



EclipseLink 1.1 Release Review

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Project Overview



- Complete persistence framework that is both comprehensive and universal
- Will run in any Java Environment
 - OSGi, Java EE, Java SE, Spring Framework
- Read and write objects to virtually any type of data source
 - Including Relational Databases, XML and EIS systems
- Standards Based
 - Java Persistence API (JPA): relational databases
 - Java Architecture for XML Binding (JAXB): XML
 - J2EE Connector Architecture (JCA): EIS
 - Service Data Objects (SDO)

Project Overview (cont'd)



- Key Contributions
 - Oracle Corp: Initial Code base came from Oracle TopLink (900K LOC)
 - 2 Project Leads + 25 Committers
 - Sun Microsystems: Contributed to initial source contribution
 - 1 committer
 - Other contributors
 - TmaxSoft, Adam Bien, Markus Karg, Ingres, New York City Payroll
 - Numerous bugs filed by non-committers
- Project home page: <http://www.eclipse.org/eclipselink>

Project Overview (cont'd)



- Milestones

- Creation Review – May 30th, 2007
- Initial Source Drop – Aug 23rd, 2007
- Releases
 - 1.0 release July 9th 2008
 - 1.0.1 Release: September 9th 2008
 - 1.0.2 Release: Oct 29th 2008
 - 1.1 Release: Planned Feb 2009
 - 2.0 Release: Galileo release train 2009
- Monthly Milestone builds.



(2.1) EclipseLink 1.1 New Features

- DBWS
 - New in EclipseLink 1.1
 - Provides simplified means of access to relational data through Web Services
 - Based on JAX-WS2.0 specification.
 - Metadata-driven runtime.
 - DBWSBuilder utility provides simple default means of retrieving metadata and generating Web Service artifacts
 - Support provided for RDBMS Tables (C/R/U/D access), SQL and Stored Procedures.
 - Ability to fully customize the database access and XML mapping of the data



(2.1) EclipseLink 1.1 New Features

- JPA
 - Partial JPA 2.0 preview functionality
 - Support for Unidirectional One To Many Mappings, Cache API, Table per Class Inheritance, Pessimistic Locking
 - Not yet a full JPA 2.0 implementation
 - Maintain JPA 1.0 compliant (since EclipseLink 1.0)
 - 100% TCK pass rate
 - 139 bugs fixed in EclipseLink 1.1 (Foundation and JPA)
- SDO
 - SDO 2.1.1 and SDO 2.1 Compliant
 - 100% TCK pass rate
 - 60 bugs fixed in EclipseLink 1.1 (SDO)
- MOXy
 - 18 bugs fixed in the MOXy component

Project Health



- Active Code Base
 - Average 146 svn commits / month
 - Average 2700 files / month
- Testing
 - JUnit test cases for regression testing
 - Continuous build
 - Run every half hour (if code changes)
 - Compile and Smoke tests
 - 23,000 tests run nightly on Eclipse Foundation servers
- Additional Testing
 - Additional configurations run regularly on Oracle servers
 - Various DBs, Various App Servers

Project Health (cont'd)

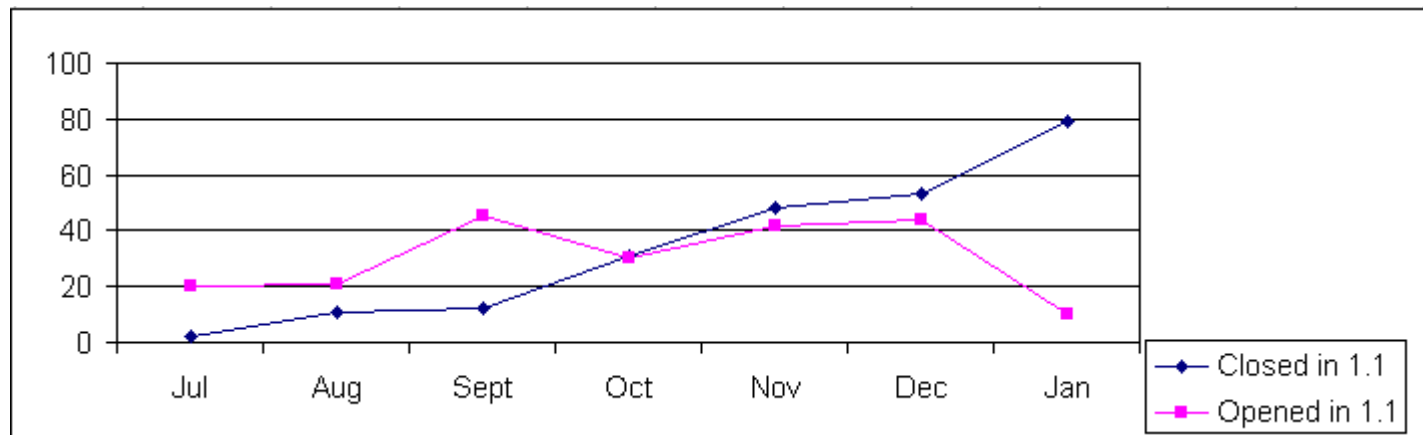


- Documentation
 - Full Technical Docs on Wiki
 - <http://wiki.eclipse.org/EclipseLink/UserGuide>
 - Javadocs hosted online – regenerated every monthly milestone
 - <http://www.eclipse.org/eclipselink/api/latest/index.html>
 - Other documentation on wiki
 - Features index
 - FAQ
 - Examples - <http://wiki.eclipse.org/EclipseLink/Examples>
 - Over 25 How to examples



Project Health (cont'd)

- Bugs
 - 236 bug/enhancements Closed in 1.1
 - Average 40 bugs closed per month



Open Source



- Permeable
 - Issue discussions
 - mailing lists (eclipselink-dev and eclipselink-users)
 - Eclipse Bugzilla
 - Weekly Open Project Status Meeting
 - Weekly Bug council
 - All code available through anonymous SVN
 - Architecture described on project Wiki along with feature design docs
- Receptive
 - Bug fixes and features implemented in a timely manner
 - Newsgroup and mailing list question fielded promptly

Community



- Developers
 - 29 committers
 - Code contributions from individual contributors
- Users
 - Growing community of enterprise development orgs
 - Oracle
 - Sun
 - TmaxSoft
 - SpringSource
 - New York City Payroll
- Distributions
 - GlassFish, Spring Framework, and Oracle

Community (cont'd)



- EclipseLink Continues to upgrade on line documentation and website to make adoption easy
 - Updated Wiki Pages
 - Javadocs available online and updated with every milestone
 - Wiki used to facilitate open communication
- Many EclipseLink presentation have been given at conferences and workshops.
 - EclipseWorld, EclipseCon, JavaOne, SpringOne, Oracle OpenWorld,
 - <http://wiki.eclipse.org/EclipseLink/Presentations>
- Many press releases have been written, and dozens of articles and blog entries have mentioned EclipseLink

API's



- Supported Spec APIs
 - Implements: JPA 1.0, JAXB 2.0, JAXB 2.1, SDO 2.1, SDO 2.1.1
 - Integrates with: JDBC, JCA, JAXP, JTA
- Classic API
 - Extensive API for Persisting Java Objects
 - Migration tools and strategy from earlier Oracle TopLink releases
- Workbench
 - Swing GUI tool for design time usage
 - Metadata manipulated visually

Architectural Features



- Basic Architecture built on Product with 10 years of commercial usage
 - Stable and Performant
- Adaptable architecture - easily add/modify features in EclipseLink
 - Database Platform – add/modify support for specific database
 - Server Platform - add/modify support for specific Application Server
 - Events triggered on data store access
 - Policies – most features implemented with pluggable policies
 - Optimistic Locking
 - Caching
 - Object Instantiation
 - and many more



- IP Log –
 - <http://wiki.eclipse.org/EclipseLink/IPLog>
 - All IP (except 3rd Party jars) dual licensed under EPL and EDL
 - All 3rd party dependencies are IP approved
- New CQs for 1.1
 - 2505 - Java Servlet 2.4.0
 - 2702 - OSGI Compendium 4.1.0
 - 2740 - Java API for XML Web Services 2.0.0
 - 2979 - Preview JPA 2.0 API
 - 2884 - SDO 2.1.1
- Project Plan - <http://www.eclipse.org/projects/project-plan.php?projectid=rt.eclipselink>

End Of Life Strategy



- 1.1 release
 - No EclipseLink features are being discontinued
- 2.0 Release
 - Plan to introduce new fully functional meta data
 - 1.0 and 1.1 supports partial solution.
 - Will begin migration story from old meta data
 - Deprecate meta-data
 - Discontinue in a future release

Schedule



- EclipseLink 1.1
 - *Start date: July 13th*
 - *1st Milestone: Aug 13th*
 - Originally planned for: Early December
 - Revised Plan: February 16th:
 - Features Originally Planned:
 - Partial JPA 2.0 functionality
 - DBWS using JAX-WS
 - New Fully functional metadata
 - Features Being Included
 - Partial JPA 2.0 functionality
 - DBWS using JAX-WS
 - SDO 2.1.1
- EclipseLink 2.0
 - Galileo release train

Feedback



- Newsgroup: eclipse.technology.eclipselink
- Mailing lists:
 - eclipselink-dev@eclipse.org
 - Release Review communication channel
 - Eclipselink-users@eclipse.org
- Eclipse Bugzilla
 - RT
 - Product: EclipseLink