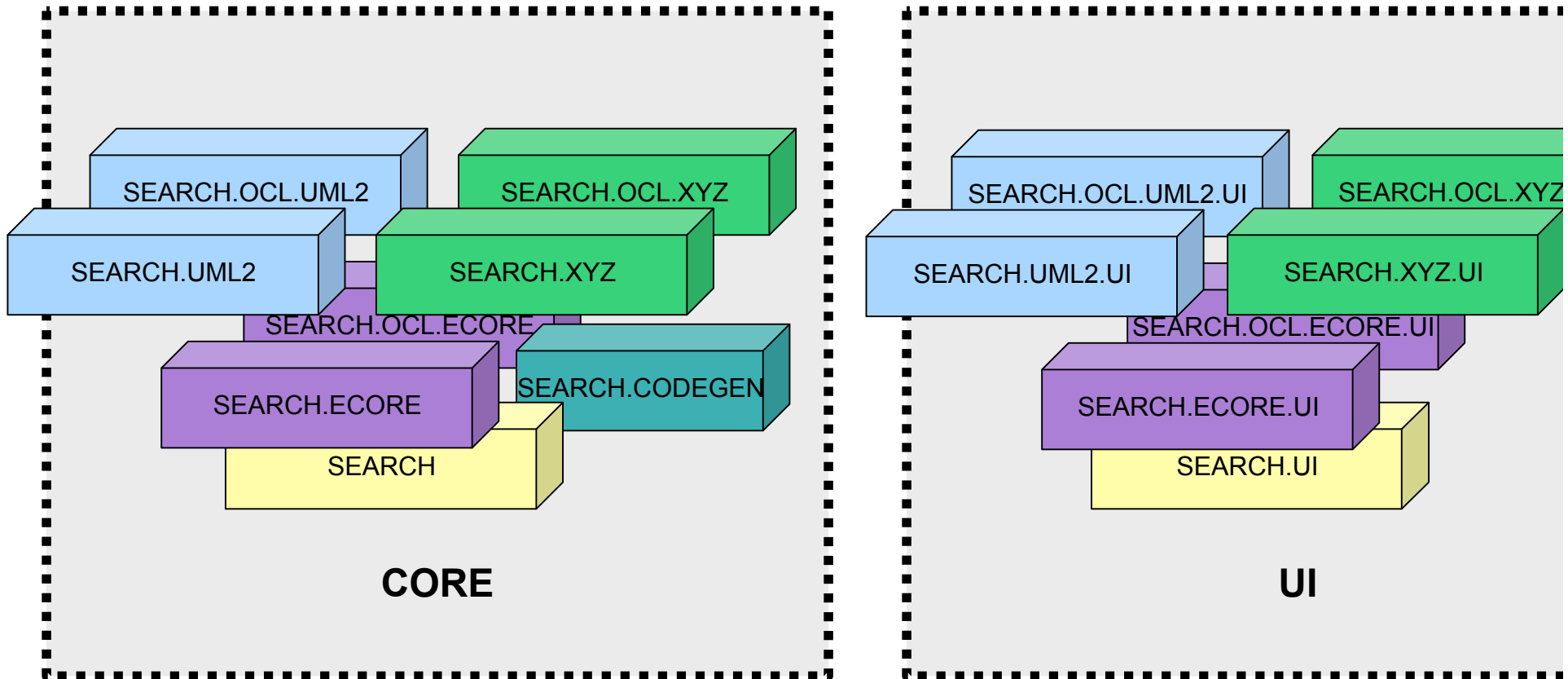
# Non Code Aspects

- Posted Quick Dev Guide On Eclipse Live
  - <http://live.eclipse.org/node/515>
- Submitted a talk to EclipseCon 2008
- EMFT newsgroup

# Quality of APIs

- Strict separation of concerns
  - Core / UI
  - Resource / Ecore / UML2
  - Regex / OCL Queries
- Use of highly Generic Interfaces
  - Use Generics in lower level APIs
- Eclipse Coding Standard
  - Code Is Fully Eclipse Standards Compliant
  - Use Of Extension Points
  - Comments

# Architecture





# EMF <T> Search

- Generic
  - Core Layer Heavily Relies on <T> Generics
  - EMF Resource Scopes <T> Visiting Strategies
- Ecore Based
  - UML2 & Arbitrary Model Support Thanks To Generics
  - Code generation tooling generates Generics code
    - Only EString Eattribute supported for the moment

# IP Issues

- Third Parties Libraries
  - Only Coming From Orbit Project (IPZilla OK)
    - Apache commons CLI, Logging & Lang
- EPL Headers
  - Coherence Checkings
    - Date, Author, EPL body, Filename
- Code
  - No Code Reuse From Non EPL Projects
- IP Log + About + EPL : posted to IP team

# Tool Usability

- Integration with Eclipse Search framework
  - Reuse state of the art APIs
- Usage of resizable areas
- Usage Tabs to selectively access
  - Query Expression
  - Participants Meta Elements
- Filtering
- Dialog Settings
- Job for background optimal result refreshing

# Extensibility

- Core
  - org.eclipse.emf.search.modelSearchEngine
- UI
  - org.eclipse.emf.search.modelSearchParticipantTak
  - org.eclipse.emf.search.modelSearchQueryTab
  - org.eclipse.emf.search.modelSearchEngineMappir
  - org.eclipse.emf.search.openDiagramParticipant
- OCL
  - org.eclipse.emf.search.ocl.targetMetaModel

# Exemplary Tools

- Ecore
  - Search Integration For Ecore Regex & OCL queries
    - Search Page, Search Result Page, Engine, Dialogs
- UML2
  - Search Integration For UML Regex & OCL queries
    - Search Page, Engine, Dialogs
- GenModel
  - Textual queries
- CodeGen
  - Search Integration Codegen For Arbitrary Model

# End Of Life

- No End Of Life issues
  - New project thus no deprecations yet

# Bugzilla

- Current

## Status

	NEW	RESOLVED	VERIFIED	CLOSED	Total
P1	.	.	<u>2</u>	.	<u>2</u>
P2	.	<u>2</u>	<u>6</u>	<u>2</u>	<u>10</u>
P3	<u>1</u>	<u>8</u>	<u>9</u>	<u>5</u>	<u>23</u>
P4	.	<u>1</u>	<u>2</u>	.	<u>3</u>
P5	.	<u>1</u>	.	.	<u>1</u>
Total	<u>1</u>	<u>12</u>	<u>19</u>	<u>7</u>	<u>39</u>

# Client Project Integrations

- DTP Ecore/ODA Driver integration
  - Ecore OCL Widget Integration
- Amalgamation
  - Filed a bugzilla for being integrated



# Standards

- Java 1.5
- OCL 2.0
- Regex
- Ecore
- UML2

# UI Usability

- Localization
  - Integration Babel : map posted
- Graphic resources
  - Eclipse standard based

# Schedule

- Followed Modeling/EMFT Releng schedules
- Signoffs + Must DOs

# Communities

- Exchanged with Ecore Tools
- Exchanged with contributor
  - Mail, talk
- Newsgroup posts

# IP Issues

- IP Log
  - <http://www.eclipse.org/modeling/emft/search/project-info/IP-Log.txt>
- IPZilla (Apache Orbit)
  - CQ1946, CQ1947, CQ1948
- Contribution codegen (Roman Tarasov)
  - CQ2113
- EPL + About files : OK

# IP Issues (2)

- The EMF Search component leadership verifies that
  - The about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - All significant contributions have been reviewed by the Foundation's legal staff.
  - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.

# IP Issues (3)

- The EMF Search component leadership verifies that (cont.)
  - All Contribution Questionnaires have been completed.
  - The "provider" field of each plug-in is set to "Eclipse.org".
  - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
  - Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.

# Project Plan

- Project Plan TBD soon



# Future

- To Improve Http search support
- To Improve Replace Feature For Regex Queries
- To Propose RFE + Contribution For non Workspace Scopes To Platform UI Team
- To Add Mint + Genmodel Tight integration
- Contribution to Ecore Tools
  - UML2 Tools, SBVR : tentative
- Contribution To Amalgamation
  - Filed a bugzilla

# Non Code Aspects

- Orbit Dependencies
  - Apache commons : cli, logging, lang (IPZilla OK)
- L10n Localization
  - Done everywhere it was needed
- Tests
  - Minimal JUnit Tests For Ecore, CodeGen, UML2
- Examples
  - Generation allows to easily bootstrap extensions
  - Runtime created and ok (same planned for UML)
- WIKI : [http://wiki.eclipse.org/EMF\\_Search](http://wiki.eclipse.org/EMF_Search)  
Lucas Rigaudeau (c) 2008. Made available under the Eclipse Public License.

# Schedule

- Plan
  - 0.7.0 official release if review overall +1
  - To Produce Mx Ganymede Simultaneous Stable Builds
- Future
  - To reach Ganymede GA
    - Improve Test & Validation for current features
    - Finalize Usability + Localization (eg. To Polish)
- What's next ?
  - To Integrate with Mint, EcoreTools, UML2Tools, Amalgamation ?

# Process

- Releng
  - Integrated in EMFT Build Infrastructure
  - Numerous New Features created For Contributions
  - Joined Ganymede Train from M3, M4
- Project Feedback
  - Updates on EMF component [page](#)
- Following various newsgroups & lists

# Communities

- EclipseCon 2008
  - Submitted : EMFT Search Introductory Tutorial
- Contributor : Roman Tarasov

# Committer Changes

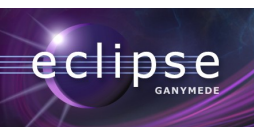
- Got New Employer
  - New Paper Work : Done
    - Individual Committer agreement
    - Committer Employer Consent Form

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# Teneo 1.0.0 Ganymede Simultaneous Release Graduation Review

May 29<sup>th</sup>, 2008





# Ganymede Release Talking Points

## Features of this Release

- Generation of (in-memory) JDO and Hibernate Mappings on the basis of ecore models
- Full coverage of JPA specification
- Extensive automatic JPA annotation generation
- Support for JPA annotations in the Model as Eannotations for manual override of default behavior
- Support for JPA model annotations in separate xml for manual override of default behavior
- Advanced Relational Resource Implementations
- Support for most (if not all) EMF Features
- Support for many XML Schema Constructs

# Ganymede Release Talking Points

## Features of this Release

- Support for Dynamic EMF Models
- Support for persisting Ecore Models
- Support and integration with GMF
- Implementation of Extension Mechanism for easy override of parts of Teneo
- Support for the EJB3 EntityManager

# Teneo

Teneo is a database persistency solution for EMF using JPOX/JDO 2.0 or Hibernate.

It supports automatic creation of EMF to Relational Mappings and the related database schemas.

The solution contains a runtime layer to support specific EMF features. EMF Objects can be stored and retrieved using advanced queries (HQL or JDOQL).

EMF resource implementations are provided for integration with EMF Editors.

The persistence logic and mapping can be controlled using EJB3/JPA-like annotations. Most of the EJB3/JPA mapping standard is supported.

## Non-Code Aspects

- Change Management
  - Every change Teneo is described by at least one bugzilla or update post on the newsgroup
  - The Release Notes presents all the bugzillas implemented in a given build: <http://www.eclipse.org/modeling/emf/news/relnotes.php?project=teneo&version=HEAD>
- Non-code aspects:
  - Documentation is updated with every build
  - Tutorials are available for EMF Library Example, Eclipse editor, GMF integration and dynamic EMF
  - Many mapping examples are included in the documentation

## Non-Code Aspects

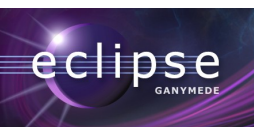
- 150 JUnit Tests
  - Run on 3 different scenarios (496 test cases)
  - Testing on 2 different databases
  - Every published feature has a test case covering it
  - Solved bugzillas have a test case
  - All junit tests are implemented as integration tests with full test data creation and manipulation

# APIs

- The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- The api of Teneo is mainly the generated relational mapping.
- Mapping results have been stable with minor changes over time
- Options have always been provided to provide backwards compatibility
- Java™ api changes have been minimal since one year
- Teneo 1.0.0 supports both EMF 2.3 and EMF 2.4 and both Eclipse 3.3 and Eclipse 3.4

# Architectural Details, Usability, End-of-Life

- Architectural Details
  - Teneo 1.0.0 is based on EMF 2.3/2.4, it requires a 5.0 JVM or greater
- Usability
  - Teneo is very un-intrusive
  - Teneo operates behind the scenes. Except for some initialization code the developer talks to standard EMF or the standard Orm tool.
  - The documentation has continuously been updated, new tutorials have been added in the past few months.
- End-of-Life Issues
  - Support for EMF 2.2 and Eclipse 3.2 is on-an-as-need basis
- Committer Changes
  - New committers: Shaun Smith (Oracle), Stephan Eberle (Geensys)



## Bugzilla

- The past 2 years 266 bugs have been solved
- Currently 10 bugzillas are open, of these 3 bugzilla's are bugs, the others are feature requests
- There are no p1 or p2 bugzillas open



## Standards and UI Usability

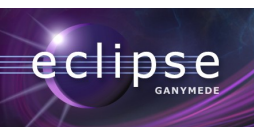
- Standards
  - Support for standard EMF (and the standards supported by EMF)
  - Follows the JDO and the EJB3/JPA standard
- UI Usability
  - Teneo only has a minimal ui, so not relevant

## Schedule

- Teneo uses a continuous build approach
- Every 2-3 weeks a new build which solves all outstanding bugs
- No due dates were missed

# Communities

- Teneo is a very active component on the EMFT/EMF newsgroup
- 1981 posts on the EMFT/EMF newsgroup are related to Teneo of a total of 5392
  - eclipse.technology.emft (until graduation)
  - eclipse.tools.emf (after graduation)
- Teneo is being used by many different EMF users in different environments: web service, web application to rich client application.
- Teneo has been presented on both EclipseCon 2007 and EclipseCon 2008
- Relation to other Eclipse Projects (other than EMF):
  - Teneo is currently being integrated with EclipseLink and CDO
  - Teneo integrates with GMF

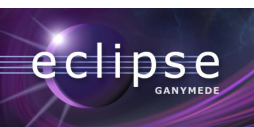


## IP Issues

- The about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - There have been no significant contributions
  - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.

## IP Issues

- The Teneo component leadership verifies that (cont.)
  - All Contribution Questionnaires have been completed.
  - The "provider" field of each plug-in is set to "Eclipse.org".
  - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
  - Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - Any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- The Teneo project IP log is located at  
<http://www.eclipse.org/modeling/emf/teneo/eclipse-project-ip-log.csv>

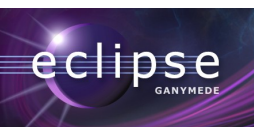


## Project Plan – future features

- Teneo-EclipseLink integration
- Teneo-CDO integration
- Further support for standard and orm-specific JPA annotations
- JPA Annotated Java code generation
- Extend Ecore Tools to support annotating models with JPA annotations

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- Other company, product, or service names may be trademarks or service marks of others



## Graduation: Active Community

- Active Community of diverse and global user base
  - 2000 newsgroup posts in 2 years
- Integration with both CDO and GMF
- Committers from three organisations
- More than 250 bugzillas filed and solved

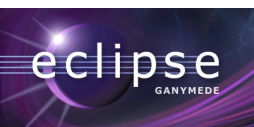


## Graduation: Open and Transparent

- Very responsive support on newsgroup, open discussions and reactions on proposals from users
- More than 250 bugzillas filed and solved
  - Discussions within bugzillas
- Planned features are published in the documentation
- Clear test-all approach, uses standard

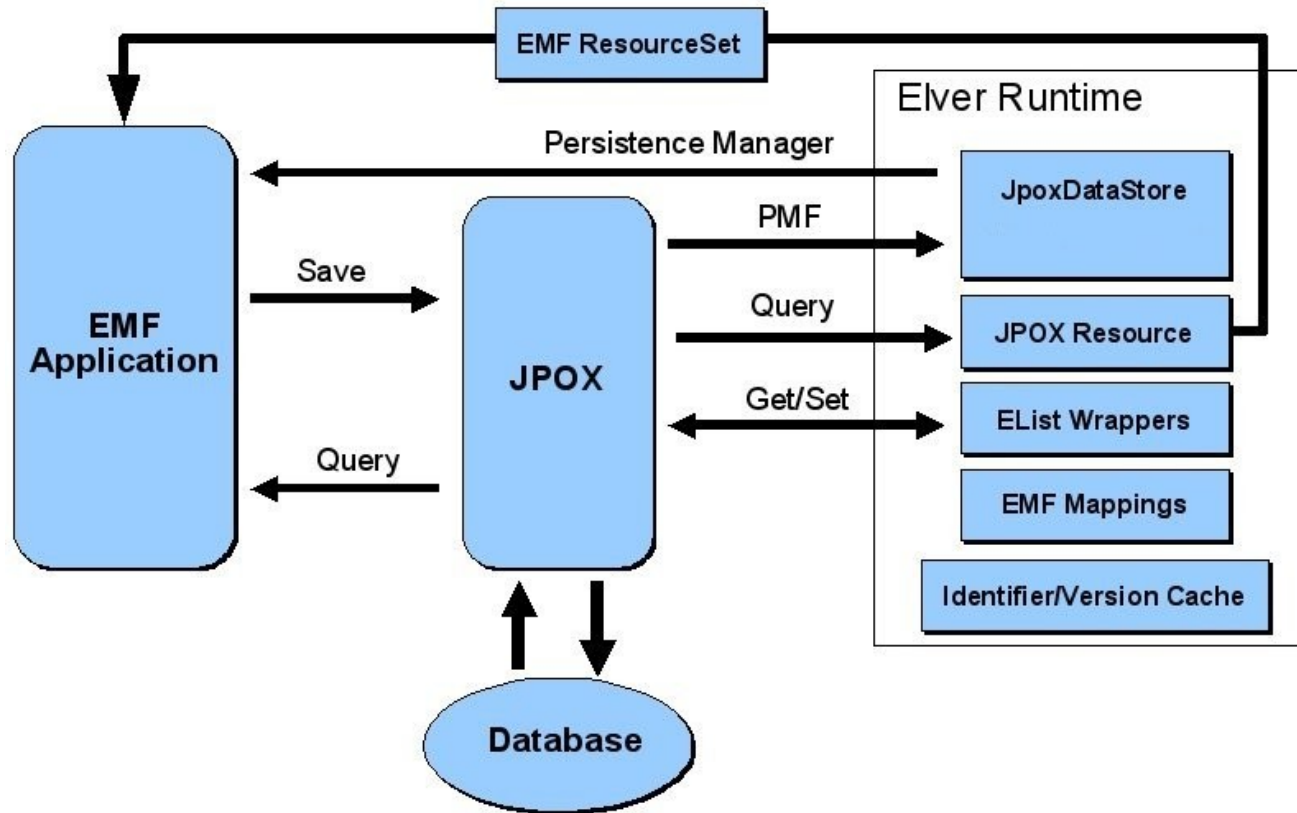
## Graduation Review: The Eclipse Way

- Active Community of diverse and global user base
- Project Materials are all available to the public
- Follow IP-policy (approval for use of jdo jar files, for example)
- Long talks on both EclipseCon 2007 and 2008
- Integrates with other Eclipse projects: EMF, GMF, EMFT CDO (under development), EclipseLink (under development)
- Frequent/Continuous builds (every 2-3 weeks)
- Every build solves all outstanding bugs-bugzillas
- Builds are automatically tested in multiple scenarios, test cases are run on different databases
- Committer Diversity: Independent Consultant, Oracle, Geensys



# Graduation Review: Technical Architecture

- See also earlier slide on Teneo
- Runtime architecture:



# Eclipse Packaging Project

Graduation Review Version 1.0.0

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Date:                         **May 13, 2008**

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Abstract: This document contains the Graduation Review Documentation for the Eclipse Packaging Project (EPP). The 1.0.0 EPP release is scheduled for 2008-06-25 together with the release of Ganymede.

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# 1 Overview

Eclipse is seeing tremendous adoption of its tool and platform offerings. With thousands of downloads every day the Eclipse Platform SDK is the most popular download offering. The SDK includes everything needed for Eclipse plug-in development (Platform, PDE, JDT and Sources). When Eclipse was young, this was almost everything that Eclipse.org had to offer. This situation has changed over the last five years, and Eclipse is offering tools from A (AspectJ) to W (Web Tools Platform) in more than 80 projects.

At the same time, Eclipse is not only serving plug-in developers anymore, but also developers who want to explore Eclipse as a tool for a specific language or domain. Those developers are interested in downloading tools that may differ quite a bit from the Platform SDK download. For instance, developers often don't require the source code or Plug-in Development Environment (PDE), if they are just looking to use Eclipse as a Java IDE. It is possible to extend the Eclipse Platform SDK by using the update manager, but developers generally prefer a single download to get started. This is especially important for developers that are new to Eclipse.

The Eclipse Packaging project aims to provide a set of entry-level downloads for different user profiles. The goal is to improve the usability and out-of-box experience of developers that want to use multiple Eclipse projects.

## 1.1 Scope and goals of the project

- **Create entry level downloads based on defined user profiles.** The project defined and created the EPP downloads of Java Developer, Java EE Developer, C/C++ Developer and RCP Developer. These downloads are available from the main Eclipse download page and help users to start with Eclipse.
- **Provide feedback about the content.** With the integration of the EPP Usage Data Collector it will be possible to collect information about how individuals are using the Eclipse platform. The intent is to use this data to help committers and organizations better understand how developers are using Eclipse.
- **Help projects to integrate with each other.** With the package centric approach it is possible to build products which contain features of many different Eclipse projects. This leads to an early detection of dependency problems, better integration testing, and a project sturcture that is easier to consume.
- **Provide a platform that allows the creation of packages (zip/tar downloads) from an update site.** The core technology of the project enables the creation of download packages that are created by bundling Eclipse features from one or multiple Eclipse update sites.
- **Provide a central build infrastructure for the eclipse.org package builds.** The EPP package builds are running every night and allow early feedback on the content of the release streams (Europa, Ganymede).
- **Provide an installer** that improves the install experience of new users of Eclipse. (*postponed*)

Since June 2007, the project delivered packages for all Europa Releases with more than 8,000,000 downloads.

## 2 Features

EPP in version 1.0.0 includes

- a packaging component that uses the Eclipse Update Manager and the PDE packager
- build scripts that are used in the nightly package builds
- the UDC (Usage Data Collector) that collects data on an Eclipse client, e.g. an EPP package and sends the data back to the Eclipse Foundation servers.

`org.eclipse.packaging.core` core EPP packaging application. The application can be run from the command line and creates the packages defined in the EPP package configuration.

1. Use Eclipse Update Manager to pull features from update sites. Once downloaded into a local repository, the content can be reused in future builds.
2. Use the PDE packager to create packages for different platforms and configurations.
3. Everything driven by a single configuration file that contains additional information to create the website content of the packaging website.

`org.eclipse.usagedata.*` client components of the Eclipse Usage Data Collector. The usage data monitors what is being used and when (timestamp), including

- Loaded bundles
- Commands accessed via keyboard shortcuts
- Actions invoked via menus or toolbars
- Perspective changes
- View usage
- Editor usage

Captured data is associated with a user through a combination of workstation and workspace ids that are automatically generated by the collector. This identification is not tied to any personal information about the user. Where possible, the usage data collector also capture the symbolic name and version of the bundle contributing the command/action/perspective/view/editor.

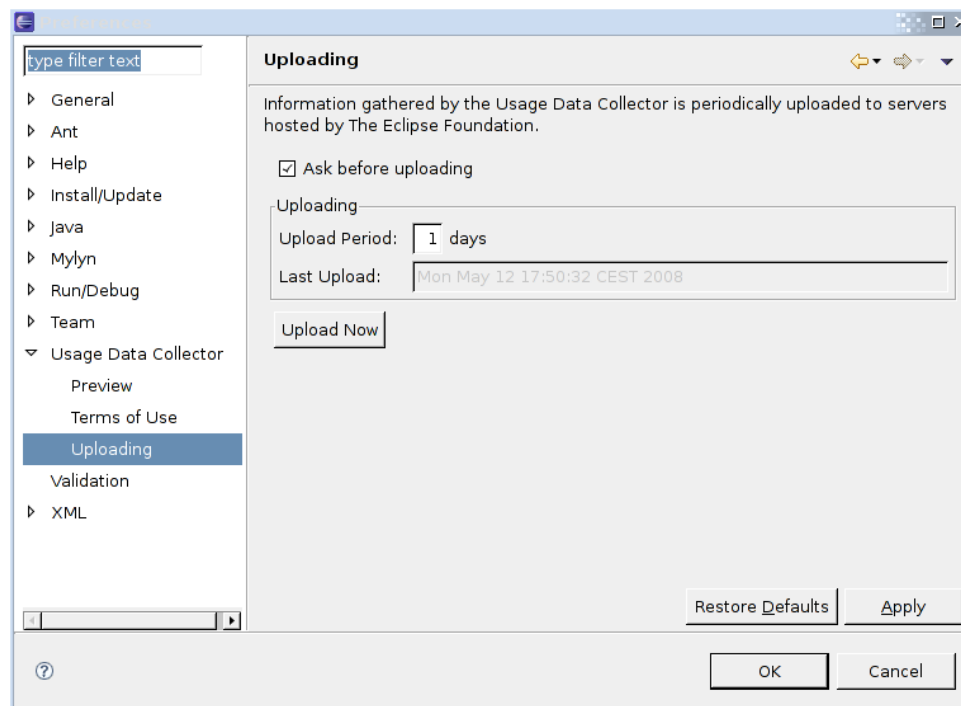


Figure 2.1: EPP Usage Data Collector Upload

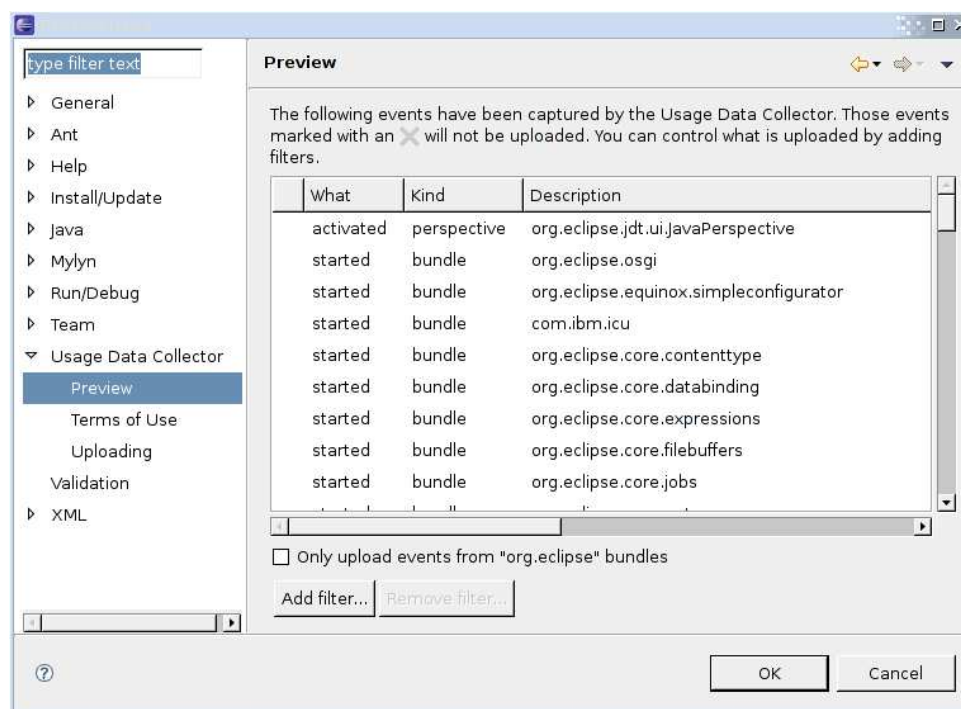


Figure 2.2: EPP Usage Data Collector Preview



## 3 Non-Code Aspects

### 3.1 User Documentation

User documentation has been created for this initial release only in the form of web pages or wiki pages (<http://wiki.eclipse.org/index.php/Category:EPP>):

- How-to build your own package
- How-to specify an EPP configuration file
- How-to start as a Package Mainainer
- Package Testing
- Build Infrastructure

### 3.2 Localization or Externalization

EPP is available for the English language; strings are externalized.  
There are no plans to provide translated versions.

## 4 APIs

### 4.1 EPP Packaging

The EPP packaging application does not define any extension points. It uses an XML configuration file with a format specified by EPP ([http://wiki.eclipse.org/EPP/Configuration\\_File\\_Format](http://wiki.eclipse.org/EPP/Configuration_File_Format)). It contains

- name, perspective, product ID
- a set of update sites
- a set of required features
- the base platform archive
- a platform specific eclipse.ini file

In the future we will add metadata with a package description that can be used on a webpage etc (see [http://wiki.eclipse.org/EPP/Packaging\\_Site](http://wiki.eclipse.org/EPP/Packaging_Site)). This metadata is optional.

### 4.2 EPP UDC

The EPP UDC functionality is split into

`org.eclipse.epp.usagedata.gathering` which defines the `org.eclipse.epp.usagedata.gathering.monitors` extension point; this extension point is used to plug new monitors to Eclipse. Three monitor implementations are included: `PartUsageMonitor`, `BundleUsageMonitor`, `CommandUsageMonitor`. And it defines the `org.eclipse.epp.usagedata.listeners.event` extension point; implementors act as receiver of the events generated by the monitors.

`org.eclipse.epp.usagedata.recording` which defines the `org.eclipse.epp.usagedata.recording.uploader` extension point; this extension point allows the creation of different systems to process the data collection.

`org.eclipse.epp.usagedata.ui` defines the UI elements (i.e. preferences pages) and provides an implementation of the uploader extension point that uploads the UDC data to an Eclipse Foundation server.

## 5 Architectural Issues

### 5.1 EPP Packaging

The EPP configuration file will be modified to reflect changes in its downstream 'consumers' (package build, website, content management system, installers, ...). These changes will contain additional elements and therefore are compatible with the old versions.

### 5.2 EPP Usage Data Collector

The current implementation of the UDC works in an RCP environment. Future planned enhancements include a UDC that will run unmodified in a RAP environment. Currently, there are no known API changes necessary.

## 6 Tool Usability

### 6.1 EPP Packaging

With more than 8,000,000 downloads in the last 10 months, packages generated by EPP have been proven stable.

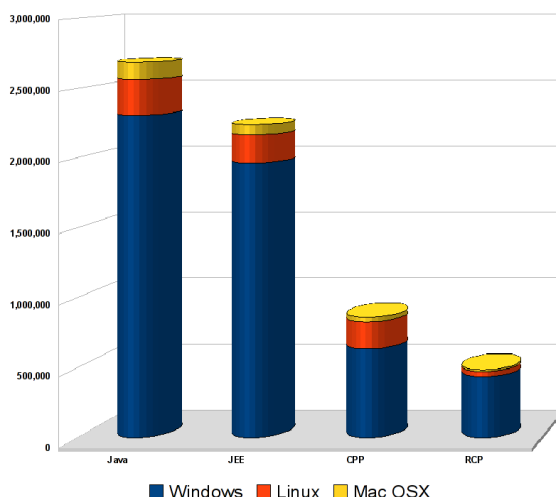


Figure 6.1: EPP Download Statistics (first 9 months)

The EPP packages are available from the main eclipse.org download page and all community packages from a Drupal driven site.

### 6.2 EPP Usage Data Collector

Early adopters of the Ganymede Milestone Packages already sent their UDC data to the Eclipse Foundation. The following data was collected on a 14 days period from 2008-02-29 to 2008-03-14: 2,359,688 usage data events were been generated by 453 users (an average of 5,209 events per user):

Views		Editors	
org.eclipse.jdt.ui.PackageExplorer	26257	org.eclipse.jdt.ui.CompilationUnitEditor	17129
org.eclipse.ui.console.ConsoleView	12766	org.eclipse.wst.xml.ui.internal.tabletree.XMLMultiPageEditorPart	2595
org.eclipse.ui.navigator.ProjectExplorer	7522	org.eclipse.jdt.ui.ClassFileEditor	2175
org.eclipse.search.ui.views.SearchView	4941	org.eclipse.ui.DefaultTextEditor	1387
org.eclipse.debug.ui.DebugView	4882	org.eclipse.cdt.ui.editor.CEditor	1279
org.eclipse.ui.views.ProblemView	3700	org.eclipse.compare.CompareEditor	1176
org.eclipse.ui.views.ContentOutline	3526	org.eclipse.jst.jsp.core.jspsource.source	1164

Figure 6.2: EPP Usage Data Collector Results (Views and Editors)

## 7 End-of-Life

This is an initial release, so there are currently no deprecated or removed APIs or features.

## 8 Bugzilla

As of 2008-05-12 there are 136 bugs in technology/epp. In the end, there will be no blockers left and all open bugs for 1.0.0 will be fixed until the release.

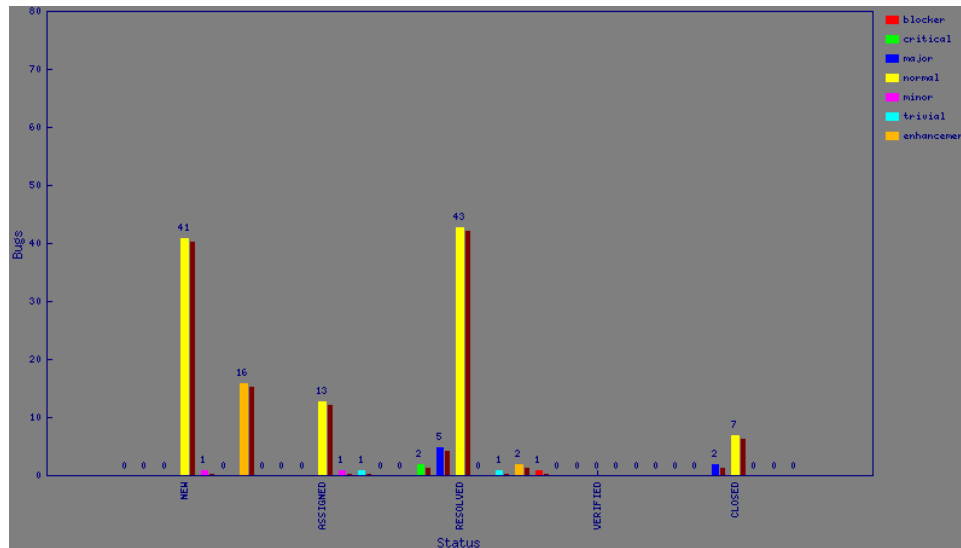


Figure 8.1: EPP Bugzilla Overview

## 9 Standards

- EPP uses Java 1.5, compatible with Eclipse 3.3 and 3.4

## 10 UI Usability

Only the EPP UDC contains UI elements in form of preferences pages.

- Following Eclipse UI usability guidelines
- Usability changes based on users' feedback



## 11 Schedule

The plan of the Eclipse Packaging Project is always in parallel with the release train plans, i.e. the Europa and the Ganymede release trains (<http://www.eclipse.org/epp/plan.php>). In the project proposal, EPP defined this tentative plan for the Europa timeframe:

2007-02 0.5M1	initial definition of entry level download packages for the Eclipse download page
2007-03 0.5M2	Basic implementation of EPP platform
2007-05 0.5M3	Feature complete for Europa release
2007-06 0.5	Beta availability for all Eclipse projects and build these packages for Windows, Linux-GTK, MacOSX-Carbon

Table 11.1: EPP 0.5 / Europa Release Dates

These scheduled dates have been met and the packages were released together with the Europa Release in June 2007, but there has never been a public available release 0.5. Due to a lack of resources, a native installer could not be provided in time and is currently postponed.

Within the Ganymede timeframe, EPP follows the milestone and release candidate dates defined for the Ganymede Release as EPP dates (see [http://wiki.eclipse.org/Ganymede\\_Simultaneous\\_Release#Milestones\\_and\\_Release\\_Candidates](http://wiki.eclipse.org/Ganymede_Simultaneous_Release#Milestones_and_Release_Candidates)) and implements the following features:

- Creation of a package eco system where package maintainers can add new packages.
- Development of the EPP Usaged Data Collector and integration in every package.
- Delivering milestone builds and nightly build based on the Ganymede Update Site in time; set up of an automated build process and integration with the Ganymatic build.
- Re-definition of the initial packages for the Eclipse download page; package builds for Windows, Linux-GTK, Linux-GTK64, and MacOSX-Carbon

2008-02-22	Ganymede M5 (EPP) with UDC
2008-02-22	EclipseCon Memory Sticks (EPP)
2008-02-27	Europa Winter (EPP)
2008-02-29	Europa Winter (Public Access)
2008-03-31	EPP new packages must be announced on bugzilla by package maintainer
2008-04-11	Ganymede M6 API Freeze (EPP)
2008-04-11	EPP new packages and working configuration files available
2008-05-09	Ganymede M7 (EPP)
2008-05-09	EPP package content feature freeze, package build system feature freeze
2008-05-20	EPP release review (UDC)
2008-05-23	Ganymede RC1 (EPP)
2008-05-30	Ganymede RC2 (EPP)
2008-06-06	Ganymede RC3 (EPP)
2008-06-13	Ganymede RC4 (EPP)
2008-06-23	Ganymede Final Release (EPP)

Table 11.2: EPP 1.0 / Ganymede Release Dates 2008

## 12 Communities

- Active committers (5) and contributors from 4 partners (INNOOPRACT, Inc., Eclipse Foundation, Instantiations, Xored)
- Participation (Talks, BoF) at Eclipse events (EclipseCon 2007, Provisioning Workshop 2008, Eclipse-Con 2008)
- Public conference calls
- Developer mailing list with about 200 e-mails, newsgroup with about 150 messages
- The Eclipse Packaging Project has been mentioned in many blog postings, other mailing lists (e.g. cross-project-issues-dev)
- Participation in the Eclipse Planning Council and in the Eclipse Architecture Council

## 13 IP Issues

See IP Log at [http://www.eclipse.org/projects/slides/EPP\\_eclipse-project-ip-log.csv](http://www.eclipse.org/projects/slides/EPP_eclipse-project-ip-log.csv)

- Initial code contribution got IP clearance from Eclipse Legal (CQ1395, CQ1536, CQ1898)
- All CQs of this release got IP clearance from Eclipse Legal (CQ1913, CQ1914, CQ1915)
- External contributions are listed in the IP Log and were submitted via Bugzilla

List of committers:

- Wayne Beaton - committer since 12/2007
- Alexander Kazantsev, initial committer
- Markus Knauer, initial committer
- Dan Rubel, initial committer
- Mark Russell, initial committer
- Elias Volanakis, initial committer

## 14 Project Plan

Version 1.1.0 is scheduled for October 2008 (Ganymede Fall). Among other improvements it will include

- an update of the Usage Data Collector including a RAP-enabled version
- a p2-ification of remaining parts.

A detailed plan is not yet available.



# GMF 2.1.0.qualifier Ganymede Simultaneous Release

June 04, 2008

*Release Review revision – no longer indicated on website*  
[http://www.eclipse.org/projects/dev\\_process/development\\_process.php#6\\_3\\_3\\_Release\\_Review](http://www.eclipse.org/projects/dev_process/development_process.php#6_3_3_Release_Review)



## GMF – Ganymede Release Talking Points

- Noteworthy New Features:
  - Diagram export and printing improvements
  - Diagram label improvements
  - Group/Ungroup functionality added
  - Diagram arrangement, alignment, and snap-to-grid improvements
  - Palette customizability added (along with new look & feel from GEF)
  - Tooling: improved form model for properties, etc. – used in graphical definition editor
  - Improved WYSIWYG figure editor
- Quality of APIs
  - Overall: no “provisional” APIs, all non-API code in “internal” packages
  - Experimental features in separate download
- End of Life Issues:
  - None
- IP Issues:
  - None
- Committer Diversity
  - Committers from Borland and IBM



## Features & Non-Code Aspects

- Features
  - New & Noteworthy maintained on the GMF wiki
    - [http://wiki.eclipse.org/GMF\\_New\\_and\\_Noteworthy](http://wiki.eclipse.org/GMF_New_and_Noteworthy)
  - Plan Items
    - 6 of 25 plan (keyword) items RESOLVED (as of May 14th)
    - 294 issues resolved/closed/verified since 2.0.0 release
- Non-Code Aspects
  - Tutorial, Ecore, and Taipan examples updated for 2.1.0
  - Documentation not much improved during 2.1.0
    - Mindmap tutorial added to docs



# APIs

- No “provisional” APIs
- All non-API code in “internal” packages
- Runtime
  - Version increment from 1.0.0 to 1.1.0
- Tooling
  - Version increment from 2.0.0 to 2.1.0
    - model migration utilities provided
    - experimental features in separate “experimental-sdk” download
- No ‘discouraged access’ warnings (internal usage) in runtime
  - Generated ecore and graphdef editors have a few (bugs open)
- Full javadoc and exsd with guides/tutorials in Help





## Architectural Issues, Usability, End-of-Life

- Architectural Issues
  - Migration to M2T Xpand pending incorporation of GMF Xpand enhancements
- Usability
  - Keyboard binding improvements for moving elements
  - Still plenty of room for usability improvements
- End-of-Life Issues
  - None

# Bugzilla



- As of 05/14/08 (since the end of the 2.0.0 release with Europa):

		Status						
Severity		NEW	ASSIGNED	REOPENED	RESOLVED	VERIFIED	CLOSED	Total
	blocker	<a href="#">2</a>	.	<a href="#">.</a>	<a href="#">2</a>	<a href="#">.</a>	.	<a href="#">4</a>
	critical	<a href="#">4</a>	.	<a href="#">1</a>	<a href="#">4</a>	<a href="#">.</a>	.	<a href="#">9</a>
	major	<a href="#">16</a>	.	<a href="#">1</a>	<a href="#">23</a>	<a href="#">.</a>	<a href="#">1</a>	<a href="#">41</a>
	normal	<a href="#">168</a>	<a href="#">12</a>	<a href="#">2</a>	<a href="#">203</a>	<a href="#">1</a>	<a href="#">3</a>	<a href="#">389</a>
	minor	<a href="#">10</a>	.	<a href="#">.</a>	<a href="#">17</a>	<a href="#">.</a>	.	<a href="#">27</a>
	trivial	<a href="#">5</a>	<a href="#">1</a>	<a href="#">.</a>	<a href="#">1</a>	<a href="#">.</a>	.	<a href="#">7</a>
	enhancement	<a href="#">75</a>	<a href="#">6</a>	<a href="#">2</a>	<a href="#">38</a>	<a href="#">.</a>	<a href="#">1</a>	<a href="#">122</a>
	Total	<a href="#">280</a>	<a href="#">19</a>	<a href="#">6</a>	<a href="#">288</a>	<a href="#">1</a>	<a href="#">5</a>	<a href="#">599</a>



## Standards and UI Usability

- Standards
  - OMG™ Object-Constraint Language (OCL) used/supported
  - Future support may include OMG™ Diagram Interchange and QVT usage
  - GMF mapping model inspired OMG's *Diagram Definition* RFP
- UI Usability
  - Internationalization
    - GMF uses Eclipse i18n support
    - ICU4J is used
  - Localization
    - GMF added to Babel
  - Accessibility
    - Nothing beyond standard Eclipse and GEF features



# Schedule

## ■ 2.1 Release Plan

- ✓ Wednesday October 03, 2007 - Milestone 2 (2.1 M2)
- ✓ Wednesday November 14, 2007 - Milestone 3 (2.1 M3)
- ✓ Monday January 07, 2008 - Milestone 4 (2.1 M4)
- ✓ Monday February 18, 2008 - Milestone 5 (2.1 M5)
- ✓ Monday April 07, 2008 - Milestone 6 (2.1 M6) – API Freeze
- ✓ Tuesday May 06, 2008 - Milestone 7 (2.1 M7)
- Tuesday May 20, 2008 - Release Candidate 1 - (2.1 RC1)
- Tuesday May 27, 2008 - Release Candidate 2 - (2.1 RC2)
- Tuesday June 03, 2008 - Release Candidate 3 - (2.1 RC3)
- Tuesday June 10, 2008 - Release Candidate 4 - (2.1 RC4)
- Wednesday June 25, 2008 - Release - (2.1.0.qualifier)

## ■ 2.0 Maintenance Stream

- ✓ Friday, September 28, 2007 - GMF 2.0.1 maintenance release
- ✓ Friday, February 29, 2008 - GMF 2.0.2 maintenance release



## Communities

- Active newsgroup (eclipse.modeling.gmf)
- Scheduled bi-weekly developer calls
- Conference Participation
  - 2 talks on GMF at EclipseWorld 2007
  - Talks at ESE 2007
  - Long talks and tutorials at EclipseCon 2008
- Modeling Blog
- Participated in webinars organized by Foundation



## IP Issues

- About files and license files are complete and correct
- All significant and third-party contributions have been reviewed by Eclipse Legal
  - Apache Batik 1.6.0 (in Orbit)
  - Apache Xerces 2.8.0 (in Orbit)
  - LPG-V1.1 Java runtime from <http://sourceforge.net/projects/lpg>, EPL v1.0 (required for GMF Xpand variant)
- Pending CQ for use of ant-contrib in build process
- Project log generated and is being reviewed by Eclipse Legal
  - The URL is <http://www.eclipse.org/gmf/development/ipquery.php>
- Contributor contact list maintained by Project Lead and was sent to EMO



# GEF Release Review 3.4

Anthony Hunter  
IBM Rational Software, Ottawa

## GEF - Ganymede Release Review Talking Points



- § Noteworthy new features.
  - § Redesigned UI for the GEF Palette.
    - § No API changes, modernized new palette for free.
  - § New Component Zest.
    - § Zest: The Eclipse Visualization Toolkit moved into GEF.
  - § Componentized GEF
    - § Now possible to download Draw2D as a separate download.
- § No API changes from GEF 3.3.
- § No End of life issues.
- § No IP clearance and license issues.



# Features and Non-Code Aspects



## § Features

- § Redesigned UI for the GEF Palette
  - § No API changes, modernized new palette for free.
- § New Component Zest
  - § Zest: The Eclipse Visualization Toolkit moved into GEF.
- § Componentized GEF
  - § Now possible to download Draw2D as a separate download.

## § Non-Code Aspects

- § Migrated GEF releng and build to the common modeling build tools.
  - § Cool features such as new download pages and release notes.

# APIs



- § No API removal or deprecation in GEF 3.4.
  - § Version increment from 3.3 to 3.4.
- § GEF continues to have:
  - § No “provisional” APIs.
  - § All non-API code in “internal” packages.
  - § No ‘discouraged access’ warnings (internal usage).
  - § Complete JavaDoc.
- § A handful of new methods added in 3.4
  - § As requested during defect fixing.

# Architectural Issues, Usability, End-of-Life



## § Architectural Issues

- § Core architecture is stable; no changes here.

## § Usability

- § Diagram surface completely supports keyboard accessibility.

## § End-of-Life Issues

- § None

# Bugzilla



- § New bugs reported since 3.3 – 140 (2 blocker or critical)
- § Bugs fixed in this release – 68 (2 blocker or critical)
- § Existing P1s and P2s – 0
- § Bugs outstanding – 304
- § Enhancement requests outstanding – 110

# Standards and UI Usability



## § Standards

- § GEF doesn't follow any specific standard per se; N/A
- § Mimic *implicit* standards by other graphical applications

### § Examples

- § Rulers similar to common word processor applications
- § Rich-text rendering behaviour modeled from popular browsers

## § UI Usability

- § Follow OS and Eclipse platform standards, where applicable

# Schedule



§ Followed the Ganymede release schedule as a 1+ component:

§ [http://wiki.eclipse.org/index.php/Ganymede\\_Simultaneous\\_Release](http://wiki.eclipse.org/index.php/Ganymede_Simultaneous_Release)

# Community



- § GEF continues to be highly popular!
- § De facto framework for graphical-editing in Eclipse
- § GEF is often among the Top 10 Downloads at eclipse.org
- § Newsgroup is very active
  - § Significant number of answers coming from non-committers
- § Community contributions
  - § Bugzillas with patches from the community given priority.

# IP Issues



- § No IP Issues.
- § About files and license files are complete and correct.
- § Project log complete and up to date.  
<http://www.eclipse.org/gef/team/gef-log.csv>



# Project Plan



§ GEF 3.5 plan has not been started.

# Thank You



§ Questions



# QVT Operational 1.0 Ganymede Simultaneous Release Graduation Review

June 04, 2008



## QVTO – Ganymede Release Talking Points

- Features:
  - Project builder and nature
  - Launch configuration
  - Source code Editor
  - Meta-model browser view
- Quality of APIs
  - Overall: no “provisional” APIs, all non-API code in “internal” packages
- End of Life Issues:
  - None
- IP Issues:
  - None



## Features

- Project Builder and Nature
- Source Code Editor
  - Syntax highlighting and coloring
  - Hyperlinks – go to definition or navigate to meta-model browser
  - Problem annotations and hovers
  - Structure folding
  - Outline view
  - Completion Templates
- Code completion
  - Rich set of completion proposal
- Meta-model browser view
- QVT interpreter – runtime execution



## Non-Code Aspects

- Testing
  - 552 test cases
- Building and packaging
  - Uses common modeling releng
- Documentation
  - EclipseCon 2008 long talk paper available
  - Though not many docs provided at the moment, OMG specification for QVT and OCL is available
- Examples
  - Uml2RDB available, more examples will be published



# APIs

- No “provisional” APIs
- All non-API code in “internal” packages
- Minimal API exposed – Transformation execution from Java



## Architectural Issues, Usability, End-of-Life

- Architectural Issues
  - Parsing time for very large source files in QVT editor -> to be solved in the next release by incremental parsing.
- Usability
  - QVT transformation development and execution
  - Essential set of QVT language constructs supported
  - Improvements in transformation deployment needed
- End-of-Life Issues
  - None





# Bugzilla

(as of May 20, 2008)

	Status				Total
	NEW	ASSIGNED	REOPENED	RESOLVED	
Severity	blocker	.	.	<u>1</u>	<u>1</u>
	critical	.	.	<u>2</u>	<u>2</u>
	major	.	.	<u>5</u>	<u>5</u>
	normal	<u>18</u>	<u>3</u>	<u>106</u>	<u>128</u>
	trivial	.	.	<u>1</u>	<u>1</u>
	enhancement	.	.	<u>2</u>	<u>2</u>
	Total	<u>18</u>	<u>3</u>	<u>117</u>	<u>139</u>



## Standards and UI Usability

- Standards
  - OMG™ Object-Constraint Language (OCL) - used (MDT OCL)
  - OMG™ Query/View/Transformation (QVT) implemented
- UI Usability
  - No usability issues have been reported
  - Localization
    - All strings are externalized and accessed through localization APIs



## Schedule

### ■ Release Plan

- ✓ Wednesday October 03, 2007 - Milestone 2 (1.0 M2)
- ✓ Wednesday November 14, 2007 - Milestone 3 (1.0 M3)
- ✓ Monday January 07, 2008 - Milestone 4 (1.0 M4)
- ✓ Monday February 18, 2008 - Milestone 5 (1.0 M5)
- ✓ Monday April 07, 2008 - Milestone 6 (1.0 M6) – API Freeze
- ✓ Tuesday May 06, 2008 - Milestone 7 (1.0 M7)
- ✓ Tuesday May 20, 2008 - Release Candidate 1 - (1.0 RC1)
  - Tuesday May 27, 2008 - Release Candidate 2 - (1.0 RC2)
  - Tuesday June 03, 2008 - Release Candidate 3 - (1.0 RC3)
  - Tuesday June 10, 2008 - Release Candidate 4 - (1.0 RC4)
  - Wednesday June 25, 2008 - Release - (1.0)



## Communities

- Evolving newsgroup (eclipse.modeling.m2m) - [QVTO] prefix
  - actively supported
- Conference Participation
  - Long talk at EclipseCon 2008
  - Tutorial at EclipseCon 2008



## IP Issues

- About files and license files are complete and correct
- No third-party contributions submitted
- IP log created at
  - <http://www.eclipse.org/modeling/m2m/qvtoml/eclipse-project-ip-log.csv>



## Project Plan – next release

- Complete QVT language support (OMG spec, ptc/07-07-07)
- Incremental parser
- Core debugging support
- Provide transformation deployment concept
- Support 'XMI Exportable' interoperability level
- Improve documentation – examples, tutorials



## Graduation: Codebase and Community

- Codebase
  - Active code base, 3 committers working on features
  - Iterative development driven by the Eclipse milestone schedule
- Community
  - Evolving community of diverse and global users in the newsgroup
    - well monitored, responsive support
  - Developers
    - 4 committers, including 3 active committers
  - Known adopters
    - Borland

## Graduation: Open and Transparent



- Bugzilla used for bug and feature tracking
  - bugs (total count:141, resolved : 119)
- Use [m2m-dev@eclipse.org](mailto:m2m-dev@eclipse.org) mailing list for developer discussions
- Use eclipse.modeling.m2m newsgroup for user discussions
- Regular/Continuous builds
  - JUnit test cases executed with every build process
  - Manual Smoke Test on weekly basis
- Project resources are all available to the public



## Graduation: The Eclipse Way



- Able to demonstrate record of following correct Eclipse IP processes
  - CQ: #1355 (QVT initial contribution)
  - CQ: #1560 (LPG parser generator 3d party library)
- Long talk and tutorial at EclipseCon 2008
- Integrating with other Eclipse projects: MDT OCL, EMF
- Integrated by GMF project - use of QVT in <mapping->genmodel> transformation (under development)
- The developers understand and adhere to the Eclipse Development Process, committer responsibilities and due diligence rules, as well as the Eclipse IP Policy.
- IP Log:
  - <http://www.eclipse.org/modeling/m2m/qvtoml/eclipse-project-ip-log.csv>



## Graduation: Technical Architecture

- Eclipse component dependencies: *MDT OCL*, *EMF*
- Extends MDT OCL parser and evaluator
- Supports Ecore based user defined meta-models
- Defines QVT concrete and abstract syntax Ecore based meta-models, extends existing MDT OCL AST, CST meta-models.
- Implements QVT model based parser and analyzer
- QVT Interpreter – evaluates AST models constructed from QVT concrete syntax
- QVT Editor – editing textual concrete syntax, utilizing both AST, CST models for advanced editor features

# M2T-JET 0.9.0

## Ganymede Release Review

Paul Elder, IBM Rational

## Features

- Improved performance
  - ♦ Write files only if contents has changed
  - ♦ Numerous hot spots removed
- Miscellaneous improvements
  - ♦ Implement more XPath axes (all but namespace::)
  - ♦ Tags to support indenting of generated content
  - ♦ Sort function of sorting content
  - ♦ Improved New wizard
- Deferred:
  - ♦ Modularize to permit JET in RCP, base OSGi or just a JRE.

## Non-Code

- Internationalization/Localization
  - ♦ All strings externalized and mock tested
- Documentation/Tutorials
  - ♦ EclipseCon tutorial on JET
  - ♦ Doc cleanup and enhancements
- Examples
  - ♦ Several examples developed and committed to CVS as a result of EclipseCon 2008

## APIs

- No significant new APIs in this release
- Existing API review:
  - ♦ Tag library contribution
  - ♦ XPath function contribution
  - ♦ Model loading extensions
  - ♦ XPath modeling inspection extensions
- APIs are certified 'Eclipse Quality'
- Note:
  - ♦ Achieving a JET runtime that is more independent of Eclipse will require significant new APIs (tag libraries, invocation) that parallel existing APIs. This APIs will be introduced in the next release. See Architectural Issues.

## Architectural Issues

- Greater Independence from Eclipse
  - ♦ JET runtime plug-in is currently monolithic and requires the Eclipse workspace, JDT & EMF
  - ♦ Use in a RCP, OSGi or a JRE (as well as integration with PDE build) will require a more modular runtime.
- Integration with PDE build
  - ♦ PDE build, what hosted in Eclipse is independent of the Eclipse workspace APIs and hence of builders.
  - ♦ JETs current ANT-based tasks (and underlying APIs) assume the presence of a workspace – they do not work well with PDE build, except in circumstances where plug-ins being built are located in the workspace.

## Tools Usability

- New Project wizard has been enhanced
  - ◆ More direct specification of JET transformation options
  - ◆ Simplify process of extending existing JET transformations
- JET Editor
  - ◆ No significant improvements this release – current committer has been inactive. Recruiting contributions for this is a key issue for the next release.



## End-of-life

- No end-of-life features/APIs this release

## Bugzilla

- Resolved this release:
  - ♦ 44
- Outstanding defects (as of May 26, 2008)

		Component		
Priority		Jet	Jet Editor	Total
	P3	<u>20</u>	<u>6</u>	<u>26</u>
	Total	<u>20</u>	<u>6</u>	<u>26</u>

## Standards

- JET implements XPath 1.0, with the following exceptions
  - ◆ Namespace axis is not implemented
  - ◆ Functions not implemented: lang(), id()

## UI Usability

- Eclipse User Interface Guidelines
  - ♦ Followed, but no formal review conducted.
- Accessibility
  - ♦ All actions accessible for keyboard
  - ♦ All interfaces reviewed using screen reader technologies
- Localization
  - ♦ All strings are externalized and accessed through localization APIs.

## Schedule

- Development adhered to Ganymede schedule
  - ♦ All milestone deliveries were met

## Communities

- Newsgroup:
  - ♦ ~500 messages in past 12 months
- Wiki
  - ♦ ~20 FAQ articles
- EclipseCon
  - ♦ Tutorial ~50 attendees, positive reviews

## IP Issues

- IP Log up-to-date and reviewed by EMO
  - ♦ <http://www.eclipse.org/modeling/m2t/jet/eclipse-project-ip-log.csv>
  - ♦ No significant 3<sup>rd</sup> party contributions this release
- About and license files reviewed
- No known IP issues

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# Model Development Tools (MDT) Ganymede Simultaneous Release

June 4<sup>th</sup>, 2008

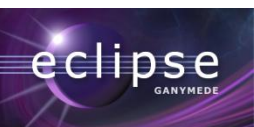


# Model Development Tools (MDT)

- Model Development Tools (MDT) is an Eclipse [Modeling](http://www.eclipse.org/modeling/) sub-project at <http://www.eclipse.org/modeling/mdt/>
- Inspired by the Eclipse community's need for more end user "tooling" from the Modeling project
- Purpose of MDT is to provide extensible frameworks and exemplary tools for the metamodels within the scope of the Modeling project
- MDT consists of components: [BPMN2](#), [EODM](#), [IMM](#), [OCL](#), [OCL Tools](#), [SBVR](#), [UML2](#), [UML2 Tools](#), and [XSD](#)
- Project lead is [Kenn Hussey](#) (Embarcadero Technologies)
- Committers currently from [IBM](#), [Borland](#), [Embarcadero Technologies](#), [Adaptive](#), [XML™ Modeling](#), and [Soyatec](#)

# MDT Ganymede Release Talking Points

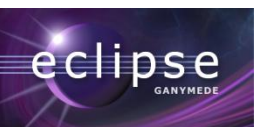
- MDT Ganymede Themes
  - End-to-End MDSD
  - Improved Usability
  - Upgrade Path
  - Technology Trends
  - Ease of Use
- The project lead certifies that the requirements for [Eclipse Quality](#) APIs have been met for this release
- All significant contributions, non-committer code contributions, and third-party libraries have received IP clearance
- End-of-life issues
  - EODM component to undergo a continuation review due to inactivity
  - `http://www.eclipse.org/uml2/1.1.0/GenModel` namespace URI now obsolete, superseded by `http://www.eclipse.org/uml2/2.2.0/GenModel`
- 17 (15) committers from 8 (2) organizations in 5 (3) countries





# Outline

- Features
- Non-Code Aspects
- APIs
- Architectural Issues
- Tool Usability
- End-of-Life
- Bugzilla
- Standards
- UI Usability
- Schedule
- Communities
- IP Issues
- Project Plan





# Features

- Ganymede development plan at [http://www.eclipse.org/modeling/mdt/docs/plans/mdt\\_project\\_plan\\_1\\_1.html](http://www.eclipse.org/modeling/mdt/docs/plans/mdt_project_plan_1_1.html)
- 11 (24) committed, 9 (7) deferred plan items
- New & Noteworthy documentation at [http://wiki.eclipse.org/index.php/MDT\\_1.1\\_New\\_and\\_Noteworthy](http://wiki.eclipse.org/index.php/MDT_1.1_New_and_Noteworthy)
- Release notes available at <http://www.eclipse.org/modeling/mdt/news/relnotes.php>



## Features – OCL™ 1.2

- 3 (7) committed, 0 (2) deferred plan items
- *End-to-End MDSD*
  - [Grammar Extensibility](#). Refactored the grammar definition and API for extensibility, esp. for QVT. Contribution from the community.
  - [Problem Reporting](#). Enhanced problem reporting for construction of OCL and QVT editors. Contribution from the community.
  - EValidators for OCL. Implementation of EValidators for extensible validation of OCL abstract syntax models.
- *Improved Usability*
  - Ecore Reflection. Provide access to the implicit Ecore APIs for reflection. Contribution from the community.
  - [Unnamed association ends](#). Implement navigation of unnamed association ends (advanced OCL specification compliance point).

## Features – UML2 2.2

- 4 (7) committed, 2 (3) deferred plan items
- *End-to-End MDSD*
  - [Profile Support for Ecore Annotations](#). Users now have the ability to specify the EAnnotations they would like to see in the final Ecore.
  - [Support for \(de\)serialization to/from CMOF](#). A resource implementation has been provided that supports loading/saving UML® models in CMOF format. Support has been integrated into the sample UML editor and importer framework (to allow creating of EMF projects from CMOF models).
- *Technology Trends*
  - [UML 2.1.2 Compliance](#). Support has been provided for interchange (XML®) compliance with UML 2.1.2.
- *Upgrade Path*
  - [Eclipse 3.4 / EMF 2.4 Compatibility](#). Maintained release currency with EMF 2.4 (and Eclipse 3.4). Changes have been made to align with EMF features and bug fixes.

## Features – UML2 Tools 0.8

- 3 (4) committed, 6 (1) deferred plan items
- *End-to-End MDSD*
  - [Composite Structure Diagrams](#). Provided a GMF-based editor for UML composite structure diagrams.
  - [Deployment Diagrams](#). Provided a GMF-based editor for UML deployment diagrams.
  - [Use Case Diagrams](#). Provided a GMF-based editor for UML use case diagrams.



## Features – XSD 2.4

- 1 (1) committed, 1 (1) deferred plan items
- *Ease of Use*
  - [Improved Diagnostics](#). Provide better diagnostics for unresolved directives.



## Non-Code Aspects

- All components hosted at single [Web site](#), [Wiki](#)
- [Documentation](#) (FAQ, Javadoc, articles, etc.) available for OCL, UML2, UML2 Tools, XSD; updates complete or underway
- Example features/plugin-ins available for all components
- Packaging of XSD SDK changed for M5 to contain only source and documentation
- XSD will have a separate (from EMF) site contribution file for the next release

# APIs

- The project lead certifies that the requirements for [Eclipse Quality](#) APIs have been met for this release
- Non-API in “internal” namespace
- Some ‘discouraged access’ warnings in cases of metamodel extension (plug-in compatibility restricted to minor version)
- Previously internal API for the OCL concrete syntax (grammar and parser) refactored for extensibility and published for consumption by QVT and other consumers
- Some metadata™ constants deprecated in UML2
- GMF Runtime represents bulk of API for UML2 Tools
- Deprecated methods in XSD marked with @Deprecated annotation

## Architectural Issues

- OCL grammar/parser refactorings contributed in support of language extensibility
- Extensible validation in OCL is provided by new EValidators for the abstract syntax model (validation visitor was not extensible)
- Outstanding issues in reusability/extensibility of the OCL Standard Library implementation for clients such as QVT
- Introduction of a new extension point in UML2 to register profiles; this makes discovery and maintenance of profiles simpler
- Introduction of content types for UML, CMOF resources; this will help associate the appropriate default editors with their respective resources



## Tool Usability

- Implementation of an additional OCL specification compliance point (navigation of unnamed association ends) improves usability of OCL for UML models, especially in working with profiles
- UML2 supports a new [camel case](#) option when importing UML models to Ecore (also exposed via an example action in the UML editor)
- Use of font and color item provider support from EMF to indicate abstract classes in the UML editor
- Saving as XMI or CMOF from the UML editor has been enhanced to save all related files at once
- Three new diagram types supported by UML2 Tools
- XSD users can now install the examples through wizards located under the “Example” category
- Categories of the XSD wizards revised to simplify the user’s out-of-box experience



## End-of-Life

- EODM will undergo a continuation due to inactivity
- Metadata constants related to `Property` specializing `TemplateableElement` have been deprecated in UML2
- <http://www.eclipse.org/uml2/1.1.0/GenModel> namespace URI now obsolete, superseded by <http://www.eclipse.org/uml2/2.2.0/GenModel>

# Bugzilla (as of May 19, 2008)

	Status					
	NEW	ASSIGNED	RESOLVED	VERIFIED	CLOSED	Total
blocker	.	.	3	13	1	17
critical	1	.	1	26	1	29
major	5	.	6	110	5	126
normal	99	14	78	757	11	959
minor	5	.	2	26	1	34
trivial	2	.	.	8	.	10
enhancement	41	4	9	148	3	205
Total	153	18	99	1088	22	1380

# Bugzilla – OCL (as of May 19, 2008)

Severity	Status				
	NEW	RESOLVED	VERIFIED	CLOSED	Total
blocker	.	.	<u>4</u>	.	<u>4</u>
critical	.	<u>1</u>	<u>13</u>	.	<u>14</u>
major	.	<u>4</u>	<u>49</u>	<u>1</u>	<u>54</u>
normal	<u>7</u>	<u>7</u>	<u>110</u>	<u>1</u>	<u>125</u>
minor	<u>1</u>	<u>1</u>	<u>9</u>	.	<u>11</u>
trivial	<u>1</u>	.	<u>2</u>	.	<u>3</u>
enhancement	<u>9</u>	<u>2</u>	<u>24</u>	.	<u>35</u>
Total	<u>18</u>	<u>15</u>	<u>211</u>	<u>2</u>	<u>246</u>



# Bugzilla – UML2 (as of May 19, 2008)

Severity	Status					
	NEW	ASSIGNED	RESOLVED	VERIFIED	CLOSED	Total
blocker	.	.	.	<u>2</u>	<u>1</u>	<u>3</u>
critical	.	.	.	<u>6</u>	<u>1</u>	<u>7</u>
major	<u>3</u>	.	.	<u>41</u>	<u>3</u>	<u>47</u>
normal	<u>9</u>	.	<u>11</u>	<u>241</u>	<u>5</u>	<u>266</u>
minor	<u>2</u>	.	.	<u>8</u>	<u>1</u>	<u>11</u>
trivial	<u>1</u>	.	.	<u>3</u>	.	<u>4</u>
enhancement	<u>14</u>	<u>4</u>	<u>3</u>	<u>80</u>	<u>3</u>	<u>104</u>
Total	<u>29</u>	<u>4</u>	<u>14</u>	<u>381</u>	<u>14</u>	<u>442</u>

# Bugzilla – UML2 Tools (as of May 19, 2008)

Severity	Status					
	NEW	ASSIGNED	RESOLVED	VERIFIED	CLOSED	Total
blocker	.	.	<u>1</u>	<u>3</u>	.	<u>4</u>
critical	<u>1</u>	.	.	<u>3</u>	.	<u>4</u>
major	.	.	<u>1</u>	<u>4</u>	<u>1</u>	<u>6</u>
normal	<u>76</u>	<u>10</u>	<u>41</u>	<u>215</u>	<u>1</u>	<u>343</u>
minor	<u>2</u>	.	<u>1</u>	<u>1</u>	.	<u>4</u>
enhancement	<u>6</u>	.	<u>3</u>	<u>13</u>	.	<u>22</u>
Total	<u>85</u>	<u>10</u>	<u>47</u>	<u>239</u>	<u>2</u>	<u>383</u>

# Bugzilla – XSD (as of May 19, 2008)

	Status					
	NEW	ASSIGNED	RESOLVED	VERIFIED	CLOSED	Total
blocker	.	.	<u>1</u>	<u>2</u>	.	<u>3</u>
critical	.	.	.	<u>4</u>	.	<u>4</u>
major	.	.	<u>1</u>	<u>11</u>	.	<u>12</u>
normal	<u>1</u>	<u>1</u>	<u>19</u>	<u>141</u>	<u>4</u>	<u>166</u>
minor	.	.	.	<u>7</u>	.	<u>7</u>
trivial	.	.	.	<u>3</u>	.	<u>3</u>
enhancement	<u>4</u>	.	<u>1</u>	<u>29</u>	.	<u>34</u>
Total	<u>5</u>	<u>1</u>	<u>22</u>	<u>197</u>	<u>4</u>	<u>229</u>



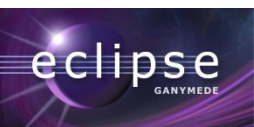
## Standards

- Object Constraint Language (OCL) 2.1 revision underway; MDT OCL 1.2 compliant (with extensions) with [2.0 formal version](#)
- Unified Modeling Language™ (UML) 2.2 revision underway; MDT UML2 2.2 compliant with [2.1.2 formal version](#); next release (UML2 3.0) will be compliant with UML 2.2
- XSD compliant with [XML Schema 1.0](#) W3C standard; plan item to investigate 1.1 support was deferred



## UI Usability

- MDT components conform to Eclipse User Interface Guidelines
- Eclipse platform standard i18n support used where applicable/possible; stand-alone deployment uses equivalent J2SE APIs
- ICU4J is used but optional; stand-alone deployments delegate to corresponding J2SE 5.0 APIs when ICU not available
- As with all Ganymede projects, availability of language packs is pending readiness of Babel, the Eclipse Globalization Project
- Eclipse platform APIs used to provide accessible UI





## Schedule

- As a whole, MDT is a “+3” project (OCL – “+1”, UML2 – “+1”, UML2 Tools – “+3”, XSD – “+1”)
- M2 met on October 3
- M3 met on November 16
- M4 met on January 8
- M5 met on February 20
- M6 slipped from April 9 to April 10
- M7 slipped from May 7 to May 12



# Communities

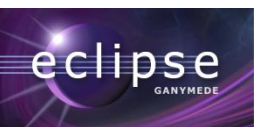
- Increased interaction in [Bugzilla](#) and on [newsgroups](#)
- MDT represented at EclipseWorld 2007, EclipseCon 2008 (short/long talks, tutorials, BoFs) and Eclipse/OMG™ symposium
- MDT is among the most active projects at Eclipse (fourth “most popular” in terms of downloads)
- 3 committers from one organization (IBM) removed; 5 committers from four organizations (Adaptive, Hamburg University of Technology, Soyatec, XML Modeling) added
- 4 new components (BPMN2, OCL Tools, IMM, SBVR) and 2 proposals ([Papyrus](#), SysML) since Europa release
- Collaboration with Eclipse projects ([DTP](#), [M2M](#), [GMT](#), [STP](#)) and elsewhere
- Efforts to build user communities for EODM, UML2 Tools still an issue



# IP Issues

The MDT project leadership verifies that:

- the about files and use licenses are in place as per the [Guidelines to Legal Documentation](#).
- all contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
- all significant contributions have been reviewed by the Foundation's legal staff.
- all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.
- all Contribution Questionnaires have been completed.
- the "provider" field of each plug-in is set to "Eclipse.org".
- the "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is *rarely* the copyright owner).
- any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
- any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- The MDT project IP log is located at <http://www.eclipse.org/modeling/mdt/eclipse-project-ip-log.csv>
- Committers Christian W. Damus and Kenn Hussey changed employment (from IBM to Zeligsoft, Inc. and Embarcadero Technologies, respectively)







## Project Plan

- A draft development plan for next release of MDT is not yet available

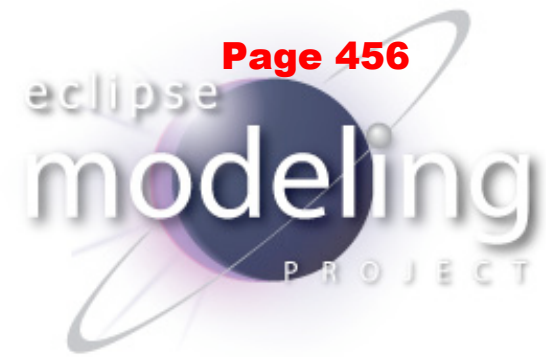


## Legal Notices

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- **UML** and **XMI** are registered trademarks of the Object Management Group
- **Metadata** and **XML** are trademarks of the World Wide Web Consortium; marks of [W3C](#) are registered and held by its host institutions [MIT](#), [ERCIM](#), and [Keio](#)
- Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both
- Other company, product, or service names may be trademarks or service marks of others

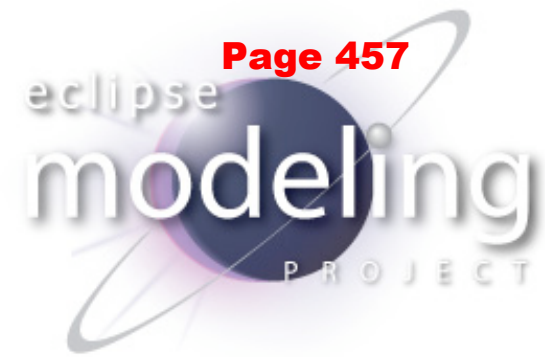
# Object Constraint Language (MDT OCL) 1.2.0 Ganymede Simultaneous Release Review

4 June, 2008



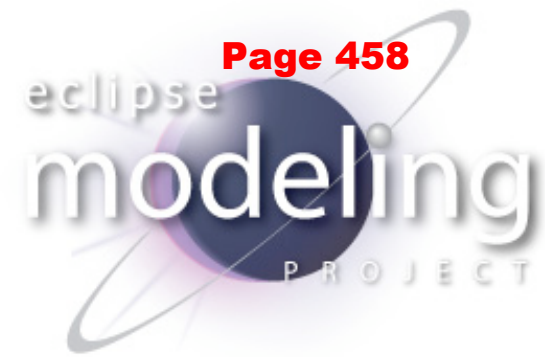
# Agenda

- **Talking Points**
- Features
- Non-Code Aspects
- APIs
- Architectural Issues
- Tool Usability
- End-of-Life
- Bugzilla
- Standards
- UI Usability
- Schedule
- Communities
- IP Issues
- Project Plan



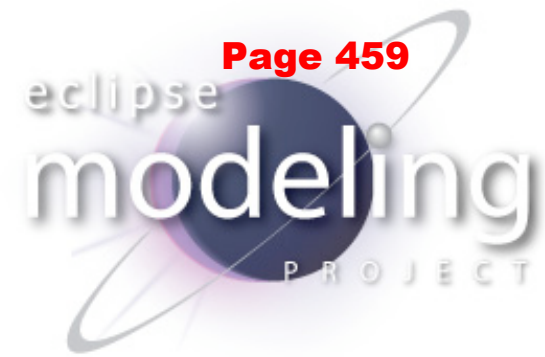
## Talking Points

- OCL 1.2.0 Themes (from MDT)
  - End-to-End MDSD
  - Improved Usability
- The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- End-of-life issues
  - No significant deprecations, deletions, or other end-of-life changes.
- All significant contributions, non-Committer code contributions, and third-party libraries have received IP clearance
- 1 committer from two companies (IBM, Zeligsoft) in one country (Canada)
- 4 contributors from four organizations (Thales, OpenCanarias, IBM, student)



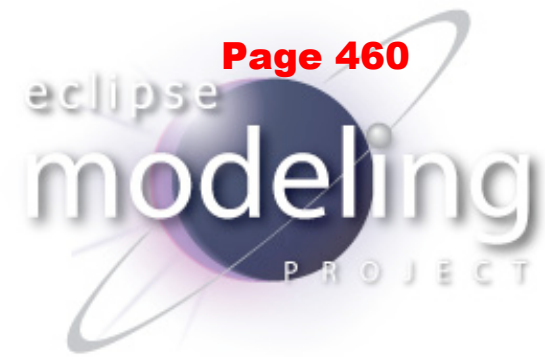
# Features

- 1.2.0 development plan available at [http://www.eclipse.org/modeling/mdt/docs/plans/mdt\\_project\\_plan\\_1\\_1.html#\\_OCL\\_component](http://www.eclipse.org/modeling/mdt/docs/plans/mdt_project_plan_1_1.html#_OCL_component)
- 5 committed, 0 deferred
- New & Noteworthy documentation at [http://wiki.eclipse.org/MDT\\_1.1\\_New\\_and\\_Noteworthy#Object\\_Constraint\\_Language\\_.28OCL.29\\_Component](http://wiki.eclipse.org/MDT_1.1_New_and_Noteworthy#Object_Constraint_Language_.28OCL.29_Component)
- Release notes available at <http://www.eclipse.org/modeling/mdt/news/relnotes.php?project=ocl&version=1.2.x>



## Features – Details

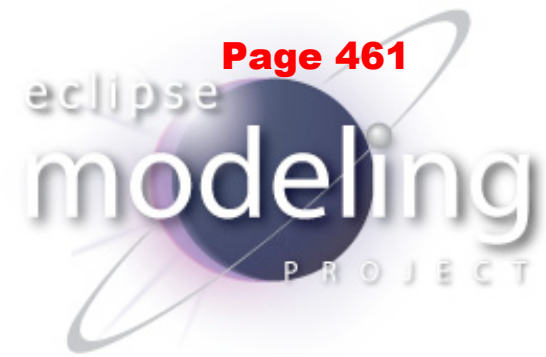
- End-to-End MDSD
  - **Grammar Extensibility.** Refactored the grammar definition and API for extensibility, esp. for QVT. Contribution from the community.
  - **Problem Reporting.** Enhanced problem reporting for construction of OCL™ and QVT editors. Contribution from the community.
  - **EValidators for OCL.** Implementation of EValidators for extensible validation of OCL abstract syntax models.
- Improved Usability
  - **Ecore Reflection.** Provide access to the implicit Ecore APIs for reflection. Contribution from the community.
  - **Unnamed association ends.** Implement navigation of unnamed association ends (advanced OCL specification compliance point).



## Non-Code Aspects

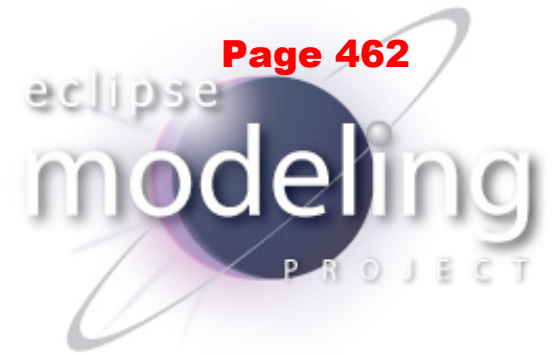
- Documentation hosted at MDT [Web site](#), [Wiki](#)
- [Documentation](#) (FAQ, Javadoc™, articles, etc.) available; updated for the 1.2.0 release as appropriate
- Example feature/plugin available; minor enhancements





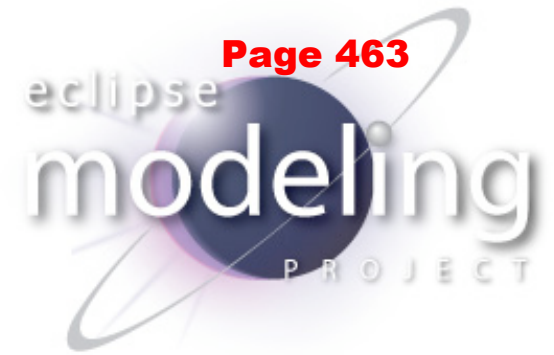
## APIs

- The component lead certifies that the requirements for [Eclipse Quality](#) APIs have been met for this release
- Non-API in “internal” namespace
- Some ‘discouraged access’ warnings in cases of metamodel extension (plug-in compatibility restricted to minor version)
  - Ecore and UML<sup>®</sup> bindings extend corresponding metamodel implementations
- Previously internal API for the OCL concrete syntax (grammar and parser) refactored for extensibility and published for consumption by QVT and other consumers.
  - Dependency on SourceForge LPG 3rd-party library exposed to clients
- Deprecated APIs from 1.0 release continue to be fully supported



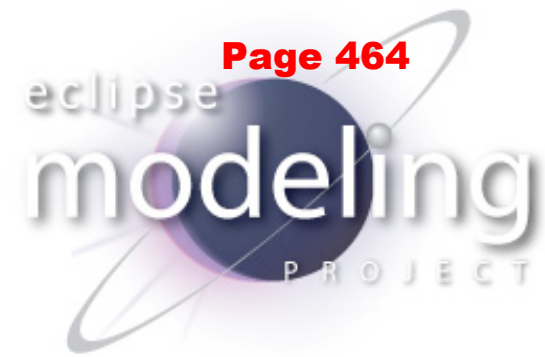
## Architectural Issues

- Grammar/parser refactorings contributed in support of language extensibility
- Extensible validation is provided by new EValidators for the abstract syntax model (validation visitor was not extensible)
- Outstanding issues in reusability/extensibility of the OCL Standard Library implementation for clients such as QVT



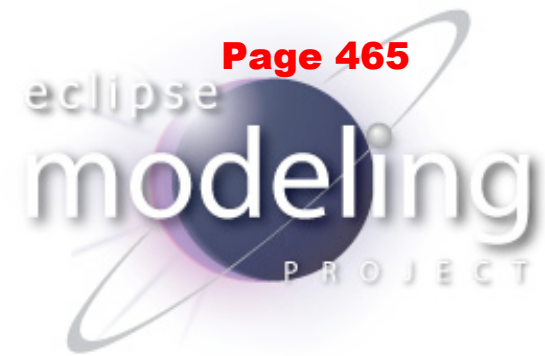
## Tool Usability

- Implementation of an additional OCL specification compliance point (navigation of unnamed association ends) improves usability of OCL for UML models, especially in working with profiles



## End-of-Life

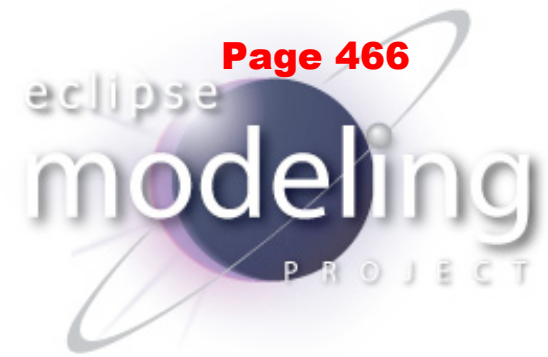
- No end-of-life concerns



## Bugzilla (as of May 12, 2007)

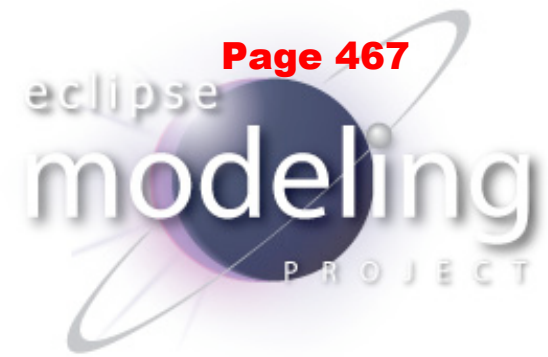
- Bugs raised during and/or resolved in the Ganymede release

		Status				
Severity		NEW	RESOLVED	VERIFIED	CLOSED	Total
	blocker	.	.	<u>1</u>	.	<u>1</u>
	critical	.	.	<u>3</u>	.	<u>3</u>
	major	.	<u>3</u>	<u>7</u>	.	<u>10</u>
	normal	<u>3</u>	<u>7</u>	<u>35</u>	<u>1</u>	<u>46</u>
	minor	.	<u>1</u>	<u>4</u>	.	<u>5</u>
	trivial	<u>1</u>	.	.	.	<u>1</u>
	enhancement	<u>9</u>	<u>1</u>	<u>10</u>	.	<u>20</u>
	Total	<u>13</u>	<u>12</u>	<u>60</u>	<u>1</u>	<u>86</u>



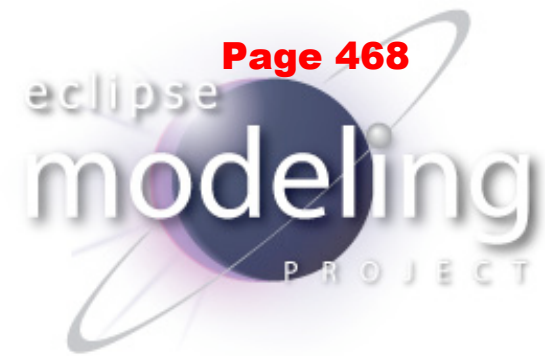
## Standards

- Object Constraint Language (OCL) 2.1 revision underway; MDT OCL 1.2.0 compliant (with extensions) with [2.0 formal version](#)



## UI Usability

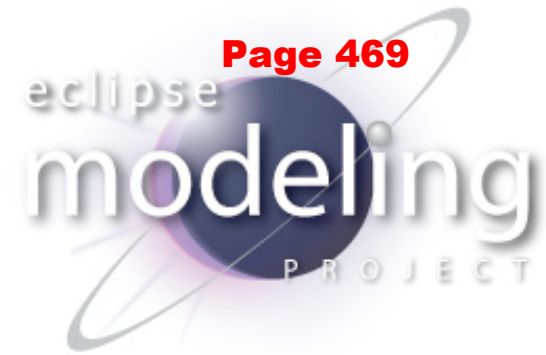
- No significant changes over previous release.



## Schedule

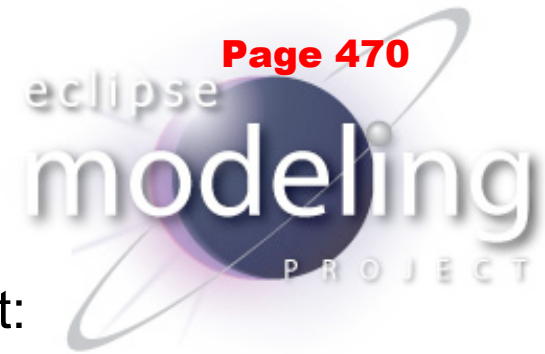
- MDT OCL is a “+1” component in the simultaneous release (changed from +2 for the M4 milestone)
- M3 met on 14 November
- M4 met on 17 December
- M5 slipped from 11 February to 12 February
- M6 slipped from 31 March to 2 April
- M7 slipped from 5 May to 6 May





## Communities

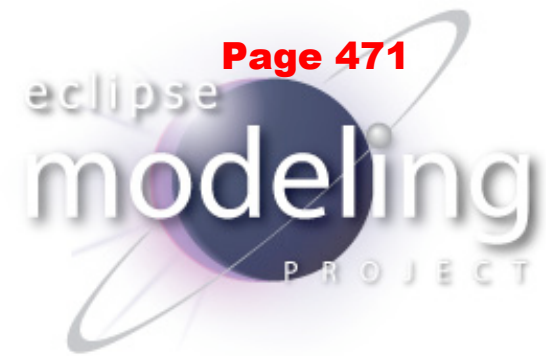
- Steady interaction in [Bugzilla](#) and on [newsgroup](#)
- MDT OCL represented at EclipseCon 2008 (long talk, BoF) and Eclipse/OMG Symposium
- Collaboration with QVT projects at Eclipse (M2M QTVo, GMT UMLX) and elsewhere (OpenCanarias)



## IP Issues

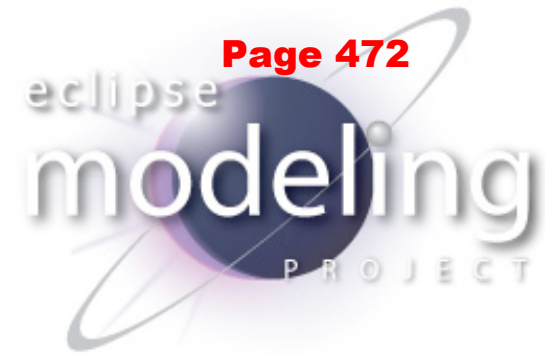
The MDT OCL component leadership verifies that:

- the about files and use licenses are in place as per the [Guidelines to Legal Documentation](#).
- all contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
- all significant contributions have been reviewed by the Foundation's legal staff.
- all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.
- all Contribution Questionnaires have been completed.
- the "provider" field of each plug-in is set to "Eclipse.org".
- the "copyright" field of each feature is set to the copyright owner.
- any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
- any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- The MDT project IP log is located at <http://www.eclipse.org/modeling/mdt/eclipse-project-ip-log.csv>
- Committer Christian W. Damus changed employment (IBM to Zeligsoft, Inc.)



## Project Plan

- Draft development plan for MDT OCL 1.3.0 is not yet available



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- Other company, product, or service names may be trademarks or service marks of others



# Unified Modeling Language (MDT UML2) 2.2 Ganymede Simultaneous Release Review

4 June, 2008

*Release Review revision – no longer indicated*

[http://www.eclipse.org/projects/dev\\_process/development\\_process.php#6\\_3\\_3  
\\_Release\\_Review](http://www.eclipse.org/projects/dev_process/development_process.php#6_3_3_Release_Review)



## Agenda

- **Talking Points**
- Features
- Non-Code Aspects
- APIs
- Architectural Issues
- Tool Usability
- End-of-Life
- Bugzilla
- Standards
- UI Usability
- Schedule
- Communities
- IP Issues
- Project Plan



## Talking Points

- UML2 2.2 Themes
  - End-to-End MDSD
  - Upgrade Path
  - Ease of Use
  - Technology Trends
- The project lead certifies that the requirements for *Eclipse Quality* APIs have been met for this release
- All significant contributions, non-Committer code contributions, and third-party libraries have received IP clearance
- 2 committers from two companies (Embarcadero Technologies, IBM ) in one country (Canada)



## Features - Details

- 2.2 development plan available at [http://www.eclipse.org/modeling/mdt/docs/plans/mdt\\_project\\_plan\\_1\\_1.html#\\_UML2\\_component](http://www.eclipse.org/modeling/mdt/docs/plans/mdt_project_plan_1_1.html#_UML2_component)
- New & Noteworthy documentation at [http://wiki.eclipse.org/MDT\\_1.1\\_New\\_and\\_Noteworthy#Unified\\_Modeling\\_Language\\_2.x\\_.28UML2.29\\_Component](http://wiki.eclipse.org/MDT_1.1_New_and_Noteworthy#Unified_Modeling_Language_2.x_.28UML2.29_Component)
- Release notes available at <http://www.eclipse.org/modeling/mdt/news/relnotes.php?project=uml2&version=2.2.x>





## Features – UML2 2.2

- 4 committed, 2 deferred
- End-to-End MDSD
  - Profile Support for Ecore Annotations. Users now have the ability to specify the EAnnotations they would like to see in the final Ecore.
  - Support for (de)serialization to/from CMOF. A resource implementation has been provided that supports loading/saving UML® models in CMOF format. Support has been integrated into the sample UML editor and importer framework (to allow creating of EMF projects from CMOF models)
- Technology Trends
  - UML 2.1.2 Compliance. Support has been provided for interchange (XMI®) compliance with UML 2.1.2.



## Features – UML2 2.2

- Upgrade Path
  - Eclipse 3.4 / EMF 2.4 Compatibility. Maintain release currency concurrent with EMF 2.4 (and Eclipse 3.4). Changes have been made to align with EMF features and bug fixes .
- Make Simpler to Use
  - Enhanced Documentation. New documentation has been added including a tutorial, articles and improved javadoc.



## Non-Code Aspects

- All components hosted at single [Web site](#), [Wiki](#)
- [Documentation](#) (FAQ, Javadoc, articles, etc.) available; updates complete or underway
- Example features/plugin-ins available



## APIs

- The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- Non-API in “internal” namespace
- Some ‘discouraged access’ warnings in cases of metamodel extension (plug-in compatibility restricted to minor version)



## Architectural Issues

- Introduction of a new extension point used to register profiles. This allows discovery and maintenance of profiles simpler.
- Introduction of content types for UML, CMOF resources. This will help associate the appropriate default editors with their respective resources.



## Tool Usability

- UML editor supports the camel case option when importing UML models (and is also exposed in the example action on the UML editor).
- Use of font and color item provider support from EMF to indicate abstract classes in the editor.
- Saving as XMI or CMOF has been enhanced to save all related files at once.



## End-of-Life

- Deprecations:
  - Property should not specialize TemplateableElement (although still does until the next revision of the UML superstructure specification). The template binding and owned template signature features for Property (and subclasses), have been deprecated.



## Bugzilla – UML2 (as of May 15, 2008)

Severity	Status					
	NEW	ASSIGNED	RESOLVED	VERIFIED	CLOSED	Total
blocker	.	.	.	.	1	1
critical	.	.	.	.	1	1
major	.	.	.	3	3	6
normal	3	.	11	18	5	37
minor	1	.	.	.	1	2
enhancement	5	6	2	19	3	35
Total	9	6	13	40	14	82





## Standards

- Unified Modeling Language (UML) 2.2 specification revision underway; UML2 2.2 compliant with [2.1.2 formal version](#); next release (UML2 3.0) will be compliant with UML 2.2.



## UI Usability

- UML2 2.2 conforms to Eclipse User Interface Guidelines
- Eclipse platform standard i18n support used where applicable/possible; stand-alone deployment uses equivalent J2SE APIs
- ICU4J is used but optional; stand-alone deployments delegate to corresponding J2SE 5.0 APIs when ICU not available
- As with all Europa projects, language packs will be created as part of an Eclipse Translation Project
- Eclipse platform APIs used to provide accessible UI



## Schedule

- MDT UML2 is a “+1” component in the simultaneous release.
- M3 met on November 14
- M4 met on Dec 17
- M5 met on February 11
- M6 slipped from March 31 to April 2
- M7 slipped from May 5 to May 6



## Communities

- Steady interaction in [bugzilla](#) and on [newsgroups](#)
- UML2 represented at EclipseCon 2008 (Long talk on the new features of UML2, a Tutorial on creating DSL's using UML and a presentation at the Eclipse/OMG Symposium)



## IP Issues

The MDT UML2 component leadership verifies that:

- the about files and use licenses are in place as per the [Guidelines to Legal Documentation](#).
  - all contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - all significant contributions have been reviewed by the Foundation's legal staff.
  - all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.
  - all Contribution Questionnaires have been completed.
  - the "provider" field of each plug-in is set to "Eclipse.org".
  - the "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is *rarely* the copyright owner).
  - any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- The MDT project IP log is located at <http://www.eclipse.org/modeling/mdt/eclipse-project-ip-log.csv>



## Project Plan

- Draft development plan for MDT UML2 3.0 is not yet available



## Legal Notices

- UML and XMI are registered trademarks of the Object Management Group
- OMG is a trademark of the Object Management Group.
- Other company, product, or service names may be trademarks or service marks of others



# MDT UML2Tools 0.8

## Ganymede Simultaneous Release Review

June 4, 2008





## Agenda

- Talking Points
- Features
- None-Code Aspects
- APIs
- Architectural Issues
- End-of-life
- Bugzilla
- Standards
- UI Usability
- Schedule
- Communities
- IP Issues



## Talking Points

- UML2Tools 0.8 Themes
  - ◆ End-to-End MDSD
  - ◆ Improved Usability
- The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- End-of-life issues
  - ◆ No significant deprecations, deletions, or other end-of-life changes.
- 3 committers from one company (Borland) in two countries (Czech Republic, Russia)
- No contributors



## Features

- O.8 development plan available at [MDT Project plan page](#)
  - ♦ [New & Noteworthy documentation](#) (in progress)
  - ♦ [Release notes available](#)
- 4 committed, 4 deferred
- End-to-End MDSD
  - ♦ **Composite Structure Diagrams.** Provided a GMF-based editor for UML composite structure diagrams.
  - ♦ **Deployment Diagrams.** Provide a GMF-based editor for UML deployment diagrams.
  - ♦ **Use Case Diagrams.** Provide a GMF-based editor for UML use case diagrams.
  - ♦ **Object Diagrams.** GMF-based Object diagram editor is integrated to Class diagram editor and Composite Structure diagram editor.
- Improved Usability
  - ♦ **Operation Parameters.** Allow editing of the operation parameters in the dialog based mode.
  - ♦ **Property Sheets.** Allow to use TreeEditor in PropertySheets for references



## Non-Code Aspects

- Documentation hosted at [MDT Web site](#), [Wiki](#)
  - ♦ [FAQ](#) and [EclipseCon slides](#) available
- [Newsgroup](#)
- Diagram examples available



## APIs

- The component lead certifies that the requirements for [Eclipse Quality APIs](#) have been met for this release
- Several 'discouraged access' warnings
  - ♦ Bugzilla #233036 'API: Get rid of 'discouraged access' warnings'



## Architectural Issues

- The examples and tests features were renamed to org.eclipse.uml2tools. \*-feature ([bugzilla #170680](#))
- UML2Tools is a GMF-generated plug-in
- Very little custom code, most of the UML-specific features are generated by using complimentary xPand templates.



## End-of-Life

- No end-of-life concerns



## Bugzilla (as of May 21, 2008)

	Status					
	NEW	ASSIGNED	RESOLVED	VERIFIED	CLOSED	Total
blocker	.	.	<u>1</u>	<u>3</u>	.	<u>4</u>
critical	<u>1</u>	.	.	<u>3</u>	.	<u>4</u>
major	.	.	<u>1</u>	<u>2</u>	<u>1</u>	<u>4</u>
normal	<u>51</u>	<u>9</u>	<u>44</u>	<u>107</u>	<u>1</u>	<u>212</u>
minor	<u>2</u>	.	<u>1</u>	.	.	<u>3</u>
enhancement	<u>3</u>	.	<u>3</u>	<u>12</u>	.	<u>18</u>
Total	<u>57</u>	<u>9</u>	<u>50</u>	<u>127</u>	<u>2</u>	<u>245</u>





## Standards

- UML2Tools component uses MDT UML2 metamodel, which implements Unified Modeling Language (UML) 2.1.2 revision
- UML2Tools diagram editors are generated by using GMF 2.1, they are re-generated with every GMF milestone
- Java 1.5



## UI Usability

- Label parsers were added to elements in accordance with UML 2.1 specification
- Simple label parsers provide code-completion mechanism
- Diagram file extensions were shortened
- TreeViewer dialogs in property sheets
- Extended preferences pages
- Internationalization
  - ♦ UML2Tools uses Eclipse i18n support



## Schedule

- Follows the Ganymede release train with +3 milestone offset
- M5 met on 18 February
- M6 slipped from 9 April to 10 April
- M7 slipped from 7 May to 12 May



## Communities

- Steady interaction in Bugzilla and on newsgroup
- MDT UML2Tools represented at EclipseCon 2008(short talk, BoF)



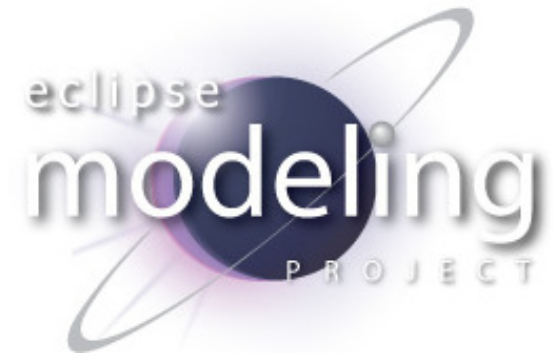
## IP Issues

- The MDT UML2Tools component leadership verifies that:
  - ♦ the about files and use licenses are in place as per the [Guidelines to Legal Documentation](#).
  - ♦ all contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - ♦ all significant contributions have been reviewed by the Foundation's legal staff.
  - ♦ all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.
  - ♦ all Contribution Questionnaires have been completed.
  - ♦ the "provider" field of each plug-in is set to "Eclipse.org".
  - ♦ the "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is *rarely* the copyright owner).
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  - ♦ any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.
- The MDT Project IP log is located at <http://www.eclipse.org/modeling/mdt/eclipse-project-ip-log.csv>



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# XSD 2.4.0 Ganymede Simultaneous Release

June 4<sup>th</sup>, 2008





# Ganymede Release Talking Points

- Noteworthy New Features
  - Several performance and usability improvements, including
    - Reduction of the number of objects created when parsing a XSD file
    - Performance improvements when validating big elements
    - Reduction of the memory footprint due to the use of the packaged Enum feature introduced in EMF 2.4 (see bugzilla 226815 for details)
  - This information can also be seeing at  
[http://wiki.eclipse.org/MDT\\_1.1\\_New\\_and\\_Noteworthy#XML\\_Schema\\_Definition\\_.28XSD.29\\_Component](http://wiki.eclipse.org/MDT_1.1_New_and_Noteworthy/XML_Schema_Definition_.28XSD.29_Component)







# Ganymede Release Talking Points

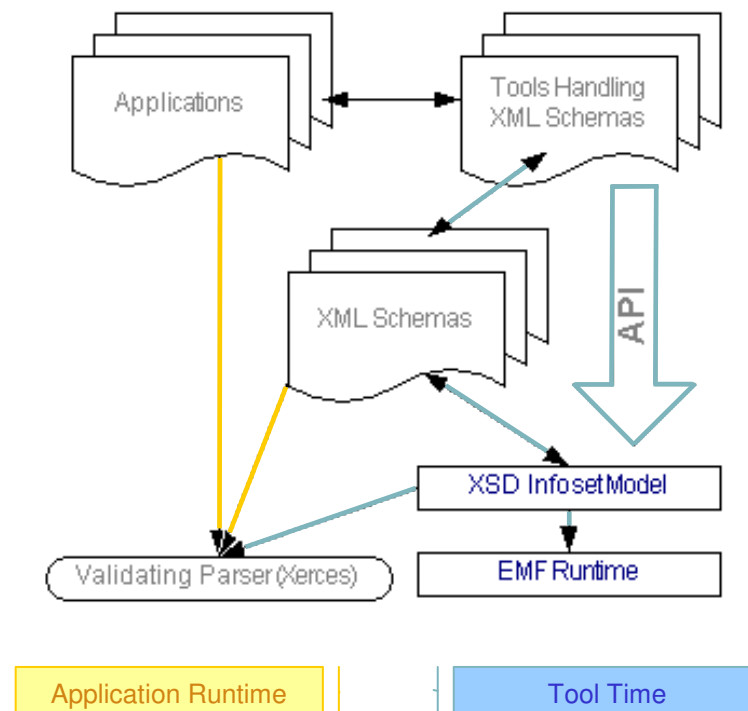
- Quality of APIs
  - The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- End of Life Issues:
  - No significant deprecations, deletions, or other end-of-life changes
- IP Issues:
  - All significant contributions, non-Committer code contributions, and third-party libraries have received IP clearance
- Committer Changes
  - None





## XML™ Schema Definition Model (XSD)

- XSD is a reference library that provides an API for use with any code that examines, creates or modifies W3C XML Schema (standalone or as part of other artifacts, such as XForms or WSDL documents)
- XSD provides APIs for...
  - manipulating components of an XML Schema
  - manipulating the DOM-accessible representation of XML Schema as a series of XML documents
  - keeping these representations in agreement as schemas are modified





## Non-Code Aspects

- Change Management
  - Every change in XSD is described by at least one bugzilla
  - The XSD Release Notes presents all the bugzillas implemented in a given build:  
<http://www.eclipse.org/modeling/emf/news/relnotes.php?project=xsd&version=HEAD>
- Plan Items
  - Release plan document:  
[http://www.eclipse.org/modeling/mdt/docs/plans/mdt\\_project\\_plan\\_1\\_1.html#\\_XSD\\_component](http://www.eclipse.org/modeling/mdt/docs/plans/mdt_project_plan_1_1.html#_XSD_component)
  - There is no planned items as “XML Schema 1.1. Investigate support for XML Schema 1.1” was deferred for a future release
  - 61 bugzillas addressed in the 2.4.0 release as of May 13th, 2008



## Non-Code Aspects

- 75 JUnit Tests
  - Combined with a few tests from EMF
- Packaging
  - The XSD zips were changed in the M5 milestone, which happened on February 11, 2008. Since then, to both save bandwidth and make it easier to add source & docs to an existing installed runtime, the SDK zips include only source and doc.
- Documentation
  - The documentation is available at <http://wiki.eclipse.org/index.php/MDT-XSD>



## APIs

- The component lead certifies that the requirements for Eclipse Quality APIs have been met for this release
- Historically, clients of XSD have treated every class in XSD as API. Therefore, we are left with no choice but to try our best to treat every class as API
  - There are a few classes that we consider non-API code, which are properly identified by the word “internal”
  - It is widely known that users are not expected to extend the EMF code generated for the XSD model



## APIs

- Deprecated API
  - All the deprecated methods were properly marked with the `@Deprecated` annotation
    - If appropriate, the alternative API is also indicated
  - Continues to be fully supported



## Architectural Details, Usability, End-of-Life

- Architectural Details
  - As the 2.3 version, XSD 2.4 requires a 5.0 JVM or greater
- Usability
  - Users can now install the examples through wizards located under the “Example” category
  - The names of the XSD bundles and features were modified to better match other Eclipse features and to increase their homogeneity
  - We’ve revised the categories of the XSD wizards to simplify the user’s out-of-box experience
- End-of-Life Issues
  - Continuing viability of deprecated API guaranteed



## Bugzilla

- As of May 14<sup>th</sup>, 2008 (since the end of the 2.3.0 release with Europa):

Severity	Status				
	NEW	RESOLVED	VERIFIED	CLOSED	Total
blocker	.	<u>1</u>	<u>2</u>	.	<u>3</u>
critical	.	.	<u>4</u>	.	<u>4</u>
major	.	<u>1</u>	<u>11</u>	.	<u>12</u>
normal	<u>1</u>	<u>19</u>	<u>141</u>	<u>4</u>	<u>165</u>
minor	.	.	<u>7</u>	.	<u>7</u>
trivial	.	.	<u>3</u>	.	<u>3</u>
enhancement	<u>4</u>	<u>1</u>	<u>29</u>	.	<u>34</u>
Total	<u>5</u>	<u>22</u>	<u>197</u>	<u>4</u>	<u>228</u>

Note: the high number of “verified” bugzillas is partially due to a change in our development process (see bugzilla 206558 for further details)





## Standards and UI Usability

- Standards
  - W3C XML Schema 1.0 used/supported
    - The plan item to investigate 1.1 support was deferred
- UI Usability
  - Internationalization
    - XSD uses Eclipse Platform standard i18n support
    - ICU4J and Java™ 5 codepoint support are used when necessary
  - Localization
    - Tested for localization (awaiting readiness of Babel, the Eclipse Globalization Project)
  - Accessibility
    - Standard Eclipse capabilities



## Schedule

- XSD is a “+1” component in the simultaneous release
- We missed the dates for these Milestone builds
  - M6 slipped from 31 March to 2 April and M7 slipped from 5 May to 6 May

### 2.4 Release Plan

- ✓ M2: 2007-09-26
- ✓ M3: 2007-11-07
- ✓ M4: 2007-12-16
- ✓ M5: 2008-02-09
- ✓ M6: 2008-04-02
- ✓ M7: 2008-05-06
- RC1: 2008-05-16
- RC2: 2008-05-23
- RC3: 2008-05-30
- RC4: 2008-06-06
- 2.4: 2008-06-13

### 2.0 Release Plan

- ✓ 2.0.6: 2007-10-03

### 2.1 Release Plan

- ✓ 2.1.3: 2007-10-03

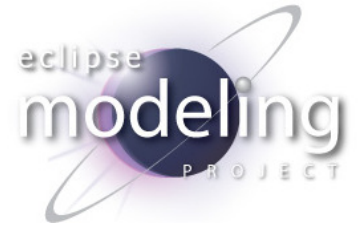
### 2.2 Release Plan

- ✓ 2.2.4: 2007-10-03

### 2.3 Release Plan

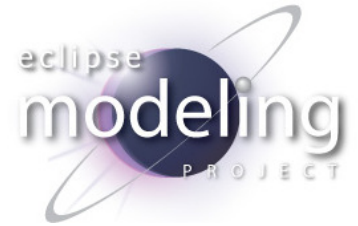
- ✓ 2.3.1: 2007-09-26
- ✓ 2.3.2: 2008-02-05





## Communities

- Fairly active newsgroup
  - `eclipse.tools.xsd`
- Steady interaction in both Bugzilla and on newsgroup
- Draws a lot of attention due to the close integration with EMF
- Is benefiting from the fantastic momentum that the components of the Eclipse Modeling project are experiencing



## Communities

- Conference Participation (using XSD 2.4.0)
  - EclipseWorld 2007
  - Tutorial and several talks at EclipseCon 2008

❖ XSD is used by EMF whenever an Ecore model is created from a XML Schema, hence it usually “participates” in the conferences in which EMF is presented.





## IP Issues

- The XSD component leadership verifies that
  - The about files and use licenses are in place as per the Guidelines to Legal Documentation.
  - All contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
  - All significant contributions have been reviewed by the Foundation's legal staff.
  - All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.



## IP Issues

- The XSD component leadership verifies that (cont.)
  - All Contribution Questionnaires have been completed.
  - The "provider" field of each plug-in is set to "Eclipse.org".
  - The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
  - Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
  - Any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.





## IP Issues

- The XSD project IP log is located at <http://www.eclipse.org/modeling/mdt/eclipse-project-ip-log.php>





## IP Issues

- The contributions for this release were recorded in these bugzillas
  - [166112](#) - Support XML Processing Instructions
  - [229998](#) - EMOF™ Comment and Property.oppositeRoleName support

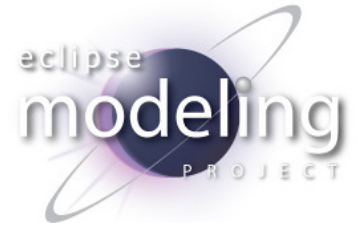




## Project Plan

- A draft development plan for XSD 2.5 is not yet available





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- Other company, product, or service names may be trademarks or service marks of others





# ATL 2.0 Ganymede Simultaneous Release

ATL PMC



## Overview

- Introduction
- Features
- Non-code Aspects
- Testing and Packaging
- Community & Support
- Intellectual Properties
- Project Plan

## Introduction



- ATL : ATLAS Transformation Language
- ATL is a language and a Virtual Machine dedicated to model transformation
- ATL is an Eclipse Model-to-Model (M2M) component, inside of the Eclipse Modeling Project (EMP)
- ATL has been moved from GMT to M2M in 2007



## Features (core)



- A syntax adapted to Model To Model transformation
  - Hybrid (Declarative and Imperative)
  - Model navigation using OCL
- A Virtual Machine
  - Executes ATL transformations pre-compiled into low level transformation-specific bytecode
  - Provides execution environment for any transformation language
    - The M2M QVT Relational project is based on the ATL Virtual Machine  
[http://wiki.eclipse.org/M2M/Relational\\_QVT\\_Language\\_\(QVTR\)](http://wiki.eclipse.org/M2M/Relational_QVT_Language_(QVTR))
    - A use case implements a QVT Operational Mappings compiler  
<http://www.eclipse.org/m2m/atl/usecases/QVT2ATLVM/>

## Features (UI)



- An Eclipse based IDE
  - Project nature and builder
  - Perspective, wizards
  - A Launch Configuration type
  - A textual Editor
- ATL editor
  - Syntax color
  - Code assist
  - Outline

```
rule Model2Database {  
  from  
    m : UML!Model (  
      m.hasStereotype('Database')  
    )  
  to  
    out : Relational!Database (  
      name <- m.name,  
      ownedSchemas <- m.packagedElement  
        comment  
    ),  
    ownedSchemas  
  inte  
    url
```



## *Non-code aspects*

- Wiki-based FAQ, User Guide, and Tips & Tricks
- Web site:
  - ATL Transformation Zoo
    - 100+ scenarios, with contributions from the community
  - Complete use cases (20+, with contributions from the community)
  - Articles
- On the wiki
  - Advanced user documentation
  - Developer documentation
- Help plugin, containing Javadoc



## Testing and Packaging



- ATL uses the Modeling Project Releng system to build and promote versions, which is also used by: EMF, EMFT, M2T, and MDT components
- Each new build is tested with Eclipse 3.4, 3.3, 3.2
- ATL is integrated into the Ganymede update site since January 2008
- A non regression test suite checks that the engine still executes correctly existing transformations
  - Reuse of ATL Transformation Zoo
  - Resulting models are compared using EMF Compare
  - Non regression evaluated for
    - Parsing
    - Compilation
    - Execution
- A set of benchmarks also checks ATL Virtual Machine performances

## Community and support



- Newsgroup : very active community, more than 2000 posts since its creation
- EclipseCon 2008 : tutorial

<http://www.eclipsecon.org/2008/index.php?page=sub/&id=402>

- Publications about ATL :

<http://www.eclipse.org/m2m/atl/publication.php>

- Bugzilla :

		Status					
Severity		NEW	ASSIGNED	REOPENED	RESOLVED	CLOSED	Total
	critical	.	.	.	<u>3</u>	.	<u>3</u>
	normal	<u>12</u>	<u>1</u>	<u>1</u>	<u>31</u>	<u>4</u>	<u>49</u>
	minor	.	.	.	<u>2</u>	.	<u>2</u>
	enhancement	<u>1</u>	.	.	<u>7</u>	.	<u>8</u>
	Total	<u>13</u>	<u>1</u>	<u>1</u>	<u>43</u>	<u>4</u>	<u>62</u>

## IP Issues



- All plugins contain appropriate about and license files
- IP process followed
- A third-party library is used : antlr 3.0
  - IPzilla CQ 1548
  - Use of the matching ORBIT library for build
- IP Log available at  
<http://www.eclipse.org/modeling/m2m/atl/eclipse-project-ip-log.csv>
- Released under EPL

## *Project Plan*



- Planned improvements:
  - Performance
    - Specific language constructs for “in-place” transformations (prototypes already working)
    - Compile-time optimizations
  - Architecture
  - Tests coverage
  - Clarify API for users



# Mylyn 3.0 Release Review

Mik Kersten

June 4, 2008



# Features

Features added since Mylyn 2.0 are [blue](#)

- Task List ([org.eclipse.mylyn.tasks.\\*](#))
  - Integrated tasks management for Eclipse (required)
  - Task management view, rich editing, offline support
- Task-Focused UI ([org.eclipse.mylyn.context.\\*](#))
  - Automated context management (optional)
- IDE ([org.eclipse.mylyn.ide.ui.\\*](#))
  - [Ant](#), [CVS](#), [Bug reporting](#)
- PDE ([org.eclipse.mylyn.pde.ui.\\*](#))
  - [Ant](#), [CVS](#), [Bug reporting](#)
- Team ([org.eclipse.mylyn.team.\\*](#))
  - Team APIs
- Bugzilla Connector ([org.eclipse.mylyn.bugzilla.\\*](#))
  - Integrates Task List with Bugzilla repository (optional)
- JIRA Connector ([org.eclipse.mylyn.jira.\\*](#))
  - Integrates Task List with JIRA repository (optional)
- Trac Connector ([org.eclipse.mylyn.trac.\\*](#))
  - Integrates Task List with Trac repository (optional)



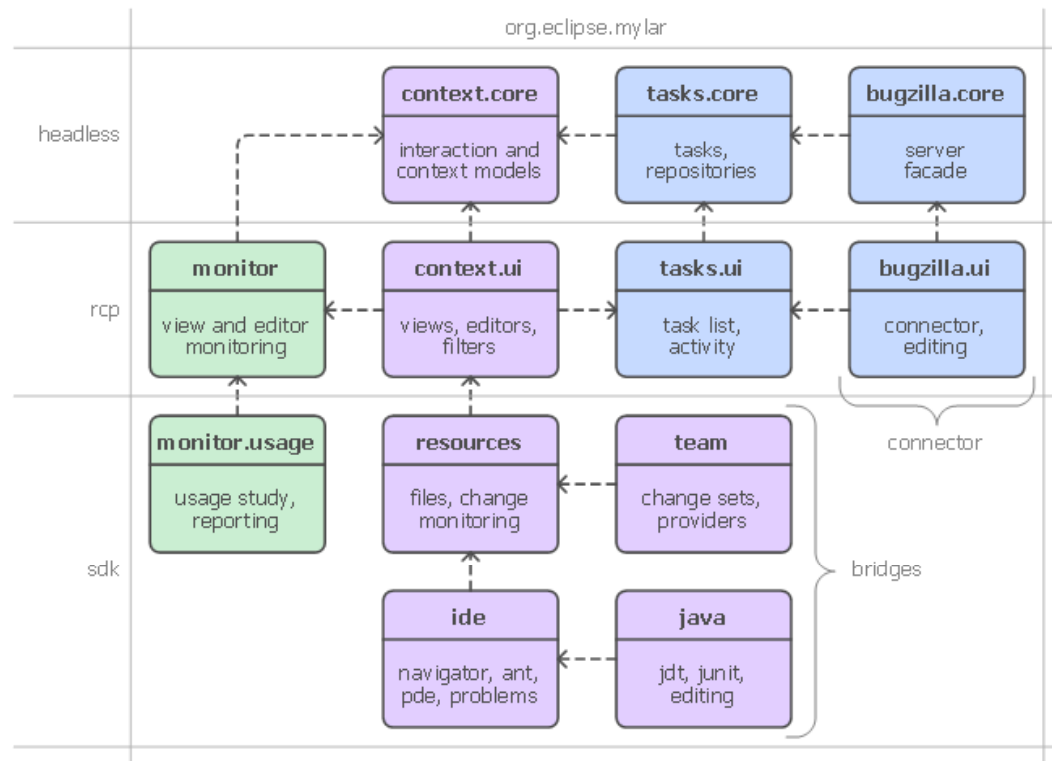
## Non-code aspects

- User documentation
  - New webinar on Mylyn 2.2, most viewed on Eclipse Live
  - Wiki-based FAQ, User Guide, and Tips & Tricks
  - Web site: getting started, articles, flash videos, webinar
- Developer documentation
  - Wiki-based Contributors Guide
  - Wiki-based Integrators Guide
- Localization/externalization
  - We now have requests for this, hoping to do for 3.0
- IP Log
  - <http://www.eclipse.org/mylyn/doc/mylyn-iplog.csv>

# APIs



- Breaking API changes since Mylyn 2.3:
  - See: [http://wiki.eclipse.org/Mylyn\\_Porting\\_Guide](http://wiki.eclipse.org/Mylyn_Porting_Guide)
- Frameworks:
  - Commons API
  - Context API
  - Tasks API
  - Monitor API
  - Team API





## Tool Usability (unchanged since 2.3)



- Maturity
  - Constant stream of stable releases
  - Bundled as part of EPP distributions
  - Committers work from HEAD, contributors from weekly builds, community from milestone releases
- User feedback says it best
  - "...arguably the most productivity-enhancing idea since background compilation and all of the things that enables (namely refactoring and syntax highlighting). I just don't know how I ever was able to read and understand the Eclipse sources (or the sources of other large projects I've worked on) before Mylar, it's just that good." (David Orme)
  - "I would like to commend you on this very good tool. It has increased my productivity by 3 folds - no kidding..." (Deepak Devje)

# Architectural Issues



- For Mylyn 3.0 we adopted the API tooling and re-architected the core APIs to remove the need for most clients to use internals (both our own features and external clients). We also took this opportunity to remove internals that had leaked into the API.
- For Mylyn 2.3 we created a new kind of bundle activator for the Task-Focused UI and have finally addressed all known issues with startup concurrency, performance and laziness.
- Through Mylyn 2.2 we had some challenging startup problems having to do with the way that Mylyn extends the eclipse UI as a whole, and the fact that Mylyn needs to lazy load.

## End-of-Life



- All Mylyn 2.0 streams have reached end-of-life.
- Mylyn 3.0 supports both Eclipse 3.4 and Eclipse 3.3 via separate branches.

# Bugzilla



- Bugs resolved
  - Mylyn 3.0 (June 25, 2008): 315
  - Mylyn 2.3 (Feb. 27, 2008): 276
  - Mylyn 2.2 (Dec. 19, 2007): 384
  - Mylyn 2.1 (Sep. 28, 2007): 462

## Standards (no changes since 2.1)



- Mylyn requires J2SE 1.5, provides warning if installed on 1.4
  - Key driver for using 1.5 was the benefits of generics-aware APIs

# UI Usability (no changes since 2.1)



- Accessibility
  - No review for this release, but following accessibility guidelines
  - <http://www.eclipse.org/articles/Article-Accessibility/index.html>
- Follow the User Interface Guidelines
  - Focus on consistent visual design, UI elements, icons
  - [http://wiki.eclipse.org/index.php/User\\_Interface\\_Guidelines](http://wiki.eclipse.org/index.php/User_Interface_Guidelines)
- Validated UI usability with field study
  - For details see:  
<http://kerstens.org/mik/publications/2006-11-mylar-fse.pdf>
  - Mylyn Monitor is being used to gather usage feedback:  
<http://mylyn.eclipse.org/monitor/upload/UsageAnalysisServlet>

# Schedule (minor RC adjustments since 2.1)



Release	Date	Platform Release	Notes
Mylyn 2.1M	August 27, 2007	Eclipse 3.3.0 and 3.4M1	Ganymede Milestone
Mylyn 2.1	September 26, 2007	Eclipse 3.3.1 and 3.4M2	Europa Fall Maintenance
Mylyn 2.2M	November 7, 2007	Eclipse 3.3.1 and 3.4M3	Ganymede Milestone
Mylyn 2.2	December 19, 2007	Eclipse 3.3.1 and 3.4M4	
Mylyn 2.3M	February 11, 2008	Eclipse 3.3.1 and 3.4M5	Ganymede Milestone
Mylyn 2.3	February 27, 2008	Eclipse 3.3.2 and 3.4M5eh	Europa Winter Maintenance (Feb 29)
Mylyn 3.0RC1	May 21, 2008	Eclipse 3.4RC1	Reference implementations ported
Mylyn 3.0RC2	May 28, 2008	Eclipse 3.3.2 and 3.4RC2	
Mylyn 3.0RC3	June 4, 2008	Eclipse 3.3.2 and 3.4RC3	API frozen
Mylyn 3.0RC4	June 11, 2008	Eclipse 3.3.2 and 3.4RC4	
Mylyn 3.0	Jun 25, 2008	Eclipse 3.3.2 and 3.4.0	Ganymede Release

# Process



- Open, transparent, permeable, and inclusive
  - 228 bugs resolved via one or more contributor patches since 2.0
  - All discussions in Bugzilla, mailing list, newsgroup, and open developer conference calls



# Communities (unchanged since 2.0)



- Users
  - Lively community on newsgroup and bug reports
  - Articles and blogs by community members
- Developers
  - Contributor documentation on Eclipsepedia
  - Lively community on mylyn-dev and bug reports
- Integrators
  - Integrator documentation on Eclipsepedia
  - New mylyn-integrators mailing list will remove need for integrators to watch the higher-traffic mylyn-dev
  - Specific discussions on “[connector]” and “[bridge]” bug reports, as well as “manage integration with Foobar” bug reports

# Project plan



- Covered on “Schedule” slide

# Release review version



- These slides are based on the following version of the Release review document
  - Version 032 – January 15, 2006



## Eclipse RAP 1.1 Release Review

Jochen Krause  
RAP project lead  
[jkrause@innoopract.com](mailto:jkrause@innoopract.com)

Frank Appel  
RAP tech lead  
[fappel@innoopract.com](mailto:fappel@innoopract.com)



## eclipse rich ajax platform project (RAP)

mission statement: rap enables developers to build rich, AJAX-enabled web applications by using the eclipse development model, plug-ins and a java-only api

RAP implements a subset of SWT, JFace, Workbench APIs

- is built on top of Equinox, running in server environments
- provides the Eclipse extension point mechanism
- enables single sourcing of rich client and rich internet apps
- uses the Qooxdoo JavaScript library for client side rendering in the browser

RAP enables

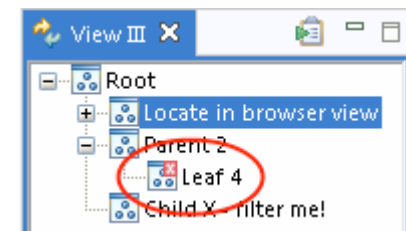
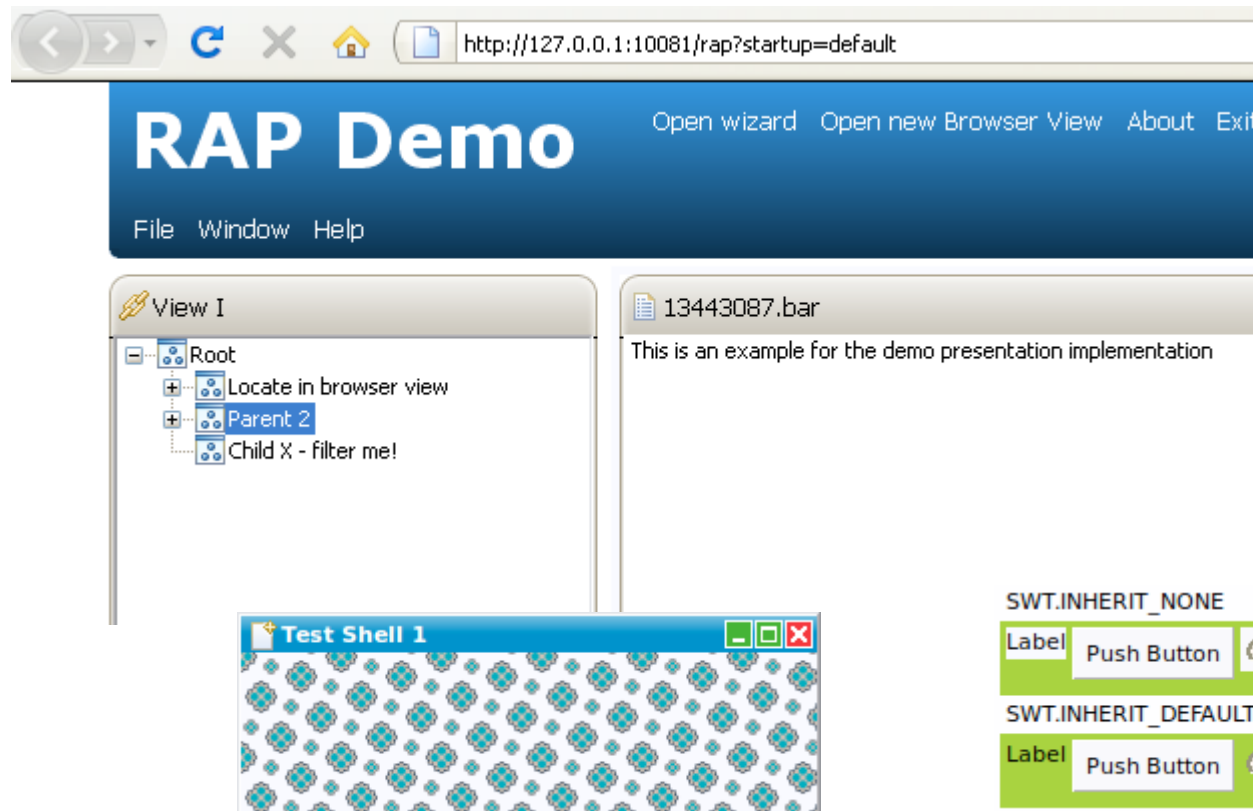
- coding in Java, developing the UI with SWT, JFace and Workbench extension points
- running the application on the server
- and accessing it with a browser

## features



- broad coverage of SWT 3.4 apis
- broad coverage of Jface 3.4 apis
  - includes JFace databinding
- good coverage of Workbench 3.4 apis
  - `org.eclipse.ui.workbench`
  - `org.eclipse.ui.views`
  - `org.eclipse.ui.forms`
- tools for launching and automated testing (JUnit)

## RAP in action



SWT.INHERIT\_NONE

Label	Push Button	<input type="radio"/> Radio Button	<input checked="" type="checkbox"/> Check Box	text
-------	-------------	------------------------------------	---	------

SWT.INHERIT\_DEFAULT

Label	Push Button	<input type="radio"/> Radio Button	<input checked="" type="checkbox"/> Check Box	text
-------	-------------	------------------------------------	---	------

## features – by new and noteworthy



- [http://www.eclipse.org/rap/noteworthy/news\\_11M1.php](http://www.eclipse.org/rap/noteworthy/news_11M1.php)
- [http://www.eclipse.org/rap/noteworthy/news\\_11M2.php](http://www.eclipse.org/rap/noteworthy/news_11M2.php)
- [http://www.eclipse.org/rap/noteworthy/news\\_11M3.php](http://www.eclipse.org/rap/noteworthy/news_11M3.php)
- [http://www.eclipse.org/rap/noteworthy/news\\_11M4.php](http://www.eclipse.org/rap/noteworthy/news_11M4.php)





## non-code aspects

- the project has a active community of users and contributors
- there is extensive API documentation (several thousand javadocs)
- a huge set of resources available for RCP can be reused for RAP
- i18n is now implemented

## api



- RAP provides a subset of the proven SWT, JFace and Workbench java apis and extension points
- more than 1000 published and documented interface methods from the above mentioned packages

api



- RAP provides a large subset of the Workbench extension points

→ org.eclipse.ui.activities	→ org.eclipse.ui.perspectiveExtensions
→ org.eclipse.ui.activitySupport	→ org.eclipse.ui.perspectives
→ org.eclipse.ui.actionSetPartAssociations	→ org.eclipse.ui.popupMenus
→ org.eclipse.ui.actionSets	→ org.eclipse.ui.preferencePages
→ org.eclipse.ui.commands	→ org.eclipse.ui.preferenceTransfer
→ org.eclipse.ui.commandImages	→ org.eclipse.ui.presentationFactories
→ org.eclipse.ui.contexts	→ org.eclipse.ui.propertyPages
→ org.eclipse.ui.handlers	→ org.eclipse.ui.services
→ org.eclipse.ui.decorators	→ org.eclipse.ui.startup
→ org.eclipse.ui.editorActions	→ org.eclipse.ui.statusHandlers
→ org.eclipse.ui.editors	→ org.eclipse.ui.systemSummarySections
→ org.eclipse.ui.elementFactories	→ org.eclipse.ui.themes
→ org.eclipse.ui.encodings	→ org.eclipse.ui.viewActions
→ org.eclipse.ui.exportWizards	→ org.eclipse.ui.views
→ org.eclipse.ui.importWizards	→ org.eclipse.ui.workingSets
→ org.eclipse.ui.keywords	→ org.eclipse.ui.browserSupport
→ org.eclipse.ui.menus	→ org.eclipse.ui.internalTweaklets
→ org.eclipse.ui.newWizards	

api



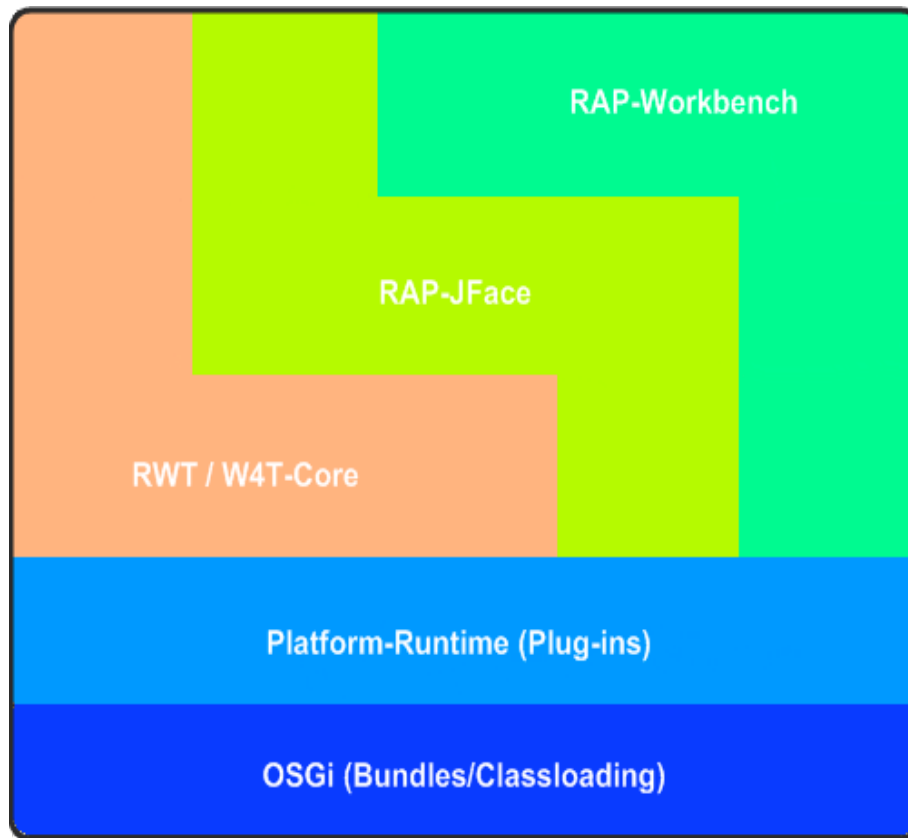
- RAP specific extension points
  - adapterfactory
  - branding
  - entrypoint
  - phaselistener
  - Resources
  - settingstores
  - themeableWidgets
  - themes

## architectural issues



- RAP enables the usage of the fundamental eclipse architecture for web applications
- RAP uses OSGi bundles and the extension point mechanism
- running on the server side RAP faces the challenge of enabling eclipse bundles to run in a multi-user environment
- RAP is a server centric approach to AJAX
  - scalability has been a key topic for the implementation
  - state information about every client is maintained on the server
  - processing of UI and business logic mainly occurs on the server
- applications can be deployed as standard JEE web applications (war) to standard application servers

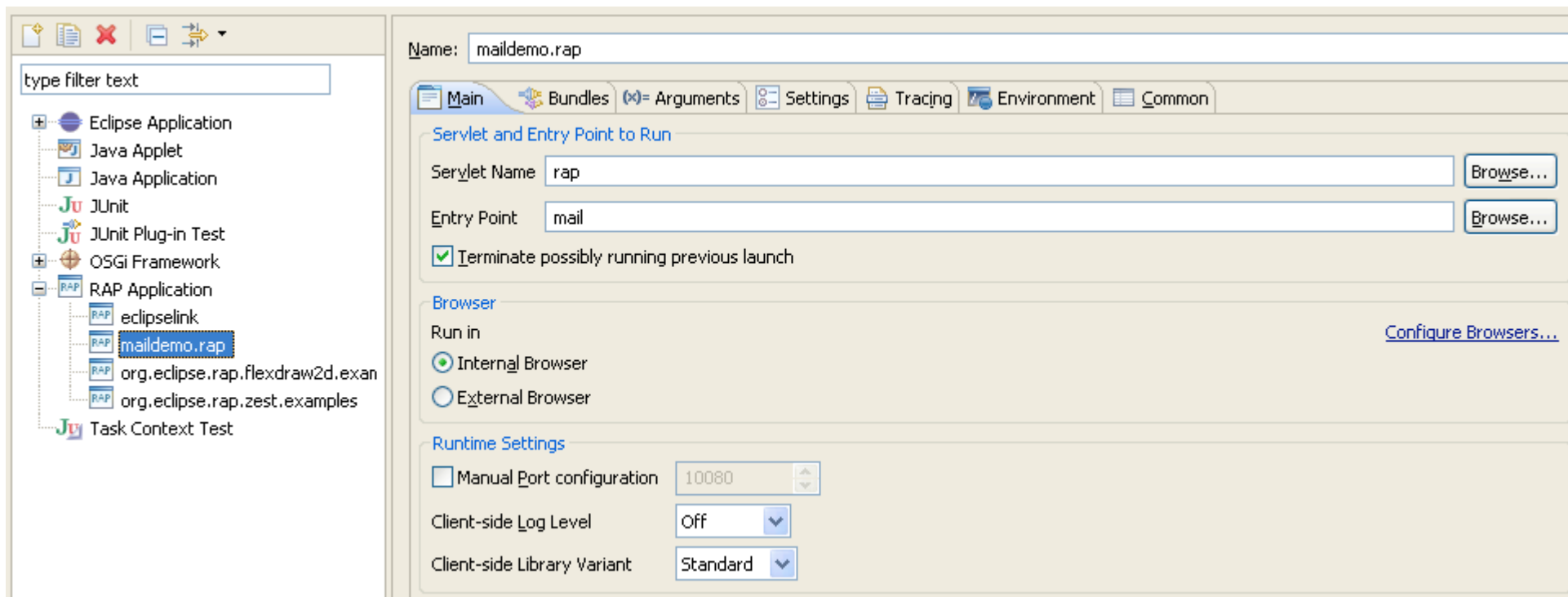
## architectural overview

**Server Side (JEE Servlet Container)****Client Side (Browser)**

## tool usability



- RAP is a runtime technology and not installed into the Eclipse IDE
- however, PDE and JDT provide a well established and superb tooling infrastructure for RAP
- RAP offers tooling for running and debugging applications



## tool usability (cont'd)



org.eclipse.rap.demo \*DemoTreeViewPart.java

```

+ * Copyright (c) 2002-2006 Innoopract Informationssysteme GmbH.

package org.eclipse.rap.demo;

+import java.util.ArrayList;

public class DemoTreeViewPart extends ViewPart implements IDoubleClickListener {

    private TreeViewer viewer;

    public void createPartControl( final Composite parent ) {
        viewer = new TreeViewer( parent );
        viewer.setLabelProvider( new DecoratingLabelProvider( new LabelProvider(),
                                                            new LeafStarLabelDecorator() ) );
        viewer.setC
    }

    private f
    public
        if (

```

viewer.setC

- setCellModifier(ICellModifier modifier) void - ColumnViewer
- setChildCount(Object elementOrTreePath, int count) void - T
- setColumnProperties(String[] columnProperties) void - Colum
- setComparator(ViewerComparator comparator) void - Structu
- setComparer(IElementComparer comparer) void - Structured
- setContentProvider(IContentProvider provider) void - TreeVi

The AbstractTreeViewer implementation of this method checks to ensure that the content provider is an ITreeContentProvider.

Press 'Ctrl+Space' to show Template Proposals



## end-of-life



- does not apply

## bugzilla



- as of Mai 23 2008

Status	Severity							
	blocker	critical	major	normal	minor	trivial	enhancement	Total
NEW	.	.	2	66	3	1	11	83
ASSIGNED	.	1	2	89	4	2	11	109
REOPENED	.	.	.	2	.	.	.	2
RESOLVED	12	19	15	253	11	7	23	340
VERIFIED	.	.	.	10	.	.	3	13
CLOSED	.	.	.	3	.	1	.	4
Total	12	20	19	423	18	11	48	551

Bugzilla query: <https://bugs.eclipse.org/..>

## standards



### JEE

- RAP complies with the JEE servlet standards 2.3, 2.4 and 2.5
- RAP applications can be deployed as standard web archives (war)

### OSGi

- RAP is built on top of the Eclipse Equinox OSGi reference implementation

### Eclipse

- the Eclipse extension point mechanism is a defacto standard utilized by RAP

## ui usability



- UI usability has been a main focus of the 1.1 release
  - PresentationFactory allows web style UI for workbench
  - Introduced CSS for better stylability of widgets

## schedule



- <http://wiki.eclipse.org/RapPlan>
- 2008-01-07 M1 Performance (Client side)
- 2008-02-20 M2 Display#readAndDispatch(), workbench, Table Keyboard Navigation, Image Decoration
- 2008-04-07 M3 Drag & Drop, workbench MouseEvents, Improved Theming Support, Split off LCA implementations in fragment, Activity Support, PreferenceStore
- 2008-05-06 M4 Split off LCA implementations in fragment, Adopt 3.4 workbench RCP code base
- 2008-05-20 RC1

## communities



- **committers**
  - 7 committers from Innoopract
  - 1 committer from Critical Systems
  - 2 committers from CAS Software GmbH (just becoming active)
  - -> committer diversity is improving
- **contributors**
  - active bugzilla users from several companies / individuals
  - Dozens of patches have been contributed
- **users / adopters**
  - as RAP is not a tool the distinction between users and adopters is difficult, everybody that uses rap is incorporating it in its products (apps)
  - Very active community of users / adopters: 10-50 newsgroup postings per day

## communities cont'd



### conferences:

- participation in several conferences
  - EclipseCon 2008, Eclipse Summit Europe 2007, Jax 2008, JFS 2007, Eclipse Runtime Summit, e4 Summit

### cross project:

- have been one of the driving forces for the Eclipse RT project to help cross project communication / fertilization
- joining forces with the eclipse project for e4

### articles:

- cover article on RAP published in German "Eclipse Magazin"
- devx article on RAP
- article series on developerWorks (by Chris Aniszczyk)

## communities / process



- open and transparent planning (using the wiki)
- development has been driven by the community to a large extent
  - Requesting move from W4T to SWT api
  - Requesting ability to single source RCP and RAP
    - Requesting moving the package names to SWT / JFace / Workbench originals
    - Requesting to use original extension point ids
    - Requesting full api compatibility for dialog handling
- developer discussion do often happen off the mailing list -> we are working to improve this



## ip issues



see ip log at

[http://www.eclipse.org/projects/ip\\_log.php?projectid=technology.rap](http://www.eclipse.org/projects/ip_log.php?projectid=technology.rap)

- **committers:**
  - Frank Appel
  - Istvan Ballok
  - Jordi Böhme
  - Rüdiger Herrmann
  - Jochen Krause
  - Benjamin Muskalla
  - Joel Oliviera
  - Stefan Röck
  - Ralf Sternberg
  - Elias Volanakis
- **third party software:**
  - qooxdoo 0.7 (rev 9276)
    - ipzilla: #1192
    - location: org.eclipse.rap.tools
    - license: EPL/LGPL
    - package subset

## planning



- next release RAP 1.2 planned for October 2008
  - adding a couple of apis that haven't made it into 1.1
    - DragDrop
    - KeyEvents
  - Moving to gooxdoo 0.8
    - Client side performance improvements (pooling)
  - Further improve styling
    - Increase the number of properties that can be styled with CSS
    - Introduce the ability to have rounded corners
- RAP will move to the Eclipse RT top level project
- RAP is contributing to the Eclipse e4 effort

# Thanks



further information:

<http://eclipse.org/rap> - rap open source project

<http://wiki.eclipse.org/RAP> - rap wiki

<http://qooxdoo.org> - javascript widget toolkit

<http://rap.eclipse.org/rap> - demo apps

# Subversive Ganymede Review

Review date: 4 June 2008



Presentation prepared by: Igor Vinnykov (Polarion Software)  
Send your feedback to: [subversive-dev@eclipse.org](mailto:subversive-dev@eclipse.org)



# Introduction

- Subversive is an Eclipse Team Provider for Subversion (SVN)
- Subversive is Technology sub-project in Incubation phase:
  - Project home: [www.eclipse.org/subversive](http://www.eclipse.org/subversive)
  - Project has been active since March 2005
  - Project proposal at eclipse.org was published in June 2006
  - Subversive migrated to eclipse.org and Incubation phase started in November 2007
  - Subversive is a part of the Ganymede Simultaneous Release

# Features

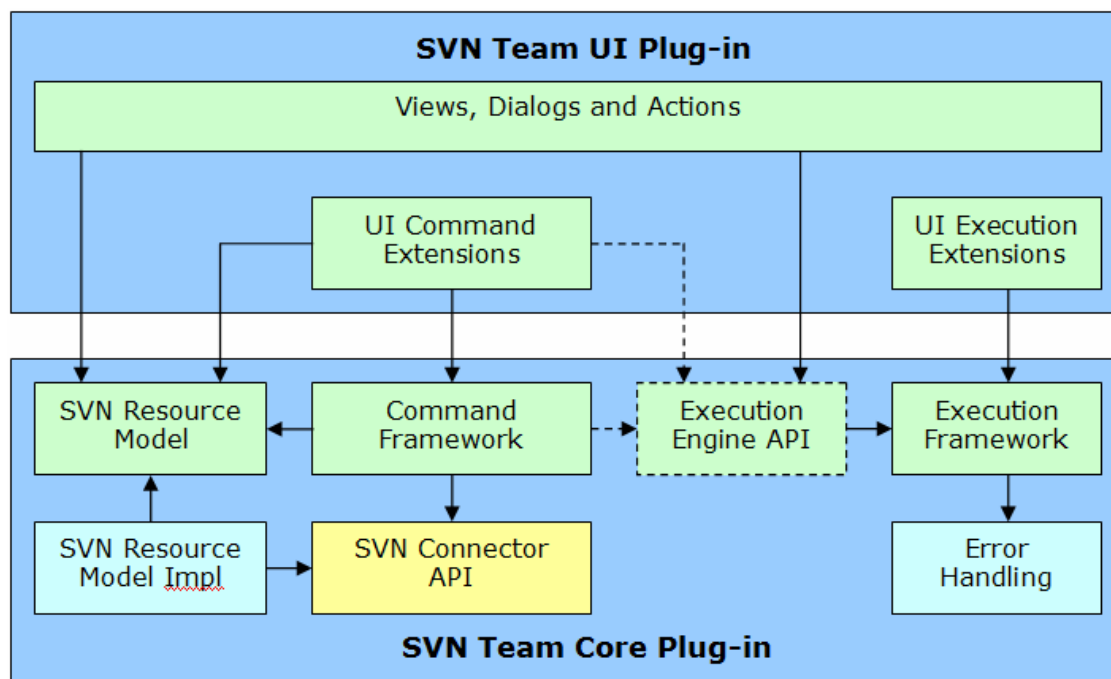
- Checkout:
  - New option “Ignore Externals”
- Share:
  - Automatic project sharing
- Commit:
  - Spell checking
  - Displaying conflicted resources
  - New actions for resources
- History:
  - Compare revisions for folders
  - New action: “Extract”
  - Revision grouping
  - Support of local history
- Branches/Tags
  - Compare with branch/tag
  - Replace with branch/tag
- Properties:
  - Definition of custom properties
  - Property values validation
  - Support of “tsvn” properties
- Synchronize:
  - New action: “Extract”
  - “Local” and “Remote” submenus
  - Displaying incoming changes for folders
- Repository:
  - Override author’s name
- Patches:
  - Resources selection
  - Patch root selection
- Merge:
  - New “Merge” view

## Non-Code Aspects

- User documentation:
  - Documentation is a part of Subversive distribution and is automatically integrated into Eclipse help
  - Available on site: <http://www.eclipse.org/subversive/documentation/index.php>
- Developer documentation:
  - Architecture review, list of extension points and integration examples available on site: <http://www.eclipse.org/subversive/integrations.php>
- Localization/externalization:
  - Supported. Localization bundles provided by external contributors available for the Japanese and French languages

# APIs

- API conforms with Eclipse Quality standards
- API description: <http://www.eclipse.org/subversive/integrations.php>







## Architectural Issues

- Subversive supports Team API introduced in Eclipse 3.0
- Eclipse 3.2 Team API is supported only partially:
  - IFileHistory interface is implemented
- We have planned the following outstanding tasks related to Eclipse 3.2 Team API support:
  - Move the Subscriber code into the Subversive core module
  - Improve resource decoration support
  - Check and improve support for Logical Model Integration
- SVN 1.5 isn't released yet; thus, SVN 1.5 support is in progress



## Tool Usability

- Subversive provides support for all operations available for SVN clients. It means that it can be used as a fully-functional SVN client and a replacement of the original SVN client.
- Subversive provides a set of unique features that improve usability for developers:
  - Support of repository layouts recommended by Subversion
  - Revision browsing
  - Automatic search of Eclipse projects in the repository
- Subversive is among the TOP 10 most popular projects at EPIC. We keep getting a lot of positive feedbacks from its users.



## End-of-Life

- Since this is the first release at eclipse.org, there is no feature that is end-of-life'd



# Bugzilla

- Current state:
  - 59 Bugzilla items
  - 0 - P1 and P2 items
- Resolved 246 bugs:
  - Blocker: 6 bugs
  - Critical: 8 bugs
  - Major: 15 bugs
  - Normal: 146 bugs
  - Minor: 4 bugs
  - Trivial: 0 bugs
  - Enhancement: 67 bugs



## Standards

- Subversive requires J2SE 1.5 and Eclipse 3.3 or Eclipse 3.4
- Versions compatible with previous versions of Eclipse are available at the previous project location on [polarion.org](http://polarion.org)
- Subversive supports SVN 1.1 – 1.5



## UI Usability

- Follow User Interface Guidelines
  - Make Subversive close to CVS as much as possible
  - Use best practices for professional UI: care about controls layout, use validators, use nice icons, etc.
- Pursue continuous UI review inside the team
- Implement usability features suggested by the community



# Schedule

Subversive version	Eclipse Build	Date
0.7 Release	Eclipse 3.4RC1	May 20, 2008
0.7.1	Eclipse 3.4RC2	May 27, 2008
0.7.2	Eclipse 3.4RC3	June 3, 2008
1.0 Release	Eclipse 3.4RC4	June 10, 2008

## Communities

- Subversive team takes an active part in Eclipse events:
  - Eclipse Summit Europe 2007 – long talk
  - EclipseCon 2008 – long talk, BOF
  - We also plan to attend PluginFest 2008 and Eclipse Summit Europe 2008
- Active communication with the community through Mailing lists, Newsgroup, Bugzilla, etc.
- Active users community: more than 2000 downloads per day; the project is in TOP 10 at EPIC
- Project has a Developers and Integrators community and benefits from six integrations with open-source and commercial tools; other integrations are expected



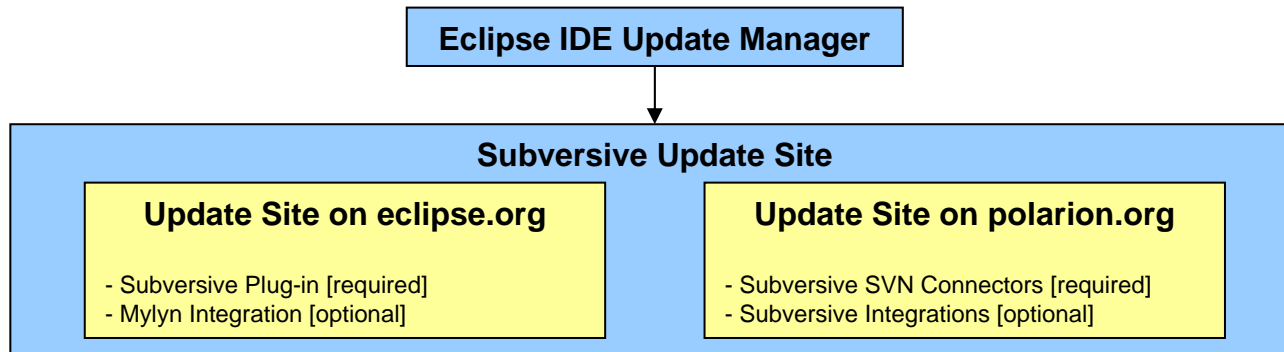


## IP Issues

- IP process followed
- IP Log: <http://www.eclipse.org/subversive/iplog.php>
- Project released under EPL

## IP Issues – Subversive Distribution

- Legal issue: both SVN clients, JavaHL and SVNKit are not EPL compatible: JavaHL uses LGPL libraries; SVNKit license is incompatible with EPL
- The Eclipse Foundation does not distribute non-EPL compatible files from its servers
- Current solution – Subversive is distributed from two update sites:
  - EPL-compatible Subversive plug-in is distributed from eclipse.org
  - EPL-incompatible SVN Connectors are distributed from polarion.org



## IP Issues – Next Steps

- Problems with current distribution approach:
  - No one-click installation (required features should be installed from both update sites: [eclipse.org](http://eclipse.org) and [polarion.org](http://polarion.org))
  - EPL-incompatibility of required SVN Connectors is a blocker for Subversive inclusion into standard Eclipse distribution
- Next steps: issue discussion on Eclipse Legal Council and Eclipse Board
- Goal: find a solution which allows Subversion inclusion into standard Eclipse distribution (EPP packages)
- Proposed solution:
  - Board allows GPL code to be distributed from [eclipse.org](http://eclipse.org)Or
  - Board allows GPL code to be required



# Project Plan

- Project plan available at: [http://wiki.eclipse.org/Subversive\\_Plan](http://wiki.eclipse.org/Subversive_Plan)
- Next release: 1.0 planned for June 10, 2008
- Next release goal: project graduation, inclusion of Subversive 1.0 into the Ganymede Simultaneous Release

# TPTP 4.5 Release Review -- One Quick Foil



## New and Improved

- IPv6 and Java 1.6.0 support
- Platform: Eliminate JVM activation on AC startup; editable property information in Method Statistics view
- Test: Parallel test suite execution; encrypted datapools; move, cut/copy/paste, delete, and rename of test assets
- Monitoring: Capability to re-face Log and Trace Analyzer; Java 5 annotations for Common Base Event and JMX instrumentation; Common Base Event v1.0.1 C# implementation
- Trace: Improved thread profiler; new profiler API for Java 1.5+; binary format for profiling traces

## API quality – Code continues to mature/stabilize

- APIs are not changing significantly, a few new interfaces
- Cleared out lots of “old” defects; code base is now more solid w/ more tests.
  - We uncovered more latent opportunities to further improve stability

## End-of-life issues in this release

- Moved to As-Is (no longer supported – help wanted):
  - Perfmon (monitoring agent and statistical views)
  - Manual Test (test type, runner, and Manual Test View)
  - BIRT Reports (test, log, trace, and statistical BIRT report generators)
  - RCP Log Analyzer and Symptom Catalog Editor
  - Automated GUI Recorder (AGR) (recorder, test type, and runner)
- Retired deprecated Technology Previews (X-Ray Profiler, Code Coverage, and Memory Manager)

## IP clearance and licenses in the code

- Inclusion of 3<sup>rd</sup>-party (non-EPL) components approved by EMO
  - Project Log Updated [http://www.eclipse.org/tptp/home/project\\_info/releaseinfo/TPTP%20Project%20Log.htm](http://www.eclipse.org/tptp/home/project_info/releaseinfo/TPTP%20Project%20Log.htm)
- Outbound license EPL (of course)
- Continue due diligence (Committer Agreements, PMC maintains list of non-EPL components, EMO source scan)

## Diversity of the committer population & Openness of Community

- ~23 Committers plus a few Developers from 3 organizations
  - Continuing to recruit additional contributor (organizations and individuals) -- Help wanted
- Open communications/processes
  - 6 TPTP mailing lists and newsgroup
  - Bi-annual F-2-F Meetings: PMC+PG; Weekly Calls: PMC+PG, AG, Project
  - Open use of Bugzilla to track defects/enhancements; Visibility of nightly builds to community; Daily test reports published to web site



# Eclipse™ TPTP 4.5 Release Review

June 4, 2008

Eclipse TPTP PMC & Planning Group



## Introduction: TPTP 4.5 Release Review

### ■ Major Milestones

- Current release: 4.5 (June 6) (part of Ganymede train)
- Prior releases: 4.4 (June'07), 4.3 (Dec'06), 4.2 (June'06), 4.1 (Nov'05), 4.0 (July'05), 3.3 (June'05), 3.2 (Dec'04)
- Next release: 4.5.x (sustaining mode - no plans for 4.6)
- Moved to bi-annual releases starting from 2006 (vs. quarterly releases)
  - TPTP “major” releases aligned with Eclipse “release train”
  - TPTP “minor” releases ~5 months later
  - TPTP maintenance releases aligned w/ Eclipse Platform maintenance releases (and simultaneous maintenance release trains)

# Features: TPTP 4.5 Requirements Process



- August 10 - 24, 2007:
  - Determine input/requirements from community/contributors/PMC input:
    - New enhancements.
    - Voting against Bugzilla enhancements.
- August 27 – October 18, 2007:
  - Preparation of the draft plan:
    - RG: Themes and priorities updated for 4.5
    - PG: Estimate resource availability and advice PL (used to calibrate list of enhancements)
    - AG: Architectural analysis and cost estimates, preliminary priorities
    - PG: Develop Feature Plan (resource allocation)
- October 18, 2007:
  - Community review of TPTP 4.5 draft plan.
- October 24, 2007:
  - Approval and announcement of TPTP 4.5 final plan.





## Features: TPTP 4.5 Themes

- Adopted Eclipse Themes & Priorities in Q4'04 for TPTP (Hyades) 3.3 onwards
- Planning to adopt updated Eclipse Themes & Priorities for 4.5
- Examples by theme:
  - **Scaling Up:** Support for larger data volumes and processing rates in data collection, user interface and model persistence. For example, binary format for profiling traces.
  - **Simple to Use:** Enhanced UI and simplified user experience by using Java 5 annotations for Common Base Event and JMX instrumentation, tutorials, white papers, demonstrations, and usability improvements.
  - **Appealing to Broader Community:** IPv6 and Java 1.6.0 support.
  - **Design for Extensibility: Be a Better Platform:** Externalized APIs, defined extension points, improved flexibility and extendable functionality (e.g. capability to re-face Log and Trace Analyzer).



# Features: TPTP 4.5 Key Feature Set

- IPv6 support
- Java 1.6.0 support
- **Platform Project :**
  - Eliminate JVM activation on AC startup
  - Editable property information in Method Statistics view
- **Test Project:**
  - Parallel test suite execution
  - Encrypted datapools
  - Move, cut/copy/paste, delete, and rename of test assets
- **Trace Project:**
  - Improved thread profiler
  - New profiler API for Java 1.5+
  - Binary format for profiling traces
- **Monitoring Project:**
  - Capability to re-face Log and Trace Analyzer
  - Java 5 annotations for Common Base Event and JMX instrumentation
  - Common Base Event v1.0.1 C# implementation



# Features: Responding to the Community

- **New standards:**
  - IPv6
  - Java 1.6.0
- **Performance improvements:**
  - Eliminate JVM activation on AC startup
  - Binary format for profiling traces
  - Parallel test suite execution
- **Usability Improvements:**
  - Editable property information in Method Statistics view
  - Move, cut/copy/paste, delete, and rename of test assets
  - Improved thread profiler
  - Capability to re-face Log and Trace Analyzer

# Non-Code Aspects: Documentation & Examples

- TPTP 4.5 download includes online documentation
  - Created by developers and professional technical writers
- Tutorial & presentation materials available on [www.eclipse.org/tptp](http://www.eclipse.org/tptp)
  - Current: Eclipse World 2005-2007, ST&P 2005-2006, EclipseCon 2005-2008, Eclipse Summit 2006
- TPTP 4.5 New & Noteworthy
  - To be made available via TPTP website
- TPTP Datasheet
  - Introduction to TPTP, outlining benefits to end-users, contributors
  - To be updated for 4.5 (last updated for 4.3)
- Continuing incremental improvements/updates to TPTP website and download page
  - [www.eclipse.org/tptp](http://www.eclipse.org/tptp)



# Non-Code Aspects: Communications

- Eclipse Live Webinar
  - Profiling and Testing Applications Using the Eclipse TPTP (Eugene Chan, Valentina Popescu, and Paul Slauenwhite)
  -
- Conferences
  - EclipseCon 2008: 1 tutorial, 3 long talks, and 1 BoF
- Community outreach for 4.5 release
  - Engagement discussions with Nokia/Ericsson/Fokus/SAP to collaborate and contribute to TPTP
  - Ganymede PR campaign
  - News alert on TPTP website
  - Postings on popular Eclipse websites and blogs



# Architectural Issues

- Focus on increasing the quality of our test buckets
  - Increased automated test coverage
  - Overall increased number of testcases
  - Test cases created for any defects not caught by the current test bucket
  - Infrastructure developed to run tests (TPTP JUnit, JUnit Plug-in, and AGR) during builds (BVTs)
  - Revamped the TPTP testing process
- Increase in self use of TPTP testing and profiling tools
  - Continue using TPTP Test tools to create tests, run and report results
  - Infrastructure (based on TPTP) developed to run tests (TPTP JUnit, JUnit Plug-in, and AGR) during builds (BVTs)
  - Continue using TPTP profiler to locate memory leaks and performance problems
- Profiler of the Gods (PoG):
  - Identified/enhanced several core profiling use cases and resolved limitations
- Support and participation to the Ganymede release process
- Future direction
  - Continue focusing on improving quality, performance, and scalability



# End-of-Life

- Moved to As-Is (no longer supported – help wanted):
  - Perfmon (monitoring agent and statistical views)
  - Manual Test (test type, runner, and Manual Test View)
  - BIRT Reports (test, log, trace, and statistical BIRT report generators)
  - RCP Log Analyzer and Symptom Catalog Editor
  - Automated GUI Recorder (AGR) (recorder, test type, and runner)
  
- Retired deprecated Technology Previews:
  - X-Ray Profiler
  - Code Coverage
  - Memory Manager



# Bugzilla Statistics

Target Milestone

Defects	---	4.4.0.1	4.4.0.2	4.4.0.3	4.4.i1	4.4.i3	4.5i4	4.5i5	4.5i6	4.5i7	4.5i8	future	Total
NEW	93									105	43	844	1085
ASSIGNED	21									9	83	289	402
REOPENED	3										3	18	24
RESOLVED	39	47	25	41	339	45	168	161	216	201	80	111	1473
VERIFIED		2		1				3					6
CLOSED	36	14	3	16	91	8	61	57	27	21	10	98	442
Total	192	63	28	58	430	53	229	221	243	336	219	1360	3432

Parallel Development

Bug statistics as of May 20, 2008

## Release Exit Criteria

- No high severity defects & 100% test attempt/pass (95% pass on early iterations)
- Test results posted; All exceptions reviewed before deferral/discharge
- All tests are in CVS as TPTP Manual, JUnit, JUnit Plug-in, and AGR tests

## TPTP 4.5 statistics (including parallel fix releases)

- 963 Bugzilla defects resolved in 4.5 – 513 less defects than 4.4
  - ~138 defects per iteration ( 53/i3, 229/i4, 221/i5, 243/i6, 222/i7, 90/i8)
- 95 feature enhancements integrated in 4.5 – 54 in 4.4



# Standards



- JMX
- ARM



# Schedule

- Currently In the TPTP 4.5 final iteration leading to GA declaration
  - Release consisted of five 4/6/7 -week development iterations and one 5-week shut-down iteration
  - Every iteration is aligned with Ganymede +2 Simultaneous Releases

Key Dates	
<b>Oct 3, 2007</b>	Commenced TPTP 4.5 development
<b>Nov 11, 2007</b>	Completed TPTP 4.5 Iteration 3
<b>Jan 4, 2008</b>	Completed TPTP 4.5 Iteration 4
<b>Feb 15, 2008</b>	Completed TPTP 4.5 Iteration 5
<b>Feb 25, 2008</b>	Released TPTP 4.4.1 Europa Winter Maintenance release
<b>Apr 4, 2008</b>	Completed TPTP 4.5 Iteration 6
<b>May 2, 2008</b>	Completed TPTP 4.5 Iteration 7
<b>Jun 6, 2008</b>	Target for TPTP 4.5 Iteration 8 Completion (RC)
<b>Jun 25, 2008</b>	Target for TPTP 4.5 GA (Supporting Eclipse Platform 3.3)



# Process

- ~23 Committers plus a few developers from 3 organizations
  - Committer elections and removals have followed charter principles
  - Continuing to recruit additional contributor (organizations and individuals)
- Open communications via 6 TPTP mailing lists and newsgroup
  - Project activities communicated via mailing lists for PMC/general, one each for each sub-project, and low-noise news only mailing list.
- Meetings, meeting, meetings – numerous, open, and documented
  - Bi-annual F-2-F Meetings: PMC+PG; Weekly Calls: PMC+PG, AG, Project
- Open and inclusive release planning and tracking processes
  - Bugzilla used to request and track all defects and enhancements
  - Additional reports (defects, tests, etc.) used to enhance planning/tracking
  - Daily test reports published to web site
- All contributions made directly to Eclipse CVS
  - Nightly, stable/iteration, and release builds available to the community



# Community

- Open communications via 6 TPTP mailing lists and newsgroup
  - Low-noise news only list: [tptp-news@eclipse.org](mailto:tptp-news@eclipse.org)
  - PMC, Groups, coordination, announcements, etc.: [tptp-pmc@eclipse.org](mailto:tptp-pmc@eclipse.org)
  - Separate Committer mailing lists for each TPTP project: [tptp-platform-dev](mailto:tptp-platform-dev), [tptp-testing-tools-dev](mailto:tptp-testing-tools-dev) , [tptp-tracing-profiling-tools-dev](mailto:tptp-tracing-profiling-tools-dev), [tptp-monitoring-tools-dev](mailto:tptp-monitoring-tools-dev)
  - Improved Committer responsiveness to newsgroups
- Open and inclusive release planning and tracking processes
  - Bugzilla used to request and track all defects and enhancements
  - Additional reports (defects, tests, etc) used to enhance planning/tracking
  - Daily test reports published to web site
- Coordination/cooperation between other Eclipse projects
  - Platform, EMF/XSD, BIRT, WTP
- TPTP evangelism and outreach in the market & broader community
  - Continuing to drive adoption across other Eclipse projects and industry
  - Presence at Eclipse World 2007 and EclipseCon 2008



# Intellectual Property

- Accepting Contributions (In-Bound Licensing)
  - All new code provided under [Eclipse Public License \(EPL\)](#)
  - Inclusion of 3<sup>rd</sup>-party (non-EPL) components approved by EMO
    - Project Log Updated  
[http://www.eclipse.org/tptp/home/project\\_info/releaseinfo/TPTP%20Project%20Log.htm](http://www.eclipse.org/tptp/home/project_info/releaseinfo/TPTP%20Project%20Log.htm)
- Licensing Contributions (Out-Bound Licensing)
  - TPTP 4.5 provided under EPL
  - [about.html/licenses](#) are updated
- Due Diligence and Record Keeping
  - All TPTP Committers completed Committer Agreement & approved by PMC/EMO
  - PMC maintains list of all 3<sup>rd</sup>-party (non-EPL) components used by TPTP
  - EMO completed source scan and due diligence to confirm contributions

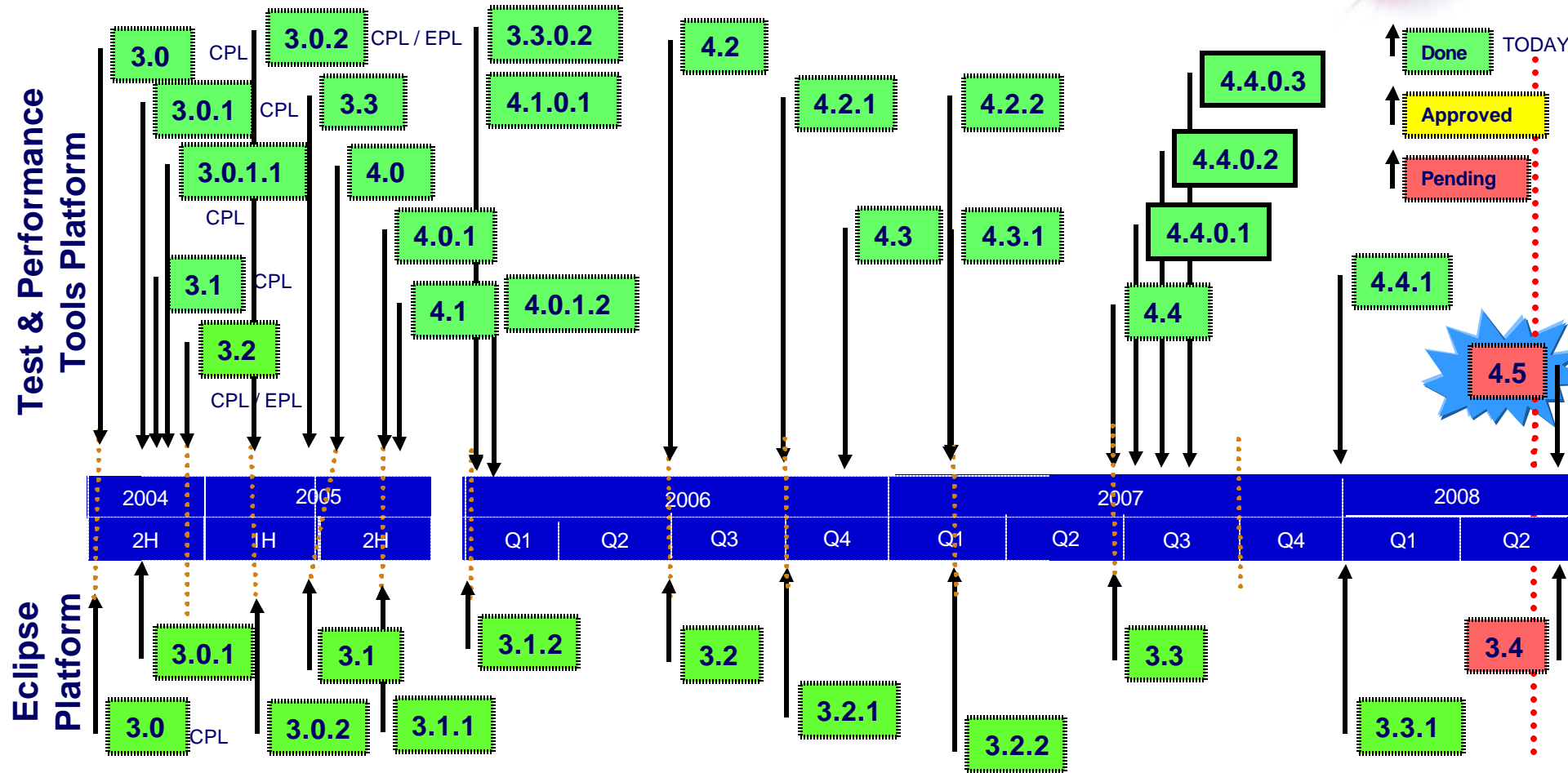
Eclipse Foundation IP Policy: [http://www.eclipse.org/org/documents/Eclipse%20IP%20Policy2003\\_12\\_03%20Final.pdf](http://www.eclipse.org/org/documents/Eclipse%20IP%20Policy2003_12_03%20Final.pdf)



# Project Plan

- TPTP 4.5 scheduled for June 2008
  - Based on Eclipse Platform 3.4
  
- TPTP 4.5.x maintenance releases targeted for 2008/2009
  - Aligned with Eclipse Platform 3.4 maintenance releases
  - Sustaining mode - no plans for 4.6

# Project Plan: TPTP Roadmap



- TPTP 3.x, 4.[0|1].x and 4.[2|3].x releases are based on Eclipse Platform 3.0.x, 3.1.x and 3.2.x respectively
- CPL / EPL notations refer to the license(s) under which the release will be made; TPTP 3.3 and EP 3.1 and later are EPL only



# 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=TPTP](https://bugs.eclipse.org/bugs/enter_bug.cgi?product=TPTP)
- Submit questions / issues in the TPTP Newsgroup:  
<news://news.eclipse.org/eclipse.tptp>
- Engage with the PMC to contribute:  
[tptp-pmc@eclipse.org](mailto:tptp-pmc@eclipse.org) or individual PMC members at  
<http://www.eclipse.org/tptp/groups/PMC/pmc.html>



# Web Tools Platform (WTP) 3.0

## *for the Ganymede Simultaneous Release Review*

Full Release Review Materials

June 4, 2008

Prepared by David Williams and sub-project leads

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## Introduction and Purpose

This document is to fulfill the requirements of the [Eclipse Release Review](http://www.eclipse.org/projects/dev_process/release-review.php)<sup>1</sup> for WTP 3.0 planned for release at the end of June, 2008.

### History

The Eclipse Web Tools Platform Project was originally proposed in 2004 by ObjectWeb, IBM and others. The Eclipse Foundation creation review was in June, 2004 with full time development since October, 2004. The original code contributions were from IBM and Eteration (“ObjectWeb Lomboz”). Since then several other large contributors have joined the effort, including SAS, BEA, Oracle and SAP, and others and several new subprojects formed, such as Dali and JSF.

#### Previous Releases

- WTP 0.7 July, 2005 and subsequent 0.7.1
- WTP 1.0 December 2005 and subsequent 1.0.1, 1.0.2, 1.0.3
- WTP 1.5 June, 2006 and subsequent 1.5.1, 1.5.2, 1.5.3, 1.5.4, 1.5.5
- WTP 2.0 June, 2007 and subsequent 2.0.1, 2.0.2

### Project Organization

In the original charter, WTP was organized as two sub-projects (WST and JST) with some being added later (JSF, Dali, and ATF (incubating) but this year it was reorganized into more sub-projects primarily to help emphasize more of a team-oriented focus, instead of an architecture orientation, and a new WTP Incubator Project was added. Below is the list of current projects and project leads as of June, 2008.

Project	Lead
Common: tools and infrastructure not directly related to web tools, but required by Web Tools Platform	Konstantin Komissarchik, BEA
Dali (JPA Tools): infrastructure and tools for JPA applications	Neil Hauge, Oracle
EJB Tools: EJB creation wizards, preferences, future annotation tools	Kaloyan Raev, SAP
Java EE Tools: Common Project Infrastructure, JEE models, preferences, classpath model, publish api, refactoring	Chuck Bridgham, IBM
JSF Tools: infrastructure and tools for Java Server Faces.	Raghu Srinivasan, Oracle
Server Tools: tools and infrastructure to define and interact with servers.	Tim Deboer, IBM
Source Editing: xml, dtd, xsd (and sse infrastructure) html, css, javascript, jsp	Nitin Dahyabhai, IBM
Web Services: Web services wizards and frameworks, Axis1 & Axis2 support, Web Services Explorer, WSDL Editor	Kathy Chan, IBM
Release Engineering: contains the code and scripts to do builds, various tests, API scans, etc.	David Williams, IBM

<sup>1</sup> [http://www.eclipse.org/projects/dev\\_process/release-review.php](http://www.eclipse.org/projects/dev_process/release-review.php)

Project	Lead
WTP Incubator: a general purpose incubation project other WTP Projects to use when incubation is desired.	David Williams, IBM
ATF (incubating): infrastructure and tools for AJAX	Philippe Ombredanne, nexB
Datatools (RDB): tools for working with databases. Primarily moved to DTP, but the quiescent sub-project of WTP is doing 1.5 maintenance	Der Ping Chou, IBM

### PMC Organization

Our Project Management Committee, as of June, 2008, is made up of 6 members, each having a WTP-wide management role, in addition to what ever project-specific roles they have. In the execution of their tasks within these roles, the PMC members will form groups, organize meetings, etc., to accomplish their goals. In other words, they don't do all the work ... they just manage it!

Member	Role
David Williams, IBM	PMC Lead, and Planning Role
Tim Deboer, IBM	Architecture
Neil Hauge, Oracle	Quality
Kaloyan Raev, SAP	User Experience
Raghu Srinivasan, Oracle	Requirements
Naci Dai, Eteration	Education

## WTP 3.0 Goals and Requirements

Our Requirements Planning, Process, and Documentation is managed by Raghu Srinivasan, with substantial participation from each project lead. See [Web Tools Platform 3.0 Requirements](http://wiki.eclipse.org/Web_Tools_Platform_Release_3.0_Requirements)<sup>2</sup> for the requirements document, and see the [Requirements Process and Status](http://wiki.eclipse.org/WTP_Requirements_Main)<sup>3</sup> document for an example of the process documentation and status snapshot.

We deliver a requirements document for each major release, summarizing themes, major goals, supported platforms. It is created and maintained through the Eclipse WTP Wiki

Detailed requirements, plans, and progress are tracked (mostly) via Bugzilla, with 'plan' added as a keyword.

Themes and high-level requirements are coordinated through Eclipse Requirements Council and Planning Council representation

The Requirements Planning Document is updated at the beginning of each milestone as part of our iterative development cycle.

We anticipate moving to a standard format for next release, as requested by the EMO.

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<sup>2</sup> [http://wiki.eclipse.org/Web\\_Tools\\_Platform\\_Release\\_3.0\\_Requirements](http://wiki.eclipse.org/Web_Tools_Platform_Release_3.0_Requirements)

<sup>3</sup> [http://wiki.eclipse.org/WTP\\_Requirements\\_Main](http://wiki.eclipse.org/WTP_Requirements_Main)

## Noteworthy Features added for this release

We document all our [new and noteworthy items](#)<sup>4</sup> for each milestone, for every release. The following summarizes the functionality provided by each sub-project with emphasis on what's new this release.

### Common Components

- Facets  
Provides a technique and UI for modeling server and runtime capabilities to associate with projects. This release moved some provisional API to be API, and usability improvements made in the UI for selecting facets for projects.
- Validation Framework  
Provides preferences and APIs to provide domain specific validation for resources and projects. Provided official API this release, instead of only provisional.
- Snippets View
- Internet Cache

### Server Tools

- Support for Application Servers of several types (JEE, HTTPD)
- Configure, publish, start/stop, debug
- 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)

### Source Editing

- JavaScript  
A substantial improvement in JavaScript tools and editing was made in this release. It is a complete replacement for the previous component code with it's own name, JSDT, and already offers far greater functionality than the original component was ever designed to.
- Web Language Tools
  - HTML source editor  
This release, The HTML component has much more configurable validation.
  - CSS source editor
  - JSP editor including syntax highlighting, code assist for HTML, Java, JSF, EL's, JavaScript, taglibs, JSR-45 compliant debugging  
The release, the JSP component has more configurable and thorough validation, plus improvements to its JSP 2.0 specification support.
- XML Language Tools
  - XML source editor  
This release, the XML component includes an improved formatter.
  - XSD editor - Graphical and source editing
  - DTD source editor
- Structured Source Editing (SSE) framework  
This release, Source Editing added a provisional API for Quick Fix in its editors.

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4 <http://www.eclipse.org/webtools/development/news/main.php>

**Web Service Tools**

- Extensible Web Service Wizards
- Creation of servlet based Web service using Axis1 and Axis2 runtimes
- Extension points for finding, creating and testing Web service
- Integrated into Java EE Navigator
- JAX-RPC codegen
- JSR 109 deployment ready
- Web services Ant tasks
- Web Services Explorer - UDDI, WSDL and WSIL pages
- WSDL Editor - graphical and source modes, integrated with XSD Editor
- WS-I Test Tools - Validate WSDL and SOAP for WS-I compliance
- Models for Web services deployment descriptors
- Service policies

**JEE Tools**

- New wizards for creating Web artifacts: Servlet Filters and Application Lifecycle Listeners
- Usability enhancements in the toolbar of the Java EE perspective
- EAR 5 Bundled Libraries support
- Java EE Deployment Descriptor nodes in the Project Navigator view
- Improved Java EE classpath management/UI
- Ability to read Java EE models from binary archives
- Continuing to support and improve:
  - Java EE Core Models and Model Provider Framework
  - Natures and Builders
  - Java EE Views and Navigators
  - Java EE Projects and Modules
  - Support for WAR, EJB-JAR, EAR, etc
  - Java EE Navigator view
  - Ability to target on different servers

**EJB Tools**

- New this release: New wizards for creating EJB 3.0 artifacts: Session Beans and Message-Driven Beans
- JavaDoc Annotation Support (planning to remove next release, since now supported by Java language)

## **JSF Tools**

- New this release:
  - Support for alternate view description language for JSF
  - Support for Apache MyFaces Trinidad components
- Continuing to support and improve:
  - 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
  - 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

**Dali**

- New this release:
  - Added provisional API for JPA model
  - Extensible persistence.xml Editor
  - Additional persistence configuration
  - Named Query support
  - Support for IdClass
  - Generators on Entity (Type) level
  - Complete table and column definition where applicable
  - Project Explorer Content for JPA projects
  - Support for adding JPA functionality to a Java project
  - Added optional feature to support EclipseLink
  - New XML Mapping File wizard
  - New Entity Wizard
- Continuing to support and improve:
  - Support for Java Persistence APIs (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 for JPA
  - Table/Column annotation value code completion
  - DDL Generation extension
  - Entity Generation extension



## Non-Code Aspects

### Developer and 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

- Provided with and as part of the API and JavaDoc documentation.

### End-User Documentation and Examples

- WTP 3.0 downloads and installations includes end-user documentation. Additionally, this same documentation will be available on the internet, via an Eclipse info-center provided by the Eclipse Foundation (which will be similar to the [Europa version<sup>5</sup>](#)).
- Tutorials and presentation materials available on our [WTP Project website](#) <sup>6</sup>. Note: some updates will need to be made to some of the older tutorial materials, which may occur after our release at the end of June, and for which we hope to get community contributions as they find outdated material.
- Includes copies of conference presentations (EclipseCon, JavaOne, EclipseWorld), articles, etc.
- Two known books: Pro Eclipse JST, Eclipse Web Tools Platform

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<sup>5</sup> <http://help.eclipse.org/help33/index.jsp>

<sup>6</sup> <http://www.eclipse.org/webtools>

## APIs

In general we provide APIs according to [Eclipse Quality API standards](#) <sup>7</sup>. But, we are aware that we (WTP) still do not provide enough APIs and still have too large a “provisional debt”.

We have, this release though, published a new [API Policy](#) <sup>8</sup> document that describes how we protect some non-API so that adopters can invest with some assurance of continuity, but also detail the limits to that policy, so that eventually we can provide complete API.

Another policy change this release which received a lot of discussion was our [Policy on Package Visibility](#) <sup>9</sup>. While there is controversy about this policy, it was requested by committers to not have an absolute policy requiring visibility but to allow them to use it as a design principle, just like 'protected', 'private', 'final', etc. Adopters should “adopt early and adopt often” and file bugs if package visibility impacts them.

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<sup>7</sup> [http://www.eclipse.org/projects/dev\\_process/eclipse-quality.php](http://www.eclipse.org/projects/dev_process/eclipse-quality.php)

<sup>8</sup> [http://wiki.eclipse.org/WTP\\_API\\_Policy](http://wiki.eclipse.org/WTP_API_Policy)

<sup>9</sup> [http://wiki.eclipse.org/WTP\\_Policy\\_on\\_Package\\_Visibility](http://wiki.eclipse.org/WTP_Policy_on_Package_Visibility)

## Architectural Issues

- Tim Deboer manages WTP Architecture for this release, and has periodically held [work-group meetings](#)<sup>10</sup> to discuss and decide specific architectural.
- We still have several cases where we rely on non-API from the Eclipse Platform and JDT, this will be addressed in future releases.

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<sup>10</sup> [http://wiki.eclipse.org/WTP\\_Architecture\\_Working\\_Group](http://wiki.eclipse.org/WTP_Architecture_Working_Group)

## Tool Usability

WTP provides a lot of functionality to web developers as indicated by the number of downloads and the traffic on the webtools newsgroup.

It does emphasize Java based web development, even though it has some tools for pure HTML, CSS and JavaScript development. We hope there will be more improvement (and contributions) in the Web 2.0 area in future releases, such as through the ATF incubating project.

It also has a reputation for being more oriented towards “technical” web developers, rather than new or novice users. One recent development that may improve that reputation in the long term (if not the next release) is that Kaloyan Raev has volunteered to manage the PMC role of “[User Experience](#)”.<sup>11</sup>

Another way we contribute to the overall usefulness experience to Eclipse end-users is to participate in the EPP packaging project, by “owning” the JEE Developers IDE package. While we admittedly have not done as much in this area as we would have liked, we did expand the JEE Developers IDE to include RSE (Remote System Explorer) this release since it provides SSH/SFTP access to servers, which many web developers need in the course of their work.
















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<sup>11</sup> [http://wiki.eclipse.org/WTP\\_User\\_Experience\\_Lead](http://wiki.eclipse.org/WTP_User_Experience_Lead)


## Simultaneous Release Checklist

### Must Do

These are *required* for participation:













1.  The projects must work together. This means that one should be able to load any subset of the Ganymede projects into Eclipse and each of the loaded projects should be able to pass all the same tests as if it had been loaded independently.
2.  Projects must have build process maturity and their own functional project update site - the Ganymede site will reference these sites, not replace them.
3.  Projects must use 4-part [version numbers](#).
4.  Any new (new during Ganymede) third-party plug-ins that are common between projects must be consumed via [Orbit](#); the final Ganymede release will not have duplicate third-party libraries (note that this only applies to identical versions of the libraries; thus if project A requires foo.jar 1.6 and project B uses foo.jar 1.7, that's ok).
5.  All plug-ins (bundles) must use the true bundle form. That is, provide a manifest.mf file, and not rely on the plugin.xml file being 'translated' into a manifest.mf file at initial startup. See [bug 130598](#).
6.  All plug-ins must correctly list their required JVM versions in the manifest.mf. See the wiki page about selecting the correct JVM [\[1\]](#).
7.  Project representatives must attend the planning meetings and conference calls - you have to be involved to be involved. A few misses are ok, but chronic lack of attendance is a no-no.
8.  At least one person from each project must subscribe to cross-project bug inbox, i.e. edit Bugzilla prefs to watch "cross-project.inbox@eclipse.org"
9.  Build team members from each project will provide communication channels: phone, mail, IM, IRC and will be available during *to-be-specified* crucial integration times
10.  Projects must have stated and demonstrated their intent to join Ganymede by the M4+0 date. Projects do so by adding themselves to the table/list above and to the Ganymede common build infrastructure.
11.  Projects must have a written ramp down policy by M6+0. (One of the issues identified with this guideline is that its not so much the ramp down policy of how many votes are needed for each bug fix that we need to be consistent on, but rather the meaning of each of the milestones and release candidates. Here [\[2\]](#) is the Platform 3.2 ramp down policy as a guideline for other projects.)
12.  Projects must have their IP approved (a normal Eclipse requirement) and will follow the Eclipse Legal deadlines to do so.
13.  Projects must [optimize](#) their update site using [pack200](#) to reduce bandwidth utilization and provide a better update experience for users. Additionally, they should do site digesting.
14.  Projects must use signed plugins using the Eclipse certificate. Exceptions authorized by the planning council for technical reasons.
15.  Projects must have use jar'ed plug-ins unless there are technical reasons.
  - Nested jars should be avoided if possible since it creates problems for projects that has dependencies to such plug-ins. The OSGi runtime is fine with it but the compiler is not able to handle classpaths that contain nested jars.
  - In case only one nested jar exists, it is often better to expand the contents of that jar into the root folder (i.e. unnest the jar).

- If a plug-in contains large files that are frequently used (opened and closed), a jar'ed plug-in might degrade performance significantly since the file must be decompressed each time it is opened.

16.  Projects must use Eclipse message bundles unless there are technical reasons not to. (see [Message Bundle Conversion Tool](#) and [3])

### Should Do

These are recommended for participating projects:


1.  Projects should have capabilities for their feature sets.
2.  Build reproducibility? Require that projects be buildable by community members. Should be identical bits (but not required). All build assets and documentation in CVS/Subversion.
3.  Non-project-team-members should be able to build each project.
4.  Non-project-team-members should be able to run unit tests on each project.
5.  Source tarballs should be created for Linux distros to build with. <need reference here, on how to do ... Kim :)> [We don't provide tarball, but Linux distros have told us, in the past, they can rebuild our stuff from cvs, using our scripts (slightly modified)].
6.  Should have new & noteworthy for each milestone. Should be something readable and usable not just a static list of all the bugs. Corollary: individual new & noteworthy should be linked in to the collective New & Noteworthy.
7.  Should use [ICU4J when appropriate](#).
8.  Should provide build [RSS feeds](#) as per the build workshop. [We provide an RSS feed, but not with standard "build workshop" format, due to no time or resource to customize it].
9.  Should follow the [User Interface Guidelines](#). The [UI Checklist](#) is a good place to start.
10.  Should not have improper API usage, i.e., should not use non-API of other projects. [We have a few cases of internal use to platform, bugs are open. We do have a lot of "internal project" non-api use, such as when JSP uses something internal from HTML]
11.  Should devote at least one milestone to performance and scalability improvements. [We planned for it, but didn't execute well, due to other problems, and lack of contributions.]
12.  Each major project (the top-level projects except for the Tools and Technology projects where it is the sub-projects) should have a splash page icon and contribute to the welcome page. [No time or resource to contribute.]

### Encouraged

We added a third, even weaker, category of recommendations:

1.  Should participate in a [User Interface Best Practices Working Group UI walkthrough](#). [Have not yet, but plan to before release].

### Could Do

1.  SDKs can be included in the Ganymede update site at the project's discretion. A best practice that was discussed would be a minimum run-time with additional sources and examples can be added via update manager or other features.

## **End-of-Life**

- RDB tools moved to DTP in 2007. Some minor maintenance continues with RDB 1.5.5 patches (and probably will for another year or two) but RDB is not distributed with WTP 3.0.
- Common UI Properties plugin has been deprecated, since the beginning, and completely removed this release.
- Deprecated Items schedule for removal next major release:
  - XDoclet annotations support
  - Cactus unit test support
  - The old 'javascript' component (since it has been obsoleted by the JSDT component this release).

## Quality (Bugzilla)

Neil Hauge manages the general, overall measurement and monitoring of our quality and bug handling.

### Focused Quality Activities

In order to make sure we focused on quality of particular types, that are important to our project's health, we devoted part of each of our weekly status meetings to discussing and reducing our bug backlog in specific areas.

- First in the development cycle, we focused on very old “enhancement requests” to make sure we were not missing any long standing requests that should become part of our plan for this release.
- Next we focused on “bugs with patches attached” to make sure we were being responsive to non-committers efforts to improve parts of WTP that was important enough to them to contribute a patch.
- We also focused on reviewing older bugs that had a a severity of “Major” or higher to ensure that these potentially serious issues were being addressed, or at least correctly categorized.

### Bugzilla statistics

The statistics in this table reflect overall Bugzilla entries (since project inception) with current snapshot, obtained on May 20, 2008 (5 weeks before release).

Total bugs	17217
Total Resolved/Closed bugs	14077
Total Open bugs	3140
Blocker/Critical	7
Major	206

The statistics in this table reflect activity since the previous release (for the period July 1st, 2007 to May 20, 2008)

Bugs opened	3348
Bugs resolved	3639
Fixed	2321
Invalid	201
Wontfix	486
Duplicate	358
Worksforme	245
Not Eclipse	28

We interpret these statistics as demonstrating an alive-and-well project: many bugs open, many fixed, approximately 80 per week. The fact that we reduced our backlog by “merely” 300 bugs (approximately) may not seem like much, but it is 10% (approximately) and is a huge improvement over previous years, where the backlog-debt actually grew larger instead of smaller, as it did this year.



## **Standards**

### **W3C and OASIS standards**

- HTML 4.01, XHTML 1.0 / 1.1, XML Catalog 1.0, CSS 2.0, ECMAScript 262
- XML 1.0, XSD 1.0, WSDL 1.1, WS-I Basic Profile 1.1
- SOAP 1.1, WS-I Attachment Profile 1.0.

### **JCP standards**

- J2EE 1.2 / 1.3 / 1.4: Servlet, JSP, EJB, JAX-RPC, JSR109, JSR045, JSR109, JSR921
- EE5: Minimal support
- JDBC 2.1
- JSR 220: EJB 3.0
- JSR 127: JSF 1.1
- JSR 252: JSF 1.2

## UI Usability

We are familiar with, and follow, the [Eclipse User Interface Guidelines](http://wiki.eclipse.org/index.php/User_Interface_Guidelines).<sup>12</sup>

We do have some contributors that often open bugs for Accessibility and National Language issues so we can fix those bugs before end-users encounter them.

We have not yet participated in a UI walk through, this release, but plan to do that soon so it can at least effect our future releases.

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<sup>12</sup> [http://wiki.eclipse.org/index.php/User\\_Interface\\_Guidelines](http://wiki.eclipse.org/index.php/User_Interface_Guidelines)

## **Schedule**

WTP 3.0 followed the Ganymede simultaneous release schedule, and delivered all milestones on time.

We plan to participate in simultaneous maintenance as well.

WTP may elect to deliver additional maintenance, tech preview milestones, or off-cycle releases in addition, if adopter or user requests warrant.

In addition to providing predictable milestones and releases, we also frequently “step up” to building and testing with our prerequisite software (usually weekly) so that we can find bugs early and get fixes in the platform and other prerequisite on behalf of the whole Ganymede release.

## Communities

### Committers and Contributors

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>
- Many, diverse, Contributing Organizations (current and previous): BEA, Eteration, Exadel, IBM, Innoopract, JBoss, ObjectWeb, Oracle, SAS, Thales, University of Karlsruhe, SAP, Sybase

Open communications via mailing lists and newsgroups

- Mailing lists: PMC, wtp-dev, wtp-releng, JSF, ATF, Dali,
- 3.0 plans available: [http://wiki.eclipse.org/Web\\_Tools\\_Platform\\_Release\\_3.0\\_Requirements](http://wiki.eclipse.org/Web_Tools_Platform_Release_3.0_Requirements)
- 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/index\\_pmc\\_call\\_notes.php](http://www.eclipse.org/webtools/development/index_pmc_call_notes.php)
- Weekly status telecon minutes available on website:  
[http://wiki.eclipse.org/WTP\\_Development\\_Status\\_Meetings](http://wiki.eclipse.org/WTP_Development_Status_Meetings)

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, JDT, DTP, TPTP, EMF, GEF, PDT

Leverage other open source technologies in the project

Foster new contributions and committers

- AJAX Tooling Framework (ATF)
- Gathering additional community
- Planning technology preview milestones, perhaps mid-cycle release
- WTP Incubator
- XSL Editors Tools
- Early start on JSF 2.0 (e.g. Facelet Support)
- TLD Editor

## **End-User 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,

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, others

## **Adopter Community**

Many, known commercial adopters

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

Many Server Adapters available, another sign of diversity:

Open Source

- Apache Tomcat
- Apache Geronimo
- JBoss
- Jetty
- ObjectWeb JONAS
- Glassfish

Commercial

- IBM WebSphere
- Pramati Server
- BEA WebLogic
- Oracle Application Server

## IP Issues

### IP Checks

Project Leads have all proof-read, double checked and confirmed the following:

- About files and use licenses are in place as per the Guidelines to Legal Documentation.
- All contributions (code, documentation, images, etc) has been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
- All significant contributions have been reviewed by the Foundation's legal staff. Include references to the IPZilla numbers of all clearances.
- All non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff. Include references to the IPZilla numbers of all clearances.
- All Contribution Questionnaires have been completed
- The "provider" field of each feature is set to "Eclipse.org"
- The "copyright" field of each feature is set to the copyright owner (the Eclipse Foundation is rarely the copyright owner).
- Any third-party logos or trademarks included in the distribution (icons, help file logos, etc) have been licensed under the EPL.
- Any fonts or similar third-party images included in the distribution (e.g. in PDF or EPS files) have been licensed under the EPL.

### IP Log and Documentation

Our [Project IP log](#) <sup>13</sup> is complete and has been reviewed by Eclipse Legal. It includes:

- A list of third party software distributed with WTP, including information on the license and a link to the WTP CQ.
- The name of every committer for this release
- The name of every non-committer who contributed code via Bugzilla entries, with bug numbers.

One thing that is new in the IP Log this year is a detailed description of our dependencies on third party software that is not re-distributed with WTP. In summary:

- Users can install their own Application Servers, where server adapters have been provided.
- EJB 2.1 developers can install Xdoclet for “old style” annotations
- Axis2 developers will need to install their own Axis2 runtime, if it is not part of their application server.
- JSF developers need to provide a JSF runtime and component libraries, if it is not part of their application server.
- JPA developers need to provide their own JPA runtime, if it is not part of their application server.

Appendix 1 contains a static snapshot of our IP Log at the end of the release (and, this is the same version that was sent to EMO Legal staff earlier, in a separate note.)

A zip file of all about.html files and non-standard (but approved) licenses was also sent to the Eclipse Foundation legal staff for review, in a separate note but is not included here (the information is, after all, available in our distributed code).

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<sup>13</sup> [http://www.eclipse.org/webtools/iprelated/ip\\_log.php](http://www.eclipse.org/webtools/iprelated/ip_log.php)

## Appendix 1: Snapshot of Web Tools Platform Project IP Log

This log is specifically for WTP Version 3 (Ganymede Release) and related activity during 2007-2008 development cycle. Please see [previous IP log](#) for complete history and information specific to earlier versions.

This is the "flat" version of the ip log, suitable for printing or archiving for a given release.

There are 4 main sections of information:

1. A static, snapshot list of committers for this release
2. A static list of all EPL contributions from non-committers.
3. The list of third party code distributed with this release.
4. A description of other third party dependancies which are not shipped with WTP but which users can make use of, if present

Date of Committers Query: Fri, 16 May 2008 02:21:24 EDT

### Committer List

Most of the code in WTP, of course, comes from the dedicated work of the WTP Committers. The current, dynamically updated list of Committers and sub-project teams are always available in the [Eclipse Portals Eclipse Web Tools Platform Project](#). The following is a static snapshot of those committers that have contributed to this release.

### Committers in Projects releasing code

#### Common Project

Name	Email	cvs id
Chuck Bridgham	cbridgha{at}us.ibm.com	cbridgha
David Williams	david_williams{at}us.ibm.com	david_williams
Jason Sholl	jsholl{at}us.ibm.com	jsholl
Kathy Chan	kathy{at}ca.ibm.com	kchan
Konstantin Komissarchik	kosta{at}bea.com	kkomissarchik
Nitin Dahyabhai	nitind{at}us.ibm.com	nitind
Peter Moogk	pmoogk{at}ca.ibm.com	pmoogk
Kate Price	katap{at}ca.ibm.com	kprice
Carl Anderson	ccc{at}us.ibm.com	canderson
Gary Karasiuk	karasiuk{at}ca.ibm.com	gkarasiu

#### EJB Tools Project

Name	Email	cvs id
Carl Anderson	ccc{at}us.ibm.com	canderson
Chuck Bridgham	cbridgha{at}us.ibm.com	cbridgha
David Williams	david_williams{at}us.ibm.com	david_williams
Jason Sholl	jsholl{at}us.ibm.com	jsholl

Kaloyan Raev	kaloyan.raev{at}sap.com	kraev
Naci Dai	naci.dai{at}etation.com	ndai
Rob Frost	rfrost{at}bea.com	rfrost
Kate Price	katep{at}ca.ibm.com	kprice
Kiril Mitov	k.mitov{at}sap.com	kmitov
Dimitar Giormov	dimitar.giormov{at}sap.com	dgiormov

## JEE Tools Project

Name	Email	cvs id
Carl Anderson	ccc{at}us.ibm.com	canderson
Chuck Bridgham	cbridgha{at}us.ibm.com	cbridgha
David Williams	david_williams{at}us.ibm.com	david_williams
John Lanuti	jlanuti{at}us.ibm.com	jlanuti
Jason Sholl	jsholl{at}us.ibm.com	jsholl
Konstantin Komissarchik	kosta{at}bea.com	kkomissarchik
Kaloyan Raev	kaloyan.raev{at}sap.com	kraev
Naci Dai	naci.dai{at}etation.com	ndai
Neil Hauge	neil.hauge{at}oracle.com	nhauge
Rob Frost	rfrost{at}bea.com	rfrost
Kate Price	katep{at}ca.ibm.com	kprice
Dimitar Giormov	dimitar.giormov{at}sap.com	dgiormov
Kiril Mitov	k.mitov{at}sap.com	kmitov

## Dali Project

Name	Email	cvs id
Brian Vosburgh	brian.vosburgh{at}oracle.com	bvosburgh
Dirk le_Roux	dirk.leroux{at}gmail.com	dlroux
Karen Moore	karen.moore{at}oracle.com	kmoore
Max_Rydahl Andersen	max.andersen{at}jboss.com	mandersen
Neil Hauge	neil.hauge{at}oracle.com	nhauge
Paul Fullbright	paul.fullbright{at}oracle.com	pfullbright
Shaun Smith	shaun.smith{at}oracle.com	ssmith
Tran Le	tran.le{at}oracle.com	tle
Rick Sapir	rick.sapir{at}oracle.com	rsapir

## Java Server Faces Project

Name	Email	cvs id
Cameron Bateman	cameron.bateman{at}oracle.com	cbateman
Gerry Kessler	gerry.kessler{at}oracle.com	gkessler
Ian Trimble	ian.trimble{at}oracle.com	itrimble



Raghunathan Srinivasan	raghunathan.srinivasan{at}oracle.com	rsrinivasan
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## Server Tools Project

Name	Email	cvs id
David Williams	david_williams{at}us.ibm.com	david_williams
Timothy Deboer	deboer{at}ca.ibm.com	deboer
Gorkem Ercan	gercan{at}acm.org	gercan
Kate Price	katep{at}ca.ibm.com	kprice
Larry Isaacs	Larry.Isaacs{at}sas.com	lisaacs
Naci Dai	naci.dai{at}etation.com	ndai
Angel Vera	arvera{at}ca.ibm.com	avera

## Source Editing Project

Name	Email	cvs id
Amy Wu	wuamy{at}ca.ibm.com	amywu
Bradley Childs	childs{at}us.ibm.com	bchilds
David Williams	david_williams{at}us.ibm.com	david_williams
Kate Price	katep{at}ca.ibm.com	kprice
Keith Chong	kchong{at}ca.ibm.com	kchong
Nitin Dahyabhai	nitind{at}us.ibm.com	nitind
Philip Berkland	berkland{at}us.ibm.com	pberkland
Valentin Baci	vbaci{at}ca.ibm.com	vbaci

## Webservices Project

Name	Email	cvs id
David Williams	david_williams{at}us.ibm.com	david_williams
Kate Price	katep{at}ca.ibm.com	kprice
Kathy Chan	kathy{at}ca.ibm.com	kchan
Lahiru Sandakith	sandakith{at}gmail.com	lsandakit
Peter Moogk	pmoogk{at}ca.ibm.com	pmoogk
Richard Mah	rmah{at}ca.ibm.com	rmah
Valentin Baci	vbaci{at}ca.ibm.com	vbaci

## Committers in Incubating Projects

## WTP Incubator Project

Name	Email	cvs id
David Williams	david_williams{at}us.ibm.com	david_williams
Konstantin Komissarchik	kosta{at}bea.com	kkomissarchik
Timothy Deboer	deboer{at}ca.ibm.com	deboer
Kathy Chan	kathy{at}ca.ibm.com	kchan

Naci Dai	naci.dai{at}eteration.com	ndai
Raghunathan Srinivasan	raghunathan.srinivasan{at}oracle.com	rsrinivasan
Chuck Bridgham	cbridgha{at}us.ibm.com	cbridgha
Nitin Dahyabhai	nitind{at}us.ibm.com	nitind
Neil Hauge	neil.hauge{at}oracle.com	nhauge
Jesper Moller	jesper{at}selskabet.org	jmoller
David Carver	d_a_carver{at}yahoo.com	dacarver
Doug Satchwell	doug.satchwell{at}btinternet.com	dsatchwel
lars gersmann	lars.gersmann{at}gmail.com	lgersmann
Kiril Mitov	k.mitov{at}sap.com	kmitov
Cameron Bateman	cameron.bateman{at}oracle.com	cbateman

## ATF Project

Name	Email	cvs id
Philippe Ombredanne	pombredanne{at}nexb.com	pombredanne
Robert Goodman	goodmanr{at}us.ibm.com	rgoodman
Giuliano Mega	giuliano.mega{at}gmail.com	gmega
Laurens Vandeput	laurens{at}joomlatools.org	lvandeput

## Committers in Quiescent Projects

## Datatools Project

Name	Email	cvs id
David Williams	david_williams{at}us.ibm.com	david_williams
Dirk le Roux	dirk.leroux{at}gmail.com	dleroux
Der_Ping Chou	dpchou{at}us.ibm.com	dpchou
Lawrence Dunnell	ledunnel{at}us.ibm.com	ledunnel
Kate Price	katap{at}ca.ibm.com	kprice

## Contributions from non-committers

In addition to the code contributed by committers, there are a number of contributions from non-committers. We receive these contributions as bugzilla attachments and they are contributed as EPL.

These bugzilla entries are those marked with the keyword 'contributed', marked as fixed within this release.

Note: the 'Total Lines' is literally the number of new line characters in the patch. The 'Added Lines' (often more significant when it comes to matters of IP) is the number of lines with a '+' in front of them, which is the tell tale sign used by patch formats to indicate new lines in the patch. In both cases, take these numbers as quick approximations. There are a number of cases that are known to be inaccurate with the current algorithm, such as cases where some lines are 'moved', thus resulting in a lot of '-' and '+' signs, even though not that much has changed.

Date of this Contributions Query: Fri, 16 May 2008 02:10:40 EDT

Web tools

Count	Bug Number	Target Milestone	Id	Name	Total Lines	Added Lines
1	<a href="#">91698</a>	3.0 RC1	nsandona{at}us.ibm.com	Nick Sandonato	289	116
2	<a href="#">101687</a>	3.0 RC1	ebelisar{at}us.ibm.com	Ella Belisario	43	9
3	<a href="#">101687</a>	3.0 RC1	ebelisar{at}us.ibm.com	Ella Belisario	20	7
4	<a href="#">101687</a>	3.0 RC1	ebelisar{at}us.ibm.com	Ella Belisario	15	2
5	<a href="#">101687</a>	3.0 RC1	gindik{at}ca.ibm.com	Gabriel Indik	1685	173
6	<a href="#">109402</a>	3.0 M4	gilberta{at}ca.ibm.com	Gilbert Andrews	44	14
7	<a href="#">114943</a>	3.0 M6	gindik{at}ca.ibm.com	Gabriel Indik	228	92
8	<a href="#">117924</a>	3.0 M5	trungha{at}ca.ibm.com	Trung	55	19
9	<a href="#">119964</a>	3.0 M6	trungha{at}ca.ibm.com	Trung	154	58
10	<a href="#">120128</a>	3.0 M6	gilberta{at}ca.ibm.com	Gilbert Andrews	371	2
11	<a href="#">123643</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	65	30
12	<a href="#">126774</a>	3.0 M6	sengpl{at}ca.ibm.com	Seng Phung Lu	869	96
13	<a href="#">130039</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	53	20
14	<a href="#">138345</a>	3.0 M2	gindik{at}ca.ibm.com	Gabriel Indik	150	40
15	<a href="#">139153</a>	3.0 M2	jgorner{at}ca.ibm.com	Joshua Gorner	23	2
16	<a href="#">140486</a>	3.0 M7	phnixwxz1{at}yahoo.com	Wang Xianzhu	44	13
17	<a href="#">144313</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	955	527
18	<a href="#">146023</a>	3.0 M6	gilberta{at}ca.ibm.com	Gilbert Andrews	1209	834
19	<a href="#">147033</a>	3.0 M3	d_a_carver{at}yahoo.com	Dave Carver	269	60
20	<a href="#">147033</a>	3.0 M3	d_a_carver{at}yahoo.com	Dave Carver	132	101
21	<a href="#">147442</a>	3.0 M6	trungha{at}ca.ibm.com	Trung	33	4
22	<a href="#">147919</a>	3.0 M2	jgorner{at}ca.ibm.com	Joshua Gorner	277	195
23	<a href="#">151392</a>	3.0 M6	trungha{at}ca.ibm.com	Trung	498	161
24	<a href="#">155876</a>	3.0 M2	gindik{at}ca.ibm.com	Gabriel Indik	581	368
25	<a href="#">155885</a>	3.0 M6	trungha{at}ca.ibm.com	Trung	141	94
26	<a href="#">156593</a>	3.0 M2	d_a_carver{at}yahoo.com	Dave Carver	18	2
27	<a href="#">157551</a>	3.0 M7	gindik{at}ca.ibm.com	Gabriel Indik	72	16

28	<a href="#">160247</a>	3.0 M7	tmcmack{at}us.ibm.com	Tim McMackin	82	16
29	<a href="#">160247</a>	3.0 M7	tmcmack{at}us.ibm.com	Tim McMackin	18	2
30	<a href="#">160247</a>	3.0 M7	caitlina{at}ca.ibm.com	Caitlin Andrews	7100	6600
31	<a href="#">162321</a>	3.0 M4	d_a_carver{at}yahoo.com	Dave Carver	61	11
32	<a href="#">171705</a>	3.0 M6	trung{at}ca.ibm.com	Trung	98	40
33	<a href="#">171705</a>	3.0 M6	trung{at}ca.ibm.com	Trung	199	50
34	<a href="#">171705</a>	3.0 M6	trung{at}ca.ibm.com	Trung	65	11
35	<a href="#">182167</a>	3.0 RC1	makandre{at}ca.ibm.com	Andrew Mak	165	32
36	<a href="#">183330</a>	3.0	jacek.pospychala{at}pl.ibm.com	Jacek Pospychala	46	24
37	<a href="#">184761</a>	3.0 M6	gilberta{at}ca.ibm.com	Gilbert Andrews	913	278
38	<a href="#">185851</a>	3.0 RC1	nsandona{at}us.ibm.com	Nick Sandonato	1161	608
39	<a href="#">186456</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	4590	755
40	<a href="#">187937</a>	3.0 RC1	ericdp{at}ca.ibm.com	Eric D. Peters	22	2
41	<a href="#">189205</a>	3.0 M1	lit{at}in.tum.de	Tianchao Li	534	169
42	<a href="#">189489</a>	3.0 M7	jgorner{at}ca.ibm.com	Joshua Gorner	898	775
43	<a href="#">190371</a>	3.0 RC1	makandre{at}ca.ibm.com	Andrew Mak	210	26
44	<a href="#">191111</a>	3.0	zina{at}ca.ibm.com	Zina	762	273
45	<a href="#">192568</a>	3.0 M4	d_a_carver{at}yahoo.com	Dave Carver	467	324
46	<a href="#">192785</a>	3.0 M2	gilberta{at}ca.ibm.com	Gilbert Andrews	16007	15015
47	<a href="#">192785</a>	3.0 M2	gilberta{at}ca.ibm.com	Gilbert Andrews	17762	16554
48	<a href="#">193418</a>	3.0 M2	jgorner{at}ca.ibm.com	Joshua Gorner	52	10
49	<a href="#">193772</a>	3.0 M2	jgorner{at}ca.ibm.com	Joshua Gorner	32	4
50	<a href="#">195065</a>	3.0 M3	remy.suen{at}gmail.com	Remy Chi Jian Suen	34	4
51	<a href="#">195264</a>	3.0 M5	nsandona{at}us.ibm.com	Nick Sandonato	324	104
52	<a href="#">196997</a>	3.0 M3	ericdp{at}ca.ibm.com	Eric D. Peters	613	304
53	<a href="#">196997</a>	3.0 M3	ericdp{at}ca.ibm.com	Eric D. Peters	1868	1090
54	<a href="#">196997</a>	3.0 M3	ericdp{at}ca.ibm.com	Eric D. Peters	298	8
55	<a href="#">196997</a>	3.0 M3	ericdp{at}ca.ibm.com	Eric D. Peters	79	13

56	<a href="#">196997</a>	3.0 M3	ericdp{at}ca.ibm.com	Eric D. Peters	33	4
57	<a href="#">198144</a>	3.0	gilberta{at}ca.ibm.com	Gilbert Andrews	40	6
58	<a href="#">198144</a>	3.0	gilberta{at}ca.ibm.com	Gilbert Andrews	38	2
59	<a href="#">199105</a>	3.0 M3	h.hristov{at}sap.com	Hristo Hristov	3411	3155
60	<a href="#">199121</a>	3.0 M5	yavor.vasilev.boyadzhiev{at}sap.com	Yavor Boyadzhiev	2502	1609
61	<a href="#">200433</a>	3.0	ramanday{at}us.ibm.com	Raj Mandayam	18	2
62	<a href="#">201632</a>	3.0 M3	ictewksb{at}us.ibm.com	Ian Tewksbury	95	37
63	<a href="#">201632</a>	3.0 M3	ictewksb{at}us.ibm.com	Ian Tewksbury	41	13
64	<a href="#">202174</a>	3.0 M4	jzhang{at}us.ibm.com	Jim Zhang	422	314
65	<a href="#">202460</a>	3.0	gilberta{at}ca.ibm.com	Gilbert Andrews	88	14
66	<a href="#">203291</a>	3.0 M3	eugene{at}genuitec.com	Eugene Ostroukhov	62	17
67	<a href="#">203301</a>	3.0 M6	eugene{at}genuitec.com	Eugene Ostroukhov	21	6
68	<a href="#">203301</a>	3.0 M6	gindik{at}ca.ibm.com	Gabriel Indik	41	16
69	<a href="#">203301</a>	3.0 M6	gindik{at}ca.ibm.com	Gabriel Indik	27	2
70	<a href="#">203303</a>	3.0 M3	eugene{at}genuitec.com	Eugene Ostroukhov	94	56
71	<a href="#">203494</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	168	65
72	<a href="#">204649</a>	3.0 M3	kelvinhc{at}ca.ibm.com	Kelvin Cheung	47	5
73	<a href="#">204833</a>	3.0 M5	randallt{at}us.ibm.com	Randall Theobald	18	3
74	<a href="#">204833</a>	3.0 M5	randallt{at}us.ibm.com	Randall Theobald	29	6
75	<a href="#">205383</a>	3.0 M6	d_a_carver{at}yahoo.com	Dave Carver	47	19
76	<a href="#">205583</a>	3.0	zina{at}ca.ibm.com	Zina	1400	671
77	<a href="#">206072</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	26	4
78	<a href="#">207068</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	134	1
79	<a href="#">207076</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	90	8
80	<a href="#">207113</a>	3.0 M7	gindik{at}ca.ibm.com	Gabriel Indik	34	11

81	<a href="#">207616</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	374	158
82	<a href="#">207618</a>	3.0 M3	zina{at}ca.ibm.com	Zina	534	70
83	<a href="#">207826</a>	3.0 M6	stefan.dimov{at}sap.com	Stefan Dimov	1654	1021
84	<a href="#">207826</a>	3.0 M6	stefan.dimov{at}sap.com	Stefan Dimov	1855	1187
85	<a href="#">208072</a>	3.0 M6	gindik{at}ca.ibm.com	Gabriel Indik	151	42
86	<a href="#">208491</a>	3.0 M3	ericdp{at}ca.ibm.com	Eric D. Peters	18	2
87	<a href="#">208767</a>	3.0 M4	h.hristov{at}sap.com	Hristo Hristov	685	374
88	<a href="#">208795</a>	3.0 M5	ericdp{at}ca.ibm.com	Eric D. Peters	286	112
89	<a href="#">208809</a>	3.0	ictewksb{at}us.ibm.com	Ian Tewksbury	176	89
90	<a href="#">209206</a>	3.0 M4	h.hristov{at}sap.com	Hristo Hristov	955	250
91	<a href="#">209726</a>	3.0	Eric.Norman{at}softwareag.com	Eric Norman	38	16
92	<a href="#">209858</a>	3.0 M4	ericdp{at}ca.ibm.com	Eric D. Peters	2157	1113
93	<a href="#">209858</a>	3.0 M4	ericdp{at}ca.ibm.com	Eric D. Peters	481	285
94	<a href="#">209858</a>	3.0 M4	ericdp{at}ca.ibm.com	Eric D. Peters	105	65
95	<a href="#">209891</a>	3.0	ictewksb{at}us.ibm.com	Ian Tewksbury	157	136
96	<a href="#">210481</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	87	21
97	<a href="#">211262</a>	3.0 M4	ericdp{at}ca.ibm.com	Eric D. Peters	81	22
98	<a href="#">212242</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	35	4
99	<a href="#">212330</a>	3.0 M6	d_a_carver{at}yahoo.com	Dave Carver	2626	2018
100	<a href="#">212330</a>	3.0 M6	d_a_carver{at}yahoo.com	Dave Carver	2648	2042
101	<a href="#">213330</a>	3.0 M6	trung{at}ca.ibm.com	Trung	147	34
102	<a href="#">213330</a>	3.0 M6	trung{at}ca.ibm.com	Trung	185	39
103	<a href="#">213505</a>	3.0 M5	jzhang{at}us.ibm.com	Jim Zhang	16	2
104	<a href="#">213730</a>	3.0 M7	trung{at}ca.ibm.com	Trung	57	12
105	<a href="#">214367</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	18	2
106	<a href="#">214516</a>	3.0 M5	nsandona{at}us.ibm.com	Nick Sandonato	111	28
107	<a href="#">214624</a>	3.0 M7	makandre{at}ca.ibm.com	Andrew Mak	133	8
108	<a href="#">214804</a>	3.0 M5	gindik{at}ca.ibm.com	Gabriel Indik	19	4
109	<a href="#">214908</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	99	29
110	<a href="#">214993</a>	3.0 M6	gindik{at}ca.ibm.com	Gabriel Indik	18	2

111	<a href="#">214993</a>	3.0 M6	gindik{at}ca.ibm.com	Gabriel Indik	99	59
112	<a href="#">215514</a>	3.0 M7	gindik{at}ca.ibm.com	Gabriel Indik	42	27
113	<a href="#">215552</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	251	96
114	<a href="#">215555</a>	3.0 M5	jasonpet{at}us.ibm.com	Jason Peterson	21	5
115	<a href="#">216302</a>	3.0 M6	achim.huegen{at}gmx.de	Achim	20	2
116	<a href="#">216345</a>	3.0 M5	gilberta{at}ca.ibm.com	Gilbert Andrews	50	10
117	<a href="#">216544</a>	3.0 RC1	eiji.morito{at}jp.fujitsu.com	Eiji Morito	27	10
118	<a href="#">216734</a>	3.0 M6	petya.sabeva{at}sap.com	Petya Sabeva	2622	1626
119	<a href="#">216734</a>	3.0 M6	petya.sabeva{at}sap.com	Petya Sabeva	16	3
120	<a href="#">216965</a>	3.0 M5	caitlina{at}ca.ibm.com	Caitlin Andrews	9171	7217
121	<a href="#">216970</a>	3.0	caitlina{at}ca.ibm.com	Caitlin Andrews	2468	1533
122	<a href="#">216971</a>	3.0 M5	caitlina{at}ca.ibm.com	Caitlin Andrews	217	43
123	<a href="#">217177</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	62	19
124	<a href="#">217723</a>	3.0 M6	sengpl{at}ca.ibm.com	Seng Phung Lu	377	182
125	<a href="#">217783</a>	3.0 M6	rob.stryker{at}jboss.com	Rob Stryker	94	22
126	<a href="#">218029</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	33	19
127	<a href="#">218030</a>	3.0 M5	nsandona{at}us.ibm.com	Nick Sandonato	64	18
128	<a href="#">218051</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	761	399
129	<a href="#">218070</a>	3.0 M5	nsandona{at}us.ibm.com	Nick Sandonato	210	103
130	<a href="#">218576</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	35	4
131	<a href="#">218696</a>	3.0 M6	ericdp{at}ca.ibm.com	Eric D. Peters	217	56
132	<a href="#">218767</a>	3.0 M6	yavor.vasilev.boyadzhiev{at}sap.com	Yavor Boyadzhiev	78	30
133	<a href="#">218957</a>	3.0 M6	petya.sabeva{at}sap.com	Petya Sabeva	72	20
134	<a href="#">218957</a>	3.0 M6	petya.sabeva{at}sap.com	Petya Sabeva	1027	850
135	<a href="#">218993</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	225	113
136	<a href="#">219004</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	34	12
137	<a href="#">219005</a>	3.0 RC1	ericdp{at}ca.ibm.com	Eric D. Peters	66	16

138	<a href="#">219065</a>	3.0 M6	rob.stryker{at}jboss.com	Rob Stryker	49	7
139	<a href="#">219121</a>	3.0 M7	trungha{at}ca.ibm.com	Trung	18	3
140	<a href="#">219537</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	73	15
141	<a href="#">219776</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	30	6
142	<a href="#">220601</a>	3.0 M6	nagrawal{at}us.ibm.com	Neeraj Agrawal	70	15
143	<a href="#">220739</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	67	16
144	<a href="#">220796</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	18	2
145	<a href="#">220983</a>	3.0 M6	trungha{at}ca.ibm.com	Trung	54	10
146	<a href="#">220985</a>	3.0 M7	trungha{at}ca.ibm.com	Trung	194	82
147	<a href="#">220993</a>	3.0 M6	nagrawal{at}us.ibm.com	Neeraj Agrawal	78	47
148	<a href="#">221793</a>	3.0 M6	jasonpet{at}us.ibm.com	Jason Peterson	18	3
149	<a href="#">222075</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	44	9
150	<a href="#">222077</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	57	29
151	<a href="#">222094</a>	3.0 RC1	makandre{at}ca.ibm.com	Andrew Mak	82	24
152	<a href="#">222103</a>	3.0 M6	trungha{at}ca.ibm.com	Trung	130	28
153	<a href="#">222321</a>	3.0 M6	trungha{at}ca.ibm.com	Trung	18	2
154	<a href="#">222321</a>	3.0 M6	trungha{at}ca.ibm.com	Trung	35	4
155	<a href="#">222473</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	187	60
156	<a href="#">222531</a>	3.0	rob.stryker{at}jboss.com	Rob Stryker	19	2
157	<a href="#">222651</a>	3.0 M6	stefan.dimov{at}sap.com	Stefan Dimov	41	6
158	<a href="#">222727</a>	3.0 M6	gindik{at}ca.ibm.com	Gabriel Indik	136	28
159	<a href="#">222997</a>	3.0 M6	gindik{at}ca.ibm.com	Gabriel Indik	18	2
160	<a href="#">223118</a>	3.0	ericdp{at}ca.ibm.com	Eric D. Peters	203	55
161	<a href="#">223634</a>	3.0	ericdp{at}ca.ibm.com	Eric D. Peters	18	2
162	<a href="#">223905</a>	3.0	caitlina{at}ca.ibm.com	Caitlin Andrews	4068	3068
163	<a href="#">223912</a>	3.0 M6	ericdp{at}ca.ibm.com	Eric D. Peters	33	4
164	<a href="#">224013</a>	3.0 M6	rob.stryker{at}jboss.com	Rob Stryker	22	4
165	<a href="#">224027</a>	3.0 M6	rob.stryker{at}jboss.com	Rob Stryker	69	19
166	<a href="#">224148</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	98	18
167	<a href="#">224193</a>	3.0 M6	nagrawal{at}us.ibm.com	Neeraj Agrawal	15	2
168	<a href="#">224209</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	2165	1194



169	<a href="#">224333</a>	3.0 M7	epfister{at}hsr.ch	Etienne Pfister	15	2
170	<a href="#">224333</a>	3.0 M7	epfister{at}hsr.ch	Etienne Pfister	16	2
171	<a href="#">224433</a>	3.0 RC1	makandre{at}ca.ibm.com	Andrew Mak	54	11
172	<a href="#">224452</a>	3.0 M6	trungba{at}ca.ibm.com	Trung	64	8
173	<a href="#">224488</a>	3.0 M6	jasonpet{at}us.ibm.com	Jason Peterson	18	1
174	<a href="#">224563</a>	3.0 M6	ericdp{at}ca.ibm.com	Eric D. Peters	26	3
175	<a href="#">224953</a>	3.0 M6	gilberta{at}ca.ibm.com	Gilbert Andrews	90	27
176	<a href="#">225032</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	60	8
177	<a href="#">225032</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	51	6
178	<a href="#">225161</a>	3.0 M6	nsandona{at}us.ibm.com	Nick Sandonato	18	2
179	<a href="#">225194</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	18	2
180	<a href="#">225222</a>	3.0	caitlina{at}ca.ibm.com	Caitlin Andrews	216	54
181	<a href="#">225378</a>	3.0 M6	makandre{at}ca.ibm.com	Andrew Mak	142	69
182	<a href="#">225423</a>	3.0	caitlina{at}ca.ibm.com	Caitlin Andrews	5589	4024
183	<a href="#">225816</a>	3.0 M7	gindik{at}ca.ibm.com	Gabriel Indik	65	15
184	<a href="#">225819</a>	3.0 M7	gindik{at}ca.ibm.com	Gabriel Indik	109	81
185	<a href="#">225830</a>	3.0	lovering{at}ca.ibm.com	Virginia Lovering	4552	4248
186	<a href="#">225830</a>	3.0	lovering{at}ca.ibm.com	Virginia Lovering	738	617
187	<a href="#">225879</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	44	2
188	<a href="#">226242</a>	3.0 M7	shiratori.tomo{at}jp.fujitsu.com	Tomoki Shiratori	17	6
189	<a href="#">226736</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	49	19
190	<a href="#">226767</a>	3.0 M7	makandre{at}ca.ibm.com	Andrew Mak	139	13
191	<a href="#">226782</a>	3.0 M7	rob.stryker{at}jboss.com	Rob Stryker	31	5
192	<a href="#">226821</a>	3.0 RC1	nsandona{at}us.ibm.com	Nick Sandonato	239	179
193	<a href="#">227152</a>	3.0 M7	makandre{at}ca.ibm.com	Andrew Mak	89	19
194	<a href="#">227237</a>	3.0 M7	gilberta{at}ca.ibm.com	Gilbert Andrews	61	9
195	<a href="#">227318</a>	3.0 RC1	nagrawal{at}us.ibm.com	Neeraj Agrawal	183	92

196	<a href="#">227359</a>	3.0 M7	makandre{at}ca.ibm.com	Andrew Mak	100	22
197	<a href="#">227404</a>	3.0 RC1	nagrawal{at}us.ibm.com	Neeraj Agrawal	20	3
198	<a href="#">227441</a>	3.0 M7	caitlina{at}ca.ibm.com	Caitlin Andrews	2287	826
199	<a href="#">227489</a>	3.0 RC1	epfister{at}hsr.ch	Etienne Pfister	57	15
200	<a href="#">227648</a>	3.0	ericdp{at}ca.ibm.com	Eric D. Peters	48	6
201	<a href="#">227824</a>	3.0 M7	makandre{at}ca.ibm.com	Andrew Mak	29	4
202	<a href="#">227848</a>	3.0 RC1	makandre{at}ca.ibm.com	Andrew Mak	101	15
203	<a href="#">228013</a>	3.0 M7	caitlina{at}ca.ibm.com	Caitlin Andrews	136	74
204	<a href="#">228016</a>	3.0 M7	caitlina{at}ca.ibm.com	Caitlin Andrews	833	524
205	<a href="#">228054</a>	3.0 M7	makandre{at}ca.ibm.com	Andrew Mak	26	3
206	<a href="#">228065</a>	3.0 M7	nsandona{at}us.ibm.com	Nick Sandonato	396	267
207	<a href="#">228495</a>	3.0	nsandona{at}us.ibm.com	Nick Sandonato	229	134
208	<a href="#">228505</a>	3.0 M7	larinac{at}ca.ibm.com	Larina Cheung	233	129
209	<a href="#">228920</a>	3.0	caitlina{at}ca.ibm.com	Caitlin Andrews	86	60
210	<a href="#">228922</a>	3.0	caitlina{at}ca.ibm.com	Caitlin Andrews	72	49
211	<a href="#">228945</a>	3.0 M7	sengpl{at}ca.ibm.com	Seng Phung Lu	305	128
212	<a href="#">229175</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	65	13
213	<a href="#">229175</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	164	48
214	<a href="#">229175</a>	3.0	larinac{at}ca.ibm.com	Larina Cheung	55	11
215	<a href="#">229693</a>	3.0 M7	makandre{at}ca.ibm.com	Andrew Mak	50	11
216	<a href="#">229694</a>	3.0	gindik{at}ca.ibm.com	Gabriel Indik	34	11
217	<a href="#">229728</a>	3.0 RC1	makandre{at}ca.ibm.com	Andrew Mak	179	35
218	<a href="#">230297</a>	3.0 RC1	nsandona{at}us.ibm.com	Nick Sandonato	83	37
219	<a href="#">230889</a>	3.0 RC1	makandre{at}ca.ibm.com	Andrew Mak	34	4
220	<a href="#">231122</a>	3.0 RC1	epfister{at}hsr.ch	Etienne Pfister	41	13
221	<a href="#">231351</a>	3.0 RC1	gilberta{at}ca.ibm.com	Gilbert Andrews	107	38

222	<a href="#">231645</a>	3.0 RC1	jasonpet{at}us.ibm.com	Jason Peterson	18	2
223	<a href="#">231692</a>	3.0 RC1	nsandona{at}us.ibm.com	Nick Sandonato	182	60

Tip: You can use this [bugzilla single list](#) for above table to first list all bugs in the table, and then narrow or sort the result how ever you would like.

## JSF

Count	Bug Number	Target Milestone	Id	Name	Total Lines	Added Lines
224	<a href="#">167180</a>	3.0 RC1	spaxton{at}us.ibm.com	Scott Paxton	866	108
225	<a href="#">171795</a>	3.0 M6	mat.fuessel{at}gmx.net	Matthias Fuessel	60	30
226	<a href="#">171795</a>	3.0 M6	mat.fuessel{at}gmx.net	Matthias Fuessel	348	172
227	<a href="#">172696</a>	3.0	mat.fuessel{at}gmx.net	Matthias Fuessel	131	51
228	<a href="#">175109</a>	3.0 M4	mat.fuessel{at}gmx.net	Matthias Fuessel	1214	771
229	<a href="#">191827</a>	3.0 M6	dmgloss{at}mail.ru	Vadim Dmitriev	756	508
230	<a href="#">198984</a>	3.0	mat.fuessel{at}gmx.net	Matthias Fuessel	271	124
231	<a href="#">206514</a>	3.0	xiaonan_jiang{at}us.ibm.com	Xiaonan Jiang	413	335
232	<a href="#">211321</a>	3.0 M7	xiaonan_jiang{at}us.ibm.com	Xiaonan Jiang	581	367
233	<a href="#">221353</a>	3.0 M7	debajit.adhikary{at}oracle.com	Debajit Adhikary	109	38

Tip: You can use this [bugzilla single list](#) for above table to first list all bugs in the table, and then narrow or sort the result how ever you would like.

## Dali

Count	Bug Number	Target Milestone	Id	Name	Total Lines	Added Lines
234	<a href="#">127337</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	1547	1166
235	<a href="#">128979</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	3590	1838
236	<a href="#">130580</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	3586	2470
237	<a href="#">130580</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	700	226
238	<a href="#">130580</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	1288	536

239	<a href="#">137799</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	257	158
240	<a href="#">186439</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	1746	642
241	<a href="#">186439</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	94	18
242	<a href="#">191720</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	983	178
243	<a href="#">198982</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	3477	1233
244	<a href="#">202518</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	68	8
245	<a href="#">213467</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	873	275
246	<a href="#">215807</a>	2.0 M6	d.dimitrov{at}sap.com	Dimiter Dimitrov	17	2
247	<a href="#">216450</a>	2.0 M7	d.dimitrov{at}sap.com	Dimiter Dimitrov	3582	3456
248	<a href="#">216755</a>	2.0 M6	d.dimitrov{at}sap.com	Dimiter Dimitrov	25	10
249	<a href="#">220801</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	578	164
250	<a href="#">220802</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	174	43
251	<a href="#">220966</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	701	140
252	<a href="#">222110</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	262	49
253	<a href="#">222241</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	26	2
254	<a href="#">222792</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	634	171
255	<a href="#">222980</a>	2.0 M6	pascal.filion{at}oracle.com	Pascal Filion	26	2
256	<a href="#">223837</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	670	311
257	<a href="#">225428</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	149	78
258	<a href="#">225639</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	17	2
259	<a href="#">225640</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	165	43
260	<a href="#">225660</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	76	16

261	<a href="#">225681</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	844	505
262	<a href="#">225682</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	231	76
263	<a href="#">227895</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	141	28
264	<a href="#">228222</a>	2.0 M7	d.dimitrov{at}sap.com	Dimiter Dimitrov	69	9
265	<a href="#">228556</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	18	3
266	<a href="#">228557</a>	2.0 M7	pascal.filion{at}oracle.com	Pascal Filion	82	19
267	<a href="#">229511</a>	2.0 RC1	pascal.filion{at}oracle.com	Pascal Filion	154	146
268	<a href="#">230414</a>	2.0 RC1	d.dimitrov{at}sap.com	Dimiter Dimitrov	21	5
269	<a href="#">230427</a>	2.0 RC1	pascal.filion{at}oracle.com	Pascal Filion	45	7

Tip: You can use this [bugzilla single list](#) for above table to first list all bugs in the table, and then narrow or sort the result how ever you would like.

### Summary, by Contributors

<b>Id</b>	<b>Name</b>	<b>Number of patches</b>
pascal.filion{at}oracle.com	Pascal Filion	31
nsandona{at}us.ibm.com	Nick Sandonato	28
makandre{at}ca.ibm.com	Andrew Mak	26
ericdp{at}ca.ibm.com	Eric D. Peters	19
gindik{at}ca.ibm.com	Gabriel Indik	18
trungha{at}ca.ibm.com	Trung	18
gilberta{at}ca.ibm.com	Gilbert Andrews	13
caitlina{at}ca.ibm.com	Caitlin Andrews	12
larinac{at}ca.ibm.com	Larina Cheung	11
d_a_carver{at}yahoo.com	Dave Carver	8
rob.stryker{at}jboss.com	Rob Stryker	6
nagrawal{at}us.ibm.com	Neeraj Agrawal	5
mat.fuessel{at}gmx.net	Matthias Fuessel	5
d.dimitrov{at}sap.com	Dimiter Dimitrov	5
jgorner{at}ca.ibm.com	Joshua Gerner	5
epfister{at}hsr.ch	Etienne Pfister	4
ictewksb{at}us.ibm.com	Ian Tewksbury	4
petya.sabeva{at}sap.com	Petya Sabeva	4

jasonpet{at}us.ibm.com	Jason Peterson	4
eugene{at}genuitec.com	Eugene Ostroukhov	3
stefan.dimov{at}sap.com	Stefan Dimov	3
zina{at}ca.ibm.com	Zina	3
ebelisar{at}us.ibm.com	Ella Belisario	3
h.hristov{at}sap.com	Hristo Hristov	3
sengpl{at}ca.ibm.com	Seng Phung Lu	3
lovering{at}ca.ibm.com	Virginia Lovering	2
xiaonan_jiang{at}us.ibm.com	Xiaonan Jiang	2
jzhang{at}us.ibm.com	Jim Zhang	2
randallt{at}us.ibm.com	Randall Theobald	2
yavor.vasilev.boyadzhiev{at}sap.com	Yavor Boyadzhiev	2
tmcmack{at}us.ibm.com	Tim McMackin	2
dmgloss{at}mail.ru	Vadim Dmitriev	1
lit{at}in.tum.de	Tianchao Li	1
debajit.adhikary{at}oracle.com	Debajit Adhikary	1
phnixwxz1{at}yahoo.com	Wang Xianzhu	1
spaxton{at}us.ibm.com	Scott Paxton	1
jacek.pospychala{at}pl.ibm.com	Jacek Pospychala	1
remy.suen{at}gmail.com	Remy Chi Jian Suen	1
eiji.morito{at}jp.fujitsu.com	Eiji Morito	1
achim.huegen{at}gmx.de	Achim	1
kelvinhc{at}ca.ibm.com	Kelvin Cheung	1
ramanday{at}us.ibm.com	Raj Mandayam	1
Eric.Norman{at}softwareag.com	Eric Norman	1
shiratori.tomo{at}jp.fujitsu.com	Tomoki Shiratori	1

### Third Party Code Redistributed with WTP

As with any other large software project, not all the code in WTP is new, but some comes from other, third party sources. The following table lists the third party software that is distributed with WTP. Please see the Contribution Questionnaire (CQ) links for details.

Third Party Code Redistributed with WTP

Software	Version	License	Introduced in Version	Notes
Axis	1.4 ( <a href="#">CQ 1374</a> )	Apache License, 2.0	2.0	
Commons discovery	0.2 ( <a href="#">CQ 1377</a> )	Apache License, 2.0	0.7	

Commons logging	1.0.4 ( <a href="#">CQ 223</a> )	Apache License, 2.0	1.0	
JAX-RPC	1.1 ( <a href="#">CQ 286</a> )	Apache License, 2.0	0.7	Part of Axis.
log4j	1.2.13 ( <a href="#">CQ 1593</a> )	Apache License, 2.0	2.0	
Axis-Ant	1.2.1 ( <a href="#">CQ 1375</a> )	Apache License, 2.0	0.7	
SOAP (from Axis)	1.2 ( <a href="#">CQ 1379</a> )	Apache License, 2.0	2.0	This was listed as "saaj.jar" in previous IP Logs. It is now a bundle (from Orbit) called javax.xml.soap.
Cactus	1.7.2 ( <a href="#">CQ 212</a> )	Apache License, 2.0	1.5	Includes cactus-1.7.2 (the one for J2EE 1.3), aspectjrt-1.2.1, commons-logging-1.0.4, and commons-httpclient-2.0.2 jars, and junit 3.8.1
wsdl4j	1.4 ( <a href="#">CQ 327</a> )	Common Public License 1.0	0.7	includes "qname.jar"
	1.5.1 ( <a href="#">CQ 1380</a> )	Common Public License 1.0	2.0	WSDL 1.5.1 is distributed as part of Axis 1.4
wsil4j	1.0 ( <a href="#">CQ 330</a> )	Apache License, 1.1	0.7	
Xerces	2.9.0 ( <a href="#">CQ 1148</a> )	Apache License, 2.0	3.0	Introduced in WTP 3.0 as four plugins:  javax.xml(1.3.4) org.apache.xml.resolver (1.2.0) org.apache.xml.serializer (2.7.1) org.apache.xerces (2.9.0)
uddi4j	2.0.5 ( <a href="#">CQ 321</a> )	IBM Public License	1.5.1	
http.xsd	WSDL 1.1 ( <a href="#">CQ 275</a> )	IBM, Microsoft	1.0	
soap.xsd	WSDL	IBM,	1.0	

	1.1 ( <a href="#">CQ 319</a> )	Microsoft		
soapenc.xsd	WSDL 1.1 ( <a href="#">CQ 320</a> )	W3C	0.7	
wsdl.xsd	WSDL 1.1 ( <a href="#">CQ 325</a> )	IBM, Microsoft	1.0	
wsdl20.xsd	1.2 ( <a href="#">CQ 326</a> )	W3C license	1.0	
wsdl-mime.xsd	WSDL 1.1 ( <a href="#">CQ 329</a> )	IBM, Microsoft	1.0	
XHTML	1.0, 1.1 ( <a href="#">CQ 331</a> )	W3C license	1.0	
WAP DTDs	1.1, 1.3 ( <a href="#">CQ 324</a> )	OMA/EP L	1.0	Distributed under EPL 1.0. See <a href="#">Note 1</a> for email clarifying status of WAP Schemas and DTDs.
JavaServer Faces Schemas and DTDs	1.1, 1.2 ( <a href="#">CQ 1506</a> )	CDDL	2.0	
JEE Related Schemas and DTDs	1.2, 2.0 ( <a href="#">CQ 4</a> )	CDDL	2.0	
org.apache.commons.codec	1.3 ( <a href="#">CQ 1562</a> )	Apache License, 2.0		Not currently re-distributed, perhaps will be for service
JPA API XML Schemas (persistence.xsd and orm.xsd)	1.0 ( <a href="#">CQ 1829</a> )	CDDL	3.0	Currently packaged in the "jst.standard.schemas" bundle.
Java Persistence API	1.0 ( <a href="#">CQ 1889</a> )	CDDL	3.0	javax.persistence interfaces; used by Dali JPA Tools
javax.mail (from Apache Geronimo)	1.4 ( <a href="#">CQ 2059</a> )	Apache License, 2.0	3.0	This is a minor pre-req, just required by Axis (not used directly).
javax.activation (from Apache Geronimo)	1.1 ( <a href="#">CQ 2060</a> )	Apache License, 2.0	3.0	This is a minor pre-req, just required by Axis (not used directly).
Xerces	2.9.1 ( <a href="#">CQ 1984</a> )	Apache License, 2.0	na	This is not currently distributed, but may be for service.
html dtds Version: 4.0.1	4.0.1 ( <a href="#">CQ 2139</a> )	W3C License	3.0	part of wst.standard.schemas plugin

### Other Third Party Dependencies



This document is to list and describe relationships with third party software which WTP depends on or works with. For background context, see [Eclipse Policy and Procedure for Third Party Dependencies](#).

**Note: Where we list available third party software in this document, we do so only to demonstrate there are many choices for end-users. We do not mean to say those are the only available options nor do we advocate the use of any particular one.**

## Application Servers

We depend on Application Servers in two ways. First, and least important, we do have one function, Web Service Explorer that actually runs as a web application. We happen to depend on and use what ever Application Server ships in the Eclipse Platform, which for the Ganymede releases happens to be Jetty Version 5.x. We could run our WSE web app on any JEE compliant server, but we do need to know it in advance ... it can not be "swapped out" by users or adopters.

Second, and most important, creating web applications -- the whole purpose of WTP! -- depends on having some application server available. Ultimately it is up to the end user to provide their own Application Server to use with WTP, but there are some "ease of use" options that provide different paths to using one or more Application Servers:

### Preview Server

We do offer, and users can make use of, a "preview server" that is built in to WTP. This is actually just making use of what ever Application server ships with the Eclipse Platform, which is currently Jetty Version 5.x. We, in WTP, do not surface the fact that this is Jetty, in order to be more "vendor neutral" and in fact could work with any JEE compliant server, but, we do need to know in advance what server it is, in order to adapt to it specifically. There is also an HTTP Preview Server that non-java users can use to "run" HTML and Javascript documents. Under the covers, the built in HTTP Preview Server is the same as the JEE Preview Server.

These Preview Servers are offered simply to improve "out of the box" experience for novice end-users. It provides capabilities to run servlets and JSPs. Most professional web developers will want to use some specific application server that has the capabilities they need.

### Server Adapters

Any server that's used with WTP needs a server adapter. This just provides a common interface for WTP to interact with the server; to start, stop, and publish to the server. There are some server adapters that are shipped with WTP, and others that are available from any vendor that wants to provide one. In some cases, those other adapters have provided us with URLs to update sites, to make it easier for users to get their server adapter. There are, undoubtedly other server adapters (and servers) we know nothing about.

#### Server Adapters that are built-in (shipped with WTP)

Tomcat v3.2

Tomcat v4.0

Tomcat v4.1

Tomcat v5.0

Tomcat v5.5

Tomcat v6.0

IBM WebSphere V6.0

JBoss v3.2.3

JBoss v4.0

JBoss v4.2

JBoss v5.0

JOnAS v4

Oracle OC4J Standalone 10.1.3

Oracle OC4J Standalone 10.1.3.n

Server Adapters that are available from built-in update sites

BEA WebLogic 10.3

BEA WebLogic 10.0

BEA WebLogic 9.x

BEA WebLogic 8.1

Pramati Server 4.1

Pramati Server 5.0

Geronimo v1.0

Geronimo v1.1.x

Geronimo v2.0

Glassfish v1

Glassfish v2

Glassfish v3

Jetty 6.0

WASCE v1.1.x

WASCE v2.0

Installable Runtimes

Normally when users install their own Application Server, they simply tell us where, on their file system, it is (already) installed. If someone picks that they want to use a Tomcat server, we do offer an option (along with the already existing location option) that they can download and install Tomcat from the Apache download site. In that case, we do show them the appropriate Apache license which they must agree to, before the download of the zip file proceeds.

This option is provided just as an ease-of-use option to allow beginning users to get started easier and more quickly.

## **Java Persistence Frameworks**

JPA runtimes come built in with some application servers, but if not, users would have to download and install their own. Several of these frameworks are listed below to demonstrate the many options available to the end-user.

JPA Open Source libraries

EPL - EclipseLink

Apache - Open JPA

CDDL - TopLink Essentials (available from Glassfish project)

GPL - JBoss Hibernate

JPA Proprietary libraries

Oracle TopLink

BEA Kodo

## JSF Runtimes and Component Libraries

To execute a JSF application you need an implementation of the JSF spec and one or more component libraries. You can get the implementation plus a core set of components from

Sun (<https://javaserverfaces.dev.java.net/download.html>)

Apache MyFaces (<http://myfaces.apache.org/download.html>).

JEE 5 compliant application servers implementations come with the JSF support built-in. Users can get additional component libraries from a wide range of vendors including

Apache MyFaces Tomahawk

Apache MyFaces Trinidad

ICEFaces>

JBoss RichFaces

Oracle's ADF Faces

Project Woodstock

## Axis2 Runtimes

The Axis2 Web services tools in WTP are an optional feature. If users want to install those tools and make use of them, they will need to have an Axis2 Runtime available. Users can download and install the Axis2 runtime from readily available open source projects (e.g. see [Apache Axis2](#)). Then they will have to specify the location of the Axis2 runtime to the WTP Axis2 tools.

## XDoclet

For Java EE 1.4, EJB 2.1, there is a technique of developing (defining) EJBs that depend on having extra annotations in JavaDoc comments. To make use of this technique, users have to download and install XDoclet, which is readily available from free, open source projects (e.g. see [XDoclet at Sourceforge](#)). We do not ship this support built-in to WTP, simply because it would add a fairly substantial amount of code (roughly 8 M Bytes) to the foot print, and we felt there are not enough users of this particular technique to justify that increased footprint. In earlier versions of WTP, XDoclet was also (optionally) used in Servlet Wizards. But this support is not needed anymore.

For the more recent JEE 5 servers and EJB 3 (and JPA) this annotation technique is simply built in to the Java 5 language.

## ICU

ICU is some library code that improves the base internationalization support in Java (e.g. for sorting lists correctly, etc). This comes shipped with the base Eclipse Platform, but our code does depend on it being present, so it is technically a pre-req. We consider this an "exempt pre-req" (exempt from separate IP review) since the Eclipse Foundation, via the Yearly Release Train requirements, requires its use where appropriate.

## Other Third Party Code from Eclipse Platform

In addition to what ever application server happens to ship in the base platform, which we mentioned above, there are some other packages that we depend on, but which are shipped as part of the platform. We do not re-distribute them (though, we used to) but want to call them out here since we would still require them even if the platform decided not to re-distribute them, or, for example, if someone was making a "custom install" and maybe not including the complete platform.

Software	Version	License	Introduced in Version	Notes
Jetty Web Server	5.1.14 ( <a href="#">CQ2296</a> )	Apache License, 2.0	3.0	

Apache Jakarta Commons EL	1.0 ( <a href="#">CQ 1547</a> )	Apache License, 2.0	2.0	
javax.servlet	2.4 ( <a href="#">CQ 1343</a> )	Apache License, 2.0	2.0	
javax.servlet.jsp	2.0 ( <a href="#">CQ 1343</a> )	Apache License, 2.0	2.0	