



EclipseLink 2.4.0 Release Review - Juno
Proposed Release Date: June 22nd 2011

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Project Overview



- Complete persistence framework that is both comprehensive and universal
- Supported in the following containers:
 - OSGi, Java EE, Java SE, Spring Framework
 - Equinox specific fragments included for extended usage
- Read and write objects to virtually any type of data source
 - Including Relational Databases, NoSQL, XML and EIS systems
- Standards Based
 - Java Persistence API (JPA): relational databases
 - Java Architecture for XML Binding (JAXB): XML
 - Java EE Connector Architecture (JCA): EIS
 - Service Data Objects (SDO)



Project Overview (cont'd)

■ Milestones

- Creation Review – May 30th, 2007
- Initial Source Drop – Aug 23rd, 2007
- Major releases
 - 1.0 release July 9th 2008
 - 1.1 Release: March 11th 2009
 - 1.2.0 Release: Oct 23rd 2009
 - 2.0.0 Release: Dec 10th 2009
 - 2.1.0 Release: June 23rd 2010 - Helios release train
 - 2.2.0 Release Feb 22 2011
 - 2.3.0 Release: June 22 2011 - Indigo
 - 2.4.0 Release: June 22 2012
- Monthly milestone builds on multiple streams

EclipseLink 2.4.0 New Features



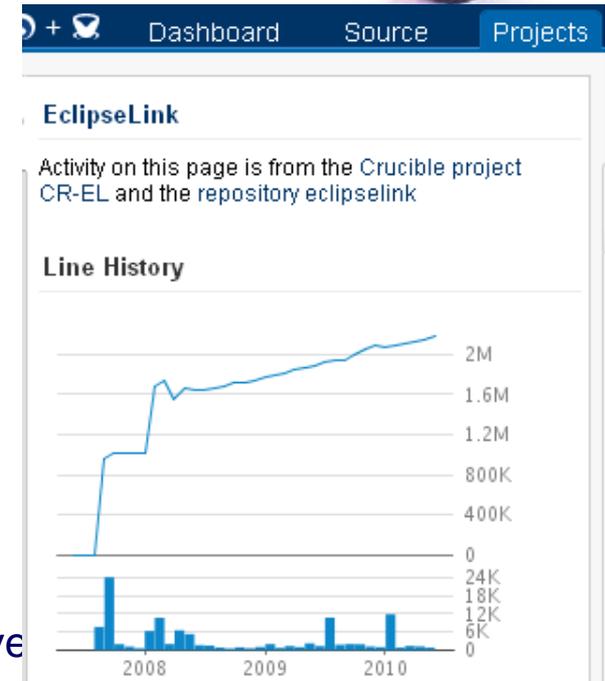
- Performance
 - Several performance improvements on all components
- JPA
 - JPA-RS
 - Multi tenant Data – Table per tenant
 - MetadataSource support for PU Properties
 - Database Change Event Cache Invalidation
 - Cache indexes
 - 135 bugs fixed in Foundation and JPA components
- NoSQL
 - New component in 2.4.0 to support NoSQL Data stores

EclipseLink 2.4.0 New Features (cont'd)



- MOXy
 - Object-JSON Mapping support
 - JAXB RI compatible functionality
 - Creation of RESTful services using MOXy & JPA
- DBWS
 - Parse DDL to extract database metadata.
 - Batch SQL operations
 - Non-associative PL/SQL collections
 - PL/SQL scalar argument types
 - Handle mix of PL/SQL and advanced JDBC types withing a stored procedure/function
- 100 Bugs fixed in EclipseLink (MOXy, SDO, DBWS)

Project Health



- Active Code Base
 - Average 3000 file commits / month
- Testing
 - JUnit test cases for regression testing
 - Continuous build
 - Run every half hour (if code changes)
 - Compile and Smoke tests
 - 59,000 tests run nightly on Eclipse Foundation server
 - 14,000 more than for 2.3.
- Additional Testing
 - Additional configurations run regularly on Oracle servers
 - Several different DBs, Several Different App Servers, Different VMs
 - CTS testing

Project Health (cont'd)



- Documentation
 - Full Technical Docs on Wiki
 - <http://wiki.eclipse.org/EclipseLink/UserGuide>
 - Javadocs hosted online
 - <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
- Bugs
 - Over 200 bug/enhancements Closed in 2.4.0

Open Source



- Permeable
 - Issue discussions
 - mailing lists (eclipselink-dev and eclipselink-users)
 - Eclipse Bugzilla
 - Weekly Open Project Status Meeting
 - 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 questions fielded promptly

Community



- Developers
 - 30 committers
 - Several Code contributions from individual contributors
- Users
 - Growing community of enterprise development orgs
 - Oracle/Sun
 - SAP
 - TmaxSoft
 - SpringSource
- Distributions
 - GlassFish, Spring Framework, JOnAS, and Oracle (TopLink & WebLogic)

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 presentations have been given at conferences and workshops.
 - EclipseWorld, EclipseCon, JavaOne, SpringOne, Oracle OpenWorld, JAX,
- Many press releases have been written, and dozens of articles and blog entries have mentioned EclipseLink



- Supported Spec APIs
 - Implements:
 - JPA 2.0, JPA 1.0, JAXB 2.0, JAXB 2.1, SDO 2.1, SDO 2.1.1
 - JPA 2.0 Reference Implementation (JSR 317)
 - SDO 2.1.1 Reference Implementation (JSR 235)
 - Integrates with: JDBC, JCA, JAXP, JTA
- Native 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 over 14 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://www.eclipse.org/projects/ip_log.php?projectid=rt.eclipselink
 - All IP (except 3rd Party jars) dual licensed under EPL and EDL
 - All 3rd party dependencies are approved
- Community Contributions
 - Approx 75 Contributions listed in IPLog
- Project Plan
 - <http://www.eclipse.org/projects/project-plan.php?projectid=rt.eclipselink>

End Of Life Strategy



- 2.4.0 Release
 - No new features are being deprecated

Schedule



- EclipseLink 2.4.0
 - *Start date: Feb 2012*
 - Originally Planned for: Winter 2011
 - Currently planned for: June 22nd 2012
- Next release: EclipseLink 2.5.0
 - Winter 2012
 - <http://wiki.eclipse.org/EclipseLink/Development/2.5>

Feedback



- **Newsgroup:**

`http://www.eclipse.org/newsportal/thread.php?group=eclipse.rt.eclipselink`

- **Mailing lists:**

- eclipselink-dev@eclipse.org

- Release Review communication channel

- eclipselink-users@eclipse.org

- **Eclipse Bugzilla**

- RT

- Product: EclipseLink